

# SYNTACTIC CATEGORIES AND THE VERB- ARGUMENT COMPLEX IN PARAKUYO MAASAI

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## **DECLARATION**

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## ABSTRACT

This study investigated issues pertaining to the properties of verbal affixes in Parakuyo that give rise to different realizations of the external and internal arguments. The study examines a range of argument realizations and alternation licensed by verbs with specific lexical-semantic, event semantic and morpho-syntactic properties introduced by the particular verbal suffixes. Thus, the study explores the interfaces of the linguistic components, mainly morphology and syntax in the Parakuyo grammar. The data were collected through focus group discussions and interviews from native speakers of the Parakuyo dialect. The theoretical framework and key perspectives employed in the study relate to key concepts underlying developments in generative syntax including Principles and Parameters theory, Minimalist Program, Distributed Morphology, Voice theory, ‘little’ v, and Cartography theory. This study employs a multi-perspective framework for investigating the lexical-semantics, event semantics and morpho-syntax of the verbal category system of affixes correlated with argument structure alternations of various kinds that necessitate exploring the interfaces between morphology and syntax that cannot be accounted for by employing any one theory.

This study provides account of a range of the properties of syntactic structures in Parakuyo exemplifying the various verbal derivation affixes. Different syntactic diagnostics tests for external argument have been employed to determine whether the reference of the implicit argument can be retrieved, particularly in argument suppressing suffixes, namely the impersonal and the middle in Parakuyo. Among the diagnostic tests applied, include possibilities of modification by *by*-phrases, PPs modification, *by-itself* phrases, agentive adverbials and purpose clauses. The findings give evidence that impersonals and middles in Parakuyo do not permit an agent to occur as a subject DP or as a PP adverbial but causer, causer-event and instrumental-causer can occur in a PP modification. Both impersonal and middle verb constructions can be modified by manner-oriented adverbs. The study also relates the discussions of the verbal affixes and argument realization with other pertinent aspects like information structure and aspectual types in the events denoted by the verbs.

In addition, the study examines argument-introducing affixes in Parakuyo verb constructions. These affixes are the causative, the instrumental, the dative, the motion away and motion towards affixes. The investigation of these verbal constructions demonstrates the processes of argument realization and alternation in the Parakuyo dialect. The mapping of the thematic roles

for each argument introduced is done parallel to various arguments in the clauses. Furthermore, the study examines verbal suffixes in Parakuyo that do not suppress the external argument but have effect on the internal argument in various ways including the thematic roles of such arguments. The findings suggest that both the antipassive and reciprocal in a way suppress the internal argument while reflexive constructions exhibit mixed properties towards the status of internal argument, that is, introducing the internal argument by its morphology and suppressing the same through its reflexive pronoun. Inchoative focuses on the change of state of its internal argument rendering the resultant-state. It is concluded that the multifaceted theoretical framework employed in this study is necessitated for adequately analysing the Parakuyo data.

## OPSOMMING

Hierdie studie ondersoek vraagstukke rakende die eienskappe van werkwoordelike afleidings-affikse in Parakuyo-Maasai wat aanleiding gee tot verskillende realisasies van die eksterne en interne argumente van werkwoorde. Die studie ondersoek 'n verskeidenheid argument realisasies en alternasies wat toegelaat word deur werkwoorde met spesifieke leksikaal-semantiese, aspek-semantiese en morfo-sintaktiese eienskappe aangevoer deur die onderskeie werkwoord-affikse. Dit bring gevolglik mee dat die studie ook 'n ondersoek doen van die raakvlakke van die linguistiese komponente, in die besonder, die raakvlakke van interaksies van die morfologie en sintaksis in die Parakuyo grammatika. Die Parakuyo data wat ondersoek word in die studie is versamel deur fokusgroepbesprekings en onderhoude met eerstetaalsprekers van die Parakuyo dialek. Die teoretiese raamwerk en sleutelperspektiewe aanvaar vir die studie hou verband met sleutelkonsepte onderliggend aan ontwikkelings en generatiewe sintaksis, insluitende die Beginsels en Parameters ('Principles and Parameters') teorie, Verspreide ('Distributed') morfologie, 'Voice' teorie, 'klein' v teorie en Kartografie teorie. Dus word 'n multi-perspektief raamwerk ingespan in die studie vir die ondersoek van die leksikale semantiek aspek ('event') semantiek en morfo-sintaksis van die werkwoordkategorie sisteem van affikse gekorrelleer met argumentstruktuur alternasies van verskeie soorte, wat noodsaaklike ondersoek meebring van die raakvlakke tussen die morfologie, sintaksis en aspek semantiek, wat nie verklaar kan word deur 'n enkele teorie nie.

Die studie bied 'n verklaring van verskeie eienskappe van sintaktiese strukture in Parakuyo wat die onderskeie werkwoordelike afleidings-affikse vertoon. Verskillende diagnostiese toetse is ingespan om te bepaal of die verwysing van die implisiete argument herwin kan word, veral met betrekking tot argument onderdrukkings-affikse, dit is, onpersoonlike suffiks en middel-suffiks konstruksies in Parakuyo. Van die diagnostiese toetse toegepas, sluit in modifisering deur die deur-frase, PP modifisering, deur self frase, agent-ge-oriënteerde adverbiale, en doel-bysinne. Die bevindinge bied evidensie dat onpersoonlike en middel werkwoordkonstruksies in Parakuyo verbied 'n agent argument se verskyning as 'n subjek DP of in PP modifisering. Sowel onpersoonlike as middelwerkwoordkonstruksies laat modifisering toe deur agent-georiënteerde adverbiale. Die studie bring ook die ondersoek van die werkwoord-affikse en argument-realiserings in verband met ander aspekte soos informasiestruktuur en aspektuele tipes in die gebeurlikheid aangedui deur die werkwoord.

Die studie ondersoek voorts argument-invoeringsaffikse in Parakuyo. Hierdie affikse sluit in die kousatief, die instrumentalis, die datief, die beweging-na, en beweging-weg affikse. Die ondersoek na hierdie werkwoordkonstruksies demonstreer verdere prosesse van argument realisasie en alternasie in Parakuyo. Die projeksie van elke ingevoerde argument word beskou met betrekking tot ander argumente in die sin. Laastens ondersoek die studie werkwoord suffikse in Parakuyo wat nie die eksterne argument onderdruk nie, maar wel 'n effek het op die interne argument op verskeie wyses, insluitende die tematiese rolle van sodanige argumente. Die bevindinge dui daarop dat sowel die antipassief as die resiprokalis die interne argument onderdruk op 'n bepaalde wyse, terwyl die refleksief gemengde eienskappe vertoon met betrekking tot die status van die interne argument, dit is, die invoer van die interne argument deur die refleksiemorfologie en die onderdrukking daarvan deur die refleksiewe voornaamwoorde. Die inchoatief fokus op die verandering van toestand van die interne argument, en die resultaat-toestand lewer. Daar word tot die slotsom gekom dat die veel-fasettige teoretiese raamwerk aanvaar in die studie noodsaaklik is vir die adekwate analise van die Parakuyo data.

## **DEDICATION**

To my family and the Maa people

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## Abbreviations and symbols

ACC	Accusative
Adv	Adverbial
APAS	Antipassive
Asp	Aspect
ATR	Advanced Tongue Root
CAUS	Causative
CI I	Class I verbs
CI II	Class II verbs
CN	N-Connective
CV	Consonant and vowel
DAT	Dative
DM	Distributed morphology
DP(s)	Determiner phrase(s)
F	Feminine
FPL	Feminine plural
FSG	Feminine singular
GB	Government and binding
IMP	Imperative
IPA	International Phonetic Alphabet
IPFV	Imperfective
IMPR	Impersonal
INCH	Inchoative
INF	Infinitive
LF	Logical form
Lit.	Literally
LOT	Languages of Tanzania Project
M	Masculine
MA	Motion Away
MPL	Masculine Plural
MSG	Masculine Singular
MT	Motion Towards
NEG	Negative

MID	Middle
NEUT	Grammatical Neuter gender
NETR	Neuter suffix
NOM	Nominative
NMZ	Nominalizer
NP	Noun Phrase
pc.	Personal communication
PF	Phonetic Form
PFV	Perfective
PL	Plural
PP(s)	Prepositional phrase(s)
Q	Question morpheme
REC	Reciprocal
RED	Reduplication
REF	Reflexive
REL	Relativizer
SG	Singular
STAT	Stative
SUB	Subjunctive
tV	<i>t</i> and a vowel
V	Vowel
VSO	Verb Subject Object
1SG	First person singular
1PL	First person plural
2SG	Second person singular
2PL	Second person plural
3SG	Third person singular
3PL	Third person plural
∅	Zero morpheme
> <	Inverse relation
*	Unacceptable construction
?	Marginally acceptable
∅	Unrealized element
√	Root

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# CHAPTER ONE

## INTRODUCTION

### 1.1 Introduction and background to the study

The general objective of the current study is to contribute to the advancement of the Maasai linguistic knowledge and research work in key areas of morphology and syntax relating to the verb-argument complex. Thus, the focus of the study is on issues concerning the identification and description of grammatical categories, specifically verbal derivations, lexical category related to functional categories of Voice and ‘little’ v, and their features. The investigation is approached by employing recent generative grammar perspectives, namely Minimalist Syntax, Distributed Morphology, Cartography, ‘little’ v and Voice theory. The study focuses on the investigation of argument structure properties in Parakuyo clause structures relating to the lexical-semantic, event semantic and morpho-syntactic properties of verbal affixes to determine the effects of verbal affixes on argument realization and alternation in Parakuyo. In this regard, the study aims to contribute to research on argument realization in Parakuyo and African languages, more generally from particularly a generative syntax perspective relating to Voice and ‘little’ v.

The current study employs a multi-perspective framework to account for different morphological and syntactic operations taking place in the Parakuyo grammar. The analysis shows that morpho-syntactic properties demonstrated by the Parakuyo grammar cannot satisfactorily be accounted for using a single theory within a broad generative grammar theory. Distributed Morphology is assumed in verbal extensions analysis since it expresses the combination of roots and verbal affixes in relation to the argument alternation properties of the constructions. In order to complement Distributed Morphology and Minimalism Syntax underpinnings, Cartography makes provision for a Foc(us) and Top(ic) Phrases as assumed for the discourse-pragmatic representation in syntax. Some constructions necessitate the change of information structure in a sentence, for example, the subject argument in the antipassive. In the search for mechanisms to schematize arguments realized by particular affixes in a clause, ‘little’ v provides the functional category Voice, which introduces the external argument. Such arguments can be agents, causer arguments. Theme/patient arguments in middle constructions can also move to the Spec of Voice position from the internal object position. Thus, for the current study to provide a comprehensive account of the nature of the various argument

realisation of the various derivational verb constructions in Parakuyo-Maasai, an eclectic theoretical perspective is necessary.

The current study contributes to Maasai scholarship intended for researchers and the speech community of Parakuyo, given that no comprehensive study conducted on this dialect. The Parakuyo dialect exhibits some variation in lexical items and phonological aspects compared to other Maa varieties. Although these dialects are largely mutually intelligible, speakers of some dialects do not always fully understand each other easily, due to the considerable variation in lexical items, tone patterns and some sound symbols (Payne 2012, Karani et al. 2014). Yet, largely, Maasai grammatical and other linguistic properties are the same in many dialects, including the two types of verb classes (Class I and Class II verbs), vowel harmony and VSO (verb-subject-object) word order in surface structure (Dimmendaal 1983a, 1983b, 2008; Ehret 1980). Therefore, in light of the scant body of linguistic studies on Parakuyo, the current study intends to contribute to the documentation and theoretical investigation of the Parakuyo dialect, within a broad generative syntax framework. Specific focus is on the nature of the syntactic category verb in Parakuyo in relation to the realization of the verb-argument complex. Thus, the study aims to examine the major properties of the clausal syntax within the delimited domain of argument realization. The investigation focuses in particular, on the nature and properties of verbal derivational morphology in relation to argument realization and alternations.

The main aim of this study is, therefore, to investigate the salient morphological and syntactic properties of the Parakuyo grammar, a Maasai/Maa dialect spoken in the North Eastern and Central parts of Tanzania. Maasai [ISO 639-3 mas] (Lewis et al 2015) is an Eastern Nilotic language spoken in southern Kenya and in different parts of Tanzania (mainly northern Tanzania) in East Africa (Greenberg, 1963; Ehret 1980, 2001; Bender 1997; Simons and Fennig 2017). The term Maasai is used to refer to all the Maa varieties spoken in Kenya and Tanzania, hence these terms (Maasai and Maa) are used interchangeably in the literature. However, to be specific, the term Maasai refers to the dialect spoken in Southern Kenya and Northern Tanzania by the Kisongo people. Therefore, in some contexts, it refers to any specific dialect, whereas in other instances it is used to refer to a specific a dialect, which is generally considered as the Standard dialect of Maa. In this study, both terms will be used interchangeably to refer to Maa varieties in general. For purposes of referring to the standard dialect, the specific terms e.g. *Kisongo* and *Ilwasinkifu* (for Kenyan varieties) are used.

The study approaches the investigation of the Parakuyo dialect in two main dimensions. The first part aims to document the linguistic properties of this dialect and the second part aims to employ recent theoretical perspectives in generative grammar in the analysis of Parakuyo data. Various scholars contributed to the linguistic documentation of Maasai spoken in Kenya (Hollis, 1905; Tucker and Mpaayei, 1955; Mol, 1972, 1995, 1996; König, 1993, Payne et al., 1994, 1998, 2004; Tucker and Bryan 1966, Payne, 1997, 2001, 2010, 2012; Rasmussen, 2002; Hamaya, 1993; Lamoureaux, 2004). As a result, two descriptive grammar books have been produced (Tucker and Mpaayei 1955; Hollis 1905) and numerous scholarly monographs since 1990, most of which adopted pre-theoretical approaches. In the case of the Tanzanian varieties, Arusa and Kisongo have been documented to some extent by Levergood (1987), Vossen (1982, 1988), Koopman (2001, 2003); Payne (2008, 2010, 2012); Karani (2013), McCrary (2002), among others. However, Parakuyo has been sparsely treated in Payne (2010) and (2012).

This dissertation aims to contribute to the documentation of Parakuyo in the overview given in Chapter Two, where salient phonological, morphological and syntactic properties identified are described. This outline of the syntactic properties of different core aspects of Parakuyo provide the descriptive base in relation to the investigation of argument realization and alternation in Parakuyo presented in the Chapters Four, Five and Six. Due to various socio-political factors, Maa dialects evolved to a number of varieties in both Kenya and Tanzania, but most of them are still mutually intelligible. The estimated population of Maasai speakers in Tanzania is 803,457 (Languages of Tanzania Project (LoT), 2009). The Maasai people in Tanzania speak three dialects, namely Arusa, Kisongo and Parakuyo. Of the total population of the Maasai speakers in Tanzania, only 99,199 (i.e. 12%) are speakers of Parakuyo (Karani 2013).

As far as could be ascertained, there has been no study yet on the morphological and syntactic properties of Parakuyo within a generative framework. Hence, it is envisaged that this study can contribute to both documentation of a central area of Parakuyo grammar and to the theoretical scholarship it provides from a generative perspective. The current study examines different issues, particularly aspects at the interface between morphology and syntax by employing perspectives from the Minimalist Syntax version of generative grammar, Distributed Morphology, ‘little’ v, Voice theory and the Cartography approach. The theoretical and empirical analyses of the Parakuyo verbal constructions in relation to the properties of

argument realization and alternation are core issues explored in this study. In pursuing this goal, insights and proposals from the research literature on Distributed Morphology are employed (Noyer, 1992, Halle and Marantz, 1993, 1994; Harley, 1995, 2012, 2013; Marantz, 1997, 2005, 2007; Embick, 2004, 2006, 2010, 2015; Embick and Halle, 2005, among others). In conjunction with Distributed Morphology approach, theoretical proposals concerning functional heads related to argument structure in the verbal complex are invoked, specifically proposals in regard to the introduction of the split of the VP into two argument-introducing heads, the Voice and ‘little’ *v* (Kratzer 1996, Marantz 1997, Pylkkanen 2002, 2008; Alexiadou et al. 2006a, 2014; Alexiadou and Doron 2012, Alexiadou 2014b, Alexiadou, Borer and Schäfer 2014, Alexiadou, Anagnostopoulou and Schäfer 2015, Key 2016, Alexiadou and Lohndal 2017, among others). Concerning Parakuyo, these theoretical perspectives are invoked to explain the relationship between the verbal functional morphemes and the verbal roots. Considering features of Voice and ‘little’ *v*, the external argument (the subject) and the internal argument (the object) are introduced and affected by various verbal affixes in Parakuyo represented in VoiceP, Voice<sub>CAUSE</sub> and Root. These syntactic decomposition mechanisms have been in previous studies utilized on other African languages (Mallya 2016, Fernando 2017). In addition, this study also takes into account the relevant perspectives from typology studies.

This study explores Parakuyo verbal affixes in arguing for the close relationship between the functional morphemes (e.g. causative, instrumental, dative, motion away, impersonal, middle and reciprocal) and the arguments that realize the thematic roles in various syntactic environments. The effect of the Parakuyo verbal affixes are examined in terms of (i) the argument introducing affixes, (ii) external argument suppressing suffixes and (iii) verbal suffixes not suppressing the external argument but affecting the internal argument, thus, Parakuyo affixes affect the external or the internal argument by either suppressing, deleting or introducing arguments in a clause. Arguments introduced or suppressed have direct effects to the thematic roles and event structure in sentence constructions. Various syntactic diagnostics are employed to test if the arguments not allowed to appear explicitly as DPs or PPs may be implicitly inferred. Some of the diagnostics applied, for example, to test whether the external argument is present, but implicit, include modification of agent-oriented adverbials, manner adverbials, control clause modification and *by*-phrase modification.

The investigation conducted in this study assumes the key concepts from the version of Principles and Parameters theory (P&P) a version of generative syntax and from the Minimalist

Program (MP) (Chomsky, 1995, 2000, 2001, 2006; Carnie, 2013; Lasnik, 1999; Radford, 2009; Rauh, 2010; Hornstein et al. 2005) with focus on phrase structure and category features. These concepts and features relate specifically to the syntax of verbal expressions and the verb-argument complex in both canonical (i.e. active verb) and non-canonical (i.e. non-active verb) argument structure realizations. In addition to perspectives from P&P and MS, the Cartography approach is invoked in investigating the mapping of the lexical and functional categories in the phrasal structures, particularly in relation to aspect and other left periphery information. The Cartographic perspective contrasts with Minimalist Program in its focus on syntactic categories realizing interpretable features (van Gelderen, 2013; Belletti and Cinque, 2004; Cinque 2006, Benincà and Munaro 2010; Cinque, 2002, 2013; Rizzi, 1997, 2004 to mention just a few). Its principles in accounting for the functional categories also in agglutinating languages are of significance to this study on Parakuyo. Although Cartography has not been widely employed in the analysis of African languages, it provides an appropriate perspective for addressing the salient features in the morphology of these languages, particularly in regard to the mapping of functional structure representations as argued by Mallya (2016) and Fernando (2017).

## **1.2 The research problem**

Maa varieties are relatively distinct in Tanzania and Kenya. Apart from the linguistic differences that exist concerning various linguistic aspects that have been identified in the research literature, few linguistic studies exist that address the unique properties of each dialect. Therefore, the current research is concerned in part, with the problem of the description of key linguistic properties of the Parakuyo dialect. The question of the verbal derivational affixes in relation to the effect they posit to argument realization in a clause in the Maa dialects has not been comprehensively investigated within the generative grammar perspectives to establish the nature of the interface properties between the sub-components of lexical semantics, event semantics, morphology and syntax. In the pursuit of doing that, this study addresses this research gap by investigating the lexical categories, verbal affixes in relation to argument realization and argument alternation. It does so focus on the effects of verbal affixes to the external argument in Parakuyo clauses, for example, impersonal, middle, inchoative and other anticausative and causative alternation. This is done by employing the recent developments in Minimalist Syntax, Distributed Morphology and ‘little v and Voice theory and Cartographic perspective.

### 1.3 Research goals

The study explores mainly the aspects that are central to Parakuyo verb construction, namely functional categories that occur with the verbs, and the argument realization and alternation that obtain in Parakuyo clauses. In addition, it also investigates the status of the external argument in argument alternation constructions. Thus, the study has the following interrelated goals.

- (i) To examine the types and properties of lexical categories (e.g. noun, verb and adjective) with focus on the lexical-semantics of the verbal category introduced by various derivational suffixes;
- (ii) To ascertain and elaborate the main types and properties of functional categories associated with the argument alternation properties of various verbal suffixes;
- (iii) To identify and describe the possibilities of ordering and combining verbal derivational suffixes and their ordering and combination patterns in argument realization constructions;
- (iv) To determine the properties of the verb-argument complex of different intransitive and transitive verbs from various lexical-semantic verb classes (e.g. grow verbs, motion verbs) in canonical and non-canonical argument realization structures, respectively;
- (v) To identify different functional categories pertaining to Voice and 'little' v structures that represent the various argument alternation structures licensed by different verbal suffixes.

### 1.4 Research questions

The study addresses the following questions relating to Parakuyo.

- (i) What are the main properties of the various lexical categories with focus on the lexical-semantics of the verbal category introduced by various derivational suffixes?
- (ii) What are the main properties of functional categories representing tense, aspect and mood?

- (iii) What are the possibilities of ordering and combination of verbal derivational affixes and what is the effect of such ordering and combination patterns in argument realization in sentence structures?
- (iv) What are the properties of the verb-argument complex of different lexical-semantic classes of intransitive and transitive verbs (e.g. *grow* verbs, *motion* verbs) in canonical and non-canonical argument realization structures, respectively?
- (v) How can the different functional category structures of Voice and 'little' v account for argument alternation structures pertaining to the properties of different verbal derivational affixes?

## **1.5 Research design and methodology**

### **1.5.1 Research area and sampling**

Data collection from the native speakers of Parakuyo on selected sentence constructions exemplifying the different verbal derivational affixes was conducted in their areas of residence where the language is spoken in the natural setting. The sampling technique employed included the purposive and snowball (whereby existing participants help to recruit more participants from among their acquaintances) sampling in the selection of the participants. Focus group discussions and interviews constituted the core techniques for data elicitation. In the data analysis, the set procedures for interpretation and theoretical analysis of data during and after fieldwork were employed (see section 1.6 for further discussion). Although Parakuyo speakers live in different regions in Tanzania, data collection was done in Morogoro, where a large number of monolingual speakers has settled for a long in contrast to Parakuyo speakers living in many other regions in Tanzania. The population statistics show that the population of Parakuyo in Morogoro region surpasses other regions. Therefore, it was deemed to be highly appropriate for obtaining a reliable sample population for the linguistic questions addressed in the study.

According to the Languages of Tanzanian project censuses (LoT 2009), the approximate number of Parakuyo speakers in different regions is as follows: Morogoro 47,859, Tanga 22,278, Dodoma 12,628, Iringa 8,615, Mbeya 6,721, Coast 430, Shinyanga 418 and Singida 250.



Figure 1: Maa speaking areas in Tanzania

The map in Fig. 1 illustrates the Maa-speaking areas in Tanzania; the focus areas indicated pertain particularly to the spread of Parakuyo speakers in Tanzania. This, however, does not mean that Parakuyo speakers are the only people in those areas. In other some of these districts, Parakuyo speakers are actually the minority who settled in the recent years since they spread to the neighbouring district searching for pasture for their cattle. In order to preserve data authenticity (Bowern 2008; Chelliah and Willem 2011), attention was given to Parakuyo speakers who have little or no proficiency in Kiswahili from less educated persons and those speakers who are less exposed to other languages in the nearby townships. Their level of (non)proficiency was determined through initial conversations with the researcher since the researcher is proficient in both languages. The two main methods employed for data collection are explained in the following paragraphs.

## **1.5.2 Data collection and ethical procedures**

### **1.5.2.1 Focus groups**

From the sample frame, I had a focus group discussion with ten people for a four-hour-discussion (two two-hour-sessions) in a day. A group of ten people was manageable and easy to lead the discussion compared to more than ten members. The discussions were conducted on topics relating to socio-cultural, political and economic issues. I had ten focus group discussions with different participants of varying age brackets from both genders. This variation is key in identifying idiosyncrasies/idiolects and trends of language change across age groups in the same speech community, if any. During the discussion, the conversations were recorded using audio and video recorders. The video recorder was used to capture paralinguistic features and body language during data analysis after fieldwork because they are significant in providing discourse-pragmatic and semantic clues. In addition, the pen and paper method of recording was also employed to note down important issues noticed in the conversations for follow up questions. The reason for having such a relatively big group related to ensuring that a rich and varied set of data is elicited from different speakers on different topics in a free interactive talk setting. From the focus group discussions, approximately 100 participants participated in the entire fieldwork.

### 1.5.2.2 Interviews

Subsequent to the focus group discussions, follow-up interviews were conducted. Ten participants were selected from the groups and consulted for specific aspects relating to their intuitions concerning the grammaticality of sentences exemplifying different verbal derivational affixes. Some of the aspects and interview questions were determined during group discussions. This was important because some areas of interest required specific details for clarification. This may not have been possible in the group setting. The interviews were two sessions per day on one-on-one dialogues of which one session lasted for two hours followed by refreshments break. Shorthand recording was done in conjunction with audio and video recording. The main reason for having conducting consultations for four hours a day was that the process was more time consuming than in groups. Thus, ten informants for four hours produced 40 hours of text, obtained with varying intensity, focus, and contents. The research schedule was conveniently spread (in consultation with the informants) in the 120 days planned for fieldwork, that is, October 2015 to January 2016.

The participants were asked to volunteer for the first phase of data collection process. Later, a few selected participants were consulted for follow-up sessions in the second phase. The target group ranges from 20 to 60 years of age with the assumption that this age bracket has a good mastery of the language, which is crucial in judgement of ungrammatical/unacceptable versus grammatical/acceptable constructions in the language. The researcher intended to collect data from a mixed age group including men, women, young and old. Since the information provided by participants was not sensitive, the research deemed to be of low risk. However, before engaging the participants in any kind of formal data collection, they had to be informed about the purpose of the research and be allowed to provide a verbal consent, with which they are comfortable taking into account their socio-cultural tradition and customs (Gippert et al. 2006; Chelliah and Willem 2011). The researcher made sure that the participants were involved only when they were fully aware of the purpose of the project and were willing to be part of the project with minimal persuasion.

## 1.6 Theoretical analysis of data on derivational verb constructions in Parakuyo

Data analysis was conducted as an on-going process during fieldwork and after data collection. As soon as data become available, identification and categorization of lexical items into syntactic categories began. For verbs, for example, the categorization was based on the semantic verb classes, e.g. motion verbs, putting verbs, verbs of change of state among many other classes as identified in Levin (1993) and Kipper et al. (2008). In addition to analysing derivational verbal affixes, tense and aspectual morphemes were also identified in the rich morphology of Parakuyo, as this phenomenon is significant not only to African languages but also cross-linguistically, as stated by Nurse (2008) Smith (1991) Marantz (2013).

Utilizing Theta Theory, Minimalist Syntax and Cartographic principles, the basic forms of the verbs were identified and analysed in order to ascertain the argument structure of intransitive and transitive verb complexes. In addition, nouns were examined by studying noun and pronoun morphology, focusing specifically on *phi*-features (person, number and gender), and case encoding in relation to thematic roles in a clause. The next step was to identify the range of nominal modifiers in the Determiner Phrase (DP). Subsequently, verb complements were identified by considering semantic and categorial features and word order in the Parakuyo clause structure.

The initial analysis started by identifying all the verbs attested in Parakuyo. Thereafter, the task to categorise the verbs into Levin's lexical-semantic verb classes followed. Different roots corresponded to the Levin's classes. However, a range of Parakuyo verbs could not fit in any of the Levin's verb semantic classes because of the variation of lexical-semantic properties of verbs in English and Parakuyo. In addition, most of Parakuyo verbs in Levin's classification do not have equivalents in English and vice versa. The near synonyms were assigned and where possible, descriptions were provided. The other group of verbs that could not be integrated into Levin's semantic classes appeared to have an adjective-like reading in English. They appear as verbs in Parakuyo but have corresponding adjective meaning in English also known as stative verbs. Other verb class databases, namely WordNet and FrameNet have been considered but the challenge encountered was that the criteria and purposes for these classifications differed to some extent. Numerous sets of semantically related verbs do share different linguistic features, namely the realization of their argument structures (Levin 2015b).

Levin (1993) examined lexical-semantic properties and argument alternation in English for the purpose of grouping the verbs into different semantic classes. In other classifications, semantic content was considered, that is, meaning frames that resulted in different frames of meaning called ‘synsets’. The words categorized together were synonyms or shared the same semantic senses in some contexts. In the classification of verb roots, a tentative template was created to analyse verbs into different transitivity properties. Intransitive roots were distinguished from monotransitive and ditransitive verbs. The classification was carried out by studying the primary function of the root in an active clause. The basic and common form of the verb in active voice in simple present helped in identifying the transitivity property of the verb. However, the lexicalization patterns of Parakuyo verbs were identified from roots when they occurred with different affixes using the insights and mechanisms from Distributed Morphology, ‘little’ v and Voice hypothesis. This eclectic framework is necessary in providing a comprehensive account of the nature of the various argument realisation of the various derivational verb constructions in Parakuyo-Maasai.

A template in which Parakuyo verbal roots and derivational affixes were entered was created. The affixes were arranged in a linear order depending on the proximity of a particular affix to the root. The order of the verb affixes appears to be strongly rigid. According to the widely tested experimentation on which suffix occurs closer to the root, Parakuyo data give evidence that the causative occurs closer to the root, followed by the dative, motion away, motion towards and middle suffixes in a verb construction. Other verbal derivational suffixes that follow the middle include the inchoative, instrumental, impersonal passive, reciprocal, antipassive and reflexive. Detailed investigations are presented in Chapter Four, Five and Six.

## **1.7 Organization of the study**

Given the introduction to the study presented above, the dissertation is organized as follows. Chapter One presents an introduction and background to the study, and to the investigation rationale. It also presents a brief overview of the Maa dialects and the status of the existing linguistic documentation for these dialects. In the subsequent sections, the significance of the study, research questions and goals are described. The research design and methodology of the investigation are discussed in section 1.5 and section 1.6 presents the theoretical perspectives of the data.

Chapter Two presents an outline of central aspects of Parakuyo descriptive grammar. The outline provides a description of salient aspects of the Parakuyo dialect, relating to phonology in section 2.2, nominal morphology in section 2.3, verbal morphology in section 2.6, and the adjective in section 2.7. Sections 2.8 to 2.14 examine aspects pertaining to adverbs, preposition conjunction, ideophones, interjections, clause structure and negation strategies. This chapter serves as an introduction to Parakuyo descriptive grammar whereas the analysis of data and theoretical investigation is conducted in Chapter Four, Five and Six.

Chapter Three introduces the theoretical framework and key perspectives employed in the study. It reviews the key concepts in regard to theoretical developments in generative syntax including Principles and Parameters theory, Minimalist Program, Distributed Morphology, Voice theory, ‘little’ v, and Cartography theory. This study employs a multi-perspective framework for investigating the lexical-semantics, event semantics and morpho-syntax of the verbal category system of affixes correlated with argument structure alternations of various kinds which necessitates exploring the interface between morphology and syntax that cannot be accounted for, by employing any one theoretical model. The brief overview in the development of generative syntax theoretical perspectives gives an orientation of how these approaches interrelate and interact in providing a framework for the investigation of Parakuyo verbal constructions and functional heads in relation to issues of argument realization. Views from previous research in selected areas of generative syntax pertinent to this study are discussed. Some of these aspects considered include semantic verb classes, aspectual verb types and event semantics, information structure and theoretical perspectives on middle and impersonal constructions cross-linguistically.

Chapter Four investigates and presents an account of argument introducing affixes in Parakuyo verb constructions. In this chapter, five verbal affixes that increase the number of arguments in the clause are examined. These affixes are causative, the instrumental, the dative, the motion away (MA) and motion towards (MT) affixes. The investigation of these verbal constructions demonstrate the processes of argument realization and alternation in the Parakuyo dialect. Theoretical perspectives reviewed in Chapter Three are employed in the analysis and account of the properties of a range of syntactic structures in Parakuyo exemplifying the various verbal derivation affixes.

Chapter Five investigates Parakuyo verb constructions with suffixes that suppress the external argument. The impersonal and middle verb suffixes examined in section 5.2 and 5.9, respectively, disallow or exclude the occurrence of the external argument in the clause. Different syntactic diagnostics tests for external argument have been employed to determine whether the reference of the implicit argument can be retrieved. Among the diagnostics test applied include possibilities of modification by *by*-phrases, PPs modification, *by-itself* phrases, agentive adverbials and purpose clauses. Other pertinent aspects discussed in each of the section relate to information structure and aspectual types in the events denoted by the verbs.

Chapter Six examines verbal suffixes in Parakuyo that do not suppress the external argument but do have an effect on the internal argument in various ways. The verbal affixes properties in relation to argument structure constructions in this chapter are examined. That is, the external argument overtly occurs in constructions examined in this chapter, but the internal argument is affected in different ways. The verbal suffix in some constructions, namely the antipassive, some reflexive verb constructions and reciprocal constructions suppress the internal argument. Argument alternations triggered by these suffixes and other syntactic modifications permissible in these constructions are investigated. This chapter examines the nature of the semantic roles corresponding to the arguments realized in reflexive, reciprocal, inchoative and antipassive verb clauses.

Chapter Seven presents the synthesis summary, conclusions and the main findings discussed in the respective chapters of the study. This chapter focuses on the key issues identified in the core investigation chapters, that is, Chapter Four, Five and Six pertaining to issues of the properties of verbal affixes in Parakuyo that give rise to different realizations of the external and internal arguments. Thus, the chapter presents a recapitulation of the range of argument alternation constructions in Parakuyo licensed by verbs with specific lexical-semantic, event semantic and morpho-syntactic properties introduced by the particular verbal suffixes and the functional category structure associated with the respective verbal suffixes.

## **CHAPTER TWO**

### **ASPECTS OF PARAKUYO DESCRIPTIVE GRAMMAR**

#### **2.1 Introduction**

This chapter presents an overview of some core grammatical aspects of the Parakuyo dialect. In section 2.2, properties of the phonological components are examined, including the system of vowels and consonants, syllable structure and tone patterns. Section 2.3 explores the nominal morphology including reference to noun stems, person, number and gender prefixes and plural suffixes. In addition, this section briefly discusses the case system and nominal derivation processes. Various types of pronouns are examined in section 2.4, and section 2.6 investigates properties of the verbal morphology. In this regard, the verbal derivational affixes, such as the causative, dative, instrumental, impersonal and others are described. Other word categories discussed include adjectives in section 2.7, adverbs in section 2.8, prepositions in section 2.9, conjunctions in section 2.10 and ideophones in section 2.11. The final sections (section 2.13 and 2.14) describe core aspects of clause structure and negation strategies in Parakuyo.

#### **2.2 Parakuyo phonology**

The descriptive grammar by Tucker and Mpaayei (1955) presents a sound inventory of Maasai with most of its varieties spoken in Kenya. However, this study is pre-theoretical in respect to phonological theories in that it provides a descriptive account of the basic phonological properties of Maasai. In the later publications by Payne 2010, 2012, among others, detailed phonological analysis of the Maasai dialects is presented. In regard to the phonological system, subtle dialectal differences can be identified that give evidence of the uniqueness of each dialect of Maa. The studies on individual dialects, namely Ilwuasinkifu, Arusa and Kisongo, indicate that the dialects have a shared phonological system. The Parakuyo dialect, which is the least studied in Tanzania, however, exhibits variations in regard to some of the sounds and tone properties.

## 2.2.1 The vowel system

### 2.2.1.1 Short vowels

Similar to other Maa varieties mentioned above, the Parakuyo dialect has nine vowels, which are divided into two sets according to features of the tongue root harmony. Advanced Tongue Root [ $\pm$ ATR] indicates that the tongue root either moves back (-) or forward (+) affecting the size of the vocal cavity through which the air moves (Payne 2010). It is documented in the literature that Maa varieties including Parakuyo have nine vowel phonemes. The (+ATR) vowels in Parakuyo are orthographically represented as <e>, <i>, <o>, and <u>. The vowel <a> is neutral, and the [-ATR] counterparts of the four vowels are indicated as <ɛ>, <ɪ>, <ɔ> and <ʊ> as illustrated in the following table.

Table 1: Phonemic vowel system in Parakuyo

	Front	Central	Back
High	i		u
	ɪ (i̠)		ʊ (u̠)
Mid	e		o
	ɛ (ɛ̠)		ɔ (ɔ̠)
Low		a	

The Swahili orthography has influenced the writing system of many languages in Tanzania, including the Maa varieties, particularly in regard to the Kiswahili five vowels system, namely <a>, <e>, <i>, <o>, and <u>. Swahili is the dominantly spoken language across Tanzania given its status of being the national and official language, and its use as lingua franca by people from the different ethnic groups. Table 2 presents the examples of Parakuyo words exemplifying the nine vowels.

Table 2: Vowel examples

s/n	Vowel	Word	Gloss	s/n	Vowel	Word	Gloss
1	a	<i>apa</i>	eat				
2	e	<i>aperr</i>	lay down	6	ɛ	<i>aidel</i>	cane
3	i	<i>asil</i>	filter	7	ɪ	<i>arba</i>	hate
4	o	<i>alo</i>	go	8	ɔ	<i>abɔbɔl</i>	destroy
5	u	<i>asul</i>	prune	9	ʊ	<i>aɲotut</i>	kiss

Non-scholarly texts, for example, the Bible and storybooks in Maa varieties employ the Kiswahili five vowels system in the orthography. In regard to the legibility of Maa literary texts to the local people, linguists (Karani et al. 2014) proposed that the Kiswahili vowels <a>, <e>, <i> <o> <u>, should be employed in the orthography. However, scholarly studies need to employ the full range of actual Maa phonetic symbols for the reason that they are key sources for representing semantic and morphosyntactic processes and for documenting the authentic Maa phonology. Thus, the distinction of the [±ATR] vowels for minimal pairs in orthography is essential.

These vowels in Parakuyo are contrastive, as in all Maa dialects. Table 3 illustrates a list of words that are only differentiated by the vowel quality of their roots. These minimal pairs are difficult to differentiate without the exact orthographic symbols for the vowel.

Table 3: Vowel minimal pairs

Vowel	Example	Gloss	Vowel	Example	Gloss
<i>e</i>	<i>apet</i>	to plaster	<i>ɛ</i>	<i>apɛt</i>	to lean on, be closer to something else
<i>i</i>	<i>aliki</i>	to tell	<i>ɪ</i>	<i>alɪkɪ</i>	to find unexpectedly
<i>o</i>	<i>alo</i>	to go	<i>ɔ</i>	<i>alɔ</i>	to spread out
<i>u</i>	<i>abul</i>	to pierce	<i>ʊ</i>	<i>abʊl</i>	to flourish

### 2.2.1.2 Long vowels

Vowel length is contrastive in Parakuyo. Long vowel sounds are thus represented in orthography by doubling the letters (*aa*, *ee*, *ii*, *oo*, *uu*), as illustrated in Table 4.

Table 4: Long vowels in words

<i>aa</i>	<i>taara</i>	beat	<i>taama</i>	eat
<i>ɔɔ/oo</i>	<i>tooho</i>	hit	<i>tɔkɔ</i>	drink
<i>ɛɛ/ee</i>	<i>ɔlɛɛ</i>	man	<i>meata</i>	not having
<i>ɪɪ/ii</i>	<i>etii</i>	be	<i>ɪlɪl</i>	shining or glittering
<i>ʊʊ/uu</i>	<i>isuut</i>	husks	<i>ɔsʊʊɟɪ</i>	lazy man

### 2.2.2 Consonant symbols

The phonetic system in Maasai contains simple consonants that are orthographically represented as follows: < *b, c, d, g, h, j, k, l, m, n, ŋ, ɲ, p, r, s, ʃ, t, w, wu, y, yi* >. The strong consonants are distinctive to all the Parakuyo dialects. The final *r* is always strong; hence, it is not doubled in word-final position. Earlier studies (Hollis (1905); Tucker and Mpaayei (1955), among others) identified the occurrence of implosives in the Maasai phonetic system. However, the implosives do arguably no longer occur in some contemporary Maasai variants, including Arusa, Kisongo and Parakuyo. It is therefore difficult to differentiate the voiced plosives from the implosives from the actual sound articulation or sound production of Parakuyo speakers. Since voiced implosives and voiced plosives are no longer contrastive in Parakuyo, the implosives [*b, d, f, g*] are represented in the present study by the letters for the corresponding stops <*b*>, <*d*>, <*j*>, and <*g*> (Karani et al. 2014).

In addition, the bilabial plosives *p* and *β* in most cases are not contrastive. This resulted in the use of <*p*> to represent the two sounds in spoken and written language. The apostrophe (') represents the glottal stop, which is noticeable only by a careful listener. The alternative of the glottal stop is the sound <*h*> in Parakuyo. In the existing works in Maasai, the glottal stop (') has not been used but it should not be confused with the apostrophe used after <*ng*> that is, <*ng'*> for the velar nasal <*ŋ*> in the non-scholarly text orthography, except in scholarly publications. Compared to the neighbouring Bantu languages, some common symbols, namely <*f*>, <*v*> and <*z*> do not occur in the Parakuyo sound inventory. Words that permit those sounds are borrowed from Bantu languages and in this case, Kiswahili, which is the lingua franca in Tanzania.

In Maasai literary texts, for example the bible and story books, the combinations of two consonant letters represent a single sound, a practice that has been greatly influenced by the Swahili orthography being the dominant written language in the region. Another practical reason for this feature is the lack of IPA symbols on computer keyboards. This lack of symbols on the normal computer keyboard makes the writing process daunting given that a computer user has to use the MS office menu to insert the symbols or use another embedded software to access the phonemic symbols. For example, <*ch*> represents the sound [*ʃ*] (as in English phonemes or [c] for African languages), <*ny*> for [*ɲ*], <*sh*> for [*ʃ*], and <*ng'*> for [*ŋ*] (Payne

2010, 2012; Karani et al. 2014, among others). In addition, some specific sounds pertain to the convention that at the end of a word the velar nasal [ŋ] is written as <ng>, in the proposed orthography for non-scholarly writings. As mentioned above, in scholarly writings the phonemic symbols are used in the orthography of Maasai in order to avoid confusion in regard to the orthographic symbols. Therefore, in this study, I use the phonemic symbols in all examples, given that one of the objectives of this study is to contribute to the documentation of Parakuyo.

Table 5: Parakuyo consonants

s/n	Letter	Phoneme	Example	Gloss	s/n	Letter	Phone	Example	Gloss
1	b	/b/	<i>abol</i>	open	12	ɲ(ny)	/ɲ/	<i>anyit</i>	respect
2	c	/c/	<i>osinca</i>	machete	13	p	/p/	<i>aiparr</i>	ask
3	d	/d/	<i>edaa</i>	eat	14	r	/r/	<i>arum</i>	peep
4	g	/g/	<i>agoro</i>	be angry	15	rr	/rr/	<i>arref</i>	trap
5	h	/h/	<i>atah</i>	bind	16	s	/s/	<i>aisurr</i>	poke
6	j	/j/	<i>ajarr</i>	widen	17	ʃ(sh)	/ʃ/	<i>aiʃap</i>	wash
7	k	/k/	<i>akurr</i>	dig	18	t	/t/	<i>atum</i>	get
8	l	/l/	<i>alam</i>	avoid	19	w	/w/	<i>awal</i>	answer
9	m	/m/	<i>amaɲ</i>	live	20	wu	/wu/	<i>awuap</i>	snatch
10	n	/n/	<i>anuk</i>	bury	21	y	/y/	<i>aaya</i>	feel pain
11	ŋ (ng')	/ŋ/	<i>aɲɔtɔt</i>	kiss	22	yi	/yi/	<i>ayiet</i>	stretch

### 2.2.3 Syllable structure

The syllable structures in Parakuyo consist of a varying number of sounds. For vocalic syllables, single short vowels syllables, single long vowels and diphthongs syllables occur. The combination of consonants and vowels demonstrates the different patterns as shown in the following table.

Table 6: Parakuyo syllable patterns

s/n	Root	Segment	Gloss	s/n	Root	Segment	Gloss
i	<i>i-i</i>	V	sharpen	xi	<i>i-perr</i>	CVC	lay down
ii	<i>iu</i>	VV	beget	xii	<i>leen</i>	CV:C	see about
iii	<i>i-ka</i>	CV	hang	xiii	<i>éée</i>	VVV	die
iv	<i>ók</i>	VC	drink	xiv	<i>ngó</i>	NCV	nothing
v	<i>put</i>	CVC	pluck	xv	<i>twâ</i>	CGV	die
vi	<i>i-úrr</i>	VC	sympathize	xvi	<i>a-mwa</i>	CGV	marry

vii	<i>ɪ-rò</i>	CV	talk	xvii	<i>barn</i>	CVCC	shave
viii	<i>réu</i>	CVV	drive	xviii	<i>tíam</i>	CVVC	jump
ix	<i>lwám</i>	CGVC	to time	xix	<i>ɪ-gwán</i>	CGVC	advice
x	<i>yíeu</i>	CVV	want	xx	<i>séerr</i>	CV:CC	craw

The data in the table above give evidence that simple and complex syllable structures occur in Parakuyo.

## 2.2.4 Tone and case systems

Case in Parakuyo, as in Maa varieties, in general, is expressed solely by tone (Tucker and Mpaayei (1955) Payne 2012:47, among others). Tucker and Mpaayei argue that nominative case occurs, for example, when a noun follows an active verb as a subject, or when it appears as a vocative. Accusative case, on the other hand, occurs when a noun follows a verb as an object or when it is used in isolation. Nominative and accusative cases are thus indicated solely by a tonal morpheme in Maa (Payne 2012:47). Scholars, Mel'čuk and König, argue that Eastern Nilotic languages are marked-nominative languages. Mel'čuk (1986, 1997:136) argues that Maasai has two cases, namely nominative (referred as accusative in this study) and oblique or ergative or subjective (referred to here as nominative). This argument follows his analysis of Maasai as an ergative language, considering the citation form as nominative irrespective of its syntactic use. However, König (2006:25) argues that Maa is a marked-nominative language in that the citation form is identical to the form used to encode the object. Therefore, König (2006) and Mel'čuk (1997:138) employ the opposite terminologies in labelling case systems in Maa. Schroeder (2015: 62) also argue that Maasai and Toposa are two languages of the Eastern Nilotic group that are marked-nominative languages. As such, in this study, Parakuyo is considered as a marked-nominative language based on König's the definition.

“A marked-nominative language is present when at least two cases are distinguished, namely an accusative covering O, and a nominative covering S and A. The accusative must be the functionally unmarked form; it is the default case, that is, the case which is used with the widest range of functions. If one of the two cases is derived from the other, it must be the nominative which is derived from the accusative and never the other way round.” König (2006: 658)

However, tone is a highly intricate phenomenon in Maa variants and in Parakuyo grammar, in particular. Several tone classes occur in Maa varieties, as is evidenced in the Parakuyo dialect.

Tucker and Mpaayei observe that approximately twenty types of tone patterns can be distinguished. Based on their accusative-nominative behaviour, they grouped these patterns into four broad tone classes. However, Payne (2012), in response to Tucker and Mpaayei's view of four broad groups of tone classes, argues that approximately ten distinct forms of plural tone patterns can be distinguished.

Although tone has been investigated by different scholars for the Maa varieties (Tucker and Mpaayei 1955, Levergood 1987, Rasmussen 2002, Rasmussen and Payne 2001, Payne 2012), Payne (2012) argues that due to the complexity of tone in Maa dialects, none of these studies provides a complete account of tone patterns in Maa varieties. This is even more so because, she maintains, that tone patterns seem to be changing in varieties of Maa spoken in Tanzanian (Payne 2012:47). Payne argues that Maa varieties have two contrastive tones, namely High (H) and Low (L). Following Payne's studies in which she analysed part of the Parakuyo phonology, High tone is encoded by an acute accent over the vowel and Low tone is not encoded in most of the Parakuyo examples in the current study. However, where necessary, Low tone is encoded in examples in order to differentiate lexical meaning, aspectual type and case of DPs. Low tone is encoded by using a grave accent over the vowel. These functions make tone a significant component of meaning in the Parakuyo dialect. Although the Maa varieties have two contrastive tones, each word ending expresses one of the four tones properties. Payne (2012:47ff) argues that any word can end with either H, L, with a Down-stepped H, or with a Falling H + L tone pattern. Tone encoding is demonstrated in the following examples.

Tone symbol	Example in orthography	Phonetic pronunciation
á High (H)	pálotú 'so that I come'	H L H 
a Low (L)	pálotú 'so that I come'	[pálotú]

Concerning the scope of the current chapter, I will not present a comprehensive discussion of tone patterns in Parakuyo. The above-mentioned sources can be consulted for relevant discussions on tone patterns in Maa varieties, which can largely inform my discussion of the tone system in Parakuyo.

## 2.2.5 Parakuyo orthography

Orthographic issues have led to inconsistency in the writing of texts in the Maa varieties. Different authors used different orthographic representations (because of the influence of Swahili and Bantu orthography) like *ny*, instead of *n*, *sh*, instead of *f*, and *ng*, instead of *ŋ(k)* or *ŋ(g)*. Another discrepancy relates to the representation of the vowel harmonic sets. Some authors write as <ɪ ʊ>, others <ɪ ʉ>, and some others bolded vowels: <**e i o u**> to represent -ATR. However, in order to avoid confusing readers of Maa variety texts, it would be better if all authors employed the IPA symbols in both phonology and orthography. These orthographic problems were not only influenced by linguists in their studies but also by writers in other fields, namely clergymen and anthropologists. Thus, native speakers of Maa varieties have disseminated the orthographic mistakes in various ways unknowingly. The Bible, for example, is written in the Swahili orthography perhaps because of the dominance of Swahili in the East Africa region. However, many scholarly works have been using the phonetic symbols of Maasai. These symbols represent the actual phonology of the language in the sense that they employ International Phonetic Alphabet (IPA) symbols that represent the actual place of articulation of sounds in Maa varieties. The literacy material does not employ IPA symbols, instead, they follow Swahili symbols that are assumed to have closely similar phonological features, including consonants and vowels. With this simplified orthography, only five vowels are used instead of the nine vowels employed in scholarly studies. In Karani et al. (2014), sixteen general unified spelling rules are proposed for use in the orthography for Maasai. Some of these rules have been mentioned in previous sections above.

## 2.3 Noun morphology

### 2.3.1 Person, number and gender

A noun in Maasai generally has three layers of morphological elements. The first element is the initial inflectional prefix for number and gender. The prefixes for number are *ɛ/ɔ* or *e/o* for singular and *i* or *ɪ* for plural whereas feminine gender is encoded by *n* and masculine gender is encoded by *l*. The second element of the noun morphology is the noun root, which denotes the lexical-semantics of the noun, and the third element is the inflectional morpheme for number. Thus, number (singular and plural) can be encoded twice in the noun morphology. In example (1b), plural is encoded by the prefix and the suffix.

- (1) a.  $\varepsilon$ -*n-kine*  
 SG-F-goat  
 ‘A goat’
- b. *ɪ-n-kine-jik*  
 PL-F-goat-PL  
 ‘The goats’

The occurrences of the noun prefix in Maasai vary across dialects. The Parakuyo speakers do not pronounce the number prefix *e/ε* or *ɪ/i* in rapid or spoken speech, instead they pronounce *ntito/ntoyε* for ‘girl/girls’ whereas speakers of other dialects, for example, Arusa pronounce *entito/intoyε* for ‘girl/girls’. The pronunciation of the prefixes also may not be audible in spontaneous speech. This results from the fusion of vowel sequences where the noun root begins with a vowel but omitted, for example, when the noun premodifier ends with a vowel. This occurs when the DP appears in an accusative case in the post-verbal position. The number and gender prefixes are *ɔl-* for singular and *ɪl-* for plural, for masculine nouns, and *εn-* for singular and *m-* for plural nouns for feminine gender. Payne (2012:46) argues that these number and gender prefixes, that is, <εn> FSG, <m> FPL <ɔl> MSG <ɪl> MPL, are clitics. There are, however, phonological rules that govern the distribution of the consonants in the prefixes. This applies to noun phrases that denote the entity that is not biologically feminine or masculine. Neuter gender is encoded for nouns designated to have a neuter gender. These prefixes include <ε>, <ɪ> and <ɔ> for singular and plural number respectively. As a result, the feminine prefix <n> and the masculine prefix <l> are missing.

However, if a noun begins with a nasal sound <m>, for example, it does not have the gender morpheme <n>; instead, the consonant <m> encodes feminine gender. In addition, from the Parakuyo data, it is evident that many nouns that are gender neutral are borrowed words from Swahili, for example, *emesa*, *eredio* etc. However, some borrowed words entered into the Parakuyo lexicon and are assigned gender, for example, *ɔltrehta*, ‘tractor’ *ɔlbati* ‘iron sheet’, which bear masculine gender. Tucker and Mpaayei (1955) posited certain rules concerning the occurrence of noun prefixes. Their proposals constitute one version of rules that explain why the prefix consonant is absent in the morphology of some nouns. However, in this chapter, the discussion will not provide further detailed analysis in describing the complexities of the phonological rules since such analysis falls outside the scope of this study.

Further semantic analysis of the noun prefixes associates masculine prefixes with denoting largeness, strength, ugliness and some negative attitudes towards the entity. Feminine prefixes are associated with denoting smallness, weakness and, in some contexts, diminutive or derogatory comments about an entity. Evident in noun prefixes is the assimilation process whereby harmony of place of articulation occurs between the prefix consonant and the initial consonant of the noun stem. The feminine prefix <em> for singular and <im> for plural appears before <p> and <b> <n> occurs with velar sounds like <k> and <ŋ>. Person, gender, number affixes and diminutive and augmentative affixes are written conjunctively with the noun base. A gender prefix affixed to the nouns provides some degree of definiteness in Parakuyo in some contexts where its referent is understood, although it is not always the case when the noun appears in isolation. To illustrate this one can say

- (2) a.     *eetuo*            *inkera te*       *fule*  
           3-come.PFV children from school  
           ‘children came back from school’

and then someone else could ask

- b.     *kaa na-tufuke*       *fule*  
           who REL-return-PFV school  
           ‘who went back to school’

and the response can be *olayioni*.

This implies that one of the children in (2a) is a boy; hence, definite. This is evident when compared to other sentences where the noun appears with a general or indefinite sense. Some nouns demonstrate irregular patterns in singular and plural suffixes, which make it difficult to devise a rule for plural formation in Parakuyo, given the wide range of plural noun suffixes as shown in Table 6. Number prefixes *e/ε/o/ɔ* and *i* for singular and plural respectively have regular patterns but number suffixes are irregular. In the following table, the NP with two prefixes illustrates number and gender, the first prefix being for number and the second for gender. Gender can only be encoded by a prefix; hence, all suffixes encode either singular or plural as shown by their morphological parsing.

Table 7: Singular and plural nouns

s/n	Example SG	Example PL	Meaning	s/n	Example SG	Example PL	Meaning
1	<i>ε-n-da-a</i>	<i>ɪ-n-da-ikin</i>	food	13	<i>ɔ-l-tuala</i>	<i>ɪ-l-tuala-n</i>	bell
2	<i>ε-n-kurruma</i>	<i>ɪ-n-kurruma-n</i>	farm	14	<i>ɔ-l-ale</i>	<i>ɪ-l-ale-ta</i>	cattle kraal
3	<i>ε-n-ker-a-i</i>	<i>ɪ-n-ker-a</i>	child	15	<i>ɔ-l-marei</i>	<i>ɪ-l-marei-ta</i>	family
4	<i>ɔ-l-kimoji-noi</i>	<i>ɪ-l-kimojik</i>	finger	16	<i>ɔ-l-aras-i</i>	<i>ɪ-l-aras</i>	rib
5	<i>ɔ-l-ayio-ni</i>	<i>ɪ-l-ayio-k</i>	boy	17	<i>ε-saani</i>	<i>ɪ-saani-ni</i>	plate
6	<i>ε-lukup-a</i>	<i>ɪ-lukup</i>	head	18	<i>ε-n-kar-e</i>	<i>ɪ-n-kar-ia-k</i>	water
7	<i>ɔ-l-okira</i>	<i>ɪ-l-okirr</i>	star	19	<i>ε-n-kiteŋ</i>	<i>ɪ-n-kifu</i>	cow
8	<i>ε-mowu-o</i>	<i>ɪ-mowu-arak</i>	horn	20	<i>ɔ-l-bae</i>	<i>ɪ-l-baa</i>	wound
9	<i>ɔ-l-papit-ai</i>	<i>ɪ-l-papit</i>	hair	21	<i>ε-siai</i>	<i>ɪ-siai-tin</i>	work
10	<i>ε-naif-o</i>	<i>ɪ-naif-i</i>	alcohol	22	<i>ɔ-l-akwi</i>	<i>ɪ-l-akwi-yiani</i>	uncle
11	<i>ε-moti</i>	<i>ɪ-moti-ok</i>	pot	23	<i>ɔ-l-opeŋ</i>	<i>ɪ-l-oopeŋ</i>	owners
12	<i>ε-m-bat-a</i>	<i>ɪ-m-bat</i>	side	24	<i>ε-n-kume</i>	<i>ɪ-n-kume-ih</i>	nose

In the nominal lexicon, irregular nouns have unpredictable morphological patterns for plural stems. For a range of nouns, there can be some grouping, depending on the final plural suffix. Eastern Nilotic languages demonstrate the properties of encoding number on head nouns of DPs by suffixes as argued by Barasa (2017) on Ateso. Other factors for the grouping may be motivated by phonological and/or semantic factors.

In addition, there are other scenarios where the gender prefix is not embedded. This is the case, for example, when the noun is preceded by a demonstrative, an interrogative, an indefinite, a numeral modifier or the vocative morpheme, as illustrated in the following table.

Table 8: Noun pre-modifiers

Modifier and noun	Meaning	Noun in plural	Type of modifier
<i>ena ŋoroyoni</i>	This woman	<i>ɪ-ŋoroyiok</i>	Demonstrative
<i>kalo ayoni</i>	Which boy?	<i>ɪ-l-ayiok</i>	Interrogative
<i>kulie ayok</i>	Other boys	<i>mk-ayiok</i>	Demonstrative
<i>kulo ayiok</i>	These boys	<i>ɪ-l-ayiok</i>	Indefinite
<i>nabo aji</i>	One house	<i>mk-ajjik</i>	Number
<i>le payian</i>	Oh, old man!	<i>ɔ-l-payian</i>	Vocative

### 2.3.2 Nominal modifiers

Demonstratives pre-modify the head nouns in Parakuyo Maasai. Demonstratives are morphologically encoded for number and gender. The following examples demonstrate the morpheme <*e*> for third person singular, and <*l*> for masculine gender. In addition, in the following DP in (2), <*e*> encodes third person singular and <*n*> encodes feminine in demonstratives.

- (3) a.     *e-l-de payian*  
           3SG-M.that man  
           ‘That man’
- b.     *e-n-da tasat*  
           3SG-F-that woman  
           ‘That woman’

In the following pair of examples in (4), on the one hand, the prefix *ku-* is a morpheme encoding plural, and the prefix *l-* encodes masculine. On the other hand, in the second example in (4b), two prefixes also occur, with the morpheme *ku-* encoding plural, and *n-* encoding feminine gender.

- (4) a.     *ku-l-do payian-i*  
           3PL-M-that man-PL  
           ‘Those men’
- b.     *ku-n-da tasati*  
           3PL-F-that woman-PL  
           ‘Those women’

A head noun in a DP in Parakuyo can be modified by an adjective. Unlike demonstratives, which pre-modify nouns, adjectives occur as post-modifiers in that they follow the lexical head, as demonstrated in (5).

- (5) *o-l-payian moruo*  
       SG-M-man old  
       ‘An old man’

Some complexity arises when the head noun is modified by more than one modifier as in (6). The demonstrative precedes the noun followed by adjectives denoting size and colour, in this order as illustrated in the following example.

- (6) a. *ele payian sapuk ɔɾɔk*  
 This man big black  
 ‘This big black man’
- b. *ena ito rongai naado naɲokie*  
 This girl slim tall white  
 ‘This slim tall white girl’

Evidence in (7b) suggests that a maximum of three adjectives can modify the head noun. It is possible for further modification to be introduced by a relativizer with a relative clause modifier, and an adjective. In the following example, the relativizer *na-* functions as a relative pronoun encoded for feminine gender.

- (7) a. *ena ito rongai na-ado na-nyokie*  
 This girl slim that-tall that-white  
 ‘This slim tall white girl’
- b. *ena ito rongai n-aado na-ɲokie na-ɪfopo esupeta*  
 This girl slim that-tall that.white that-wear sweater  
 ‘This slim tall white girl in a sweater’

Gender prefixes (feminine and masculine) in addition encodes diminutive and augmentative senses. The masculine prefix *l-* encodes augmentative, whereas the feminine morpheme *n-* expresses a diminutive sense. Thus, entities that are huge, strong and ugly are considered to have masculine attributes, whereas small, weak and nice-looking entities are encoded for feminine gender.

### 2.3.4 Nominal derivation

Nouns can be derived from verbs or adjectives with the derivative suffixes *-are* or *-ore*, which occurs productively in nouns derived from verbs, as in (7). They can also be derived randomly from adjectives as illustrated in (8).

De-verbal nouns

- (8) a. *eturr* ‘cultivate’      *e-n-tur-ore* ‘cultivation’  
 b. *esirr* ‘write’      *e-sir-are* ‘the writing’

## De-adjectival nouns

- (9) a. *sapuk* ‘big’ *e-sapuk-o* ‘bigness’  
 b. *erək* ‘black’ *erək-an* ‘blackness’  
 c. *eirowua* ‘warm’ *ε-nk-irowua-j* ‘heat’

The derivational affixes in de-adjectival nouns comprises of prefixes for number and gender, for example *e* and *n* above and suffixes *o*, *an* and *j* as illustrated in (9a-c) respectively. These derivational suffixes are many and they are randomly distributed.

## 2.4 Pronouns

### 2.4.1 Person pronouns

In Parakuyo, the morphology of person pronouns realizes only number feature. The respective pronouns for first, second and third person, singular and plural, are illustrated in the following table.

Table 9: Person pronouns

	Singular	Gloss	Plural	Gloss
1 <sup>st</sup>	<i>nanu</i>	me/I	<i>iyook</i>	us/we
2 <sup>nd</sup>	<i>iyie</i>	you	<i>intai</i>	you
3 <sup>rd</sup>	<i>ijne</i>	him/her	<i>nince</i>	Them/they

### 2.4.2 Reflexive pronouns

Parakuyo has a few reflexive pronouns, which in most cases, occur for purposes of emphasis. These pronouns occur as anaphors referring to the antecedents in the clause. These pronouns are *kewán* ‘myself, itself, himself, herself, and yourself’ *ate* for ‘themselves, ourselves, and yourselves’ *opeŋ* for ‘himself, herself, itself, myself and yourself’, and *oopeŋ* ‘themselves, yourselves and ourselves’. Consider examples in (10) bearing in mind that Parakuyo word order is VSO.

- (10) a. *e-tu-duŋ-o* *Joni kewán*  
 3-PFV-cut-PFV John himself  
 ‘John cut himself’  
 b. *e-isuj-a* *ilayiok ate*  
 3-wash-PFV PL.boy themselves

‘The boys washed themselves’

- c. *e-isuj-â*      *olayioni opeŋ*  
 3-wash-IMPF boy      himself  
 ‘The boy is washing himself’
- d. *e-isùj-â*      *ilayiok oopeŋ*  
 3-wash-IMPF boys      PL.themselves  
 ‘The boys are washing themselves’

Tone is of significance in tense and aspectual properties of the above sentences, for example tone encodes progressive aspect in (10c-d). A discussion of pronouns distribution and their syntactic properties is provided in section 6.2.

### 2.4.3 Reciprocal pronouns

Although the reciprocal verb construction is extensively discussed in section 6.3, I present here an example from Parakuyo. Plural reflexive pronouns are also employed as reciprocal pronouns as in (11). These plural pronouns are *ate* ‘themselves/each other’ *oopeŋ* ‘themselves/each other’.

- (11) *ɛnɔrr inkera ate*  
 3-love child.PL themselves  
 ‘Children love each other’

In the other verb constructions, as shown in section 6.2, two interpretations, namely reflexive and reciprocal can be identified depending on the choice of the verb. Therefore, the distinction can only be drawn based on the lexical-semantic properties of the verb and the discourse-pragmatic context.

### 2.4.4 Interrogative pronouns

Interrogative pronouns are attested in Parakuyo grammar. These pronouns commonly occur as question words in clauses, for example, *kaa* ‘which’ *ŋai* ‘who’, *kajoo* ‘why’, *ŋoo* ‘what’, *kaji/kakua* ‘where’ and *kanu* ‘when’. It should be noted that *k* and a vowel, hence *kV*, is a general question word that can co-occur with other interrogative pronouns. This question word always takes the first vowel of the pronoun.

- (12) *ka-noo itadua?*  
Q-what 2-PFV-see  
What did you see?

An exclusively person interrogative pronoun encodes masculine and feminine gender inflection in plural. The masculine pronouns for ‘who’ is *aiŋai* for singular and *(ai)looŋai* for plural, and for feminine it is *(ai)ŋai* for singular and *(ai)nooŋai* for plural when referring to human in particular.

- (13) *ke-loo-ŋai o-etuo aay?*  
Q-MPL-who REL-come.PFV home  
Who came home/which men came home?

In addition, interrogative pronouns denoting exclusively things also encode gender. The pronoun for masculine is *kalo* for ‘which’ singular, and *kakua* for plural, *kaa* for feminine singular, and *kakua* for plural.

- (14) *k-alo mulango o-ikeno?*  
Q-which door REL-closed  
Which door is closed?

Two forms for ‘whose’ occur, one dependent *e ŋai* (feminine) and *le ŋai* (masculine) and the independent forms, namely *oleŋai* (singular) and *ilkuleŋai* (plural) for masculine and *eneŋai* (singular) and *inkuneŋai* (plural) for feminine.

- (15) *inkuneŋai kuna toyie?*  
2-F-whose these girls  
Whose girls are these?

Although all the interrogative pronouns can be preceded by a question word *k(V)*, they can also occur without it, hence making it optional in a spoken language.

#### 2.4.5 Indefinite pronouns

Some, but not all, indefinite pronouns in Parakuyo are affected by gender inflection. Gender encoded pronouns are *likai/kulikai* for masculine, *enkai/ai/nkulie* for feminine and *ai/kulie* for place. Their readings obtaining are ‘another’ ‘other’ or ‘more’, depending on the noun referred to by the pronoun. These pairs represent singular and plural forms respectively. Other pronouns

can be used predicatively, like *ɔlikai/ɪlkɔlikai enkai/inkulie* for ‘others/the other’ and *ɔltaani/endaani* ‘somebody’ masculine and feminine, *enkai/inkulie* for feminine. The indefinite pronouns that are not affected by gender include *pooki* ‘every’ ‘all’ *hoo* ‘any’ *toki* ‘anything’, *pooki ηai* ‘anybody’ ‘everybody’ and *ηania* ‘somebody’. However, gender morphemes are deleted when nominal modifiers such as the demonstrative precede indefinite pronouns, for example, *ɔltaani* ‘somebody’ *ele taani* ‘this somebody’.

#### 2.4.6 Demonstratives

As is general in languages demonstrative pronouns in Parakuyo are deictic words that refer to certain entities in order to distinguish them from others. A distinction is made between spatial deixis and discourse deixis. Spatial deixis refers to terms denoting deixis in the physical environment in relation to the speaker or the listener when locating or referring to the position of other entities. In regard to spatial demonstratives, three dimensions occur, that is, distal, medial and proximal demonstratives (Maienborn et al. 2012). Distal demonstratives indicate entities that are distant from the speaker, and proximal demonstratives refer to the entities closer to the speaker while medial deixis refer to entities closer to the addressee. Consider the demonstrative pronominal forms in Table 10.

Table 10: Demonstratives

	Proximal		Medial		Distal	
	Singular	Plural	Singular	Plural	Singular	Plural
Gender	this	these	that	those	that	those
Masculine	<i>ele</i>	<i>kulo</i>	<i>ilo</i>	<i>lolo</i>	<i>elde</i>	<i>kuldo</i>
Feminine	<i>ena</i>	<i>kuna</i>	<i>ina</i>	<i>nona</i>	<i>enda</i>	<i>kunda</i>

The term discourse deixis refers to terms denoting abstract concepts in relation to discourse context, text structure and time. Thus, such lexical items do not refer to physical space in relation to the speaker or hearer, but rather to time, or an entity in a text or spoken discourse. Discourse deictic elements can be formed from adjectives or determiners.

#### 2.4.7 Possessive pronouns

Generally, possessive phrases express a semantic relationship of possession of something by somebody or some entity. They express ownership, or a closer relationship, that binds two

entities together. Thus, such phrases denote a sense of ownership between the (pro)noun denoting the possessor and the (pro)noun denoting the ‘possessee’. In Parakuyo, the possessive pronoun post-modifies the head noun. Consider the following morphological forms of possessive pronouns in Parakuyo.

Table 11: Possessive pronouns

Gender		Fem		Masc		Fem	Masc	Gloss
Number	Person	SG	PL	SG	PL	SG	PL	
	1 <sup>st</sup>	<i>ai</i>	<i>ainei</i>	<i>lai</i>	<i>lainei</i>	<i>aŋ</i>	<i>laŋ</i>	my/mine/our(s)
	2 <sup>nd</sup>	<i>ino</i>	<i>inono</i>	<i>lino</i>	<i>linono</i>	<i>iji</i>	<i>liji</i>	your(s)
	3 <sup>rd</sup>	<i>epe</i>	<i>epena</i>	<i>lepe</i>	<i>lepena</i>	<i>ence</i>	<i>lence</i>	its/his/hers/their(s)

The possessor has different pronoun forms that are distinct from those of the possessee in singular and plural (Payne and Barshi 1998). The first column serves to differentiate first, second and third person. The following table demonstrates the occurrence of possessive pronouns in a phrase with the lexical head.

Table 12: Examples of possessives pronouns

s/n	Example	Meaning	s/n	Example	Meaning
1	<i>entito ai</i>	my girl	10	<i>ntoyie ainei</i>	my girls
2	<i>entito ino</i>	your girl	11	<i>ntoyie inono</i>	your girls
3	<i>entito epe</i>	his/her girl	12	<i>ntoyie epena</i>	his/her girls
4	<i>ɔlayioni lai</i>	my boy	13	<i>ɪlayiok lainei</i>	my boys
5	<i>ɔlayioni lino</i>	your boy	14	<i>ɪlayiok linono</i>	your boys
6	<i>ɔlayioni lepe</i>	his/her boy	15	<i>ɪlayiok lepena</i>	his/her boys
7	<i>entito aŋ</i>	our girl	16	<i>ɔlayioni laŋ</i>	our boy
8	<i>entito iji</i>	your PL girl	17	<i>ɔlayioni liji</i>	your PL boy
9	<i>entito ence</i>	their girl	18	<i>ɔlayioni lence</i>	their boy

## 2.5 Numerals

In Parakuyo, as is the case in other Maa varieties, numerals are expressed in a decimal system. These numerals are employed for counting and for indicating quantity, frequency and number. In Table 13, the numerals in 1, 2, 3, 4, 7, and 9 denote masculine and feminine gender in Parakuyo.

Table 13: Parakuyo numerals

Masculine	Feminine	Glosses	alternatively	Numeral	Glosses
<i>o-bo</i>	<i>na-bo</i>	1		<i>iip uni</i>	300
<i>are</i>	<i>aare</i>	2		<i>iip oɲuan</i>	400
<i>o-kuni</i>	<i>uni</i>	3		<i>iip imiet</i>	500
<i>o-oɲuan</i>	<i>oɲuan</i>	4		<i>iip ile</i>	600
<i>imiet</i>	<i>imiet</i>	5		<i>iip naapishana</i>	700
<i>ile</i>	<i>ile</i>	6		<i>iip isiet</i>	800
<i>o-opifana</i>	<i>naapifana</i>	7		<i>iip naaudo</i>	900
<i>isiet</i>	<i>isiet</i>	8		<i>iip tomon</i>	1000
<i>o-oudo</i>	<i>na-audo</i>	9		<i>iip tomon kat are</i>	2000
<i>tomon</i>	<i>tomon</i>	10		<i>iip tomon kat uni</i>	3000
<i>tikitam</i>		20		<i>iip tomon kat oɲuan</i>	4000
<i>tomoni uni</i>		30	<i>osom</i>	<i>iip tomon kat imiet</i>	5000
<i>artam</i>		40		<i>iip tomon kat ile</i>	6000
<i>onom</i>		50		<i>iip tomon kat naapifana</i>	7000
<i>ntomoni ile</i>		60	<i>onom o tomon</i>	<i>iip tomon kat isiet</i>	8000
<i>ntomoni naapishana</i>		70	<i>onom o tikitam</i>	<i>iip tomon kat naaudo</i>	9000
<i>ntomoni isiet</i>		80	<i>onom o tomoni uni</i>	<i>iip tomon kat tomon or iip tomon katitin iip tomon</i>	10000
<i>ntomoni naaudo</i>		90	<i>onom o tomoni artam</i>		
<i>iip</i>		100			
<i>iip are</i>		200			

## 2.6 Parakuyo verbal morphology

Parakuyo has two main classes of verbs (Class I and Class II) that are classified according to their morpho-phonological properties. Two morphological properties distinguish Class I verbs from Class II verbs. Class I have stems that commence with mainly consonants and all other vowels except *i/I* or *e/ε* on the onset. The following table presents examples of Class I verbs.

Table 14: Class I verbs

Verb	Gloss	Verb	Gloss	Verb	Gloss
<i>a-ohoki</i>	call	<i>a-tum</i>	get	<i>a-ot</i>	point
<i>a-korrd</i>	scratch	<i>a-rrum</i>	push	<i>a-sir</i>	write
<i>a-dol</i>	see	<i>a-mut</i>	finish	<i>a-rɪf</i>	divide
<i>a-yeu</i>	want	<i>a-kwet</i>	run	<i>a-ɔk</i>	drink
<i>a-lilitu</i>	search	<i>a-rrip</i>	protect	<i>a-don</i>	cut
<i>a-korr</i>	dig	<i>a-jit</i>	wipe	<i>a-jɪŋ</i>	enter
<i>a-kɪŋ</i>	spill	<i>a-kerr</i>	widen	<i>a-ɣɛrr</i>	cook

As pointed out above, one of the features of Class I verbs is that the verb inflects with the prefix *tV-* in the perfective and imperative forms as in (15a) and (b) (see section 2.9 for further discussion). Evidence suggests that Class I verbs are considerably more in number than Class II in the Parakuyo lexicon.

- (16) a. *á-ta-lep-o enkitɛŋ* (Perfective)  
 1SG-PF-milk-PF cow  
 ‘I have milked the cow’
- b. *ti-kɪŋ-a ɔlpaeki* (Imperative)  
 IMPR-peel corn  
 ‘Peel the corn’

The verbs in Class II include those verbs that begin with the vowels *i/i* or *e/e* on the onset. Consider the examples in the following table.

Table 15: Class II verbs

<i>i</i>		<i>ɪ</i>		<i>ɛ</i>	
<i>isɪje</i>	sour	<i>irrága</i>	sleep	<i>ɛk</i>	weigh down
<i>ɪnɔ</i>	wake up	<i>ɪsɪka</i>	escape	<i>ɛl</i>	smear
<i>igéru</i>	start	<i>ikéŋ</i>	count	<i>ɛβ</i>	cover
<i>idim</i>	able	<i>ik</i>	hang	<i>ɛkéŋa</i>	struggle
<i>ɪdɔrr</i>	shift	<i>ɪkár</i>	fence	<i>ɛé</i>	die

Another salient distinction of Class II verbs from Class I verbs pertain to the perfective forms. Class II verbs have three perfective suffixes, namely *-a*, *-e* or *-o*, in the post-verbal position as demonstrated in 17.

- (17)
- a. *e-irrag-a*      *enkerai*  
3-sleep-PFV    child  
The child has    slept
  - b. *e-isuj-e*        *Meri*  
3-wash-PFV    Mary  
Mary washed    herself
  - c. *e-iken-o*        *Meri olmulango*  
3-close-PFV    Mary door  
Mary closed the door

Dimmendaal (1983a) hypothesizes that Maa varieties support the claim that in verb derivation, a causative prefix for Class I verbs, namely *itV-* changes a Class I verb to a Class II verb. Thus, studies in a typological perspective suggest that the Class II verbal prefix *i/I* perhaps had a transitivizing or a causativizing function in pre-Maa stage of the language, as noted by Dimmendaal (1983a). For Class II verbs, the causative suffix is *-yie/ie*, and it does not alter the class of the verb.

### 2.6.1 Verbal affixes

The verbal affixes in Parakuyo are investigated Chapter Four, Five and Six of this study. Verbal affixes extend the semantic and the syntactic properties of the verbal stem in various ways. The affixes that express derivational readings include the causative, instrumental, dative, directed motion, reflexive, antipassive and inchoative affixes. Other verbal suffixes that change the verbal root meaning and the argument structure properties in a clause include the middle, impersonal, reciprocal and neuter. The following table illustrates the verb derivational affixes of Parakuyo. These affixes can occur with +ATR or -ATR vowels allomorphs.

Table 16: Verbal affixes

1	2	3	4	5		6	7	8	9	10	11
CAUS	DAT	MA	MT	MID	NETR	INCH	INST	IMP	REC	APAS	REF
<i>i(n)tv</i>	<i>aki/oki</i>	<i>aa ai</i>	<i>u</i>	<i>a</i>	<i>no</i>	<i>u</i>	<i>ie re</i>	<i>i ni</i>	<i>a</i>	<i>ifo</i>	<i>ri</i>
<i>ie</i>	<i>aka/oko</i>	<i>oo oi</i>	<i>ua</i>	<i>e</i>	<i>je</i>	<i>i</i>	<i>yie</i>	<i>ki ri</i>	<i>ro</i>	<i>iho</i>	<i>re</i>
<i>iye</i>	<i>ikz/iki</i>	<i>ayie aya</i>	<i>uo</i>	<i>o</i>		<i>ua</i>	<i>je te</i>	<i>yy tai</i>	<i>no</i>	<i>ife</i>	<i>ro</i>
	<i>ikia/ikio</i>	<i>oyo oyie</i>		<i>zero</i>		<i>uo</i>	<i>ye</i>	<i>toi</i>	<i>o</i>	<i>ihe</i>	<i>zero</i>

In the investigation of Parakuyo affixes conducted in Chapter Four, the ordering of the sections on these affixes is as follows: the causative is discussed in section 4.2, the instrumental in section 4.3, the dative verbs in section 4.4, motion away in section 4.5 and motion towards in section 4.6. Chapter Five explores the impersonal passive suffix in section 5.2, the middle in section 5.10 and a few combinations of the inchoative and the neuter suffixes in section 5.15. In Chapter Six, I examine the reflexive in section 6.2, the reciprocal in section 6.3, the inchoative in section 6.4 and the antipassive in section 6.5. Some of these affixes can combine with each other to extend the verbal semantics and alter the argument structure in a clause. Causative affixes can combine with the dative, motion away, motion towards, instrumental and antipassive suffixes, as discussed in section 4.2.3. Instrumental suffixes (section 4.3.4) can co-occur with impersonal, motion away and motion towards suffixes. Dative suffixes can combine with the reciprocal and instrumental suffixes in the same verb construction. Furthermore, motion away suffixes allow combination with the impersonal and instrumental, described in section 4.5.5. Lastly, as analysed in section 4.6.1, the reciprocal, neuter, impersonal and instrumental suffixes can co-occur with a motion towards suffix in the verbal morphology.

## 2.6.2 Stative verbs

Verbs with stative suffixes in Parakuyo vary depending on the lexical-semantic properties of the verb stems. Most of the stative verbs in Parakuyo are de-adjectival verbs in that they are derived from adjectives. This derivation usually takes place by inflecting a person prefix to an adjective. This kind of stative verb denotes colour, physical state of the body or state of the entity described by the verb. In the morphology of stative verbs, the stative suffixes *-a*, *-e*, *-i*, or *-o* occur. Other stative verbs do not end with these suffixes but they, nevertheless, have a

stative reading, as demonstrated in Table 17. In addition, stative verb constructions can yield a habitual interpretation, as exemplified in the following constructions.

- (18) a. *a-mó-ì*  
1SG-sick-STAT  
'I am sick'
- b. *a-naur-a*  
1SG-tire-STAT  
'I am tired'

Some stative suffixes, for example *-e*, yield a stative interpretation in the perfective aspect. This means the event is reported when it has just happened or has been completed. The perfective aspect prefix *tV* also is demonstrated in the following examples.

- (19) a. *e-ta-naur-e* *endasat*  
3-PFV-tire-STAT.PFV woman  
'The woman is tired'
- b. *e-ti-ik-e* *enkawuo*  
3-PFV-hang-STAT.PFV shield  
'The shield hangs'

Tucker and Mpaayei (1955) describe properties of stative verbs also occur in Southern Kenyan dialects of Maa. They maintain that in what they called a 'neuter' verb construction a state is expressed that is a person or object getting into a certain state without the help of an agent. In some instances, however, they point out that inchoative, neuter and stative verbs overlap in the meanings they denote. Canonical stative verb constructions do not permit argument alternation or causation processes. I examine some stative-like verbs that demonstrate argument alternation in Parakuyo in the discussion of the inchoative in section 6.4.

Table 17: Stative verbs

Example	Gloss	Example	Gloss
<i>edo</i>	It is red	<i>erok</i>	It is black
<i>eika</i>	It hangs	<i>enokie</i>	It is brown
<i>eborr</i>	She/he is polite	<i>enori</i>	It is green
<i>egoro</i>	He/she is angry	<i>irobi</i>	It is cold
<i>egira</i>	She/he is silent	<i>etoŋwa</i>	It is rot

Example	Gloss	Example	Gloss
<i>emoi</i>	She/he is sick	<i>emelok</i>	It is sweet
<i>eiborr</i>	It is white	<i>eʃal</i>	It is wet
<i>egol</i>	It is strong	<i>etaana</i>	It is near
<i>enana</i>	It is soft	<i>etwa</i>	It is dead
<i>emoi</i>	He/she is sick	<i>ebolo</i>	It is open
<i>irowua</i>	It is hot	<i>(era) sas</i>	It is thin
<i>epi</i>	It is sharp	<i>etoyio</i>	It is dry

Stative verbs are closely related to inchoativity because the same root can permit an inchoative suffix to denote the process of ‘becoming’ or to describe some change of state for example *eroku* ‘it will become black’. When an inchoative suffix changes the state denoted by the verb, the resultant-state state obtains for example *erok* ‘it is black’. Such stative forms are demonstrated in the table above. Thus, a combination of an inchoative suffix with stative verbs can allow the occurrence of an object for they are inflected for third person.

- (20) a. *e-pi enkalem*  
3-sharp knife  
The knife is sharp
- b. *e-pij-u enkalem*  
3-sharp-INCH knife  
The knife will become sharp

Although the Parakuyo examples in Table 16 require an object for a sentence to be complete, they can still yield the reading describe in the gloss column using the existential ‘it’ denoted by the third person prefix *e* or *i*.

### 2.6.3 Aspect in Parakuyo

In Parakuyo, aspectual properties in a clause are expressed by various strategies, namely verbal affixes, adverbials and lexical tone. From previous research studies, it is evident that Maa dialects are aspect dominant (see König 1993, Payne 1995, for relevant discussion on the Camus dialect). The aspectual properties of a clause in Maasai can be categorized as either perfective or imperfective. In other words, the situation of an event can be viewed as complete or incomplete. Therefore, in this study, these aspectual types will be referred to as perfective or imperfective.

The perfective aspect is expressed by the prefix *tV* in Class I verbs and a vowel suffix. The imperfective, on the other hand, is not associated with a specific morpheme, except for the imperfective suffixes *-i*, *-yu* and *-u*, which occur with a few verbs.

- (21)
- a. *e-pio-yu*      *Joni enkeene*  
3-make-IPFV John rope  
John will make a rope
- b. *e-re-u*      *Joni engarim ene*  
3-drive-IPFV John car      here  
John will drive his car to this place
- c. *e-ipirr-i*      *enkerai aaji*  
3-run-IPFV child house  
The child will run inside

In many cases, imperfective aspect, habitual in particular, has a zero morpheme encoding. Consider the following examples of Class I verbs.

- (22)
- a. *a-ta-lep-o*      *enkiteŋ*      (*perfective*)  
1SG-PFV-milk-PFV cow  
I milked the cow
- b. *a-lep*      *enkiteŋ*      (*imperfective*)  
3-milk cow  
I will milk the cow  
I milk the cow

For Class II verbs, the perfective aspect is expressed by the final vowel in the verb stem. This vowel can be either *a*, *o*, or *e*, or their (-ATR) counterparts *ɔ* and *ɛ*. From the data collected for the present study, the suffixes *yie* and *yio* are also employed as morphemes for encoding the perfective for verbs that end with *aa* and *ai*. In addition, a group of morphologically irregular verbs expresses the perfective aspect by suppletion, for example, *ee* ‘he will die’ *etwa* ‘he died’ (see Koopman 2001 for related discussion on the Kisongo dialect). Andrason and Karani (2017b) present pertinent discussion on aspect in Arusa.

- (23)
- a. *e-isuj-a*      *endasat emoti*  
3-wash-PFV woman pot  
The woman washed the pot

- b. *e-isuj endasat emoti*  
 3-wash woman pot  
 The woman will wash the pot  
 The woman washes the pot

The occurrence of a syntactic tone pattern (H and L) in aspectual differentiation is evident in Parakuyo with Class II verbs. The following examples demonstrate the occurrence of a high tone on the second syllable of the verbal root in encoding imperfective aspect, whereas a low tone on the same syllable encodes the perfective aspect.

- (24) a. *e-ilèp-ìe sirkale impesai e ncule*  
 3-raise-CAUS government money of school  
 ‘The government will raise the tuition fee’
- b. *e-ilèp-íe sirkale impesai e ncule*  
 3-raise-CAUS government money of school  
 ‘The government raised the tuition fee’

Tucker and Mpaayei (1955) and Payne (2012), among others, provide detailed discussions on tone patterns in Kenyan and Tanzanian Maa dialects.

## 2.7 Adjectives

Nominal modifiers are generally categorized by scholars in different word classes, adjective as a morphological type being one of them. Different types of adjectives can be identified depending on the semantic attributes an adjective expresses about the noun it modifies. Adjectives can express attributes related to size, shape, age, colour, origin, material, and quality, among others. In Parakuyo, adjectives permit prefixes for number whereas other features like number and gender are encoded in their premodifiers. Thus, the selection of the prefix depends on the semantic and morphosyntactic features of the head noun which is modified. It also depends on the structure of the clause, that is, whether the adjective modifies a clause or a noun phrase. A list of examples of singular and plural adjectives in Parakuyo is provided in Table 18.

Table 18: Adjectives

s/n	Singular	Plural	Gloss	s/n	Singular	Plural	Gloss
1	<i>ronkai</i>	<i>ronkeni</i>	thin	15	<i>moruo</i>	<i>moruak</i>	old
2	<i>sapuk</i>	<i>sapuki</i>	fat	16	<i>kiiŋi</i>	<i>kutiti</i>	small
3	<i>ruŋa</i>	<i>ruŋa</i>	thick	17	<i>ŋeriŋer</i>	<i>ŋeriŋeri</i>	young
4	<i>dapaŋ</i>	<i>dapaŋi</i>	wide	18	<i>botor</i>	<i>botoro</i>	old
5	<i>dukuŋ</i>	<i>dukuŋi</i>	short	19	<i>musana</i>	<i>musan</i>	old
6	<i>kiti</i>	<i>kutiti</i>	small	20	<i>ŋejuk</i>	<i>ŋejuko</i>	new
7	<i>kitok</i>	<i>kituak</i>	big	21	<i>bor</i>	<i>bora</i>	polite
8	<i>orok</i>	<i>oorok</i>	black	22	<i>bukoi</i>	<i>bukoin</i>	brown
9	<i>keri</i>	<i>keriin</i>	white spotted	23	<i>ŋokie</i>	<i>ŋokioo</i>	light complexion
10	<i>kuruoni</i>	<i>kuruoni</i>	silver	24	<i>buluu</i>	<i>buluuni</i>	blue
11	<i>do</i>	<i>oodo</i>	red	25	<i>sambu</i>	<i>sambui</i>	silver spotted
12	<i>sidai</i>	<i>sidan</i>	good	26	<i>torono</i>	<i>torok</i>	bad
13	<i>moda</i>	<i>oomoda</i>	foolish	27	<i>suuji</i>	<i>suuj</i>	useless man
14	<i>geem</i>	<i>ilmaima</i>	polite	28	<i>kuret</i>	<i>kureti</i>	coward

Adjectives in Parakuyo can be derived from other word classes, particularly from verbs and nouns. Evident from Parakuyo suggests that adjectives change depending on their number, gender and person features (Payne 1998). The rules that apply to the change of number (singular and plural), in particular, are not predictable. The adjective post-modifies the noun/pronoun in Parakuyo, as illustrated in the following examples.

- (25) a. *ε-ngaji na-ibor*  
3SG-house CON-white  
'A white house'
- b. *mkayiok sidan*  
boy.PL good  
'Good boys'
- c. *enkiteŋ sas*  
SG-cow skiny  
'A skiny cow'

However, when adjectives are used predicatively an adjective precedes the subject noun, as in the adjectival predicate *sas enkiteŋ* 'the cow is skinny'. In addition, an adjective can have a

gender prefix if it appears without a lexical head noun, as in *ɔlbotorr* ‘the old one’ (masculine) and *embotorr* ‘the old one’ (feminine).

## 2.8 Adverbials

In Parakuyo, adverbs can modify adjectives, verbs, other adverbs or a whole clause. Adverbs can denote degree, manner, time place and frequency. Different types of adverbs occur as adjuncts expressing more information about the action, event, situation or state denoted by the verb. Furthermore, adverbs modify actions denoted by the verb as to ‘when’, ‘where’, ‘how’, ‘to what’ extent and ‘how often’ the action or situation happens. Adverbs in Parakuyo can appear in various positions in a clause.

- (26)
- a. *elo yieyio aaŋ taisere*  
3-go my.mother home tomorrow  
Mymother will go home tomorrow
  - b. *elo yieyio taisere aaŋ*  
3-go my.mother tomorrow home  
My mother will go home tomorrow
  - c. *taisere e-lo yieyio aaŋ*  
Tomorrow 3-go my.mother home  
My mother will go gom tomorrow

They may occur in clause-initial, medial or final position. However, some adverbs may appear only after the verb they modify. These adverbs exhibit a fixed order in the verb construction, that is, they occur only in post-verbal position as, for examples, in *ekuet naleŋ* ‘he runs fast’, *eloito akiiji* ‘he is walking slowly’. In terms of word morphology, adverbs are a separate class of words and they are written independently following or preceding the constituents that they modify. Consider the Parakuyo adverbs illustrated in Table 19.

Table 19: Adverbs in Parakuyo

Time	Gloss	Place	Gloss	Manner	Gloss	Frequency	Gloss
<i>ade</i>	later	<i>ene</i>	here	<i>akijji</i>	slowly	<i>haahai</i>	often
<i>wuaade</i>	often	<i>ende</i>	there	<i>rreerree</i>	quickly	<i>aikata</i>	never
<i>tenakata</i>	now	<i>aatua</i>	inside	<i>sidai</i>	nicely	<i>kutwa</i>	always
<i>naaji</i>	now	<i>oorioŋ</i>	behind	<i>efipa</i>	happily	<i>wuade</i>	usually
<i>ofi</i>	usually	<i>boo</i>	outside	<i>egoro</i>	sadly	<i>nkatitin</i>	ocassionally
<i>dúó</i>	a while ago	<i>kop</i>	below	<i>sarrsarr</i>	quickly		
<i>ŋólé</i>	yesterday	<i>fumata</i>	above				
<i>naari</i>	few days ago	<i>bata</i>	side				
<i>apa</i>	past	<i>keperr</i>	above				

Other adverbials in Parakuyo denote the concept of degree, for example, *naley* ‘very, much’ *tukul* ‘completely’, *pooki* ‘all’ and *piu* ‘all’.

The evidence from Parakuyo suggests that many adverbs are noun stems that can occur with or without a preposition to express an adverbial function. When functioning as adverbials, these words do not permit gender prefixes in their morphology. These properties are particularly common with those nouns or adverbials that denote place or location.

## 2.9 Prepositions

Different types of prepositions can be distinguished in Parakuyo. The way prepositions are categorized in other language groups may not be relevant for Parakuyo for the reason that they have prepositions of different kinds. An example from Maa is the preposition *tV*, that can express time, place, association or dissociation of things, and even denote opposing concepts like ‘to/by’ and ‘from’. The preposition *tV* can introduce an agent, causer, or instrument argument in the event (more discussions from section 5.6.1 and 5.12.2). Therefore, the consonant *t* co-occurs with the agreement affix vowel that encodes number and gender (including allomorphs) depending on the properties of the prepositional element that follows. This suggests that the clausal context, that is other words that co-occur with the preposition are significant in determining the semantic function of a particular preposition. Payne (2011:277) points out that *te* can have various semantic functions. Factors related to the pragmatic context differentiate the semantic functions like instrumental, manner, locative, source, reason, motive, benefactive and malefactive. Hence, in Maa research studies this preposition has been called

the oblique *tɛ*, which has some allomorphs (Payne 2012). Harley et al. (2005) argue that *tV-* is the only true preposition in Maasai. However, the diagnostic tests on some clauses give evidence that other word categories with preposition-like meanings are employed as prepositions. Payne (2012) describes the associative preposition *o* that requires nominative case encoding on its DP complement. The following examples in (27) illustrate temporal prepositions in Parakuyo in the medial position. Prepositions can also occur in the initial position with the constituent they modify but with a topic reading.

- (27)
- a. *eewuo                    ɔlbasi ɛɣorr ekeɲu*  
3-come-PFV bus before dawn  
'The bus arrived before dawn'
  - b. *a-tu-un-o                    imbenek nakata peha*  
1SG-PFV-grow-PFV vegetable during rain  
'I grew vegetable during the rainy season'
  - c. *nakata pe-ha a-tu-un-o                    imbenek*  
when SUB-rain 1SG-PFV-grow-PFV vegetable  
In the rainy season, I grew vegetable

The following examples illustrate how the preposition *tV* changes the vowel depending on the word it introduces.

- (28) Preposition *tV*
- a. *ti-alo enkaji* at the house
  - b. *to olapa liare* in the month of February
  - c. *te nabokasi* on Monday

The rule for the vowel change is governed by  $\pm$ ATR vowel harmony. The front vowels, *e/ɛ* or *i/i*, co-occur with other front vowels or the central vowel *a*, whereas the back vowels can only co-occur with the back vowels, namely *o/ɔ* or *u/ʊ*.

#### *Prepositions denoting location*

- (29)
- a. *e-ifir-ita                    ɛnkerai tiatua enkaji*  
3-cry-PROG child inside house  
'The child is crying inside the house'

- b. *e-irura emburra te kop e emesa*  
 3-sleep cat at under of table  
 ‘The cat is laying under the table’

Many adverbials can function semantically similar to prepositions in Parakuyo clauses. Some of these adverbials include spatial prepositions, for example, *ti atua* ‘at in’, *fumata* ‘on, above’, *te sitendi* ‘at bus stop’, *alaj* ‘across’, *aman* ‘around’, *kurum* ‘behind’, *kop* ‘below’ ‘under’, ‘beneath’, *aabori* ‘down’, *aatua* ‘inside’, ‘underneath’ *keperr* ‘over’ and *oorioŋ* ‘outside’.

#### *Prepositions denoting direction*

- (30) *e-fomo əlpayian ngalo əlkejʊ*  
 3-go.PFV man towards river  
 ‘The man walked towards/down the river’

Some prepositions in Parakuyo occur in a combination, that is, two adjacent prepositions, as illustrated in the following example. The common combinations are *te fumata* ‘at up/above’, *te kop e* ‘of under of’, *ti atua* ‘at in’, among others.

- (31) *e-fet Mena enkaji te fumata əldoiŋo*  
 3-build Mena house at up the hill  
 ‘Mena will build the house up the hill’

Other adverbials for direction include *ngalo* ‘towards’ or ‘through’, *aatua* ‘into’, *alaj* ‘across’, *bata* ‘along’, *aalo* ‘by’, *aabori* ‘down’, *aalo* ‘near’, off, out, and *fumata* ‘up’. These interpretations or meanings of the prepositions above depend on the context in which an adverb occurs in a clause.

Prepositions can introduce the indirect agent or instrumental argument (depending on the lexical properties of the NP). In the following example, the subject argument is Larry, whereas the indirect agent *isikeri* ‘police’ is introduced by a preposition.

- (32) *e-igum Lari olapúrroni to isikeri*  
 3-catch Larry thief with police  
 ‘Larry will catch the thief by the help of the police’  
 ‘Larry asked the police to catch the culprit (for him)’

Prepositions can introduce nouns denoting that function as instruments, tools or means, for example, *to olbasi* ‘by bus’, *to olfunguo* ‘with key’ and *te empira* ‘with a rubber’, below *te* introduces an instrument.

- (33) *e-teena-a olidia te enkεene*  
 3-tie-PFV dog with rope  
 ‘He tied the dog with a rope’

Prepositional phrases occur in different positions in a clause, namely clause-initial, clause-medial and clause-final position. Some of these prepositional phrases in Parakuyo include *tenebo* ‘along with’, *to olbae*, *te nkaraki* ‘because of’, due to, *te dukuya* ‘in front of’, *te ewei* ‘in place of, among others.

Associative prepositions denote association of one element with another. They also denote possession or a belonging or ownership relationship among the arguments in a clause. The associative prepositions include, for example, *o*, *e*, and *IV (le/lo)*, as demonstrated in the following examples in (34).

- (34) a. *e-yey-i enkine e enkera*  
 3-slaughter-IMP goat of child  
 ‘The child’s goat will slaughtered’
- c. *etwa olvingoni lo olpayian*  
 3-die.PFV bull of man  
 ‘The man’s bull has died’
- d. *e-te-yier-ak-i inkiriŋ o layiok*  
 3-PFV-cook-DAT-IMP meat of boys  
 ‘The meat of the boys has been cooked’

The possessor and possessee can exchange positions with the reading remaining the same, or obtains an idiomatic meaning. This aspect is discussed further in section 5.4.

## 2.10 Conjunctions

Two types of coordination occur in Maasai, namely *o* and *n*-coordination. According to Caponigro (2003), the conjunction *o* coordinates phrases or non-clausal constituents while the *n*-conjunctions conjoin clauses. Caponigro (ibid) maintains that the conjunction *o* can join proper nouns, PPs, temporal adverbials and locatives.

- (35)
- a. *te mujini o te shule*  
'at town and at school'
  - b. *Maiko o Lari*  
'Michael and Larry'
  - c. *taata o taisere*  
'Today and tomorrow'
  - d. *te atua o te orioŋ*  
'at inside and at outside'  
'inside and outside'
  - e. *endito o enkerai*  
'the girl and the child'

In the current study, it is evident that the conjunction *o* can conjoin words from other word classes like demonstrative pronouns, as exemplified in (36).

- (36)
- a. *ene o ende*  
'Here and there'
  - b. *ena o ma*  
'This and that'

The *n*-connective coordinates clauses through prefixing of the consonant *n* and the vowel on the verb stem. Thus, when *n* is deleted from the verb-initial position of the conjoined clause, a simple clause results, for example in (37), *edumu ŋotoŋe* 'his mother will pick him up'. The prefixation of *n* to the verb makes the clause subordinate to the main clause; hence, such a clause cannot occur in isolation.

- (37)
- |  |                  |                |               |
|--|------------------|----------------|---------------|
| <i>e-tu-urori</i>                                | <i>enkayioni</i> | <i>ne-dumu</i> | <i>ŋotoŋe</i> |
| 3-PFV-fall down                                  | boy              | and-pick up    | his.mother    |
| 'The boy fell down and his mother picked him up' |                  |                |               |

Other conjunctions attested in Parakuyo, include *ore* (*pee*) 'if, when' *pee* 'so that, 'in order' *taa* 'and so' *anaa* 'or', *amu* 'because' *arahu* 'or' *naa* 'and' *ncere* 'that', *araki* 'or', and *taa* 'now that'. A sequence of two conjunctions can co-occur in a clause. In many cases, *ore*, *pee* and the *n*-connective are compatible, as exemplified in (38a). Because of a morphophonological processes, the morpheme *pee* changes the vowel when connected with

other words. This is evident in the verbal construction *pitum*, which in isolation should be written *pee itum*, as illustrated in (38b).

- (38) a. *ore pitum impesai ni-fet enkaji*  
 When pee(when)-get money ni-build house  
 When you get money, you build a house
- b. *emir papa enkorma pee e-ijanyu engarrim*  
 3-sell my.father farm so.that 3-buy car  
 My father will sell the farm so that he buys a car

The morpheme *pee* has different functions one of which is to introduce a subordinate clauses. Payne (2004) argues that ‘*peê* and Low tone’ has a wide array of functions, including a function as adverbial and complement clause. Payne (2004) presents a detailed discussion of various types of clauses in Maasai.

## 2.11 Ideophones

Ideophones are generally defined as expressions that depict sensory imagery, which can be experienced through the sensory organs or physical movements of the body and things around the speaker during the event (Nuckolls 2001, Schaefer 2001, Dingemanse 2011, 2012, 2013, 2014, 2015). It is argued in research studies that many ideophones describe qualitative or adverbial notions in respect to manner, colour, sound, smell, action, state and intensity (Doke 1935; Doke and Mofokend 1957; Roger 2010). In Parakuyo discourse-pragmatic context, a range of ideophones can occur to heighten the emotive qualities in narratives for the purpose of obtaining dramatic effect, for colourful description or for a lively communication. Speakers use ideophones in order to achieve the maximum rhetorical effect in the conversational discourse, as stated by Teilanyo (2001). The following examples demonstrate the semantic and syntactic properties of ideophones in Parakuyo.

- (39) a. *efaita faaa*  
 ‘it is raining ideo’  
 (The sound produced by heavy rain)
- b. *etoohe enkerai fuel*  
 she beat the child ideo  
 ‘She beat the child with a thin stick that sounds *fuel*’

- c. *maŋou cíc*  
NEG-smell ideo  
'I have nothing'

I propose that ideophones represent a separate word class in Parakuyo. Although some of the ideophone roots are verbal, adjectival and adverbial, they can also modify adjectives for denoting intensity, emphasis or degree of certain and quality purposes, for example, colour or intensity of the event (see Karani 2016 for an analysis of ideophones in the Arusa dialect). Consider Table 20 for examples of ideophones in Parakuyo.

Table 20: Examples of ideophones

Ideophone	Gloss	Ideophone	Gloss
<i>cíc</i>	nothing	<i>ailábláb</i>	drink like a dog
<i>píd</i>	jump	<i>efa paa</i>	heavy rain falling
<i>píal</i>	bright white	<i>agira tirrya</i>	complete silence
<i>táb</i>	to catch tightly	<i>aud tus</i>	sharp stab
<i>búss/bú</i>	fall down	<i>pau</i>	hitting something
<i>káŋ/káu</i>	completely dry	<i>erok yyuk</i>	bright black
<i>búrúbúru</i>	to roll down noisily	<i>ŋo</i>	nothing
<i>purkuf</i>	running sound	<i>kiriapif</i>	piercing sound
<i>puruk</i>	hooves sound	<i>kuik</i>	fattening sound
<i>faaa</i>	rain sound	<i>kumkum</i>	animal walking
<i>fankul/cambul</i>	dipping in water	<i>kururum</i>	crunching sound
<i>fuel</i>	stick beating	<i>ŋam</i>	fast motion
<i>huuu</i>	wind sound	<i>or or</i>	sound of braying
<i>paa</i>	sound made by rain		

Although ideophones in Maa have been documented as entries in Payne's (2010) online Maa dictionary, they have received limited attention in respect to thorough description of their linguistic properties. Their phonological, semantic, morphological and syntactic properties merit in-depth description and analysis. The data give evidence that ideophones have unique phonological and morphosyntactic properties. They occur independently as a word category and exhibit semantic functions across different word classes, namely N, V, Adj and Adv. Apart from being onomatopoeic, some ideophones are derivatives, – that is, they are derived from various other word categories, namely N, V, Adj and Adv. The analysis suggests that these expressions often occur as adverbials in a clause. When they occur in post-verbal position, they

function semantically as manner adverbials expressing how the event was done or how the noise produced during an event sounds like.

## 2.12 Interjections

Within discourse-pragmatic context, interjections represent a small group of words that express spontaneous feelings or reactions. These words occur as utterances on their own, for example, exclamations, greetings, curses, and gap fillers, which by their nature express a complete sense. An interjection can occur as an abrupt interruption or remark in a conversation. It does not relate grammatically to any other word in a clause. In Parakuyo, these words are written separately with or without an exclamation affix. The following table presents a number of interjections that occur in Parakuyo.

Table 21: Parakuyo interjections

Interjection	Meaning	Interjection	Meaning
<i>kwak</i>	expression of surprise	<i>fie</i>	show anger
<i>a'a</i>	no, disagreement	<i>amaa</i>	ask for attention
<i>oi</i>	surprise, or pain	<i>hai</i>	tire, wonderment
<i>epaεε</i>	of course, certainly	<i>esae</i>	amen
<i>ayia</i>	ok, alright, goodbye	<i>ee</i>	true, yes
<i>afe/ahe</i>	expression for thank you	<i>ata</i>	even
<i>kilome</i>	express sympathy	<i>yoope</i>	show surprise
<i>uufo</i>	express sympathy	<i>aif</i>	show sympathy
<i>ero</i>	a call for men	<i>kwak</i>	surprise for something bad
<i>sogo</i>	sympathy	<i>taa</i>	like that
<i>uui</i>	crying for help	<i>hɔɔ</i>	show attention
<i>he</i>	response to a person talking	<i>hoo taa</i>	well done, yes
<i>hɔɪ</i>	jeering	<i>hooyia</i>	agreement or yes so it is
<i>hoe</i>	agreement, song chorus	<i>iyiaa</i>	ask for repetition
<i>kuade</i>	express of sympathy, congrats	<i>ooe</i>	response of a call by men
<i>ooi</i>	express sympathy	<i>oi</i>	express a wish

## 2.13 Clause structure in Parakuyo

Previous research on Maasai word categories explored word categories identified in Maa dialects other than Parakuyo. This section reviews the salient morphosyntactic properties of such lexical and functional categories in Parakuyo. The word order in basic clauses in Parakuyo

is VSO. The verb occupies the clause-initial position followed by the subject argument while the object argument occurs adjacent to the subject argument in the clause-final position. Consider the following example sentences.

- (40)
- a. *e-fomo é-n-tito ε-η-kórma ηπε*  
 3-go.PF 3.SG-F-girl.NOM 3SG-F-field.ACC yesterday  
 ‘The girl went to the field yesterday’
- b. *ηπε e-fomo é-n-tito ε-η-kórma*  
 yesterday 3-go.PF 3.SG-F-girl.NOM 3SG-F-field.ACC  
 ‘The girl went to the field yesterday’
- c. *e-tu-tur-o ηπε éndàsat ε-η-kórma*  
 3-PFV-plough-PFV yesterday woman field  
 The woman ploughed her field yesterday

The position of the adverbial can vary in Parakuyo clauses, as illustrated in the b-example above. The adverbial may occur in clause-initial position, clause-final position or adjacent to the verb. Verbal affixes include inflectional prefixes for person and gender, aspect affixes and derivational affixes as discussed in section 2.5.1. These verbal affixes give rise to changes in argument realization and alternation in Parakuyo as discussed in Chapter Four, Five, and Six. Some clause elements with certain lexical-semantic verb classes cannot freely move within a clause in Maasai, compared to other languages like English and Xhosa (Hovav, 2014a & b; Levin, 1993, 2015a & b; Alexiadou, 2010; Du Plessis and Visser, 1992, Du Plessis 1978). Although Maasai is a VSO language it still allows a VOS word order as a marked clause structure, as illustrated in (41).

- (41) *e-fomo ε-η-kórma é-n-tito*  
 3-go.PF 3.SG-F-field.ACC 3.SG-F-girl.NOM  
 ‘The girl went to the field’

From the word order change, it is evident that the arguments of a transitive verb can alternate by means of case distinction using tone over the subject and object DPs.

A noun phrase (DP) can be topicalized in the clause by being fronted to the clause-initial position (left-periphery). For example, sentence (42) has the reading that the speaker emphasizes that it is in ‘the field’ where the girl went, and not somewhere else. As illustrated

in (38b) a SVO word order is also possible when the subject is left-dislocated. In such clauses, the subject gets a topic reading.

- (42) a.  $\varepsilon\text{-}\eta\text{-k\acute{o}rma}$        $e\text{-}\acute{s}omo$        $\varepsilon\text{-}n\text{-}\acute{t}\acute{i}to$   
 3.SG-F-field.ACC    3-go.PFV    3SG-F.girl.ACC  
 ‘It is in the field where the girl went’
- b.  $\acute{e}\text{-}ntito,$        $e\text{-}\acute{s}omo$        $\varepsilon\text{-}\eta\text{-k\acute{o}rma}$   
 3SG-F.girl    3-go.PFV    3.SG-F-field.ACC  
 ‘The girl, she went to the field’

The reader is referred to Chapter Four, Five and Six where different clause structures are examined in relation to the verbal arguments and modifications in the clausal argument structure.

## 2.14 Negation in Parakuyo

Negation in Parakuyo exhibits the common strategies obtaining among the Maa dialects. Two morphemes for negation occur, namely *mV* and *itu*. The negation morpheme *mV* occurs with a person vowel prefixed to the verb. Thus, the vowel varies depending on the person prefix in a construction. These negation morphemes can occur in isolation as free morphemes in non-connected speech. In most cases, however, they are prefixed to the verbs as enclitics. Furthermore, the morpheme *itu* occurs in the perfective aspect while the prefix *mV* encodes the imperfective aspect. The prefix *m* co-occurs with word stems of different categories but it can also occur in isolation, for example, when it negates a DP. In a verbal phrase, the prefix *m* permits the vowel of the person prefix. This prefix is compatible with almost all words categories, in the sense that it co-occurs with a verb, adverb, adjective noun as demonstrated in the following examples.

- (43) a.  $m\text{-}elo$      $\varepsilon n k \acute{i} t \acute{e} \eta$      $boo$   
 NEG-go cow    out  
 ‘The cow will not go outside’
- b.  $(m)me$      $\varepsilon n t i t o$      $i n a$   
 NEG girl that  
 ‘That is not a girl’

- c.     *me akiiji eewuo*  
           NEG slowly 3-come  
           He did not come slowly
- d.     *merok ina buku*  
           NEG-black that book  
           That book is not black

The negative morpheme *itu*, on the other hand, is restricted to predicates only. This means that its scope of negation spans the entire clause; hence, it negates the whole event denoted by the verb.

- (44) a.     *e-itu e-lo enkiteŋ boo*  
           3-NEG 3-go cow out  
           The cow did not go outside
- b.     *k-itu-e-lo enkiteŋ boo*  
           Q-NEG-3-go cow out  
           Didn't the cow go outside?

Therefore, Parakuyo, as is the case for other Maa dialects, employs only two negators for expressing negation, namely *itu* and *mV* for negating verbs in clauses.

## 2.15 Summary

This chapter presented a grammatical sketch of the Parakuyo dialect. Section 2.2 investigated the phonological and phonetic aspects of Parakuyo. An overview of the Parakuyo Phonological system, including consonants, vowels and syllable structures have been presented in section 2.2.1 and 2.2.3. Section 2.3 explored the Parakuyo nominal morphology, including number, gender and person affixes. In section 2.3.2, I discussed the various noun modifiers in Parakuyo. The verbal morphology analysed the derivational affixes that occur in different constructions. A detailed investigation of the verbal affixes is provided in Chapter Four, Five and Six. Other Parakuyo word classes, namely adjectives (section 2.7), adverbs (section 2.8), prepositions (section 2.9) have been investigated and their morphological and syntactic properties have been described. Additional word categories discussed are conjunctions in section 2.10, ideophones in section 2.11 and interjections in section 2.12. Compelling empirical evidence has been provided in research studies as evidence for viewing ideophones and interjections as distinct word categories. Furthermore, I described clause structure and clause modifications in section

2.13. Lastly, a brief description of negation strategies in Parakuyo has been provided in section 2.14.

## **CHAPTER THREE**

### **THEORETICAL PERSPECTIVES OF THE STUDY AND KEY ELEMENTS OF MAASAI GRAMMAR**

#### **3.1 Introduction**

This chapter first presents a review of research on the Maasai dialects spoken in Kenya and Tanzania. Section 3.2 explores the studies on the Standard Maasai, the Kenyan dialects and the dialects spoken in Northern Tanzania. Section 3.4 examines the theoretical framework and perspectives adopted in the current study for the description and analysis of the Parakuyo data. The theoretical approaches discussed briefly include perspectives from Minimalist Syntax (Chomsky 1995; Boeckx 2008, 2010; Carnie 2013), Distributed Morphology (Halle and Marantz 1993, 1994; Arad 2003, 2005; Embick 2010), Cartography (Rizzi 1997, Cinque 1999) and ‘little’ v theory and Voice theory (Kratzer 1996; Alexiadou et al. 2015, among many others). Issues relating to verb classifications, argument structure and affix combinations are also explored. The following section introduces the reader to the grammar of Maasai language that previous scholars have investigated.

#### **3.2 Elements of Maasai grammatical structure**

The most comprehensive study available for the Maasai language is the Maasai grammar by Tucker and Mpaayei (1955). This grammar constitutes a detailed description of core aspects of the Maasai grammar. The three main sections in this grammar relate to (i) the word categories nouns, adjectives and pronouns; (ii) the verbal system, and (iii) notes on tonal grammar respectively. This study on Maasai grammar investigates the core properties in each area from a descriptive perspective. The data for this study were collected from Maa dialects in Kenya; hence, it is arguably inclusive for the Kenyan Maa varieties, but less specific to the Tanzanian Maa variants. As pointed out above, these Maa dialects are mutually intelligible; given the similarity in their lexical, phonological, morphological and syntactic properties.

The differences among the Maa dialects that are commonly observed by linguists relate to the lexicon (vocabulary) and phonology, especially to some sounds and tone pattern differences across the dialects (see Chapter One for details on the Maa dialects). Vocabulary and unique sounds among the dialects generally seem to be familiar to speakers of other dialects but the

preferences of speakers from some dialects differ. Speakers generally understand most of the vocabulary from another dialect but they prefer not to use them in their conversations. In some cases, language contact can influence a speaker from a particular dialect, resulting in his/her speech having features that are unique to another dialect and not his own dialect. Sometimes socio-economic reasons may motivate a speaker from a different dialect to speak the dialect of the other interlocutor in the desire to show close social bonds and conviviality.

The Maasai verbal system of affixes is of central importance in the current study for it presents the foundation of the verbal system of the Standard Maasai grammar, which is evident in the Parakuyo grammar as well. This study examines a range of aspects of the Parakuyo language, with a specific focus on the semantic and syntactic properties of different verbal suffixes. These properties relate to the effect of the verbal affixes on argument structure and argument alternation. In exploring these verbal affixes, theoretical perspectives on the functional head projections are invoked in examining the status of the external and internal arguments in the various constructions. In the following section, I review the Parakuyo verbal suffixes and identify the focus in the three core analysis chapters (Chapters Four, Five and Six) of the study. The discussion in this section is limited to a review of aspects of the verbal suffixes and argument realization in Maasai.

### **3.2.1 The effect of verbal affixes on argument structure of predicates**

Tucker and Mpaayei analysed and discussed the properties of the morphological verb classes in Maasai and the suffixes that are permissible in the grammar. The verbal affixes correlate with properties of argument structure analysis in the sense that the verbal morphemes determine in arguments realization. Some affixes reduce arguments in the clause structure while others increase the number of arguments in the clause. Most of the Parakuyo verbal derivational morphemes are suffixes. Dimmendaal (2008) argues that verbal derivation in Nilotic languages characteristically involves suffixation processes; pointing out that causative is the only prefix in the entire derivational process.

Tucker and Mpaayei investigated the verbal system in Maasai with reference to a number of verbal derivational affixes. As mentioned above, the causative *itV* is the only verbal prefix, and the other affixes are suffixes. The linear order of these suffixes are dative, motion away (MA), motion towards (MT), inceptive, neuter, instrumental and passive. Tucker and Mpaayei (1955)

labelled the inchoatives as inceptive, and the reciprocal suffix as a neuter suffix. Thus, they did not draw sufficient distinction between some Maa verbal suffixes. Their grammar lacks an in-depth description of the antipassive, middle and reflexive. In this study, the semantic and morphological properties of these verbal constructions are analysed by employing generative linguistic theories and perspectives. The Maasai verbal suffixes that Tucker and Mpaayei (1955) argue to be neuter, namely *a/o* for present, *e/ε* for past, actually occur as stative and middle suffixes, respectively, as argued later in this study. In addition, these vowels also occur in a range of other functions such as in aspectual types (perfective and imperfective) and in reciprocal verb constructions. Therefore, to describe them as morphemes that fulfil a certain function, the appropriate linguistic environment needs to be identified when they occur in verbs.

In the descriptive grammar by Tucker and Mpaayei (1955), the combinations of affixes have not been comprehensively examined, especially the homophonous affixes that appear in different constructions. Some of the suffixes that require clear distinction are, for example, *-u* that can function as an inchoative and as a motion towards suffix with different verb classes, and the suffix *-je*, that functions as an instrumental and a neuter suffix. There need to be variation of the types of verbs with which these suffixes occur. With some verbs, both suffixes can co-occur and the speaker must interpret the lexical properties of the verb to obtain the appropriate interpretation. Consider the following examples.

- (1) a. *e-pir-u-je*            *enkiteŋ ilpaek*  
 3-fat-INCH-INST cow    maize  
 ‘The cow will become fat by eating maize’
- b. *e-tur-u-je*            *ɔlpayian ɔlkembe karot*  
 3-cultivate-MT-INST man    hoe    carrot  
 ‘The man will cultivate carrots with a hoe’
- c. *e-fol-u-je*            *ɔlpayian eilata emoti*  
 3-melt-INCH-INST man    fat    pot  
 ‘The man will make fat in a saucepan’

In Maa varieties, the unmarked word order is VSO, with some marked options for focus and topicalization. In a basic clause, arguments, whether subject or object, always follow verbs. The distinction of the subject argument from the object argument is done by case encoding. Given that Maa dialects are marked-nominative languages, nominative case is encoded by high tone in Parakuyo. The subject argument is identified by marking nominative case while the

object argument occurs as accusative since all NPs occur as accusative by default. Therefore, case distinctions are morphologically encoded by only tone.

- (2) a. *e-ok énkiteŋ enkáre*  
 3-drink cow.NOM water.ACC  
 The cow will drink water

Chomsky (1981), Kuiper and Nokes (2014:198) among others maintain that generative theory holds that all nominal expressions must have case, even in languages where case is not encoded morphologically, but by word order. Blake (2004) presents a comprehensive analysis of case systems in various languages of the world. Morphological realization of case refers to the inflectional affix that expresses the relationship of a noun to a verb in the clause. It can also express the relationship of a noun phrase to a preposition, postposition or another noun at the phrase level. Some languages distinguish different cases, using case morphemes or case forms. Case morphemes are affixes, and case forms are certain forms of complete words expressing a particular case. In the default relation, the nominative represents the subject and the accusative indicates the object/oblique in some languages. However, in other languages (Turkish) nominative case does not always express the subject but rather a non-specific direct object of a transitive verb (Blake 2004).

In the analysis of verbal affixes, Tucker and Mpaayei (1955) and Levergood (1987) consider the suffix *-ifo* as an intransitive morpheme, instead of an antipassive suffix. This is perhaps because not enough literature was available crosslinguistically on the antipassive construction at the time they conducted their study. In addition, the antipassive is prominent in ergative languages; hence, it would seem unlikely to analyse it in Maa varieties, which are nominative case marked by classification. Subsequently, different researchers studied the antipassive in Maa, in regard to various properties, confirming that this suffix does occur in Nilotic languages (Rasmussen 2002, Lamoureaux 2004, Payne and Olsen 2009, Payne 2011, Karani 2013, Schröder 2006, 2015). It is an intransitivizing suffix because it makes a transitive verb intransitive. Thus, it has an impact on the number of arguments in a clause. It reduces the arguments of the verb by suppressing the object argument. The focus in an antipassive construction is the agent or causer. Thus, transitive verb constructions that require the subject and the object argument delete the latter, and do not even permit it as an optional adjunct.

- (3) a. *e-ite-ŋenifo*                      *ɔlmalimui*  
 3-CAUS-learn-APAS teacher  
 ‘The teacher is teaching’
- b.    *\*e-ite-ŋenifo*                      *ɔlmalimui inkera*  
 3-CAUS-learn-APAS teacher children  
 Int: ‘The teacher is teaching children’

In total, eleven affixes realize different verbal extensions in the Parakuyo dialect, as generally for all Maa dialects. In the present study, these affixes are grouped into three categories in relation to their effect on argument structure, with a particular focus on the external argument and the functional categories that can be projected in such constructions. These groupings are (i) argument introducing affixes, (ii) external argument suppressing suffixes and (iii) suffixes not suppressing the external argument but affecting the internal argument. Hence, I propose this grouping of the various affixes of the Parakuyo verbs with the external argument at the centre of the investigation of sentence constructions conducted in chapters Four, Five and Six of this study.

### 3.3 The Parakuyo dialect and the research gap

In Chapter One, it was stated that three dialects are spoken in Tanzania, namely Arusa, Kisongo and Parakuyo. Parakuyo is distinct in terms of vocabulary, and phonology, that is, some sounds and tone patterns. However, the general properties of grammar are similar, hence most of these Maa variants are mutually intelligible. A speaker of one dialect can tell the difference between these dialects simply by listening to them. The linguistic documentation or literary text available on the Parakuyo dialect is very sparse. This study aims at systematically exploring key areas of the verbal system of this dialect for the benefit of researchers and linguists and the Parakuyo language community. The study also aims to contribute to archiving the data and grammar of the dialect for future research. In the theoretical dimension, the study employs different perspective within generative linguistics in the analysis of core aspects of Parakuyo. Some of these perspectives are invoked for the first time in research on the Nilotic varieties.

### 3.4 Theoretical framework of study

The review of previous research focuses on previous studies on Maasai dialects conducted by various scholars. The specific studies on Maasai and the related varieties reviewed in section

3.2 present insights and critiques on aspects of linguistic study already conducted on Maasai dialects. The theoretical perspectives assumed in the present study inform the detailed description of particular Parakuyo syntactic categories and the associated properties of argument structure. A syntactic category in this context refers to a set of words and/or phrases in a language, which shares a significant number of common features or characteristics (Rauh 2010; Carnie 2013, among others). In the current study, the investigation of the verbal and functional categories assumes the Minimalist Syntax and the Cartography approaches (Chomsky, 1995; Rauh, 2010; van Gelderen, 2013; Reinhart, 2000; Grimshaw, 1982; Hale and Keyser, 1993; Hornstein et al., 2005). Boeckx (2010:493), among others, states that linguistic minimalism is a programme in development rather than a fully developed theory. In addition, where required for analysis, relevant insights from the perspectives of languages typology studies are taken into account in the investigation.

### **3.4.1 Minimalist Syntax**

Minimalist Syntax is a research program initiated by Chomsky (1993, 1995). The programme was developed as the most recent version of the core framework of the linguistic theory underlying the study of natural language within the generative enterprise (Chomsky 1995, Boeckx 2008). Hornstein et al. (2005) argue that research in linguistics and cognitive sciences in the last five decades aimed to establish Universal Grammar (UG), particularly the explanation of the language competence that the child attains with the insufficient primary linguistic data described as poverty of the linguistic stimulus. Universal Grammar relates to the role played by a biologically endowed component and ability that is displayed by human beings during the production and understanding of language. In the process of learning a language, UG selects the right parameters for a specific language in the Language Faculty (LF) of the learner. Chomsky (1995, 2001) posited a biological perspective of language learning as the basis for the development of a plausible linguistic minimalism to his recent research (Boeckx 2008, 2010).

Extensive research has been conducted by linguists within the framework of Principles and Parameters theory on different languages. Roberts (2005) and Roberts and Holmberg (2005) discussed a number of parameters that tend to engage linguists since the inception of generative linguistics from the 1960's to date. They give proposals on how principles and parameters can be framed better relating to the challenges posed in the course of determining the most precise,

universal parameters. The list parameters include the head parameter (Stowell 1981, Huang 1982, Koopman 1984, Travis 1984), the null subject parameter (Rizzi 1982), the parametric cluster, the subject inversion parameter, the complementizer-trace parameter, (Gilligan 1987, Newmeyer 2005), the null topic parameter (Huang 1984), the Wh-movement parameter (Huang 1982), the multiple Wh-movement parameter, the non-configurationality parameter (Hale 1983), the polysynthesis parameter (Baker 1996), and the nominal mapping parameter (Chiechia 1998), among others. The minimalist programme developed from the theory of Principles and Parameters. In regard to these theoretical perspectives, it is emphasized that the Minimalism Programme is a mode of investigation and not a full theory; hence, broad questions are addressed based on the guidelines that allow researchers to postulate ideas from different perspectives. The Principles and Parameters theory, which developed from Government and Binding (GB) theory provided the foundation for the Minimalist Syntax (Hornstein et al. 2005).

This study is in a central way concerned with the thematic structure of arguments and predicates. In argument structure in various constructions, arguments are labelled with the respective theta roles. Within Government and Binding Theory, (the initial model of grammar presented within the later Principles and Parameters theory) features and configurations of syntactic categories were posited. The GB theory evolved from the conceptual and empirical questions that were asked by Chomsky (1980) on the notion of government and binding. In this approach, like in earlier versions of generative syntax, the clause structure of natural languages is organized at two levels, namely Surface, S-Structure and Deep, D-Structure. The structures associated with these syntactic levels were constrained by the principles and mechanisms of several distinct but interrelated sub-modules of the grammar, namely X-bar Theory, Theta Theory, Case Theory, Binding Theory, Bounding Theory, Control Theory and Government Theory (see Chomsky 1995; Hornstein et al. 2005; Rauh 2010, among others, for discussion).

Government and Binding theory introduced the theta criterion that governs the relationship between the syntactic arguments structure and their predicates. This principle states that in any grammatical clause, each argument must be assigned to one theta role and each theta role must be realized by one argument (Chomsky 1981, Baker 1985). The GB Theory assumes that the anaphors include reflexive and reciprocal pronouns that refer to the antecedents in the same clause. In other words, the difference between reflexive and reciprocal in the GB anaphors in terms of binding principles is unclear. Nevertheless, Chomsky acknowledges their morphological differences in English but he emphasized the similarities instead (Everaert

2000). In this study, some aspects of GB will be employed especially in reflexive and reciprocal constructions where pronouns function as anaphors. Generative researches that employed the GB theory were faced with several empirical and conceptual problems. Consequently, the Minimalist Syntax programme was developed from the early 1990s onwards in an attempt to overcome the shortcomings of GB theory.

### **3.4.3 The Cartography approach**

Cartography is a syntactic research program that developed from the Principles and Parameters framework (Shlonsky 2010). This approach focuses on mapping specific syntactic configurations, particularly functional categories, their properties, like order, content and number (Rizzi 2008). Whereas Minimalist Syntax is heavily concerned with investigating the nature of uninterpretable features (Carstens 2000), Cartography is concerned with the account of interpretable features. Scholars such as Pollock (1989), Rizzi (1997), Cinque (1999) postulated the Cartography approach to complement Minimalist Syntax, and other generative syntactic theories. The first proposal towards Cartography was put forward by Pollock (1989) through the splitting of the I(nflection) category into two separate categories, namely Agreement and Tense. Later Rizzi (1997:288) proposed the splitting (or decomposition) of the category C(omplementizer) into the four distinct categories of Force, Topic, Focus and Finite. In further developments, Cinque (1999) proposed the split of the categories Mood, Mod(al), Asp(ect), and T(ense) into syntactically distinct categories following Abney (1987) ideas developed further in Cinque (2006) Cinque and Rizzi (2008), Shlonsky (2010), and Rauh (2010), among many others.

Shlonsky (2010) discussed the tension between the impoverished structures of Minimalist Syntax and the richness of Cartographic representation, with the latter having been successfully utilized in investigating specific issues in European and African languages. As noted above, Rizzi (1997:288) proposed Force as one of the categories into which the C is split, where Force is taken to indicate, for example, notions such as interrogative and indicative moods.

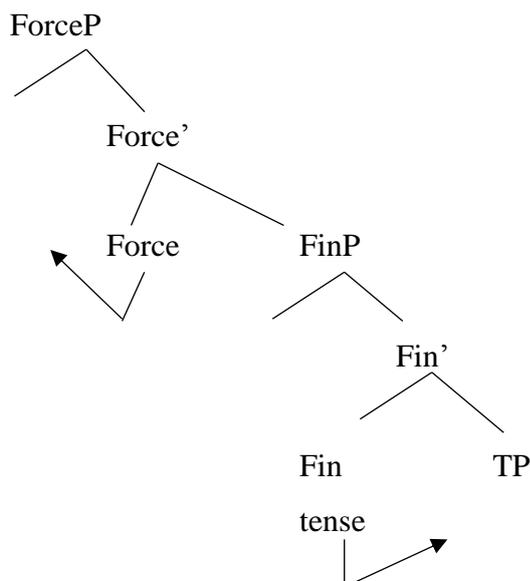


Figure 2: Splitting the CP

This approach of assigning each category a precise position is adopted in later works and has been argued to be suitable for the analysis of African languages as well (van Gelderen 2013; Rauh 2010:125). The Cartography programme invokes prolific features of functional heads for particular languages. In African languages, categories need to be investigated in more depth in order to determine their interpretable features (Carstens 1997, 2000, 2011). The view advanced in Cartography is that each interpretable syntactic feature should project a unique head (Shlonsky (2010: 424, Ramchand and Svenonius 2013). Within the lexicalist approach, the extension of functional category heads originates from the lexical categories of the language whereas in Cartography and other related frameworks such as Distributed Morphology, functional projections are generally realized by derivational affixes or the inflectional morphology of other dependent elements such as determiners in DPs and inflectional elements in Inflection Phrases (IPs) (Lusekelo to appear, Cinque and Rizzi 2008).

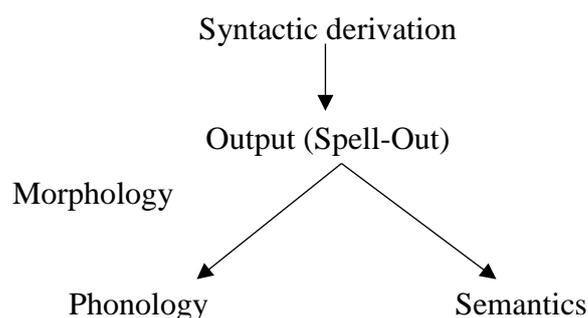
Cartography makes the distinction of the configurations related to the nodes between Force and Finite, which are slots for the pragmatic representations, namely Topic and Focus including adverbials, which essentially represent mood and modality in a clause (Rizzi 1997, van Gelderen, 2013:122). This approach is suitable for investigating and describing the rich morphosyntax of African languages (including Parakuyo) and their information structural properties. Therefore, in considering syntactic categories of Parakuyo, the Cartography approach will be employed to complement other perspectives of generative syntax, particularly in representing Topic and Focus projections, in order to identify the categories of words and

their functions. Account must be taken of the position they occupy in the clause and the formal features that identify them in the lexicon. Rauh (2010:136) and Larson (1988) argue that the relationship between the order of functional categories and that of related inflectional affixes, and their representation as formal morphosyntactic features, are important in the analysis of categories. For a comprehensive analysis of morphemes and their syntactic functions in Parakuyo, theoretical perspectives from Distributed Morphology, the ‘little’ v perspectives and Voice hypothesis are viewed as pertinent to the present study.

### 3.4.4 The theory of Distributed Morphology

The theory of Distributed Morphology (DM) was postulated in the early 1990s by Halle and Marantz (1993, 1994) as a theory of morphology in grammar. This theory is based on three fundamental properties, namely *Late insertion*, *Underspecification* and *Syntactic Hierarchical Structure All the Way Down*. According to Halle and Marantz (1993, 1994), Late Insertion is realized in the sense that the pieces, that is, functional morphemes, operated by the syntax are abstract, lacking phonological content. The pairing of phonological features with the terminal nodes of the syntax (vocabulary insertion or exponence) happens after the syntax, in the mapping from syntax to Phonological Form (PF). This describes a broad range of proposed hypotheses on the interfaces of the components of grammar, namely syntax, morphology and phonology. Consider the following representation of this architecture in (4).

(4) Architecture by Halle and Marantz (1993, 1994)



*Underspecification* of vocabulary items refers to the mismatches between the abstract nodes of the first list and the nodes that are spelled out by Vocabulary Items; hence, that the correspondence between the lists is not one to one, as postulated by Halle and Marantz 1993, 1994; and Matushansky and Marantz (2013). *Syntax Hierarchical Structure All the Way Down* means that the terminal nodes into which Vocabulary Items are inserted are organized into

hierarchical structures. Such structures are determined by the operations and principles of the syntax (Halle and Marantz 1993, 1994). The primary mode of meaningful composition in the grammar, both above and below the word-level, is the syntax (Bobaljik in Press). Syntax operates on sub-word units and thus word-formation is syntactic (Halle and Marantz 1993, 1994; Embick and Noyer 2007; Matushansky and Marantz 2013, Bobaljik in Press, and references therein). A subset of the lexicon contains features, interpretable and uninterpretable, and category-neutral lexical roots that have to be computed. The specification of structural features is done by the generative syntax operations Move and Merge. By employing this theoretical perspective, the interdependence and combinations of verbal roots and derivational affixes in Parakuyo will be accounted in this framework.

The Distributed Morphology (DM) framework is postulated as a syntactic approach to morphology which focuses on the properties attributed to lexical listings (categorization such as an argument structure) which are abridged to mechanisms of the computational system (Anagnostopoulou & Samioti 2014:84). The view in Distributed Morphology approach is that roots by definition are acategorical; hence, they bear little similarities to the members of the traditional lexical categories (Embick 2012). Other scholars argue that roots are listed as lexical items with some phonological features that provide a clue about their categorial properties (Borer 2003, 2005, 2013). Embick (2012, 2015) argues that affixes are also listed as vocabulary items in Distributed Morphology but are subject to late insertion and they are considered as *category-defining* heads.

In terms of Distributed Morphology, the distinction between lexical and syntactic word formation is fluid. In the modification of earlier Distributed Morphology perspective of abstract and concrete morphemes posited by Halle (1992), basic kinds of morphemes were introduced by Harley & Noyer (1998). These morphemes are referred to as f-morphemes and l-morphemes reflect the traditional categorization of morphemes, as functional and lexical morphemes respectively. Subsequently, in the further development of the theory various alternative views were advanced by Halle and Marantz (1993, 1994); Marantz (2001, 2007; Arad (2003, 2005) and Embick (2010), among others. From these studies, the core tenet of Distributed Morphology emerged, namely the use of roots and functional morphemes in the word formation processes. Through the compatibility of Distributed Morphology to Voice theory, these two theories complement each other. However, differences occur to thematic roles between Distributed Morphology (as proposed by Hale & Keyser 1993, 1998, and Harley 1995)

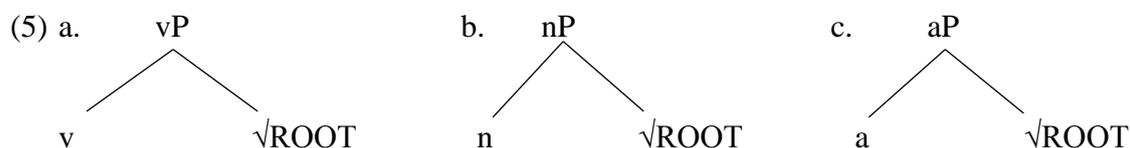
and Voice theory (see Kratzer 1996, Alexiadou 2013, among others). The later developments culminated in the postulation of functional morphemes as categorizing heads, that is, the ‘little’ *v* that categorizes roots, whereas the Voice head introduces the external argument and aspectual elements, among others (Alexiadou et al 2015, Alexiadou and Lohndal 2017, D’Alessandro et al. 2017). The discrete properties of the ‘little’ *v* functions of categorizing roots are discussed in section 3.4.3.

The core of Distributed Morphology states that the principles of morphology are largely the principles of syntax. The syntactic structures are the same morphological structures that are realised at Phonetic Form (PF) level in Minimalism. In addition, the formation of words in the Distributed Morphology perspective occurs through syntactic operations, namely merge and move. The two types of morphemes (the units that undergo syntactic operations), that is, the roots and *f*-morphemes join to form a functional category, in other words, a grammatical category (Embick and Noyer 2007, Marantz 2009b, Embick 2010). Therefore, in order to project a verb phrase, the verbal root combines with a categorizing head. These operations suggest that roots have no grammatical category. Another key feature in Distributed Morphology is the notion of syntax bringing together abstract feature bundles that would otherwise be provided by phonological exponents post-syntactically. This process of linking the competing phonological information to the morpho-syntactic features is known as late insertion (Alexiadou et al. 2015:12).

The Distributed Morphology theory views the external argument differently from the lexical approach that assumes that the external argument is introduced by the root. This assumption was criticized later in research within the Distributed Morphology approach. In Distributed Morphology, the grammatical categories, namely verb, nouns and adjective are operated on the root level using the morphosyntactic features to derive syntactic structures. The idea that the external argument is introduced by the functional category Voice has been the core issue in DM. The emphasis was on the view that the functional heads, morphemes or small clause constructions introduce arguments in the clause. In addition, internal arguments are also licensed via morphemes/prepositions/functional heads/small clauses.

Concisely, as abridged by Pitteroff (2015), the Distributed Morphology framework assumes that the syntax operates with category-neutral roots. The root is assigned a category by the syntactic context that they occur. For a root to be realized as a category verb, it has to appear

in a verbal environment, labelled ‘little’ *v*. Likewise the nominal or the adverbial element categorizes the roots as noun phrases or adverbial phrases as represented by *nP* and *aP* respectively. Consider the architectural representations in (2) (Halle and Marantz 1993, Marantz 1997).



This analysis is the rationale for the argument that ‘little’ *v* is a verbalizer. This led to Embick and Noyer (2007:296) to postulate that roots are categorized by combining with category-defining functional heads, thus roots cannot appear without being categorized. This study posits that in Parakuyo, affix order is analysed in relation to the argument realization. In Distributed Morphology, the assumption is that the hierarchical position in the syntactic structure and some post-syntactic operations help to determine the linear order of morphemes. Thus, Distributed Morphology and the Mirror principle are pertinent in the discussion of affix order in Parakuyo verb constructions.

### 3.4.5 ‘Little’ *v* and Voice

#### 3.4.5.1 Perspectives from previous research on ‘little’ *v*

Research on ‘little’ *v* has been prominent in the syntax of the verbal domain over the past decade. The proposals about the nature of ‘little’ *v* were explored because of the need to extend the decomposition of the verbal constructions, which seem to be intricate in nature. The approach of a layered *V* for a two-place verb introduced by Larson (1988) generated additional proposals to have more heads in the *V* domain, albeit in different forms. Hale and Keyser’s (1993) subsequent works supported the possibility of the occurrence of the ‘little’ *v* in unaccusative and unergative verb clauses. Chomsky (1995) proposed the ‘little’ *v* projection by introducing it as a head in the verbal complex. Subsequently, this view was refined by Kratzer (1996) who presented the core argument that *v/Voice* is the head that has an external argument of the predicate as its specifier. Harley (1995) and Marantz (1997), among others, linked the proposal of ‘little’ *v* to the theory of Distributed Morphology in the sense that ‘little’ *v* functions as a ‘verbalizer’ among other functions. In other words, the main function of the verbalizer is to categorize a root as a verb.

Pylkkanen (2002, 2008) argued for the same view, that is, that various functional heads can be projected from the verbal domain. In addition, the function of ‘little’ v is also considered as the locus of structural representations for middles, anticausatives, and impersonals, as argued by Alexiadou and Anagnostopoulou (2004), Alexiadou et al. (2006), D’Alessandro (2004), Schäfer (2007), and subsequent research). Ramchand (2008) contributed to the debate positing that ‘little’ v carries aspectual or aktionsart functions in the verbal domain. Therefore, these developments in research eventually established that the ‘little’ v and Voice are distinct functional heads unlike the earlier approach by Chomsky (1995) and Marantz (1997) that considered ‘little’ v and Voice as the same head. Thus, the functional layer categories in the decomposition of verb constructions developed as a prominent approach in linguistics in recent years. Scholars developed the approach in different studies (Hale and Keyser 1993, 2002; Borer 2005; Marantz 1984, 1997, 2005, 2007; Ramchand 2008, 2013; Lohndal 2014; Alexiadou et al. 2004, 2006, 2013, 2014, 2015; Alexiadou 2010, 2012, 2014; D’Alessandro et al. 2017).

The concept of ‘little’ v in causative constructions is related to the Voice hypothesis and the issue of the external argument realization. Alexiadou and Lohndal (2017) devised a scale for demonstrating the division of labour between the roots and the functional morphemes that categorize the roots in three languages Greek, English and Hebrew. They argue that the status, roles and the semantic properties of roots vary in these three languages. Their findings suggest that Hebrew depends on the functional morphemes for roots categorization whereas roots in English have inherent ontological content that categorizes them. They argue that ‘little’ v be considered distinct from Voice, the functional projection above ‘little’ v that introduces an external argument for the reason that ‘little’ v assumes other crucial functions like introducing the functional morpheme that helps to determine root semantics, in for example in Greek and functions as a verbalizer in English (Alexiadou and Lohndal 2017:102).

In causative-inchoative alternations, ‘little’ v introduces transitivity and causative features (Wurmbrand and Shimamura 2017, Pitteroff 2014, Pitteroff and Alexiadou 2012). It relates to transitivity in the sense that the verbalizer ‘little’ v introduces the internal argument, hence it makes the root transitive, as in the case of causative or other transitive constructions. Although the ‘little’ v hypothesis has variations in verb constructions representation, it has been criticized by some scholars, like Horvath and Siloni (2002) who argue against the ‘little’ v using evidence from idioms in their arguments opposing Kratzer’s proposals. Different studies in African

linguistics have employed ‘little’ *v* framework in examining the lexical-semantic, aspectual event types and syntactic properties in causative and anticausative verb constructions. The studies by Mallya (2016) and Fernando (2017) investigated causative and anticausative alternations by invoking a decomposition approach to the analysis in Kiwoso and Kikongo languages, respectively, using various combinations of Voice, *v*CAUS and Root nodes.

### 3.4.5.2 The Voice hypothesis

The proponents of the term Voice drew it from Greek, where its original meaning is diathesis. The term has been invoked in the study of certain argument alternation possibilities that the verb root demonstrates through combinations of suffixes, as advanced in Distributed Morphology by Marantz (1997) and subsequent studies. Voice is considered a morphosyntactic property of the verb (Doron 2013). Marantz (1984, 1997) and subsequent works proposed that the external argument does not originate from the verb but rather from the functional layers of the verb. The core debate is concerned with the question of how Voice can be employed to represent the argument alternations from active to middle and passive, among others, in different languages (see discussion in Alexiadou et al. 2014; Doron 2003, Alexiadou & Doron 2012, Alexiadou, Anagnostopoulou & Schäfer 2015, 2013; and Spathas, Alexiadou & Schäfer 2015).

Kratzer (1996), building on Marantz (1984), proposed an alternative view on analysing the verbalizing morphology, namely through utilizing functional head projections. In the development of the standpoint that the external argument is not an argument of the verb, Chomsky (1995) offered the label ‘little’ *v* to represent the head that introduces an external argument. This was the initial stage of viewing the morphology that introduces the external argument. Since the external argument is base-generated, it occupies the specifier position of VoiceP. However, this perspective differs from that of Marantz (1997) on the verbalizing *v*P (Harley 2013). Distributed Morphology is compatible with the ‘little’ *v* analysis in the sense that the tenet of the Distributed Morphology theory is that roots are assigned category labels after merging with functional heads. As mentioned above, in Minimalist Syntax a Voice-like projection emanates from a verbal projection in terms of Chomsky’s (1995) postulation of ‘little’ *v* in a verbal complex which was later developed in the views of Distributed Morphology. Collins (2005) maintains that Voice is a head that attracts a portion of the verbal

domain, for formal reasons. Recent studies generally emphasize that the light *v* and Voice are separate heads altogether (Pylkkanen 2008, Alexiadou *et al.* 2015 and Loutfi 2017).

Different approaches have been proposed in research on how to present Voice heads. In general, the view for different VoiceP heads, is that VoiceP is syntactically situated within the verbal Spell-Out domain (Coon and Preminger 2010, Coon et al. 2011), and (just) outside of the semantic domain of the lexical predicate (Collins 2005, Gehrke and Grillo 2009, Harley 2009, 2010, 2013; Cuervo 2003, Merchant 2008). Harley (2013) argues that postulation of this Voice theory resulted in two substructures: one that represents the external argument, and the other for the internal argument. The functional head projection, *v*P, introduces the external argument under its specifier whereas the lexical VP or *v*P introduces the internal argument.

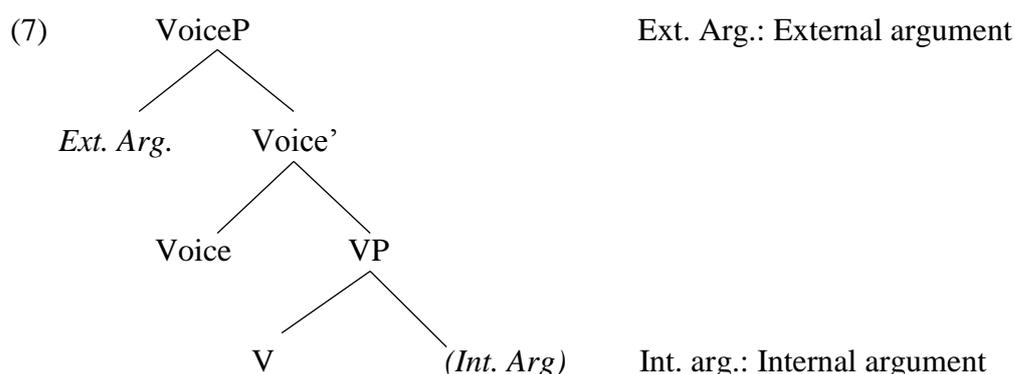
### 3.4.5.3 The causative and anticausative constructions

The distinctions between the causative and anticausative verb constructions relate to the perspective of the event structure in a language. In the analysis of verbal constructions, agentivity and event causation demonstrate the categorization of a construction as causative or anticausative. The lexical-semantic properties of the verbs determine in a crucial respect the analysis of the structures. Different studies analyse (anti)causative constructions from different theoretical viewpoints. The functional heads provided in the UG are employed to represent (anti)causative clauses. Agent and causer arguments are crucial entities in causation constructions. These elements have been explored in regard to the way VoiceP heads relates to them. In addition, *VOICE*<sub>CAUSE</sub> is proposed as a functional head projection in UG (Alexiadou et al. 2015:8) to express non-agent causers that cause event change in an active voice. Although causers assume similar roles to agents semantically, they are not parallel syntactically since DPs and PPs occur in different structural positions in the clause. While the agent is the core element of the clause as subject DP, most causers occur as adjunct PPs licensed by *v*P, hence they occur as optional elements in the clause (Alexiadou et al. 2015). Therefore, the argument associated with the Voice head that introduces the causer DP must be different from the causer introduced in the PP. Alexiadou (2014a:26) on causative events proposed a notation to represent the causative Voice and anticausative as in (6).

- (6) a. [Voice [CAUS [Root]]]  
 b. [Voice [*v* [STATE]]] (*causative*)  
 c. [*v* [STATE]] (*anticausative*)

The functional category Voice relates to the introduction of the external argument bearing features relating to agentivity, while vCAUS introduces *a causal relation* between a causing event (or the implicit argument of CAUS) and the resultant state denoted by the verbal root and the theme argument. Prepositions related to agents and instruments are licensed by Voice. Prepositions related to causers (causers, causing events, *by itself*) are licensed by vCaus (Alexiadou and Anagnostopoulou 2007). With a modified Kratzer (2003) model, Alexiadou et al. (2006:189) present a syntactic decomposition of change of state verbs taken to be a core structure of the causative, anticausative and passive verb constructions with change of state verbs into a Voice and CAUS component, as shown in (3a). Parallel to this view, I also present the causative and the anticausative analysis of earlier versions. In section 4.2, the discussion of the similarities of causative and anticausative events in Parakuyo is presented.

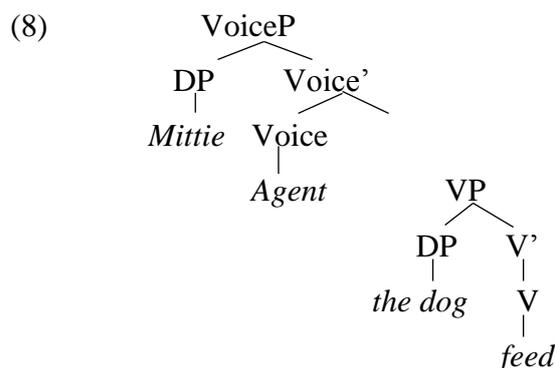
Linguists have applied the term voice in varying ways depending on their theoretical orientations. The typologists, Haspelmath and Muller-Bardey (2005), refer to voice with regard to the active-passive contrast considering the change of the grammatical functions of the arguments in the clause but not the change of the number of arguments in the clause (Doron 2013). The current study will build on the Voice concept and research developed in formal semantics underpinned by the theory of Distributed Morphology introduced by Kratzer (1996) and Embick (1997), respectively, including subsequent studies. Alexiadou et al. (2015:97), following Kratzer (1996), advances the view that the external arguments are not inherent to the lexical verb. Canonical external arguments are not encoded in the lexical entry of the verb itself; rather they are introduced by a (semi-)functional head called Voice on top of the verbal phrase, as represented in (7). This head projects a specifier to merge the external argument and, in addition, assigns a  $\theta$ -role to it. Thus, Voice acts as both a syntactic and a thematic licenser of the external argument (Schafer 2012b).

*Voice-hypothesis* (Kratzer 1996)

In this regard, voice is concerned with the alternations of the syntactic (and semantic) subject, the external argument. In Parakuyo verb constructions, the suppression or the addition of the external arguments of the verb is examined in detail with regard to data from Parakuyo Maasai.

The theory of voice and the occurrence of the external argument vary for verbal roots. The verbal transitivity feature and the lexical-semantic and aspectual properties of verbal affixes are crucial in selecting or suppressing the external argument, that is, licensing the occurrence of the agent, causer or instigator of the event. The transitive verb *inal* ‘destroy’ in Parakuyo, for example, requires an external argument whereas the intransitive root *ran* ‘sing’ does not require an external argument. By contrast, the roots *toyio*, ‘dry’ and *borrie* ‘whiten’ can license an external argument but do not necessarily require one (Doron 2013). Thus, in considering the properties and the environment of the external argument, one has to bear in mind that the lexical-semantic properties of the root in determine the number of arguments of the predicate in the clause.

According to Kratzer’s (1996), view of in syntax, the external argument has to be introduced by the secondary predication for two-place verbs. Such verbs require two arguments, for example, the verb ‘feed’ requires an agent and a beneficiary. Kratzer presents a structural representation positing that the external argument are base generated in Spec, VoiceP and direct objects are arguments of V generated in Spec, VP as illustrated in(8). She further argues that heads syntactically realize their arguments in their specifier position.



Mittie fed the dog

(Kratzer 1996:121)

### 3.4.6 The Mirror Principle

The central property of Mirror Principle is that syntactic affix ordering is based on the assumption that morphology mirrors syntax and vice versa (Baker 1985:375, 1988; Rice 2000, 2009). The main argument of Baker's Mirror principle is that affix ordering reflects semantic composition or, in other words, syntactic structure. However, it has been established that in some languages, affix order is constant despite semantic differences. The Mirror Principle proposed by Baker (1985) represents an attempt to account for the order of morphosyntactic features of verbs. It posits that changes in the order of morphemes in the verbal construction result in corresponding syntactic and semantic changes of word order in a clause. The Mirror Principle states that "The order of affixes reflects the order in which the associated syntactic 'operations' apply" ((Baker 1985: 396)). This principle has been employed as a general principle in Universal Grammar in the description of verb extensions in Bantu languages, specifically with regard to the order of affixes in argument alternations (ibid). The core of Baker's Mirror Principle was to demonstrate that certain morphological and syntactic patterns appear to mirror each other. Given that various derivational affixes are present in Parakuyo-Maasai, the Mirror Principle is significant in mapping the positions or order of verbal affixes. In the current study, this syntactic principle of affix ordering is employed in the description and explanation of the relationship between verbal affixes and argument realization in Parakuyo verb constructions. These affixes are grouped into two main categories based on the argument correspondence in a predicate, namely argument introducing affixes and argument reducing affixes, investigated in chapters Four and Five.

Baker (1985) illustrated, with reference to examples in various languages, a one-to-one correlation in the order of verbal affixes and the arguments that are introduced by verbal morphemes and the reading of the construction as a whole. However, evidence has been given that languages occur that violate the Mirror Principle (see Hyman 2003 on Chichewa). The verbal extensions of some Bantu languages demonstrate that the morphology does not follow the Causative, Applicative, Reciprocal and Passive (CARP) affix order. The implication of this principle in Universal Grammar is that it provides a strong evidence that syntax and morphology have inevitable interactions in language structure. According to Baker (1985:376), this principle was needed to fill a gap in the program of explanatory generative grammar.

Among other functions, the introduction of this framework forged the model into a theory in which syntactic and morphological processes seem to relate to each other and in this way, some generalizations of the grammar of natural languages can be postulated (ibid). In addition, the investigation helped to determine the appropriateness of agreement (AgrS or AgrO) as a functional category, as is assumed in the P&P framework. This also facilitated the investigation on case and agreement features that are realized in the morphology of verbs and nouns in many languages as presented by Carstens (2000, 2011) and Baker (2013). Mirror Principle, therefore, is pertinent to Parakuyo since affixes have different allomorphs that occur in different environments, depending on number agreement. Thus, the current study investigates the order of affixes in Parakuyo from the viewpoint of the Mirror Principle to determine the extent to which it applies. However, the following criticisms as regard to the Mirror Principle were identified by scholars based on some languages. First, the predictions are difficult to test typologically. Second, semantic compositionality is often unclear. Third, no predictions are made for prefixation or suffixation. Fourth, there exist some morphological restrictions on affix ordering (Trommer 2003, 2008). In addition, other theories on affix ordering have been proposed, namely the Onion Theory (Bybee 1985, Wunderlich & Fabri 1994), and Left-Right-Theory (Cutler et al. 1985, Hawkins 1988).

#### **3.4.6.1 Onion Theory (Bybee 1985, Wunderlich & Fabri 1994)**

The Onion Theory was proposed to account for the phenomenon that inflectional affixes surround the verb with its derivational morphemes in the following linear order: Person-Number-Tense-Aspect-Verb-Aspect-Tense-Number-Person. It was termed because the author

likened the inflectional morphology to the layers of an onion. The assumption of this proposal is that the order must conform to the hierarchy as illustrated. This theory received some criticism in regard to especially two aspects. First, there is no prediction for prefixation/suffixation, similarly to Baker's principle. Second, there is a possibility that the results may potentially be skewed by the largely suffixing sample.

#### **3.4.6.2 Left-Right-Theory (Cutler et al. 1985, Hawkins and Giligan 1988)**

Cutler et al. (1985) and Hawkins (1988) present the verbal morphology as a layered pattern whereby the stems tend to occur at left edges of words. They point out that affixes tend to occur at right edges of words. Suffixation, as opposed to prefixation, is preferred by grammars of languages because of the close relatedness between morphology and syntax that facilitates the process (Trommer 2003, 2008). In other words, the research literature suggests that suffixation is more frequent than prefixation. This view is supported by Greenberg's (1966) argument that suffixation is pervasive and dominant compared to infixation cross-linguistically. Furthermore, Williams (1981) posits the Right-Head-Rule, which states that morphological heads occur on the right, referring to English and German examples in his study. However, some criticisms have been raised to this approach. First, the theory does not address any restrictions on the relative distance of affixes to stems. Second, there are no restrictions on either acceptable order of affixes on either sides of the stem. Third, the problem of agreement obtains between the affixes and other elements in the clause (Trommer 2003, 2008).

### **3.5 Verbal roots classification**

Generally, in linguistic research, a root has been defined as the smallest linguistic unit that bears meaning. Thus, the part of a word that remains after deletion of all affixes is viewed as the root of the word. This approach to the definition of the root has been criticized because it is not sufficient, taking into consideration the variations in languages. In Generative Grammar, all roots are stems but not all stems are roots (Aronoff 1994). It is considered as a minimal morpho-phonological base unit that can merge affixes to realize different constructions. A rigorous debate continues among linguists from different schools of thought, on the existence, definition and properties of roots in a language. This matter is complex and is characterized by divided perspectives on whether roots have meanings, categories and argument selectional

properties. Theoretical and empirical evidence demonstrate that roots have meaning and inherent syntactic properties as far as argument structure is concerned.

By contrast to the above view, other researchers argued that roots have neither meanings nor inherent syntactic properties. Alexiadou et al. (2014:5) posited a few questions that led their investigation. These questions are, for example, how much meaning roots have in isolation, and to what extent that meaning informs their syntactic merging possibilities, and whether the presence or absence of root meaning go together with presence or absence of arguments. Consequently, Alexiadou et al. proposed the idea of the decompositional account of the verb to identify the type of roots and the functional heads that can be realized in different verbal constructions.

Linguists have classified verbal roots into different ontological types. Embick (2004b) postulates that dynamic roots yield resultative participles whereby state-denoting roots may give rise to stative and resultative participles. In addition, Rappaport Hovav (2014) proposes an ontological classification of roots in her study. She argues that roots, in the lexicon level (and not in the structure), have lexicalized meanings as their core property. The core of her argument is that meaning components of verbal roots can determine grammatical structure in some way. Roßdeutscher (2014) examined the means in which the root contributes to both the semantic and syntactic properties of the verbs. The focus of Roßdeutscher's study was to investigate the impact of roots to the semantic-syntactic properties of the verb. Her study raised the need to rethink categorizing roots to certain categories before affixing the functional categories, for example, *v* (verbalizer), *n* (nominalizer) or *a* (adjectivizer).

### **3.5.1 Levin's semantic verbs classification**

Levin (1993) investigated the semantic classification of verbs in regard to the lexical-semantic properties they exhibit. The classes are based on the meanings and the transitivity properties. As for transitivity, the arguments alternation was key to her discussion. This classification is adopted in the categorization of Parakuyo verbs for examining. Levin assumed that expression and interpretation of arguments of the verb are largely determined by its meaning. The idea is to develop a linguistically driven approach that can express verbs' meaning in connection to the realization of their arguments. She classified verbs into various classes based on their lexical-semantic properties in English language.

However, scholars argue that Levin's lexical-semantic classification is not exhaustive in respect to breadth or depth of coverage. More research is needed including a larger set of databases to extend further and refine verb classification. This is because, through thorough scrutiny, the view emerges that the classification possibly lacks a comprehensive hierarchical organization of the types found in other computational lexical resources, such as WordNet and FrameNet (Fellbaum 2006, Palmer et al. 2010). Levin's taxonomy constitute numerous verb classes containing verbs that overlap in different classes and with only a few classes having subclasses. The overlap problem could be solved by having a WordNet-like model that captures the interlinking of words and groups of words using lexical and conceptual relations. However, it is acknowledged that these classifications were driven by different motives altogether. In Levin's classification, some verbs are language-specific, for example, English in the sense that there are no equivalents in other languages, or that such meanings are expressed by other word categories like adjectives or adverbs in other languages. A more detailed and complete taxonomy could benefit various natural language processing applications, among other functions. Furthermore, the classification does not provide an explicit description of syntactic and semantic properties of member verbs, for example, only some syntactic frames are listed that participate in alternations (Sun 2012).

Other verb classifications may seem comprehensive but they lack sufficient syntactic information. For example, WordNet and FrameNet restrict their categorization to the semantic properties. WordNet is an online hierarchical lexical database for English content words. The words have been organized into synonym sets (synsets) that contain word forms that refer to given concepts, glosses and example clauses. The FrameNet collection provides descriptions of the semantic frames and lexical items associated with their syntactic and semantic representations in context. In addition to the descriptions, the examples are also presented for the frames described. In a further investigation, Levin and Rappaport Hovav (1998) introduced the perspective of exploring broad verb categories by focusing on the event configurations. As a result, they proposed two broad verb classes, namely manner verbs and result-based verbs to enrich investigation on verb classes.

### 3.6 Perspectives on argument structure

The argument structure and semantic structure of verbs is closely related. The argument structure of verbs has long been a central issue in linguistic research and it continues being a key area of research across a wide area of theoretical and empirical approaches (Bachrach et al. 2014). In both linguistics and natural language processing, verb classifications have attracted wide interest. In addition, they have been invoked in the classifications for computational lexicography, parsing, word sense disambiguation, semantic role labelling, information extraction, question answering and machine translation (Kipper et al. 2008). In addition, Kipper et al. 2008 have studied lexical-semantic classes in order to establish the interfaces between the syntax and semantics of verbs. It has been pointed out that Levin's (1993) research on verb classes have been significant because her classification helps to capture generalizations on a range of linguistic features, for example, lexical, morphosyntactic and semantic properties. Levin employed the classification to unravel syntactic variations, which she argues, are a direct reflection of the underlying semantics of a verb. That is, the structures of arguments allowed by the verb can be expressed by invoking the set of syntactic frames of a particular verb (Palmer et al. 2010, Levin 1993).

The lexical-semantic approach of verb classification (Levin 1993) has been widely employed by linguists in investigating and analysing argument alternations and diathesis in different languages (Fellbaum 1990, 2006; Palmer et al. 2010). It has been proven, with some challenges, however, to be the available source that linguists interested in research on the lexical-semantics of verbs may employ it at least in the initial stages of the analysis. The Parakuyo data analysis for the current research commenced with the classification of verbs into various semantic verb classes according to Levin (ibid). However, some criticisms have been made about Levin's verb classes for the reason that full exploitation of such classes in real-world tasks is limited since there is no comprehensive or domain-specific lexical classification available (Sun 2012). In chapters four, five and six, Levin's verbs classes are applied to the Parakuyo data in addition to perspectives from other frameworks like Distributed Morphology. Thus, a semantic and syntactic view on the analysis and representation of verbs and clauses formation is employed (Halle and Marantz 1993, 1994; Embick and Noyer (2007); Matushansky and Marantz 2013; Siddiqi 2009).

Having classified the Parakuyo verbs using Levin's lexical-semantic verb classes, the structure of the Parakuyo clause and arguments realization is in order. The subject argument in the active clause determines the prefix on the verb; hence, a single agglutinated verb phrase can have a clausal structure in Parakuyo rendering a full clause reading in the corresponding English translation. In active, the subject argument denotes someone who does the action and the doer may be known to the speaker or implied in the context. Early studies in argument structure in linguistics focused on a number of arguments related to the predicate. With later developments of the Theta Criterion and Projection Principle in GB (Chomsky (1981), in conjunction with proposals from lexicalist theories (Bresnan 1982), the scope of research on argument structure expanded and became intricate. The term 'argument' in this study refers to an expression that bears a theta role function, for example, agent, patient experiencer etc. (Du Plessis and Visser 1992). Various aspects relating to the study of argument structure recently include reference to the crucial information it provides in understanding the syntactic behaviour of a lexical item in general (Grimshaw 1990).

Current research studies on argument structure investigate various issues in verb constructions including event arguments, thematic roles, and arguments alternations realized in respect to the verbal morphology properties such as passive, middle, causative, applicative and other verbalizing affixes manifested in a particular language (Grimshaw and Mester 1988; di Sciullo and Williams 1981; Hale and Keyser 1986a, 1986b, 1988; Grimshaw 1986; Levin and Rappaport 1986, 1988; Levin 2015b, among many others). In Williams (1981) and subsequent studies, the distinction of the internal argument(s) from the external argument of a predicate is explored. In the analysis of argument structure, the external argument is more prominent than the internal argument(s) based on theta role expression and the hierarchy of thematic roles (Grimshaw 1990). The thematic hierarchy assumed by Grimshaw (Agent (Experiencer (Goal/Source Location (Theme))))), is that the agent is first followed by the experiencer (Grimshaw 1990:8) and in the third layer it can be either the Goal/Source or Location and lastly, the Theme follows. In contrast, Marantz (1984) argues that the verb alone cannot always determine the external argument, instead, the verb and its object in combination in some cases can help to predict the kind of external argument or semantic role of the argument needed in the clause (Alexiadou et al 2015).

Amberber and Collins (2002:201) argue that argument realization in Bantu languages has been categorized with respect to three groups of affixes. First, there are affixes that increase the

number of arguments, for example, causative and the applicative (Hoffman 1991, Machobane 1989), and second is the type of affixes that reduce the number of a predicate's arguments, for example passive, stative and reciprocal. The third class is for affixes that leave the argument structure of the verb unchanged, for example, reversive verb constructions. This threefold division is employed in the current study but with a slight difference depending of the properties of such affixes in the Parakuyo dialect. In the current study, the purpose is to examine the behaviour of argument structures with different verb extensions, that is, verb stems with different verbal affixes in Parakuyo. Comparing to similar constructions in various African languages, it is evident that in Parakuyo the affixes that result in different argument structures are prolific. In this study on Parakuyo, the affixes that increase the number of arguments in the clause include the causative, instrumental (applicatives) and dative, as discussed in Chapter Four. With these affixes, intransitive verbs become transitive and the monotransitive verbs become ditransitive. The second cluster is the group of affixes that reduce the number arguments in the clause. These affixes include the middle, impersonal, reciprocal and antipassive (see Chapter Six). The third cluster consists of affixes that do not affect the external argument of the verb but affect the internal argument in a clause. These verb constructions include reflexives, neuters and some inchoatives, as examined in Chapter Six.

### **3.6.2 The perspectives on argument alternation**

Argument alternation is viewed as a phenomenon where the verb can appear in various linguistic contexts (subcategorization frames) with its arguments realized in different sentence structures (Rappaport & Levin 1988, Levin 1993 and subsequent works). Levin's research is an insightful resource for linguists who study the lexical-semantic classes of verbs in relation to argument alternation. Nevertheless, there have been other studies that examined verb classes from different perspective (Ramchand 2008, Kipper et al. 2008, Rappaport Hovav and Levin 2010, 2015b, inter alia). As a result, additional verb classes and approaches were proposed, albeit with different objectives for such classifications as highlighted in section 3.5. These verb classes have been created in studies with one or a few languages in mind but linguists have employed them in research on argument realization strategies in various languages of the world. As mentioned above, in the current study, I chose to employ Levin's (1993) approach at the initial stages of my data analysis.

### 3.6.2.1 The causative alternation

The causative and anticausative alternation generally occurs with certain classes that allow expression of a change of state in transitive and intransitive variants (Schafer 2009). The anticausative refers to the intransitive use of the verb that also has a lexical causative use.

- (9) a. Suzan opened the door            (*causative variant*)  
       b. The door opened                (*anticausative variant*)

Anticausatives are intransitive by nature; hence, they require one argument, the theme. One of the differences between the anticausative and passive relate to the property that passives contain an implicit external argument, which anticausatives lack. However, from the perspective of Distributed Morphology, they are derived from a common base in the sense that the derivation of one does not depend on the other. In other words, the intransitive and transitive variants are derived from the same root (Marantz 1997; Borer 2005; Alexiadou et al. 2006, 2015; Ramchand 2008; Alexiadou and Iordachioaia 2014, Lohndal 2014, among many others). In the common base approach, it is argued that an external argument is not an argument of the verb alone, rather it is the combination of verb and argument together. The proposed voice notion for the causer is [VoiceP(DP<sub>EA</sub>)[Voice'<sub>v</sub>P (DP) [v'<sub>v</sub>[ROOT]]. In this framework, the distinction of external arguments, that is, agent vs. causer was posited. This resulted in the hypothesis that agents are restricted to the transitive verbs that cannot form anticausatives. In the UG framework advanced by Alexiadou et al (2015), active Voice heads have been refined, namely VOICE<sub>AGENT</sub>, VOICE<sub>HOLDER</sub>, and VOICE<sub>CAUSE</sub>. The VOICE<sub>CAUSE</sub> projection was postulated to introduce an argument and relate it to the causing event. Some languages have verbs that show both eventive voice heads, that is, agents and cause. The distinction can be drawn from the following two examples similar to a set of examples used by Alexiadou et al. (2015:9).

- (10) a. Tom killed John                    (*an external argument carrying the agent*)  
       b. The war killed Tom                (*an external argument naming the causing event*)

Manner and result verbs have been closely studied to identify their behaviour in argument alternation (Levin and Rappaport Hovav 2013). Manner verbs include, for example, *nibble*, *rub*, *scribble*, *sweep*, *flutter*, *laugh*, *run* and *swim*. Result verbs include, for example, *clean*,

*cover, empty, fill, freeze, kill, melt, open, arrive, die, enter and faint*. In the Merge operation, the two classes are viewed to behave differently. Manner roots merge as modifiers of *v* whereas state/result roots merge as complements of *v* (Levin and Rappaport Hovav 2013). Along the same line, Alexiadou et al. (2015) observe that instances occur where the behaviour of the verb does not only depend on the root concept but also its derivational affixes. Rather, the combination of the verb and an object argument yields the possibilities of whether it alternates or not. Therefore, the central argument in their work is to employ the ‘little’ *v* and Voice theory in conjunction with Distributed Morphology to demonstrate that functional heads or other grammatical elements in combination with the verbal roots form vPs with different eventualities and external argument realizations.

Levin (2015a and b) presents an overview of argument alternation approaches that have previously been studied by linguists. The earlier studies invoked mainly syntactic approaches but the later developments indicate that the focus has also shifted to the semantic and pragmatic perspectives. The lexical semantic properties of verbs have been investigated to determine the classes of verbs that represent the same argument in different structures. The central view of Levin’s analysis is that there is no single way of analysing the strategies by which the arguments alternate across languages structurally. The discussion of the dative and causative alternation demonstrated that no single account can be posited for all the possible ways of representation of argument alternations. Examples in (11) demonstrate one of the options available in English.

- (11)      a.      Tom sent an email to Mary                      (*object DP and a PP*)  
               b.      Tom sent Mary an email                              (*double object*)

In the investigation of argument alternation, transitivity is addressed as a key issue. The process of altering the structure of arguments in the clause involves reducing or increasing arguments or promoting and/or demoting the arguments (Levin 1993). Changing transitivity of the verb is described as argument alternations when a transitive verb alternates with an intransitive form in which the subject of the former is missing or somehow demoted, for example in the non-active voice. In other constructions, the object argument becomes the subject argument or vice versa depending on the changes introduced by the verbalizing affixes of a particular language. In Parakuyo, as examined in chapters four, five and six, different verbal affixes are analysed and detailed explanations are provided on the changes they introduce in the structure of

arguments of the verb. Some examples often referred to in the literature to demonstrate the causative and anticausative alternations are given in the following examples (Beavers 2010, 2011a, 2011b).

- (12) a. John broke the vase                    (*causative alternation*)  
       b. The vase broke                        (*anticausative alternation*)

The second set of examples demonstrates the dispositional middle, a feature that is salient in Greek-like languages. These kinds of middles are typical in the modification of the adverbial *easily*.

- (13) a. John sold the bike                    (*causative*)  
       b. The bike sold easily                (*dispositional middle*)

The active and passive voice might be classified here, where explicit encoding of voice on the verb and some kind of alternation occurs. This is common with many verbs across languages.

- (14) a. John broke the glass.  
       b. The glass was broken.            (*active/passive voice alternation*)

In transitive verb alternations, including for example, instrumental and dative, the object arguments can be manipulated in a different order. This depends on the types of the arguments that the verbs select. For instrumental and location arguments, the subject remains unchanged across the variants but the object argument appears as oblique – introduced by a PP. Beavers (2010) presents example of a number of argument alternations with object arguments changing positions, depending on the clause structure.

- (15) a. Suzy hit Tom.  
       b. Sam hit at the wall.

The view emerging from the above examples in regard to the participation of arguments indicates that *break* verbs describe a change of state through the use of some instrument. On the other hand, *hit* verbs describe the contact of two objects. This demonstrates that these two verbs have two distinct event configurations, as in (16).

- (16) a. Break: Agent X causes patient Y to become broken (using instrument Z).  
 b. Hit: Agent X comes into contact with location Y or causes instrument Z to come into contact with Y.

The subject argument alternates with an oblique argument as exemplified by Beavers (2010) for English. Consider the examples in (17).

- (17) a. Peter and Anna collided.  
 b. Anna collided with Peter. (*Reciprocal alternation*)  
 c. John hit the window with the hammer.  
 d. The hammer hit the window. (*Instrument subject*)

With some verbs, object/oblique reversal alternations can occur in a clause: A verb occurs with two arguments in the VP that can exchange positions of the object and oblique arguments.

- (18) a. John loaded the wagon with the hay.  
 b. John loaded the hay onto the wagon. (*Locative alternation*)

In English, object drop alternations can occur with some verbs. The object arguments of the verb can sometimes be omitted altogether, albeit usually with either an indefinite or a highly specific type of reading. This is common with intransitive verbs like ‘eat’ ‘run’.

- (19) a. John ate a piece of the pie.  
 b. John ate. (*Object drop*)  
 c. Tom ran  
 d. Tom ran a mile/a marathon

An overlap of multiple interpretations may obtain from the object drop property. The two possible interpretations relate to middle and object drop readings that may be ambiguous especially with body grooming verb constructions. Prior knowledge is required to inform the speaker on the focus of the information in a particular clause.

- (20) a. John shaved Bill/himself.  
 b. John shaved. (*Reflexive, middle alternation*)

Another example of alternation obtains when the indirect object/oblique alternation occurs in a clause with a ditransitive verb base; for example, verbs of ‘give’ and ‘send’ exemplify the dative and benefactive alternations exemplified in (21). Two kinds of these constructions occur in English.

- (21) a. Tom gave a book to Jane.  
 b. Tom gave Jane a book. (*Dative alternation*)
- a. Tom baked a cake for Jane.  
 b. Tom baked Jane a cake. (*Benefactive alternation*)

Beavers (2010) argues that for the second case the verb may not select some arguments. For example, *Jane* appears not to be an argument of *bake* as compared to *cake*. Therefore, it may be appropriate that it is an indirect object addition, rather than an alternation.

### 3.6.3 Semantic roles and argument structure

In Government and Binding (GB) theory (Chomsky 1981, 1986) the theory of thematic roles includes the Theta principle which establishes the semantic relations between the arguments and the predicates. Following the rules of X-bar theory, Theta Theory is concerned with how heads accurately assign semantic roles to their complements. This property is also governed by the Theta-Criterion and later developments of the GB theory. Bachrach et al (2014) discuss the concept of transitivity in relation to argument realization. One of the central aspects of argument structure is agentivity, as the principal semantic role of an argument in a clause (Rappaport and Levin 1988, Pradhan et al. 2005, Harley 2007, Levin 2014 and references therein). An argument with a certain semantic role can have various syntactic realizations. A predicate usually occurs with a subject and in most cases, the subject is the agent of the event denoted by the verb or predicate. Agentivity entails that the subject is deliberately acting upon some other event participants, for example, theme, patient, beneficiary, experiencer; hence, it is volitional. Volitionality is defined as deliberateness or spontaneity of the agent to act. The agent involved in an event acts purposefully and as the result, the effect on the patient/theme normally becomes more apparent.

The direct object argument is directly affected if it is a patient/theme, as in the clause ‘Jane broke the cup’. The DP *Jane* is the subject agent whereas the DP *the cup* is the theme argument. In this study, the agent is considered as volitional and sentient, that is, capable of acting with intention (Dowty 1991). Thus, it is apparent that nouns denoting human beings are suitable actors or agents in this simplified definition. Researchers have highlighted issues of complexity with some thematic roles, for example, agent and theme (Levin and Rappaport Hovav 2005) which require further analysis for some verbs. Schafer (2006) classified instruments into two

roles. This classification differentiated the typical enabling instruments used by the agent, from the instrumentals that can appear as subjects, which seem to act like as agents (instrument-causers). In addition, other entities or forces can initiate the action, resulting in some effect or change of state or situation. These two different thematic roles have been categorized as causers (natural forces) and causing events. A detailed explanation in regard to Parakuyo is provided in section 4.5. The illustration is provided using a few model examples adopted from Alexiadou and Schafer (2006:46).

- (22)
- a. *e-ti-gil-a*            *ɔlkutati oldirifa*            (*causer*)  
 3-PFV-break-PFV wind window  
 ‘The wind broke a window’
- b. *e-ti-gil-a*            *endolu oldirifa*            (*instrument-causer*)  
 3-PFV-break-PFV axe window  
 ‘The axe broke a window’
- c. *e-ti-gil-e*                            *oldirifa te*    *endolu na-tu-ur-u-ŋe*            (*eventive instrument*)  
 3-PFV-break-PFV.MID window from axe REL-PFV-fall-MT-NEUT  
 ‘The window broke from the falling axe’
- d. *e-ta-sidan-a*    *enkijape to olbae*    *le mafine*            (*machine*)  
 3-PFV-good.PFV air of because of machine  
 ‘The quality air of improved from the humidifier’

The same event initiators can occur in PPs, as illustrate in (22c) and (d), to fulfil the same roles they represent when they appear as subject DPs, as demonstrated above (for discussion of the Parakuyo data, see section 4.5 and 5.6.2).

The verb argument structure relating to the subject and object argument representation needs to take into account the semantic roles of the arguments. This is a complex phenomenon since an object argument can bear a range of semantic relations to the verb. The main consideration in this regard concerns the discussion of the number of arguments that can be licensed by a transitive verb in Parakuyo. In other words, it considers the lexical and syntactic properties of DPs that occur together in a clause and their roles and relations in the respective constructions. The typical characteristic of a transitive verb is the obligatory presence of two non-prepositional arguments, that is, a subject and a direct object. The verb assigns accusative case to its object argument and nominative case to the subject argument.

- (23) *e-rrum-oo ilayiok engárrim*  
 3-push-MA boys.NOM car.ACC  
 The boys push the car

Early generative approaches postulated that the verb is the head of the VP and it specifies the type of complements that follow. However, in terms of Distributed Morphology theory, the verbalizer or the functional head selects the arguments for the verb. It is evident that different semantic types of verbs express various event types. Some verbs in Parakuyo express actions, for example, *bukoi* ‘pour’ achievement, *bay* ‘reach’ accomplishment, *fet* ‘build’ process, *bul* ‘grow’ state, and *taj* ‘stand’. Therefore, each verb assigns different semantic roles to its arguments to fulfil the syntactic requirements in regard to the combination of both the root and the functional head. A verb construction demonstrates specific features in a clause. These features are generated from the verbal phrase but some are attributed to the argument(s) in the clause. These are (i) the event type, (ii) the thematic roles assigned to its argument(s), (iii) the hierarchy of the arguments (with the associated theta-roles), and (iv) case assignment to one or more arguments. The set of thematic roles assigned to arguments by the verb is referred to as the thematic grid, or theta grid.

Psych(ological) verbs express a psychological state and generally have two arguments as demonstrated in the following example. One is the experiencer of the state, *Kesoi*, in (24) and the other *inkíriŋ* is the theme of the state. The theme refers to the argument that is most directly affected by the event.

- (24) *e-norr Késói inkíriŋ*  
 3-like Kesoi.NOM meat.ACC  
 Kesoi likes meat

This suggests that the verbal construction subcategorises for the DP bearing the semantic-syntactic content that is compatible with it. In addition, as pointed out above, the verbal complex assigns accusative case to the object, *inkíriŋ* ‘meat’ that it selects.

Baker (1985, 1997) postulated the Uniformity of Theta Assignment Hypothesis (UTAH) proposing that identical thematic relationships between items are represented by the identical structural relationships between those items at the level of D-structure. With a close

observation of the theta roles assigned by the verbs, there seem to be no parallelisms between transitive and intransitive verbs. The following b-examples have only one argument, the subject argument, but the verb is the same as in the a-examples where it has two arguments, the subject and the object arguments. Notice that in the b-examples the subject argument does not have the same role as the subject of the a-examples. However, the subject argument in b-examples has the same thematic role as the object argument in a-examples. The traditional classification of verbs into transitive and intransitive fails to capture this parallelism (Wiltschko 2014).

- |      |   |                    |
|------|---|--------------------|
| (25) | a. John broke the window<br>b. The window broke all of a sudden | <i>(Patient)</i>   |
| (26) | a. The wind moves the grass<br>b. The grass moves               | <i>(Theme)</i>     |
| (27) | a. John made dinner<br>b. Dinner is cooking                     | <i>(Factitive)</i> |

The examples above suggest that the syntactic ordering of the arguments in the clause do not match the linear ordering of the thematic roles of the arguments. Arguments can exchange positions in the clause but still, the verb retains the thematic roles of the arguments involved in the event.

### 3.7 Aspectual verb types and event semantics

Smith (1991, 1997) defines aspect as the semantic domain of the temporal structure of situations and their presentation. In her research for an aspectual theory for UG, she postulates that different clause structures can present situations of different types, with the same aspectual viewpoint. Aspect provides various ways of viewing the internal temporal state of a situation (Comrie 1976, Kearns 2003, Rothstein, 2004). Part or all situations and time unfold through temporal perspectives. Situation and viewpoints describe the beginning and the end of an event. With aspectual verb types, a language can also provide devices to express different stages in an event. Another property expressed through aspects relates to whether the event is dynamic or stative. For example, in Parakuyo, the elements, which are projected to functional heads in terms of the Cartography approach are represented by verbal affixes. Each clause describes an event with a different aspectual viewpoint, namely perfective and imperfective. The perfective is pertinent to the analysis of clause aspectual readings in Parakuyo since Parakuyo is an aspect-



### 3.8 Perspectives of information structure in syntax

Information structure is as crucial in deriving meaning in a clause as any other linguistic property. Information structure was originally introduced by Halliday (1967). It is generally concerned with the distinction between given and new information expressed in a clause. Languages can express information structure through various strategies including morphology, syntax, prosody and the interaction of these factors with more general pragmatics principles (Gundel 2012). According to Chafe (1976), information structure refers to the packaging of information in a clause in order to convey and meet the immediate communicative needs of the interlocutors. Furthermore, Chafe (1976) and Féry (2007:163), among others, refer to information structure as the employment of extra-linguistic function or ‘information packaging’. They emphasize that the receiver’s assumption is crucial to discourse structure. Lambrecht (1994) characterized the factors determining the codification of referential expressions with reference to Chafe’s approach. In his analysis, Chafe differentiated states of activatedness from identifiability in the context under examination. Various strategies are employed by grammars of natural languages to present particular information. Different structures or options are available and are strategically employed for different purposes depending on the focus of the speaker.

The main tenets of information structure relate to topic (old and recoverable information), focus (the information that the speaker takes to be new and non-recoverable for the hearer) givenness, frame setting and delimitation of the information in a given context and purpose of communication. In many cases, it reflects the structure of the clause the speaker produces, or in other words, it resembles the structure of the thought of the addressee. Chafe points out that the language can function effectively only if the speaker takes account the temporary statuses of the mind of the person he is talking to (Chafe 1976:27, López 2009). Thus, the speaker packages the information in a way that it can be understood easily by the hearer. Lambrecht (1994:5) presents his working definition of information structure as “that component of the clause grammar in which propositions, that are conceptual representations of the states of affairs, are combined with lexical-grammatical structures in accordance with the mental states of interlocutors who use and interpret these structures as units of information in given discourse context”.

Other crucial aspects of information structure include background, newness, and comment. Focus is realized through syntactic/structural options that are available for the interpretation of the linguistic expressions in a particular language. Furthermore, pragmatic theory maintains that focus reaffirms pragmatic presupposition and it carries not necessarily new, but unpredictable, information that is found in all constructions (Lambrecht 1994). Givenness, also referred to as topic indicates the already explicit information that is available in the surrounding context. Topic refers to the subject that the expression is about and which the information is structured upon (Lambrecht 1994:118). Féry (2007) also identified several other notions related to information structure namely, all-new, eventive, narrow focus, parallel focus, association with focus, verum focus, aboutness topic, and familiarity topic (see Féry 2007 for further descriptions of the terms).

There are different strategies to manifest these information structure notions, one of them being intonation, as is the case in English. Other mechanisms are (left) dislocation, anaphora and pauses or gaps (see Andrason and Karani (2017a) for discussion on left dislocation in Arusa-Maasai). In other languages, this phenomenon is illustrated through specialized discourse elements and topic encoding affixes. These various strategies for information structure are employed in order to highlight the focused constituents in information structure. Table 12 presents the focus of specific information occurring in questions and answers. Example 1 focuses on the *what*, the object of the verb, example 2 focuses on the event itself denoted by the verb, and example 3 on the place where the event took place. The focus structure in the following table is generated through questions.

Table 22: Information structure in questions and answers

1	<p>(a) <i>Ka-ɲoo i-ta-dua to osero?</i>  Q-what 2-PFV-see in bush  What did you see in the bush?</p> <p>(b) <i>Olaro ki-ta-dua to osero in bush</i>  Buffalo 2PL-PFV-see  It is the buffalo that we saw in the bush</p>
---	---

2	<p>(a) <i>Ka-ɲoo na-tii osero?</i> Q-what REL-be bush What happened in the bush?</p> <p>(b) <i>Ki-ta-dua olaro to osero</i> 2PL-PFV-see buffalo in bush We saw the buffalo in the bush</p>
3	<p>(a) <i>Ke-tiai i-ta-dua olaro?</i> Q-where 2-PFV-see buffalo Where did you see the buffalo</p> <p>(b) <i>To osero ki-ta-dua olaro</i> In bush 2PL-PFV-see buffalo It is in the bush where we saw the buffalo</p>

The examples in Parakuyo, listed above, illustrate the fact that contrastive focus selects the new information and presents it at the clause-initial position. Among other grammatical devices, intonation is employed in Parakuyo in highlighting the new information and in altering truth-condition content. If we say “we saw the tiger on the road”, in example 2 in Table 22, does not necessarily mean that they did not see any other animals. Furthermore, other devices like the morpheme *open* ‘only’ could occur to delimit the content in the clause. In terms of information structure, the ordering of words is intentional with the knowledge that the information in regard to the Common Ground helps to omit and focus on certain messages. The term Common Ground refers to the knowledge, which the speaker assumes to be shared by the interlocutors at the moment of utterance (Lambrecht 1994:3; Féry 2007). This confirms the argument by Goldberg (2001) and Jackendof (1990) that verbs have the capability to appear in a wider range of argument structure frames (hence constructions) at the same time maintaining their basic meaning.

### 3.9 Affix combinations cross-linguistically

Many scholars have studied verbal affix combinations and morpheme ordering cross-linguistically (Baker 1985, Fabb 1988, Hay and Plag 2004, Alsina 1999, Hyman 2003, 2007; Cinque 1999, 2006; Aronoff & Fuhrhop 2002, Rice 2000, 2009; Good 2005, Plag and Baayen 2009, Manova and Aronoff 2010, among many others). Hyman (2003) in the investigation of the applicability of Baker’s Mirror Principle of the affix templatic order, of Causative-

Applicative-Reciprocal-Passive (CARP), found that the applicative and causative morphemes of Chichewa maintain a rather fixed templatic order, in which the applicative suffix must follow the causative suffix. However, McPherson and Paster (2009) argue that one of the shortfalls of CARP is that it is only partially active in ensuring affixes ordering in Luganda; hence, it constitutes criticism to the Mirror Principle as discussed in section 3.4.6.

Manova and Aronoff (2010:111) argue that for a motivated affix ordering many conceivable options occur. It can obey either grammatical and/or extra-grammatical principles. Grammatical principles are principles that reflect the organization of grammar where form and meaning play a decisive role. Therefore, grammatical principles of affix order can be either formal and/or semantic. Formal principles can be further subdivided into phonological, morphological, syntactic and semantic principles. In the research literature, extra-grammatical principles (principles not related to meaning and/or form) occur that govern affix order. These extra linguistic ones can be for example statistical principles. Statistical principles express a particular affix order because it is the prevailing one in a language. Psycholinguistics provides another principle related to the way affix combinations are processed and produced in a human mind. This principle is closely related to cognitive principles based on the cognitive categorization of the world. Lastly, pragmatic principles state that the speech-act context can influence affix order. Hypothetically, it is possible that there are also other non-grammatical principles that are relevant to affix order, such as psycholinguistic and temporal principles (see Manova and Aronoff 2010 for a related discussion).

Verbal suffixes are central to the argument structure properties of a predicate. The Parakuyo transitivizing verbal affixes are discussed in section 4.2 to section 4.6 in detail. These affixes act as verbalizers and essentially increase the number of arguments by one. These affixes are, for example, causative, dative, instrumental. Other affixes detransitivize verbs; hence, they decrease the number of arguments in the construction. These suffixes include for Parakuyo, the impersonal, reciprocal, middle and a combination of inchoative and neuter. In addition, other suffixes (re-)orient actions/events, for example, the reversive, motion away and motion towards. These suffixes indicate or change goal/destination or source, or the direction of the motion – that is towards or from the point of reference. In other constructions, some affixes may encode different aspectual categories (achievement or resultative when they trigger change of state as in, for example, inchoative).

Perspectives from studies reviewed above will be employed in the investigation of, first, the combinatorial morphological restrictions of affix ordering in Parakuyo. Second, the aim is to determine whether the affix combination in Parakuyo is base-driven or affix-driven, or both base-and-affix-driven, (Manova and Aronoff 2010) or whether they share a common base, as pointed out in other theoretical frameworks above in sections 3.4.4 and 3.4.5.

The possible affix combinations are posited by combining base-building affixes with closing affixes. Base-building affixes are the affixes closer to the roots, and the terminating or closing affixes are affixes that follow other affixes, and which usually appear as the final suffixes on the verb. Of eleven verbal affixes in Parakuyo, seven co-occur with other affixes. Four of the affixes do not occur in combinations. The most productive affix is the causative in that it can combine with four other suffixes. The causative prefix can combine with two more suffixes, thus a total of three derivational affixes can co-occur in a single verbal construction (for further discussion and examples, see section 4.2.3).

### 3.10 A cross-linguistic perspective on the impersonal construction

As stated above, the term impersonal passive is employed to differentiate the impersonal passive from the impersonal middle. In languages like German, there exist dispositional middles formed by intransitive verbs with expletive subjects as in (30) (Doron 2013, Lekakou 2005, Schäfer 2007, Timberlake 2004, among others).

- (30) *Hier schläft es sich angenehm.* / \**Hier schläft sich angenehm*  
 here sleeps it REFL comfortable  
 ‘It is comfortable to sleep here’  
 German (Schäfer 2007: 298)

However, the general view of the term impersonal has been the impersonal passive in many languages. In typology, Machukov and Siewierska (2011) in a special volume on Impersonal constructions cross-linguistically, identified two overlapping perspectives. The first is the communicative-functional perspective that is concerned with impersonalization in terms of agent defocusing or backgrounding. The second perspective is the structure-based perspective that associates impersonalization with lack of a referential subject.

In addition, in the same volume, three functional-semantic types of impersonal constructions are investigated, namely R-impersonals with non-referential or indefinite subjects, T-impersonals with non-topical (thematic) subjects and A-impersonals with non-agentive (non-volitional, inanimate) subjects (Machukov and Siewierska 2011). In generative linguistics, impersonality has been related to the subject-based notion in Chomsky's (1981). The taxonomy of syntactic zeros (pro, PRO, DP-trace; operator-trace) and later extensions to EPP-violations among other concepts are pertinent to impersonality. The relevance of these concepts is noted in recent works (Svenonius 2002, Mendikoetxea 2008, Biberaruer et al. 2010, Machukov and Siewierska 2011, among others).

Payne et al. (1994: 285) building on Givón (1982: 143) presents a crosslinguistic description of impersonalization. She argues that, by whatever means, in an impersonal passive the identity of the subject/actor of the passive is suppressed. Different reasons for suppression of the agent are provided, namely the agent may be non-topical because it is unimportant to the story in discourse context, or it could be that pragmatically non-referential or the speaker wishes to downplay the actor's identity (Payne (1992, 2011). In Maasai, the impersonal passive sentence, for example, *eboli entóo* has a VP and an object DP which provides the reading 'the bucket will be opened'. The subject argument of the active voice in Maasai is not allowed to appear as a by phrase in the passive. The third person bound pronominal prefix *e* perhaps functions as an expletive morpheme in such constructions. This relates to a significant distinction between impersonal passives in Maasai from passives in other languages. The passive suffix blocks the occurrence of any event initiator, namely agent, causer or instrument-causer or event-causer. Although, these non-canonical constructions have been traditionally referred to as passives/impersonal, they still have significant transitive properties as argued for by Payne (1994, 2011).

Despite the fact that the verb morphology is identical to the base that has a third person subject, a nominative DP in the clause is still not allowed (Payne 2011). In her study, Payne (2011:259) presented three functional dimensions of the Maa impersonal: first, that the impersonal construction is employed when the communicative focus is on the event or situation. Second, it can also be attested in what she calls 'functional passive' situations. The third is the impersonal suffix appears to express existentials that are formed on the root *ata* 'have'. For 'functional passives' Payne (2011:270) puts it in three scenarios where "(a) a non-agent is more individuated or topical in the discourse than a (known) agent, (b) the agent is unknown or

somehow not well individuated or (c) for some social or communicative reason the speaker does not want to mention a (known) agent”. For an unknown agent, this can be parallel to Ackema and Schoorlemmer’s (1994:60) analysis of Dutch impersonal middle where the expletive occupies the empty slot for the subject to encode genericity and focus on the event as in *Het loopt lekker op deze schoenen* ‘It runs smoothly on these shoes’.

### 3.10.1 The impersonal passive in Maa dialects

In many grammars, constructions that suppress the realization of an external argument as a subject have been referred to as passives (Blevins 2003, Collins 2005, 2017). Blevins argues that constructions that do not allow the syntactic agents/causers overtly in DPs or PPs are considered as impersonals. Although in some exceptions impersonal subjects may refer to non-human instigators of events, the literature suggests that the suppressed subject of an impersonal is an indefinite human.

Scholars have referred to the non-active voice in Maasai by various terms. Some refer to it as passive (Tucker and Mpaayei 1955, Payne et al. 1994, Karani 2013, among others) and others refer to it as impersonal-passive or pseudo-passive (Hollis 1905, Payne 2011). Hollis described it as the impersonal form that corresponds to the passive voice in English. Nonetheless, both terms have been used interchangeably to refer to the verbal construction that does not allow the occurrence of the agent or causer in a clause. The example provided by Hollis has different English meaning: *aasuji nanu* ‘It is followed for me’ or ‘I am followed’. The reason is that the construction and the semantics of a non-active voice in Maasai yields a reading that is dissimilar from a typical passive in other languages, let say English. In English passives, the object argument of the active alternant occurs in the subject position and the subject argument of the active becomes a grammatical adjunct introduced by a *by*-phrase. Arguably, a convincing proposal about impersonal constructions relates to the fact that the clause implies that there is a covert indefinite human agent as argued by Frajzyngier (1982), among others. Furthermore, it is apparent that the passive constructions in Maa dialects share some features of impersonalization and passivization. The syntactic diagnostics for agentivity prove that the implied agent in Maa impersonals can be traced. This has been discussed further from section 5.5 to section 5.6.6.

On the other hand, the term impersonal has not been widely used by linguists in describing the change of grammatical function of the subject argument or the suppression of the subject argument because passive is common in many languages. In non-active clauses, the subject may or may not be expressed. In other languages, it is optionally expressed overtly as an oblique. Therefore, in generative linguistics perspective, it is assumed that the agent is present but implicit. That is, it is not overtly sanctioned by the grammar but it is present in the underlying structure. This view is only valid in a language where the evidence can prove that the agent can be retrieved from context or by the help of other discourse-pragmatic features. In languages like Parakuyo, it is evident that if the agent overtly occurs in impersonals, the clause is ungrammatical.

- (31)        \**e-yieŋ-i*        *ilayiok enkine*  
               3-slaughter-IMP boys goat  
               Intended: ‘The boys will slaughter the goat’

Parakuyo belongs to a group of Nilotic languages in which the subject argument, usually the agent, is not licensed in the non-active voice. This (among other properties) leads to the appropriate use of the term impersonals in Maa varieties, as opposed to passive, in other languages. In other words, it appears that when the transitive verbs appear in non-active clauses in Maa (impersonals and middles) they become structurally intransitive. For such constructions, it is always difficult to provide a direct English translation. Instead, the pleonastic elements or the paraphrase, and the literal reading are provided to express the English meaning of the clauses. Impersonals also do appear in other languages, as mentioned by Doron (2013). Nevertheless, the *by*-phrases are not excluded in the impersonals (see Doron, for examples, in German and Dutch) in other languages. Languages that allow *by*-phrases in the impersonal passives also do allow them in the regular passives (Siewierska 1984).

Impersonal constructions are considered as instantiations of non-active Voice, a typical feature of passives. According to Alexiadou (2014b: 19) and others, Voice across languages has been classified into three types. First, it refers to a particular alternation in argument structure of the transitive and unergative constructions cross-linguistically. Second, it involves the Voice alternations that are typically morphologically realized on the verb. Third, the type of Voice that consists of syntactic heads introducing the external argument of the verb Alexiadou (2014b: 21ff). This approach is adopted in the current study as employed in the investigation of external argument suppressing suffixes in Chapter Five. This approach is suitable especially

in regard to two-place verbs that would require a functional head projection in order to introduce an external argument, which can be either an agent, causer, causer event or instrumental causer. These thematic roles can be realized in both DPs in active Voice and in PPs in non-active voice constructions in most of the Parakuyo verbal constructions.

### 3.11 Research perspectives on Middle constructions

In the research literature, middles have been investigated in many languages. Through the studies, various characteristics of middles have been identified, including the salient features that are generally available in many languages and some language-specific features (Pitteroff 2015). One of the general features in canonical middle constructions relates to the lack of agentivity. The object argument of the active voice, assumes the position of the subject in middle voice giving the reading that the subject has some agentive attributes.

- (32)        *e-ta-bol-e*        *ɔlmulango*  
               3-PFV-open-MID door  
               The door opened

The possible interpretation is that the initiator acts on its own as an agent without the agent or causer being involved. In the Parakuyo example above, the interpretation implies that the door can always or sometimes open without the help of human. In line with the lack of agentivity, middles do not allow *by*-phrases modification.

In addition, middles have a reflexive interpretation that appears to overlap with the middle reading in many constructions. This reading is inferred even without a reflexive pronoun in the predicate.

- (33)        a.        *e-ta-bol-e*        *ɔlmulango (open)*  
                   3-PFV-open-MID door        itself  
                   The door opened (by itself)
- b.        *e-yier-a*        *enda*  
                   3-cook-MID food  
                   The food is cooking

However, in Parakuyo grammar, a reflexive suffix or pronoun is also allowed in middles for emphasis purposes as it appears as optional above. When it occurs, it clarifies whether the

subject acted itself or there is some invisible force behind that triggered the event. Because the subject assumes an agentive-like role it blocks occurrence of an agent/causer in the *by*-phrase. Furthermore, middles exhibit a stativity feature. In situations where the event is expressed to have happened in the past, the middle construction expresses the state in which the situation or entities are.

Furthermore, the generic interpretation of the middle construction is its core feature cross-linguistically. Middles express generic statements about facts or states in the real world. The aspectual interpretation denotes habituality in the eventuality. As such, they tend to express regularities rather than particular events. Another yet noticeable nuance in middles is that they have a modal component (Schäfer, 2008b: 183, Pitteroff 2015, among others). Amongst the readings that are possible in a middle construction is that not only that the subject does what it does but also reports a property of the grammatical subject. In other words, it expresses the capability of an entity or only the possibility of the event to happen. Concerning modification of middle constructions, manner adverbs like *easily*, *nicely*, *well* and the likes commonly occur to describe manner and the quality of the eventuality in English.

It is generally be noted that not all verbs are compatible with the middle suffix or middle interpretation. Thus, middles are restricted to certain verb classes and to properties of arguments they permit. Some predicates, for example, *arr* ‘murder’ require the external argument to be an agent. Unlike the verb *arr* ‘murder’ that requires an agent and not a causer, a verb like ‘break’ does not require an external argument of a specific type but is compatible with both agents and causers (Alexiadou et al. 2015, Pitteroff 2015:29 and references therein). This means that break-like verbs are good candidates for middle constructions compared to murder-like verbs. In other languages like German, middles have a repetitive and restitutive reading. In other languages, repetitive or restitutive reading is conveyed by adverbials, for example ‘again’ or ‘wieder’ in English and German respectively; they take scope over different constituents in the clause (Martin and Schafer 2014).

Therefore, cross-linguistically, middles show a similar behaviour in terms of the architecture of elements that build them. The common trend is that the logical object of a predicate in the active Voice is realized as the structural subject in the middle (Pitteroff 2015, Fagan 1992, Ackema and Schoorlemmer 2005, Abraham 1994). Semantically, middle voice constructions indicate that the subject is the actor and it acts upon itself as exemplified earlier in (32) and

(33). Middle voice has been investigated in Indo-European languages under the framework of Voice hypothesis, among others, that is the anticausative morphology. These studies focus on the specific category of verbs that allow both transitive/causative and intransitive/anticausative construal (Schäfer 2008a 2012a and b, Alexiadou et al. 2006, Alexiadou 2010, Alexiadou et al. 2015, among many others). Building on this, Alexiadou and Doron (2012) observed that there are two non-active voices found across languages, namely passive and middles, with their sub-classification.

Lekakou (2005:1) examined the core cross-linguistic features that are common in middles. She proposed that the object argument in a generic construction considered as an eventive predicate is promoted to a subject position by syntactic movement or operations of a language. She considers the interpretation of the otherwise internal argument and the demotion and the interpretation of the otherwise external argument (see Alexiadou 2014:25). Furthermore, the distinction of the middles from passive for example is that the external argument is suppressed in the passive whereas, in the middle, the external argument is not sanctioned by the grammar, that is, it is absent in the clause (Doron 2013). On the same note, Alexiadou (2014) argues that in passive constructions, the external argument is present but implicit whereas in the anticausatives the external argument is somewhat understood but it is less active compared to the external argument in the passives. This is evident in various anticausative alternations in different verb categories in Greek, German and English languages.

Studies in the generative framework have investigated middles in relation to the transitivity of the verbal roots. In the early stages of the research on this topic, different propositions were posed. First, the proponents of the formation approach argued that the intransitive form is basic (Dowty 1979, Pesetsky 1995, among others). Second, the proponents of detransitivization process include Levin & Rappaport Hovav (1995), Reihart (2000), and Chierchia (1989). They claim that the transitive is basic and the intransitive is derived. Third, Alexiadou & et al. (2006) and Doron (2003) presented a more recent proposal from a causative and anticausative perspective (common-base approach) that the two alternates do not stand in derivation relationship (Alexiadou 2010, Alexiadou et al. 2015 and for other pertinent ideas see Doron 2003, Embick 2004a, Alexiadou 2006, Schäfer 2008b, Pytkänen 2008). The crucial feature that is shared by these two voices, middle and passive, is the fact that they do not allow the insertion of an external argument as a subject. This, however, does not mean that they do not require the actor in the event that the verb denotes. With reference to Greek-like languages,

middle voice indicates that the subject is the actor and acts upon himself or herself reflexively or for his or her own benefit with verbs like break and close. (Hartmann and Stork 1972:252 and Alexiadou 2014). Furthermore, another unique feature of middle in particular is that the subjects of middles cannot be categorized as the prototypical agents nor prototypical patients even though they have the properties of both agents and patients. It should also be noted that crosslinguistically middle constructions express the general statement without the interpretation that the agent acts on its own as in ‘the book reads easily’. Hence, the lexical-semantic content of the verb is core for interpretations.

No fully satisfactory definition of middle voice has been posited by linguists argues (Kemmer 1993, 1994). Kemmer, in her descriptive typological study, provided a functionalist analysis of the middle constructions. However, Haspelmath (1995) maintains that Kemmer’s sample may not be enough to represent all world languages. Kemmer identified and analysed various ‘middle situation types’ that are realized as middle in different languages. According to Alexiadou (2014); Alexiadou and Doron (2013) and Lekakou (2005), in Greek-type languages middle voice is presented as the non-active counterpart of the version proposed by Kratzer (1996) as active voice that yields to reflexives, passives and dispositional middle. Kaufmann (2007) argues that middle is unique from other argument alternations because it gives other readings like anticausative, reflexive and modal. In addition, there have been crucial questions about the middle voice. One of the key properties of middle relates to the external argument being totally suppressed in middle constructions. Further analysis of non-active voice, in general, revealed that middles are not similar across languages. Such non-active voices project different functional heads depending on the morphemes the languages employ and grammaticalization of some verbs that may use non-active auxiliaries (Alexiadou 2012).

The other observation is that in middles, the (logical) object is realized as the grammatical subject. Stroik (2006) argues that middles promote the objects to subject positions and external arguments of the clauses are demoted to an adjunct position. The discussion here involves, among other aspects, the syntactically suppressed external argument and the explanation of the status of the internal argument of the verb in middles. Extensive research has been done especially on middles in English and other languages. There is also a close link of middles and reflexives (Giorgos et al. 2015) in that the middle clause can also have a reflexive reading in some languages as in ‘the boy combs (himself)’ (see section 5.13 for more details on reflexivity in middles in Parakuyo). It appears that with grooming verbs (wash, comb), it is more likely

that a reflexive reading obtains even without a reflexive pronoun while in other classes of verbs, for example, result verbs, the clause renders a middle reading (see Alexiadou et al. 2015:19 for Greek examples on this). Other observations that have been presented on the key characteristics of middles include, (i) middles possess generic statements/interpretations, (ii) they have modified argument structures and (iii) they attribute special properties to the subject, namely event responsibility (Stroik 2006:315, Fagan 1992, Steinbach 2002, Pitteroff 2015 and references therein). Through empirical data in the literature, it is evident that subjects in the middles do demonstrate features of being responsible for the event denoted by the verb.

However, from a theoretical point of view, focusing on the syntactic mapping of middles, Hale and Keyser (2002:4) argue that middles cancel the case binding ability of the governing V, forcing the specifier to raise into the position associated with the sentential syntactic subject. This blocks the appearance of the external subject that would otherwise combine with VP to yield the transitive structure of a clause. However, according to Stroik (2006), the translation in (34b) suggests that middle constructions involve argument demotion and not argument suppression. This though cannot be generalized because not all languages do allow such structure as in (34a).

- (34)      a.      No Latin text translates easily to me  
             b.      I (generally) translate no Latin text easily (Translation)

Typological studies have presented extensive on middle construction data from different languages. Studies within generative syntax were concerned with the functional head approach to causation and the external argument status in the alternations. The analysis in Chapter Six describes middle encoding strategies in Parakuyo. It is obvious that Voice hypothesis is able to represent middle constructions in Parakuyo. Thus, a functional head projection that is distinct from causative has to be created.

### 3.11.1 PP modification in middle constructions

The PPs modification available in a number of languages including Parakuyo is key in challenging the idea that anticausatives lack an implicit external argument. Furthermore, PP-modification acts as evidence for the presence of an implicit causer in middle constructions. This aspect is based on the investigation of the same aspect in English *from*-PPs, Greek *apo/me-*

PPs, and German *durch*-PPs as discussed in details by Alexiadou and Schafer (2006), Levin (2009) and other related works. Thus, agentivity and causativity be syntactically represented using the projections of functional heads as suggested by Pylkkänen (2002, 2008) among others.

Alexiadou et al. (2006 and subsequent works), further develops the proposals of Kratzer (2005) postulating a syntactic decomposition approach that is employed in change of state verbs in order to demonstrate Voice and vCAUS components and distinctions of the same constructions. PPs that are related to external arguments, namely agent, causer, instrument causer, causing event in passives and anticausatives in languages like English, German and Greek (see Alexiadou et al. (2006 and subsequent works) for detailed discussion) have been the focus of the discussion for arguing against derivational approaches to the causative/anticausative alternations. As pointed out in section 4.2, derivational approaches are in three types. First, it argued that causatives are derived from anticausatives (Dowty 1979; Pesetsky 1995) and second, in the decausativization approach, it is believed that anticausatives are derived from causative (Grimshaw 1990; Chierchia 1989/2004; Levin and Rappaport Hovav 1995; Reinhart 2000; Kallulli 2007; Koontz-Garboden 2009). The third is a common-base approach that assumes that anticausative and causative constructions share the same base and they are not derivationally related, however, they reflect the core eventuality involved (Piñón 2001; Doron 2003; Embick 2004a, b; Alexiadou et al. 2006a, b; Schäfer 2008b, 2009; Pylkkänen 2008; see also Borer 2005, Ramchand 2008, and Lohndal 2014).

### 3.11 Summary

In this chapter, the theoretical perspectives related to the current study have been discussed. The chapter explored previous research conducted on Maasai and other Nilotic languages. In section 3.2, a brief discussion of Maasai studies has been presented. The chapter commenced with an overview of the Maa grammatical aspects, particularly the verbal system and verbalizers. Following the discussion of the verbal morphology, a brief analysis was given of how the verbal affixes affect the argument structure in Maa in general. The perspectives of Tucker and Mpaayei (1955) grammar were contrasted with the re-analysis done in the discussion chapters with reference to Parakuyo data. Verbal constructions that have been pointed out to be analysed from a new perspective include neuter, middle, impersonal, antipassive and reflexive among others.

A review was given of the theoretical perspectives that inform the current study including Minimalist syntax, Distributed Morphology, ‘little’ v and the Voice hypothesis, Cartography and Mirror Principle. It was stated that the theories and perspectives discussed in this chapter complement each other in the framework for investigation and analysis of Parakuyo-Maasai conducted in this study. These perspectives will inform proposals made on the projections of specific functional heads that are associated with suffixes in the Parakuyo verbal complex. Various semantic verb classes were discussed in describing verbs. In addition, aspects pertinent to the analysis of argument structure, aspectual types, event types, thematic roles, argument alternation and information structure have been discussed in this chapter. Lastly, this chapter reviewed research on affix combination properties and the questions they pose to the investigation of the argument structure cross-linguistically.

## **CHAPTER FOUR**

### **ARGUMENT INTRODUCING AFFIXES IN PARAKUYO**

#### **4.1 Introduction**

This chapter is organized into different sections that examine argument realization in Parakuyo clauses with verbs that permit affixes, which introduce arguments. In section 4.2, the discussion of causative morphology and thematic roles in causative verb clauses is presented. Section 4.3 examines the instrumental applicatives in Parakuyo. Various thematic roles expressed by the instrumental argument are described. In section 4.4, the dative suffix is explored with reference to examples illustrating the types of arguments that are introduced. Section 4.5 presents the investigation of the motion away suffix with intransitive and transitive verbs. In the same section, I also discuss the affix combinations permissible in such verb constructions. Section 4.6 examines the motion towards suffix and other suffixes that can combine with the motion towards suffix. The chapter concludes by presenting a summary of significant results from the analysis of Parakuyo data in the five types of verb constructions investigated.

#### **4.2 The causative**

This section presents the analysis and discussion of the causative morpheme in Parakuyo. The causative prefix is an argument-introducing morpheme in that it typically introduces (external arguments) agent, causer or instrument-causer argument that instigates the event denoted by the verb. Thus, this prefix introduces a new argument of the verb that effects the change of state, situation or degree in the event (Alexiadou et al. 2006, Schafer 2008 and their subsequent works). These studies give evidence that cross-linguistically similarities in causative constructions exist since causativized verbs introduce an additional argument (Pylkkänen 2008). In the causation process, a minimum of two arguments has to occur with the transitive verb. That is, the agent/causer argument effects changes in the eventuality (process or action) and the patient/theme, the undergoer of the action, that is, the argument that the action is acted upon him/her (or it for a non-human argument). Following Kratzer (1996), I assume that causative predicates differ from anticausatives in that the former contains a Voice layer introducing an external argument associated with agentivity, which the latter lacks.

### 4.2.1 Causative morphology in Parakuyo

Levin and Rappaport Hovav (1995) proposed that verbs of change of state split into two groups cross-linguistically, namely externally caused change of state verbs, for example, *abol* ‘open’, as corresponding verbs in Parakuyo and internally caused change of state verbs, for example, *eŋoi* ‘decay’. Invoking views from Wright (2001) and Levin (1993), consider the following examples of verbs of the two causative classes, which are the near equivalents in Parakuyo. Externally caused change of state verbs include, for example, *yerr* ‘boil’, *gil* ‘break’, *ropijie* ‘cool’, *darr* ‘crack’, *toi* ‘dry’, *itoodorr* ‘lengthen’, *fol* ‘melt’, *bol* ‘open’, *ken* ‘shatter’, *torioo* ‘straighten’, *lala* ‘widen’. Internally caused change of state verbs include, among others, *bul* ‘bloom’, *dap* ‘blossom’, *ŋoi* ‘decay’, *muk* ‘ferment’, *βuβaa* ‘stagnate’, *toi* ‘wilt’ etc. (see also Alexiadou 2014a, Schafer 2009 for related discussion on other languages).

Internally caused change of state verbs are only referred to cursorily in this discussion. These verbs have been discussed in depth in the section on Inchoative in section 6.4. The distinct feature of internally caused change of state verbs is that the cause of the change of state event is part of the inherent properties of the argument undergoing change (Alexiadou et al. 2006a). Viewed in context, it is the inherent property of the *rod* ‘to rust’ and the *teeth* ‘to rot’. However, some internally caused change of state verbs can also permit a causative prefix *itV*, hence a transitive causative verb is derived licensing an agent or causer argument, as in *ŋoi* ‘rot/decay’ in the following clauses.

- (1) a.     *e-ŋoi encuma*  
           3-rust rod  
           ‘The rod will rust’
- b.     *e-ito-ŋwa esugari ilalak*  
           3-CAUS-rot suger teeth  
           ‘Sugar rots the teeth’

For other causer arguments, some external control or force has to obtain in order for it to have an effect and cause the event to happen. In addition, same internally caused change of state verbs have the options to occur intransitively and transitively – where causer is required to trigger the action, for example, *ibiringisori* ‘roll by itself’ or *imbiringisoi* ‘make it roll’. In the discussion of causative processes, I do not give much attention to this type of verb. In addition, a close relationship obtains on the complexity of an event between the causative and

anticausative and the inchoative alternation. Where relevant, the relationship will be demonstrated in different sections in this chapter.

In (1b), the instigator/causer of the rotting event is an inanimate argument *esugari* ‘sugar’. Causers are of different semantic types; hence, they have a varying impact in the eventuality. The first type consists of natural forces, namely the sun, wind thunderstorm and the like. The second type includes two subtypes (i) machine-causers, which seem to be semi-autonomous in effecting events and (ii) instrumental-causers that appear like subjects, for example, the knife, or hoe (see Alexiadou and Schafer 2006, Alexiadou and Anagnostopoulou 2007, among others for this classification). The third type of causer that is evident from the example in (1b) comprises of the entities like sugar, chemicals and other elements that act as catalysts or triggers of internal causation of an event/process within another entity. The causer-like arguments appear as subject DPs in the causative constructions.

In the analysis of causative verbal constructions, I organize the discussion in the following order. Firstly, I explore the causative constructions with intransitive verbs from different verb classes. Secondly, the examination of causative clauses follows with monotransitive verbs. Thirdly, for ditransitive verbs, the argument structures of these verbs in causative verb clauses are examined. The distribution of causative affixes with verbs in Parakuyo partly depends on the verb class. Class I verbs allow both *i(n)tV* and *ie/ɛ*, while Class II verbs permit the suffix *ie/ɛ* as in *irrag-ɛ* ‘make sleep’ or the allomorph *iyie*, as in *imutyie* ‘make late’. Causative in Class I verbs is principally morphologically realized by one morpheme either *itV* and/or *ie/ɛ*. However, if the two suffixes co-occur with one verb, the left-most one functions as a causative prefix, that is, *itV* and the following *ie/ɛ* functions as instrumental or reason introducing the argument.

In the following table, there are unergative roots that require only a subject, with many verbs, this subject being the agent. Therefore, these roots are intransitive because the verb does not select an internal argument. In addition, there are unaccusative roots whose subjects are not agents. Examples of unergative and unaccusative verbs in Parakuyo are given in the following table.

Table 23: Unergative and unaccusative verbs

Verb	Gloss	Verb	Gloss	Verb	Gloss	Verb	Gloss	Verb	Gloss
<i>urori</i>	fall	<i>eruko</i>	flow	<i>gil kuŋ</i>	kneel	<i>rura</i>	sleep	<i>kueni</i>	laugh
<i>wou</i>	come	<i>kuet</i>	run	<i>lej</i>	lie	<i>tafo</i>	stand	<i>bul</i>	grow
<i>aiguran</i>	play	<i>lo</i>	go	<i>leku</i>	remain	<i>rrimu</i>	wait	<i>tirrkim</i>	gallop
<i>twa</i>	die	<i>idum</i>	jump	<i>aton</i>	sit	<i>firr</i>	cry		
<i>efa</i>	rain	<i>baya</i>	arrive	<i>suŋsuŋ</i>	sneeze				

When a causative morpheme is attached to some of these verbs, it introduces the agent or causer argument of the predicate. In other words, this verbalizer changes the verb valence to derive a two-place verb, by introducing an external argument. Therefore, the transitivity of the verb is changed and the causation reading introduced to the verb construction. The intransitive active verb clause is provided in the following example (2) in order to demonstrate the causative (2b) versus the anticausative verb construction in (2a).

- (2) a. *e-irofi ɔlbene* (anticausative)  
 3-heavy bag  
 ‘The bag is heavy’
- b. *e-irof-iyie ena kîtabu ɔl-béne* (causative)  
 3-heavy-CAUS this book.NOM SGM-bag.ACC  
 ‘This book makes the bag heavy’

The above clauses exemplify the Class II verb (for more details on verb classes, see section 2.5) which has the causative morpheme *-ie/iyie*. The following clauses are examples of Class I verbs in which the two verbal affixes *itV* and *-ie/iyie* co-occur. The causative prefix is *it* and *V*. The letter *V* stands for any vowel that may occur, depending on vowel harmony, in the verbal root.

- (3) a. *e-fal ena kiteŋ*  
 3-weak this cow  
 ‘This cow is weak’
- b. *e-ita-fal en-can en-kiteŋ*  
 3-CAUS-weak 3.SGF-rain 3.SGF-cow  
 ‘The rain will weaken the cow’

By contrast, the causative for Class I verbs does not necessarily take the vowel of the root. Instead, the quality, height, and place of articulation of the vowel are parameters that play a role in determining which vowel the prefix realizes. This is the rationale for *a* in *e-ita-fal* ‘weaken’ and *a* in *e-ita-wuas* ‘make proud’ and *u* in *e-itu-musan* ‘make old’. The morpho-phonological rules, in this case, vowel harmony, govern this distribution of vowels in the causative prefix. The syntax and semantics of causative verbs demonstrate that inherently causative verbs are related to the causation process.

- (4) a. *e-wuasa* *ɔlpayian*  
 3-proud man  
 ‘The man is proud’
- b. *e-ita-wuas*    *m-kera*    *ɔl-payian*  
 3-CAUS-proud 3PL-child    SGM-man  
 ‘The children make the man proud’
- c. *e-ita-do-iki*            *enkijiko aatua entoo*  
 3-CAUS-drop-DAT    spoon inside bucket  
 ‘He will drop a spoon into the bucket’

Some verbs do not denote a direct event that causes the resulting state but instead, the agent or causer yields this interpretation indirectly. In (4b), for example, the reading obtains that it is not clear how the children will make the man proud; the causative morpheme simply introduces a reading that the children will do it. This reading may appeal to the cultural or discourse-pragmatic context for the exact understanding. The eventuality denoted by the predicate in this instance may not be as concrete or complete with psych(ological)-verbs as it is with activity verbs as illustrated by (4b) and (4c) above.

In the research literature, it has been established that causative verbs obligatorily express the argument that brings about the change of state in all contexts (Browne 1971; Grimshaw and Vikner 1993; Brisson 1994; van Hout 1996; Rappaport Hovav and Levin, 1998). With some verbs, the interpretation obtains due to the role of the argument providing the reason for something to happen. For example in the clause below, the reading obtains that one understands that the car got old because of the sun. This implies that the rays of the sun made the car (body) look old. It is, however, evident that causative needs a systematic investigation of the possible interpretations of different verbs with specific lexical semantic properties. Alexiadou et al. (2006, 2015:8); Alexiadou and Schafer (2006) and Schafer (2012b) argue that Universal

Grammar (UG) provides Voice<sub>CAUSE</sub> (in example 5b) as a way of projecting causer DPs as opposed to Voice<sub>AGENT</sub> (see example 5c) for animate/agents and Voice<sub>HOLDER</sub> for stative predicates. The example in (5a) demonstrates a stative predicate, whereby in (b) the causer *enkoloŋ* ‘the sun’ of the state expressed in (a) is introduced by the causative prefix.

- (5) a. *e-tu-musana ena garrim* (anticausative)  
 3-PFV-old this car  
 ‘This car became old’
- b. *e-itu-musan en-koloŋ en-garim* (causative)  
 3-caus-old SGF-sun SGF-car  
 ‘The sun makes the car old’
- c. *e-ita-raŋ endasat enkerai*  
 3-CAUS-sing woman child  
 the woman will make the child sing

As mentioned above, the causative morpheme for Class I verbs is in most cases the prefix *itV* but also the suffix *ie* occurs. However, if the two morphemes co-occur with a verb, the prefix *itV* introduces causativity and the suffix *-ie* expresses instrumental, reason or any other applicative or associative related function. The following example in (6b) is a monotransitive example with both causative affixes.

- (6) a. *e-ita-ŋamal-a enkerai olmwalimui*  
 3-CAUS-trouble-PFV child teacher  
 ‘The child troubled the teacher’
- b. *e-ita-ŋamal-ie enkerai olmalimui enkisoma*  
 3-CAUS-trouble-INST child teacher reading  
 ‘The child troubled the teacher with reading skills’

In the example above, the instrumental suffix in Parakuyo expresses the reason for the child giving trouble to the teacher. The instrumental discussion in section 4.6 demonstrates that the morphophonemic suffix *-ie* expresses instrumental. Thus, this suggests that the causative suffix *-ie* is phonologically similar to the instrumental suffix *-ie*, hence they are spelt the same but differ in regard to their grammatical functions and set of verbs they select.

There are verbs in Parakuyo that inherently have causation in their lexical-semantic content. These verbs do not require the causative morpheme. For some of these verbs, the prefix *itV* is

part of the root, and cannot be slashed in any verbal conjugation. Therefore, the grammar does not allow adding a causative affix *itV* or *ie* in the root stem. This process is also referred to as lexicalization of the causative affixes (Schroeder pc.). The two clauses are the typical examples from English equivalents that are categorized by Levin (1993) as change of state verbs.

- (7) a. *e-itorio* *ɔlpayian enkoitoi*  
 3-straighten man way  
 ‘The man will straighten the way’
- b. *e-itorio-ri enkoitoi*  
 3-straight-REF way  
 The way is straight
- c. *e-ito-yio enkoloŋ ilpaek*  
 3-dry sun corn  
 ‘The sun will dry the corn’
- d. *e-toi-to ilpaek*  
 3-dry-PFV corn  
 The corn is dry

The few ditransitive verbs investigated in Parakuyo, seem not to be semantically compatible with a causative morpheme. These verbs are, for example, *nco* ‘give’, *tarasai* ‘pass’, *irruai* ‘send’, *ijana* ‘buy’, among others. Perhaps one of the reasons for the incompatibility of these verbs with a causative morpheme is that these verbs occur in the far end of the transitivity cline. In other words, the encyclopaedic contents of these verbs generally license two or three arguments, namely agent, theme and beneficiary. Therefore, the transitivity potential of the verb is already saturated; hence, addition of another argument is disallowed.

- (8) \**e-ifor-ie John Meri enkerai sawadi.*  
 3-give-INST John Mary child present  
 Inted: John made Mary give the child a present.

With internally caused change of state verbs, the causer can also be involved in the event. The verb ‘blossom’ for example, can co-occur with the causer ‘rain’ in the same. These verbs demonstrate the causative/inchoative alternation, where the following example illustrates the causative variant of causative/inchoative alternation.

- (9) *e-itu-bul encan ilmaua*  
 3-CAUS-grow rain PL.flower  
 ‘The rain made the flowers blossom’

The distinct observation emerging from such verbs is that they do not allow direct causation but the causer that triggers the internally driven change of state is allowed.

In causative constructions, all types of external arguments, that is, agents, causers, causer events and instrument causers can occur as subjects DPs, as in (10a) and (b), (11a) and (b). Furthermore, the same external arguments, except agents, can appear as causers in the PPs with all aspectual verb types, namely the imperfective and perfective aspects.

- (10) a. *e-ita-rruo enkerai enkare* (agent)  
 3-CAUS-spoil child water  
 ‘The child will spoil water’
- b. *e-ijunujun-ie osiwuo ilmitii* (causer)  
 3-shake-CAUS wind PL.tree  
 ‘The wind will shake the trees’

Causativity is not encoded morphologically in some of the verbs. These verbs seem to have causative semantics as an inherent part of their lexical-semantic properties. The type of the argument selected by these verbs has to be compatible with the event semantics of the causative construction. The compatibility obtains in sentences with a causer event or instrument causer as a subject argument as exemplified in (11).

- (11) a. *e-dumu embuata oldia enkerai* (causer event)  
 3-wake.up.IPFV barking dog child  
 ‘The barking of the dog wakes up the child’
- b. *ε-on endasat ilpaek* (instrument-causer)  
 3-grow woman corn  
 ‘The woman will grow cornfield’
- c. *e-turr olkembe enkorma*  
 3-cultivate hoe field  
 ‘The hoe cultivates the field’

It is also possible for an agent subject to occur with an instrument causer in a PP with a causative verb, for example in (12), *gil* ‘break’, the clause yields the interpretation of doing something using an instrument (Alexiadou 2006). The rationale for this kind of decomposition

is that the causer instrument can occur as a causer by itself in a verb construction, as exemplified in (11c) above.

- (12) *a-ta-daj-a*                      *esahani te enkijiko*                      (*agent and causer PP*)  
 1SG-PFV-break-PFV plate with spoon  
 ‘I broke the plate with a spoon’

#### 4.2.2 Theta roles in causative verb constructions

Theta role assignment depends on how the clause is understood. For example in English in the clause ‘*John broke his leg*’, *John* is an agent if *John* and *his* refer to different people, but it is a Patient if *his* is co-referential to *John* (Crystal 2008). The causative morpheme introduces an (intentional) agent or (a non-intentional) causer argument and in most cases, it is the subject of the clause (Kallulli 2007, Schafer 2008a). This, however, does not mean that whenever the causative morpheme occurs there must be an agent or causer argument. There can be a causative morpheme, for example, in an impersonal construction.

- (13) *e-ito-or-i*                      *olahe we enkitej*  
 3-CAUS-separate-IMP calf with cow  
 The calf will be separated from the cow

Therefore, it is plausible to maintain that the causative morpheme warrants a slot for an agent/causer if the construction allows, instead of perceiving it as, wherever it appears it must introduce an external argument. In causative constructions, the VSO word order requires that the agent/causer should be adjacent to the verb. However, the order may vary depending on the architecture of information structure in the clause. In exceptional word order clauses, an agent or causer can occur further from the verb, in that it occurs as an optional element, for example, an adverbial PP.

As mentioned above in the discussion on externally caused change of state verbs, the subject argument of internally caused change of state verbs, can be agents, causers, causing events or instruments in Parakuyo. Levin and Rapaport Hovav (to appear) may have misclassified some of internally caused change of state verbs as non-alternating, whereas the transitive uses of internally caused change of state verbs demonstrate argument alternation. This perhaps is the view in a lexical semantic perspective in regard to the analysis of argument alternations. In a syntactic perspective, argument alternation in internally caused change of state verbs is possible

as illustrated in Alexiadou (2014a:889). In syntactic approaches, the assumption is that causation is derived in a structure where the external argument is external to the VP (that is, the predicate and its internal argument).

From the above discussion, it is evident that theta roles for arguments introduced by a causative affix are agentive or capable of effecting a change of state. The consideration of semantic roles in syntax and semantics have become inseparable for language analysis in different theoretical perspectives (Luraghi & Narrog 2014). Agents are core to events in verbal constructions and in clause structure. Agents/causers can cause the event to happen or cause something to change or cause another animate to do something that will have some effects in the whole eventually configuration. In many languages, including Parakuyo, the subject argument is the agent of the event in a canonical active clause. Generally, the agent has to be animate or a participant who is endowed with some capability to perform an action volitionally. From the empirical evidence from other languages, in the research literature, it has been identified that the agents are animate and they are human beings in many cases. Beneficiaries are animate, instruments are tools, patients, or themes; sources, locations and destinations of motion-oriented events are places. Most of these thematic roles also align with the Parakuyo clause structures.

The findings in this study suggest that in Parakuyo agents and causer appear as subjects in an unmarked word order. There are constructions that agents and causers can be introduced by a PP but such configurations serve as the alternatives depending on information structure properties of the utterance. Further analysis of semantic roles reveals that the question of ‘who’ refers to the agent, ‘what’ refers to patients, ‘how’ and ‘with what’ needs instruments, ‘where’ in many cases requires the sources and destinations, ‘for whom’ questions usually use beneficiaries and ‘to whom’ questions normally require destinations (Palmer et al. 2010). Palmer et al. have made use of the corpora or, rather a structured lexicon, which they created for different computational functions. These databases, FrameNet, VerNet, PropBank are employed to examine semantic roles labelling. The specific description of the relationship between the DPs and their referents, when they occur with a particular verb, is essential, that is, what semantic roles assignment does in the language (ibid).

In a causative, the focal argument must be introduced first and is usually the agent or causer that makes the event happen. For this reason, it is proposed that the agent, in terms of information structuring, appears first and it necessarily occurs as the subject, in Parakuyo, the

focal argument (the subject, for this matter) occurs after the verb. Some roots have clear specifications on the type of arguments they select while others are underspecified. Highly specified roots would select only an agentive causer and underspecified they allow merely agents, instruments or natural forces (Koontz-Garboden 2008).

- (14) a. *a-itu-puku enkerai boo*  
 1SG-CAUS-exit child outside  
 ‘I will make the child go outside’
- b. *e-itu-puku endasat enkerai*  
 3-CAUS-exit woman child  
 ‘The woman will make the child get out’

The agent is morphologically encoded in the verb by the prefix *a*, which stands for first person singular. The focal argument agent for this matter is the first person argument that is causing or enabling the action of the child to be able to get out. The event is usually broken down into roles of the arguments involved, mainly the agent and the patient/theme. Building on proposals by Kratzer (1996) and Alexiadou et al. (2015), the following schematic representation of causative verb construction in Parakuyo illustrates the external argument projection in VoiceP and the causative affixes under ‘little’ *v* as in figure 3. Example (14b) is diagrammatically represented in figure 4.

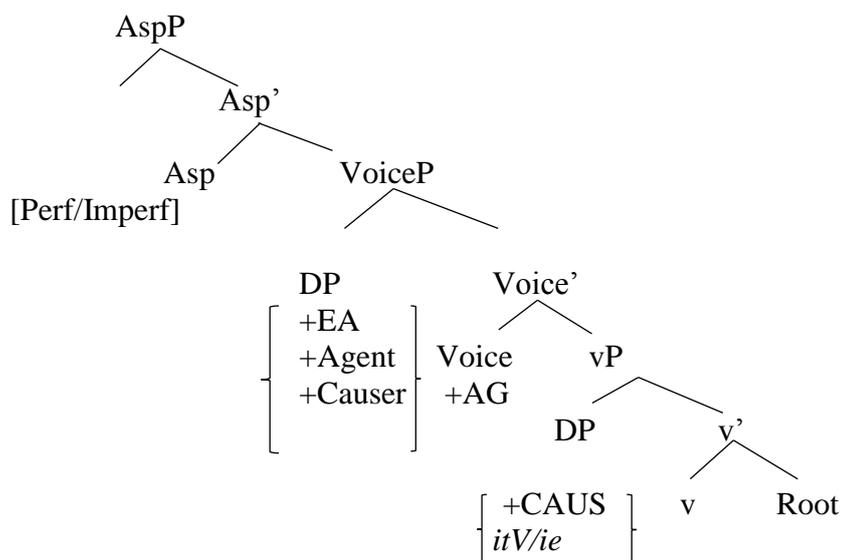


Figure 3: Causative syntactic representation in Parakuyo

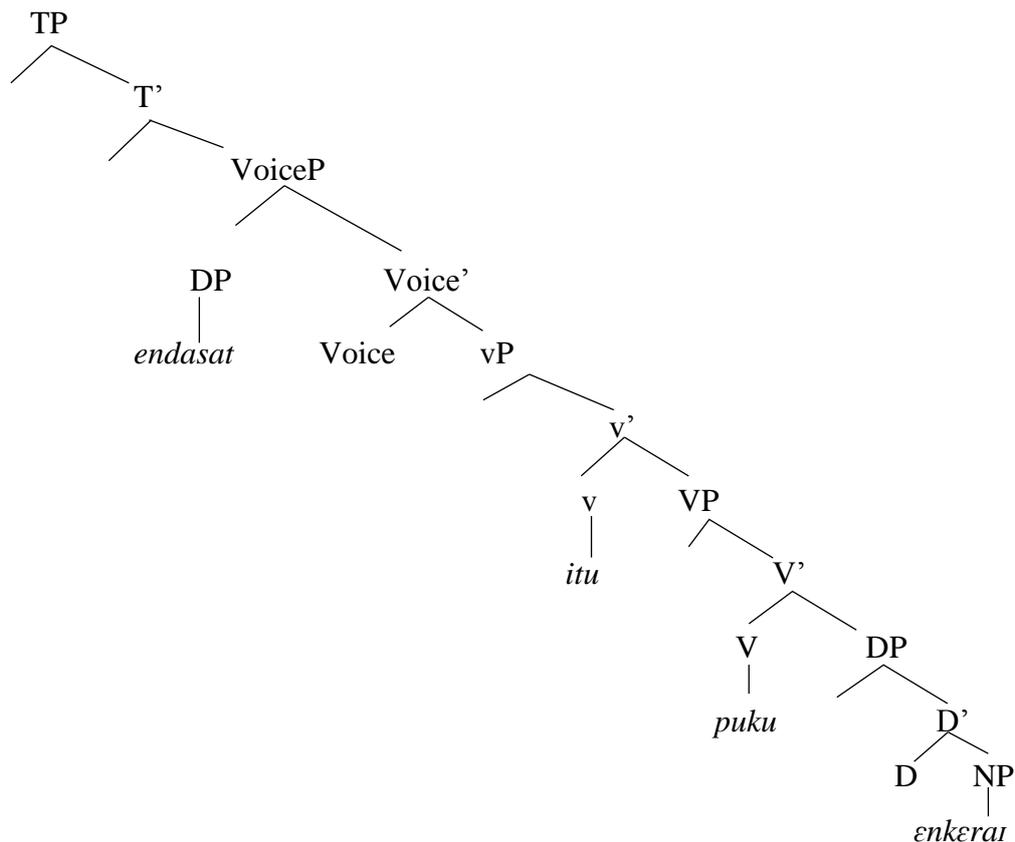


Figure 4: A diagram of an example of a causative clause in Parakuyo

The diagram in figure 4 demonstrates that the external argument, the woman, is introduced in the spec of Voice head. This follows the requirement posed by the causative prefix *itu* in the spec of ‘little’ *v* that combines with the verbal root *puku* to license the agent argument. The internal argument appears under the *V'* which c-commands the verbal root.

### 4.2.3 Causative suffix combinations

The causative verbal base co-occurs with other verbal affixes in Parakuyo. The causative affixes, therefore, is a base-building affix in these combinations. It should be noted that the causative morphemes *itV* or *ie* do not occur with inherently causative verbs. In this section, various combinations of the causative morpheme and other verbal extensions are examined. The affixes of such extensions follow the causative prefix *itV*. To be exact, these suffixes follow the verbal roots that permit the causative prefix *itV*. The verbal suffixes that co-occur as ‘closing suffixes’ with the causative verbal constructions are the instrumental, impersonal, antipassive, dative, motion away and motion towards suffixes.

- (15) a. *a-ite-ŋen-ie*                      *ɔlmalimui inkera ɔlkibao*                      (*instrumental*)  
1SG-CAUS-learn-INST teacher children board  
'The teacher will make children learn using the board'  
'The teacher teaches children using the board'
- b. *e-ita-alan-ifo*                      *ele lee*                      (*antipassive*)  
3-CAUS-confuse-APAS this man  
'This man makes one confused'  
'This man confuses'
- c. *e-ita-ba-iki*                      *Sam ɔlmusiko ɔlɔpeŋ*                      (*dative*)  
3-CAUS-deliver-DAT Sam luggage owner  
'Sam will make the luggage to reach the owner'  
'Sam will deliver the luggage to the owner'
- d. *ɛ-itɔ-lɔlɔŋ-aa*                      *ɔlmurani iŋkiʃɔ*                      (*motion away*)  
3-CAUS-take.all-MA warrior cattle  
'The warrior will make himself take all the cattle'  
'The man will take away all the cows'
- e. *e-iti-ŋik-u*                      *Telele ɔlɔrika*                      (*motion towards*)  
3-CAUS-move-MT Telele chair  
'Telele will make the chair move closer to him'  
'Telele moved the chair closer to him/us'

Some verbal constructions demonstrate the ordering of at most three derivational suffixes. In other words, the causative verbal base can permit two more verbal extension suffixes occurring in a certain order. This means that there are medial affixes, which occur after the causative prefix *itV* and the verbal closing suffixes. In this study, medial suffixes are motion related suffixes, namely motion away and motion towards and dative suffixes. The order is demonstrated by these pairs, in the following examples, namely motion away and instrumental; motion away and impersonal; motion towards and instrumental; dative and impersonal, dative and reciprocal; dative and instrumental.

- (16) a. *e-iti-ŋik-u-ŋe*                      *Koikai eŋudi olorika*                      (*MT + INST*)  
3-CAUS-move-MT-INST Koikai stick chair  
'Koikai used a stick to pull the chair closer to him'
- b. *e-ita-doyi-oo-riɛ*                      *ofundi eŋkeene ɔltofali*                      (*MA + INST*)  
3-CAUS-drop-MA-INST builder rope brick  
'The builder will drop the brick with a rope'
- c. *e-ita-ŋaŋuk-oo-ri*                      *iŋkajjik*                      (*MA + IMP*)  
3-CAUS-liken-MA-IMP houses

‘The houses will be made look similar’

- d. *e-ita-ba-ikia-ki*                      *ɔlmalimui empalai*                      (DAT + IMP)  
 3-CAUS-arrive-DAT-IMP teacher letter  
 ‘The letter has been delivered to the teacher’
- e. *e-ito-risi-oki-no*                      *ilayiok ate*                      (DAT + REC)  
 3-CAUS-parallel-DAT-REC boys themselves  
 ‘The boys will stand parallel to each other’
- f. *a-ité-ŋen-aki-ŋe* *ɔlmalimui enkerai enkalifu*                      (DAT + INST)  
 3>1SG-CAUS-learn-DAT-INST teacher child a thousand  
 ‘The teacher taught my child for one thousand (fee)’

These affix combinations result in the verbal construction being complex with various functional morphemes that encode the semantics of the construction. In Parakuyo as an agglutinating language, various suffixes occur with the roots to realize and project the syntactic heads in the clause. These suffixes necessitate the occurrence of some arguments realized by syntactic operations. Hence, the morphological operations trigger syntactic operations that stem from the predicate.

### 4.3 The instrumental

The instrumental semantic (thematic) role has generally been considered the extension of the agent role in the research literature (Rissman 2013). Instrument arguments in many languages are introduced by certain categories or morphemes, including prepositions. Alexiadou (2014a) argues that prepositions that introduce agents and instruments are licensed by Voice, whereas prepositions related to causers are licensed by *v*. In English clauses, instrumentals are indicated by the phrases beginning with words like *with*, *by* or *using* followed by a noun that denotes the instrument itself. However, the prepositions *with*, *by* and *using* can encode different semantic properties in addition to introducing an instrument. The agent is the performer of the action, sometimes using some instruments or force, depending on syntactic and semantic properties of the verb in the clause. Agenthood is complex for it takes different shapes, as categorized by Cruse (1973) who groups it into four subtypes: “(i) Volitive “an act of the will is stated or implied” (p. 18), (ii) Effective “exerts a force...because of its position, movement, etc.” (p. 19), (iii) Initiative “initiation of an action by giving a command” (p. 20), and (iv) Agentive “performed by an object [living things, certain types of machine, and natural causers] regarded as using its own energy in carrying out the action” (p. 21).

### 4.3.1 The Instrumental morpheme in Parakuyo

Instrumental extension with verbs in Parakuyo is morphologically realized by various affixes depending on the lexical semantic features of the verb. These suffixes are *-yie*, *-ie*, *-ye*, and *-je*, and they occur when the verbal stem ends in a vowel whereas the suffixes *-ie*, *-rie*, *-te*, occur elsewhere. In combinations with instrumentals, there are different suffixes that they can combine with, for example, *ie-ki* in instrumental and passive combinations, and *ifo-re* for antipassive and instrumental co-occurrence. These suffixes occur with both morphological verb classes in Parakuyo, that is, Class I and II verbs. Instrumental is an argument-introducing suffix. It introduces the instrument, which one uses to perform an action or the person with whom, the place at which, or the reason for which one acts (Tucker and Mpaayei 1955). In other words, it represents a noun that is the instrument or means by or with which the subject achieves or accomplishes an event. However, the current study demonstrates that an instrumental argument can have other functions, for example, associative, that is, a person with whom you talk or share something, and idiomatic usages. In some languages instrumental (also referred to as comitative case if it occurs with animate arguments) is a grammatical case that is morphologically realized on nouns.

In Parakuyo, instrumental (or applicative) is linked to different semantic roles, namely instrument, associative, locative and agent or theme manipulee (see also Lamoureaux 2004 for Ilwuasinkijū Maa dialect spoken in Kenya). Alexiadou and Schafer (2006) present further discussion on the theta roles of the instrumentals. As mentioned above, there are some verbs that permit both causative and instrumental, and the combination occurs as *itV...ie*. In Parakuyo, the instrumental suffix constrains the occurrence of prepositions like *by*, *with* or *using*. Whenever these prepositions or their equivalents occur, the instrumental suffix does not appear in that particular environment. Another salient property of the verb *iteŋen* ‘teaching’, as illustrated in (17) below is that although it is basically an intransitive verb it has the capability to increase the number of verb arguments from a single argument to four arguments, as in (17a-d). Only in (17b) where the agent and the patient can switch positions but the rest seem to have a rigid word order. In (17c), example clauses for locative and instrumental in a PP are illustrated.

- (17) a. *e-ŋen-u ena kerai*  
3-learn-INCH this child  
'This child will learn'
- b. *e-ite-ŋen əlmalimui ena kerai*  
3-CAUS-learn teacher this child  
'The teacher will teach this child'
- c. *e-ite-ŋen-aki əlmalimui endasat ena kerai te fule*  
3-CAUS-learn-DAT teacher woman this child at school  
'The teacher will teach this child for the woman at school'
- d. *e-ite-ŋen-aki-ŋe əlmalimui endasat ekerai elaki*  
3-CAUS-learn-DAT-INST teacher woman child a hundred  
'The teacher taught the child for the woman for a hundred thousand shillings'

The combination of the affixes is systematic at the end of each verbal extension. The order of affixes specifies that the verbal base requires dative in order to license an instrumental suffix in the verb *iteŋen* 'learn'. The order of affixes and verb arguments in (17d) partially reflects the Mirror Principle (in regard to Causative and Applicative order) that relates the order of affixes to the order of arguments in a clause, that is, causative-dative-instrumental yields agent-beneficiary-applied instrumental argument. In other words, the beneficiary has to precede the instrumental argument in such verbal constructions.

### 4.3.2 Thematic roles in instrumental

In the morphology of intransitive verbs, for example, *iŋur* 'see', *βuku* 'exit', *sioyo* 'go early', *fipa* 'be happy', *bik* 'last longer', *fopie* 'dress' among others, the instrumental suffix denotes different meanings and various semantic roles in a derived constructions. Essentially, the instrumental suffix introduces an argument denoting an instrument or tool used in an event. Consider the following examples illustrating the occurrence of instrumental applicatives that introduce arguments denoting means or instrument.

- (18) a. *á-súl-ie sinca əlcáni*  
1SG-prune-INST machete tree  
'I use the machete to prune the tree'

- b. *é-sul-ie*      *ɔlayio-ni ɔsinja ɔlcani*  
 3-prune-INST boy      machete tree  
 ‘The boy will prune a tree using a machete’
- c. *í-sóǰ-ɪɛ*      *enkáre ɔlkaraha*  
 2SG-wash-INST water cloth  
 ‘You use water to wash the cloth’

However, the instrumental suffix with other verbs introduce arguments that assume different thematic roles in the event. Some of the roles exhibited by the applied arguments that are introduced by the instrumental suffix are context and culture dependent.

The following example of the instrumental suffix illustrates its occurrence of the verbal morphology but it does not provide the argument denoting the kind of instrument it refers to, for example, a tool, means or reason as in other constructions. For the verb *-ɪjur-* ‘see’ or ‘make see’ the reading can obtain that the hands are the instruments referred to or it presents a directional function. The interpretation of direction by the suffix *-ie* is evident in some motion verbs where the idiosyncratic property of the verb results in the motion away reading being deduced, as discussed in section 4.5.

- (19) *e-ɪjur-ie*      *ɔlee eŋkaji aabori ɔldɔŋɔ*  
 3-look-INST man house down the hill  
 ‘The man made his house face down the hill’

Further investigation may indicate whether, with certain verbs, there is no clear distinction between the causative suffix *-ie* and the instrumental suffix *-ie*. In some verbal constructions the readings overlap, therefore, contextual entailment is required to decode the intended reading. In regard to semantic roles labelling, the house in the clause above appears to be the patient for it is acted upon by the agent. This suggests that the instrumental seems to have a directional reading. In the following example, a verb root occurs with the instrumental suffix *-ɲe*. This renders the reading that ‘the man came out of his house and not anywhere else’. Having said that, the derivation then implies that the house as an obligatory argument is the SOURCE. This gives evidence for the view that source is another semantic role that can be realized by the instrumental suffix in Parakuyo.

- (20) *e-βuku-je* *ɔlpayian eŋkaji eje*  
 3-exit-INST man house his  
 ‘The man will come out of his house’

The locative instrumental suffix is permitted by a number of verbs, including the verb *bulu* ‘grow’ as exemplified in (21). This demonstrates that the instrumental applicative can introduce locative arguments.

- (21) *e-tu-bulu-je* *Sendu emuji*  
 3-PFV-grow-INST Sendu town  
 ‘Sendu grew up in town’

To be specific, the instrumental suffix *-je* exactly refers to *emuji* ‘town’, the place where Sendu grew up. Another verb that permits a locative with the instrumental suffix *-ie* is *bik* ‘to live somewhere for a long time’ as in the following example.

- (22) *e-bik-ie* *Lari Larusa*  
 3-last-INST Lari Arusha  
 ‘Lari will stay in Arusha for a long time’

In addition, there are some verbs that select arguments with distinct properties. In clause (23) below, the verb *sioyo* ‘move quickly’ realizes the argument *engarrim* ‘a car’ as a tool that helps ‘the woman’ to rush somewhere. This is one of the complex instruments (machine) that is different from the typical instruments or tool used to perform an action, let say a ‘hammer’. As will be further discussed in Chapter Five, these instrument arguments are semi-autonomous; hence, they are considered as acting with minimal control of human beings.

- (23) *e-ita-sioy-ie* *engarrim endasat*  
 3-CAUS-rush-INST car woman  
 ‘The car will rush the woman’

Nonetheless, in the sentence (23), the same verb can select a DP denoting an abstract noun, for example, *emoyian* ‘disease’. This is an abstract causer that is different from the car. Thus, it becomes more of a causer than an instrument. The reading is that the disease has the capacity to kill without external influence and for this case, it may qualify to be a causer.

- (24) *e-ita-sioy-ie*                      *emoyian endasat*  
 3-CAUS-rush-INST    disease woman  
 ‘The disease killed the woman quickly’

The reading that obtains is that *emoyian* ‘disease’ is in the nominative case, hence it is a subject, and *endasat* ‘the woman’ is in the accusative case, therefore, it is an object. With transitive verbs, the subject and the direct object argument occur in (25a), whereas with a ditransitive verb a subject, a direct object and an oblique argument occur in (25b). With other verbs with the instrumental suffix, the preposition introduces the instrumental argument as an optional element (25c). As such, the PP adjunct has a means/tool or reason reading depending on the eventuality. It is evident that, the applicative suffix derivation occurs from intransitive to transitive, transitive to ditransitive and ditransitive to four-argument verbs when it co-occurs with a dative as in (25d).

- (25) a. *e-kuet-ie*    *Joni iraba ejena*  
 3-run-INST John rubber his  
 ‘John will run on his running shoes’
- b. *e-sir-ie*            *Joni olkalamu empalai*  
 3-write-INST John pen      letter  
 ‘John will write a letter with a pen’
- c. *e-sir*    *Joni empalai to lkalamu*  
 3-write John letter with pen  
 John will write a letter with a pen
- d. *e-ok-oki-je*            *endito enkerai endaa enkijikə*  
 3-fetch-DAT-INST girl child food spoon  
 The girl will serve the child with food using a spoon

A considerable number of the Parakuyo verbal roots in various verb classes can license an applied argument denoting an abstract noun if the instrumental argument expresses the reason for doing something. The reason or purpose argument in an eventuality can be realized in different structures, for example, in a DP, an infinitive clause, relative clause or a subjunctive clause. The reason/purpose clauses function as the argument of the derived verb in the following examples.

- (26) a. *e-ití-ijíd-ie*                      *εηκέραι osingolio*  
 3-CAUS-happy-INST child song  
 ‘She made the child happy with the song’

- b. *e-ití-ḡíd-ie*                      *εḡkéraí osingolio pe-eyerifo*  
 3-CAUS-happy-INST child song SUB-3-cook-APAS  
 ‘She made the child happy with the song so that she cooks’

In the above clause (26b) the subjunctive clause acts as the applied argument with the verb with an instrumental suffix yielding the reading expressing the reason of what made the woman cry. In other words, the example in (26b) could be an answer to a question, why is the woman crying? ‘The woman is crying because of her child is sick’. Another, rather idiosyncratic interpretation for some verbs with the instrumental suffix is, for example, with the verbal root *bik* ‘last longer’, as illustrated in the following clause.

- (27) *e-to-bik-ie*                      *Lekoko embasikeli*  
 3-PFV-last-INST Lekoko embasikeli  
 ‘Lekoko had the bicycle for so long’

The reading suggests that *Lekoko* maintained the bicycle and as a result, the bicycle lasted longer. This is the reading introduced by the instrumental suffix to the verb. Thus, the instrumental suffix licenses the occurrence of the second argument, the bicycle, in an associative manner. This entails that *Lekoko* has been riding and maintaining his bicycle and the occurrence of the instrumental suffix yields the reading that he has been doing that for a long time. The verbal root *bik* ‘last’ without the instrumental suffix cannot license the two arguments in its semantic role frame because it is an intransitive verb.

A further associative function of the instrumental is demonstrated by the verb *iḡoḡ* ‘dress’ in (28). The instrumental suffix *-ie* yields the reading that one matches the shoes with a black trouser. That is, for one to appear smart and fashionable, he has to wear those sneakers with a black trouser.

- (28) *a-iḡoḡ-ie*                      *kuna raba osurpale orok*  
 1-wear-INST this shoes trouser black  
 ‘I will wear these sports shoes with the black trouser’

The instrumental suffix introduces the object argument *raba* ‘rubber shoes’ that is associated or matched with the black trousers. Various other examples of this verb suffix demonstrate

arguments that are semantically associated with each other in one way or another. These include the verbs *ror* ‘talk’ *rorie* ‘talk to/with someone’.

With transitive verbs, the instrumental suffix introduces the instrument argument that appears immediately after the verb. Consider the following examples of the instrumental verb constructions with transitive verbs (29a, b, d) and intransitive verb (c).

- (29)
- a. *e-duŋ eŋkiriŋo* (non-instrumental)  
3-cut meat  
‘He will cut meat’
  - b. *e-duŋ-ie eŋkalem eŋkiriŋo* (instrumental)  
3-cut-INST knife meat  
‘He cuts the meat with the knife’
  - c. *e-nok yeyio kewán* (non-instrumental)  
3-work.hard my.mother herself  
‘My mother will make effort herself’
  - d. *e-nok-ie kewán enkurruma* (instrumental)  
3-improve-INST herself farm  
Lit. ‘She will improve her life through the produce from the farm’

The order of arguments in the above clauses demonstrates that the applied argument (indirect object of the verb) is adjacent to the verb followed by the direct object, that is, the order of arguments necessitates that the applied argument precedes the patient/theme argument.

- (30)
- a. *e-duŋ-ie eŋkalem eŋkiriŋo*  
3-cut-INST knife meat  
‘He will cut meat with the knife’
  - b. *e-duŋ eŋkiriŋo te eŋkalem*  
3-cut meat with knife  
‘He cuts the meat with the knife’

Example (30a) demonstrates that the instrument argument is introduced by the instrumental suffix. In example (30b), the instrumental suffix does not appear, rather only a basic verbal stem appears, which permits the occurrence of the prepositional *te*-phrase ‘with/by’ that introduces the instrument in a PP as an optional element in the clause. In contrast, in example (30), the morpheme *-ŋe* introduces a different type of instrument argument that has a distinct

reading from the typical instrument or tool (related to example 25d above). This reading is more idiosyncratic. The order of arguments is fixed and no other words can occur in between the arguments in the clause. These verbal constructions are possible with ditransitive roots, for example, the verb ‘buy’ from ‘obtain verbs’ class (Levin 1993), as demonstrated in the following examples.

- (31) *e-ijnaŋ-aki-je endasat ilpombok əlpayian osurpale*  
 3-buy-DAT-INST woman beans man trouser  
 ‘The woman bought a man a trouser after selling beans’  
 Lit. ‘With the money she got from selling beans, the woman bought the man a trouser’

The instrument argument can be a concrete or abstract argument. The kind of tool or means introduced by instrumental suffixes *-je* or *-ie* also spans from concrete tools to liquid substances like water in (32), and knowledge or skills employed to effect change of state or situation (Karani 2013).

- (32) *isuj-ie ena are engarrim*  
 2-wash-INST this water car  
 ‘Wash the car with this water’

Furthermore, other verbs, for example, *raβof* ‘feed’ permit the prefix *-itV* for causative and *-ie* for instrumental, namely *aitaraβofie inkera ilmomo* ‘I will feed children with fruits’. As such, feed-like verbs must allow a causative prefix to occur for it to be compatible with an instrumental suffix *-ie*. Consider the example in (33a) compared to (b and c).

- (33) a. *e-ità-raβof-ie ewau enkerai ilmomo*  
 3-CAUS-satisfy-INST grandmother child fruit  
 ‘The grandmother fed the child with fruits’  
 b. *e-ità-raβof ewau enkerai*  
 3-CAUS-feed grandmother child  
 ‘The grandmother will feed the child’  
 c. *e-raβof-o enkerai*  
 3-satisfy-PFV child  
 ‘The child is satisfied’

When a causative *itV* occurs in the derived verbal base in the past, as in the clause above, a high tone is encoded on the causative prefix for the perfective aspect whereas, for the imperfective aspect interpretation, a low tone is encoded on the causative prefix.

In the data collected, it is evident that with the root *yel* for ‘know’ or ‘understand’, the instrumental suffix *-je* renders the interpretation that ‘the subject will use some tool, for example, a book, a board to learn something’. In contrast, when the same suffix co-occurs with the root *yeu* ‘want’ the interpretation obtains that somebody (she) wants to see someone (him) because she<sub>i</sub> has something to tell him<sub>j</sub>, or she<sub>i</sub> wants something from him<sub>j</sub>. In other words, one can argue that the two readings help to differentiate the actual instrumental argument introduced by the structure in *yel* and the ‘reason’ function of the suffix in the root *yeu* ‘want’. The ‘reason’ role of such an instrumental suffix, in most cases, is introduced in the form of a subordinate clause or infinitive; but this is not always the case with other roots as in (34a-b).

- (34) a. *e-ta-yeleu-je*      *esirare olkibao*  
 3-PFV-know-INST    writing board  
 ‘She learnt writing on the board’
- b. *e-yeu-je*      *olpayian entito impesai*  
 3-want-INST    man    girl    money  
 Lit. ‘The man wants to meet the girl so that he can ask for money from her’

In addition, the instrumental suffix can co-occur with a combination of other affixes. With some of the verbs, the instrumental suffix appears in the verb-final position, following the causative and dative affixes. A range of verbs occurs with similar lexical-semantic properties that permit the dative and instrumental suffixes together. Such a combination changes the type of instrument referred to by the instrumental suffix from a tool to something less of a tool or an abstract entity. In (35), the instrumental suffix *-je* introduces the argument *impesai* ‘money’, the amount that is paid or the reward for someone who has done a certain job or a price of commodity or service.

- (35) *kaɲoo ki-ntéŋen-àki-je*    *enkerai*  
 what 2-teach-DAT-INST child  
 ‘How much do you charge me for teaching the child?’

With roots like *-isom-* ‘read’ the antipassive can co-occur with the instrumental – the antipassive being followed by the instrumental suffix *-re*, as in *a-isom-ifo-re esola* ‘I read using a solar light’. The instrument with such verbs can be *spectacles, table, light* or anything that helps in the reading process.

Other instances occur where the morpheme *-ie* (in the verbal root *gel* ‘select/choose’ or ‘ask for advice’) appears to have a reading that is in between causative and instrumental. In the clause, the interpretation of the clause is context dependent. The reading that obtains can be the answer to the question, for example, ‘who did Salim consult for advice?’, or ‘with whom did Salim share his matter?’ Consider the following example in (36).

- (36) *e-gel-ie Salimu mepe ororei*  
 3-share-INST Salim his.father word  
 ‘Salim will ask for advice from his father’

Literally, in the common reading of the instrumental suffix, the interpretation obtaining in a construction like (36), through the instrumental suffix is that the agent, in some cases, make another agent do something for him, or get something from him, for example, discuss the matter with somebody in order to find solution or looking for *ororei* ‘advice’ for this matter.

The analysis in the section above provides evidence that the instrumental suffix can widely be applied to different lexical-semantic verb categories. The construction in (37) presents the use of the instrumental suffix *-yie* with texture verbs. It shows how one element, milk, can affect the viscosity of tea by making it thick. It can also mean ‘make it heavy’ or ‘thick’ or ‘light’ as in the following example.

- (37) *iruſa-yie kule ſâi*  
 2-thick-INST tea milk  
 Make tea heavy with milk

This refers to the idea introduced earlier that the nature of the instrument associated in the semantics of the verb lexicon of the language is considerably diverse ranging from texture, state, namely solid, liquid, concrete, abstract to reasons or purpose.

The instrumental suffix also introduces indirect ‘means’ or reason in the same verb with a slight difference in the architecture of the eventuality. The verb, *maŋ* ‘live’ or ‘move in the house’

has both options. First, it shows ‘means’, money for this case, which enables one to move in the new house. This means in (38b) that the woman used the money to pay for rent or buy furniture in order to move into a new home. Second, in (38c) the reading of the clause denotes the reason that made the woman move in to that particular house. Therefore, what is emphasised here is the different roles assumed by the argument introduced by the instrumental suffix *-ie*. In addition, the context set by the question in (38a) informs the discourse-context of the following examples.

- (38) a. *kaɲoo i-ta-maɲ-ie*                      *ena aji*  
 What/why 2-PFV-live-INST this house  
 ‘Which resources did you use to move in this house?’  
 ‘Why did you move in to this house?’
- b. *e-ta-maɲ-ie*                      *endasat impesai ainei ena aji*  
 3-PFV-move-INST    woman money my this house  
 ‘The woman used my money to move in this house’
- c. *e-ta-maɲ-ie*                      *endasat ena aji enkitoo*  
 3-PFV-move-INST    woman this house bigness  
 ‘The woman moved in this house because of its big size’

The instrumental suffix in the c-example above introduces the applied argument *enkitoo* ‘bigness’, denoting that the bigness of the house is the reason that made the woman move in. Other verbs that illustrate similar properties with the instrumental suffix are *mirr* ‘sale’ *nco* ‘give’, *lak* ‘pay/untie’, among others. To set the context for the following examples the following question is asked: *Kaɲoo etimirie Sane eɲkiteɲ?* ‘How much/ why did Sane sell the cow?’ The reading obtaining in the clauses in (39a) and (39b) denote possible answers. Two answers are possible, as exemplified here. The arguments introduced by the instrumental suffix are school fees and one million in (39a) and (b) respectively.

- (39) a. *e-ti-mir-ie*                      *Sane eɲkiteɲ ada oo nkera*  
 3-PFV-sell-INST Sane cow    fees of children  
 ‘Sane sold the cow to pay children’s school fees’
- b. *e-ti-mir-ie*                      *Sane eɲkiteɲ emilion*  
 3-PFV-sell-INST Sane cow    one million  
 ‘Sane sold the cow for one million shillings’

Furthermore, for some verbs to occur in an instrumental construction in Parakuyo they obligatorily require a causative stem to allow an instrumental suffix and an instrumental argument. This is in line with the view expressed in the research literature that in various languages the instrumental overlaps with the causative (Shibatani and Pardeshi 2002). In the data provided in (40), the causative prefix precedes the root and the instrumental suffix follows the root.

- (40) a. *e-ité-mer-ie*                      *Keri olupayan enaifo*  
 3-CAUS-drunken-INST Keri man        alcohol  
 ‘Keri will make the man drunk with alcohol’
- b. *e-ité-ŋen-ie*                      *entito eŋkerai eŋkitabu*  
 3-CAUS-learn-INST girl    child    book  
 ‘The girl will teach the child using the book’

In contrast, to the properties of some verbal roots (*eat/drink* verbs), that is, the requirement for the causative suffix to precede the instrumental suffix, there are verbs that have two options for the instrumental suffix. For these verbs, a root can occur with an instrumental suffix or the instrumental suffix can co-occur with other derivations like the dative suffix. These verbs are mainly from certain semantic verb classes, for example, *remove* verbs, *banish* verbs, *building* verbs and *speaking* verbs. Consider the following examples in (41).

- (41) a. *e-fet-ie*                      *ɔlindo ɔlale*  
 3-build-INST hummer kraal  
 He will build the kraal using the hummer
- b. *e-fet-aki-ŋe*                      *ɔlindo ɔlale*  
 3-build-DAT-INST hummer kraal  
 He will build the kraal for him/her using the hummer

In an attempt to exhaust the possible interpretations that an instrumental suffix can provide, different verbal roots are tested with the instrumental suffix. This is necessary because, in the verb database compiled for this study, all the possible occurrences of each verbal affix in the verbal morphology have to be analysed and described. Consider the following verbal construction that yields two different readings with the occurrence of the instrumental suffix *ie*. The low tone in the second syllable of the root encodes the perfective aspect.

- (42) a. *e-igùran-ie enkerai oldia*  
 3-play-INST child dog  
 ‘The child played with the dog’
- b. *e-igùran-ie enkerai esaa*  
 3-play-INST child watch  
 ‘The child played with the watch’  
 (Probably the child destroyed it)

In the first clause, the child is playfully having fun with the dog. However, in the second clause, the interpretation is that the child plays with a watch (that she should not be playing with) and the chances are high that she may destroy it. The applied arguments introduced by the instrumental suffix in both examples have distinct properties. In (42a) the argument *oldia* ‘dog’ is a comitative function of the instrumental suffix. The comitative conveys a relationship of accompaniment between two arguments (the child and the dog) in an event (Stolz et al. 2009). In the b-example one of the interpretations suggests that the relationship between the child and the watch is of an agent and an instrument where the child uses the watch as an instrument for happiness. Thus, the properties of the subject argument contribute to the reading of the instrumental construction.

There are verbal roots that result in idiomatic phrases when the instrumental suffix occurs. The verb *or(r)* ‘separate’, in the first clause in (43a) means literally to separate but the second and the third yield idiomatic readings as demonstrated in (43b) and (43c). In Tucker and Mpaayei (1955), these verb constructions have been associated with dative verb constructions.

- (43) a. *ε-οr-ιε ilahək ejōdi*  
 3-separate-INST calves stick  
 ‘He will use the stick to separate the calves’
- b. *ε-οr-ιε ilahək ηjkifō*  
 3-separate-INST calves cows  
 ‘He will separate the calves from the cows’
- c. *e-to-oro-yie alpayian alayīōni*  
 3-PFV-separate-INST man boy  
 ‘The man gave the boy his inheritance share’

The above clauses exemplify arguments with different thematic (or semantic) roles. The first one in (43a), has an instrument semantic role but the other two do not have an instrumental role

as in (43a) i.e. an argument referred to as expressing a semantic role of instrument. Rather, the instrumental suffix changes the verb to an idiomatic verb construction. The second, in (43b) is a construction in which the instrument is implied and by so doing, the focus becomes the event itself and the two arguments, not the tool used to perform the action. Likewise, in the third example (43c), there is no indication of any instrument, but rather the motion away reading can be inferred. This is vivid through the reading, which means ‘separation’, the interpretation that obtains for the instrumental suffix *-yie*. The idiomatic interpretation of the combination of the verbal root *orr* ‘separate’ and the instrumental suffix obtains in the translation in the c-example which clearly shows the idiomatic reading compared to the literal one which would be ‘the man separates the boy’

The following clauses also denote an idiomatic reading where the instrumental suffix *-ie* has a sense of sharing something with somebody else. Consider the following examples.

- (44)
- a. *a-ŋar-ie*            *ɔlpayan endaa*  
1SG-share-INST man food  
‘We share the food with the man’
  - b. *a-ŋar-ie*            *kina Masek*  
1SG-share-INST breast Masek  
‘Masek and I are brothers’  
Lit: ‘I share the breasts with Masek’
  - c. *a-ra-yie*            *kitok emali na-ata*  
1SG-be-INST big wealth REL-have  
‘I am great because of the wealth that I have’  
Lit: I am big with wealth that I have’

Other verbs with the idiosyncratic instrumental roles include the verbs *taayie* ‘give a cow to somebody to take care of it for you for a certain period of time’ *ŋadie* ‘save somebody or something from a problem’ and *itarasayie* ‘pass something from somewhere or somebody to somebody else’. These constructions present a challenge in regard to the distinction of the instrumental suffix *ie* and the motion away suffix *ie*. Consider the following examples.

- (45)
- a. *e-ittaa-yie*            *Meru enkiteŋ epe*  
3-give.for.a.while-INST Meru cow his  
‘Meru gave his cow to somebody for a while’

- b. *e-ḡad-ie ilayɪɔk intoyie ildiaɪn*  
 3-stop-INST boys girls dogs  
 ‘The boys will stop dogs from biting girls’

As mentioned earlier, the types of instruments introduced by instrumental suffixes are diverse. Depending on the lexical-semantic properties of the verb, some readings of verbs with the suffix *-ie* can present a reading that is in between the instrumental and motion away interpretation. This poses the challenge of a fuzzy boundary on the labelling of the suffix *-ie* in such verb constructions where the suffix *ie* sounds as either instrumental or motion away. In other words, it introduces various relationships between arguments in the eventuality that are different from the typical instruments or tools. In (43), the suffix *-yie* introduces an argument that stands as something that accompanies an apology from somebody who wronged another person.

- (46) *e-tasa-yie ɔmurrani meḡe ɛḡkiteḡ*  
 3-PFV-apologize-INST warrior his.father cow  
 The warrior gave a cow to his father as an apology

Instrumental constructions can be modified by reason or purpose clauses. These embedded clauses or constructions provide a reason for the events to happen or the rationale for its happening if it happened in the past. The instrumental suffix introduces the purpose or reason construction in the position of a directly applied argument unlike its alternant that appears as an optional adjunction in a PP as in (44b).

- (47) a. *a-yier-aki-ḡe Esita emborrai eḡe*  
 1-cook-DAT-INST Esita politeness her  
 ‘I will cook for Esita because of her politeness’
- b. *e-ijnaḡ-u engarrim pe-lot-ie osiai (non-instrumental)*  
 3-bought car SUB.3-go-INST job  
 ‘He bought a car so that he drives to work’

The difference between the two, purpose clause and reason construction, is that in the reason clause construction, the reason clause is nominalized. Hence, it occupies a slot of an argument without a subjunctive or relativizing element. In the purpose clause as illustrated in (45), the embedded clause is introduced by subjunctive morphology *pe*.

- (48) *e-ijaru-ne Kunene inkifō engarrim pe-lot-ie safari*  
 3-buy-INST Kunene cows car SUB-go-INST journey  
 ‘Kunene bought a car (after selling cows) so that he travels by it’

Thus, the instrumental argument still occurs in the clause, while the purpose clause is a modifier of the whole event. The difference in the clause above is that the instrument argument denotes an event on its own, giving the reading ‘after selling the cows’ – then he will use the money to buy a car, and then followed by a clause expressing the purpose of that car.

### 4.3.3 Information structure in instrumental constructions

In instrumental constructions, generally, the DP argument, which is the instrument argument, is focused. Focus, as briefly defined, refers to the entity that receives more emphasis in a clause. On the other hand, topic is realized when the context for the general idea or predication is presented in the clause. In other words, topic relates to information that is common ground, familiar and clearly mapped in the context of an utterance (Gundel and Fretheim 2004; Gundel 2012). However, Lambrecht (1994:120) argues that although in some languages the syntactic structure of the sentence can help to determine topic, in some languages like English; this is not in itself sufficient. Thus, the meaning of the entire sentence and the discourse-pragmatic context in which the sentence appears should also be taken into consideration.

In Parakuyo, a VSO structure necessitates that the subject precedes the applied object, followed by the oblique object of a verbal transitivity feature. The referential function introduced by the instrumental suffix is the instrumental thematic role realized by the DP referent. Thus, the DP referent denotes the tool, reason, purpose, place or other roles performed by the instrumental argument in the event. This suggests that the instrumental suffix cannot introduce the agent argument as illustrated in (46). The clause illustrates the semantic anomaly that occurs when the agent argument appears in the instrument argument position.

- (49) *\*e-te-yieŋ-ie ilewak aare enkiteŋ*  
 3-PFV-slaughter-INST men two cow  
 Intended: ‘Two men slaughtered the cow’  
 (By two men the cow was slaughtered/the cow was slaughtered by two men/two men slaughtered the cow)

In addition, if the instrumental argument occurs as an optional adverbial PP in a clause, the verb cannot permit the instrumental suffix.

- (50) \**e-te-yieŋ-ie*                    *enkiteŋ te enkalem*  
 3-PFV-slaughter-INST cow    with knife  
 Intended: He slaughtered the cow with a knife

The preposition *tV* introduces an instrument used in the event but it cannot co-occur with the instrumental suffix as in the (51) clauses.

- (51) a.    *e-tu-duŋ-o*            *enkiriŋo te enkalem*  
 3-PFV-cut-PFV meat    with knife  
 ‘She cut the meat with a knife’
- b.    *e-tu-duŋ-ie*            *enkalem enkiriŋo*  
 3-PFV-cut-INST knife    meat  
 ‘He cut the meat with a knife’
- c.    *enkalem e-tu-duŋ-ie*    *endasat enkiriŋo*  
 knife 3-PFV-cut-INST woman meat  
 ‘It is the knife the woman used to cut the meat’
- d.    *te enkalem e-tu-duŋ-o*    *endasat enkiriŋo*  
 with knife 3-PFV-cut-PFV woman meat  
 ‘With the knife, the woman cut the meat’

Thus in (51a), it is evident that the theme *enkiriŋo* ‘meat’ is the topic and not the instrument, which appears as an optional argument. In (51b) the applied instrumental argument being the topic, occurs closer to the root with the instrumental morphology. The instrumental can also be topicalized by putting it in the initial position of the clause, either in a DP or in a PP, as in (51c) and (d).

#### 4.3.4 Instrumental combination

This section presents the analysis of suffixes that can co-occur with the instrumental suffix in Parakuyo verb constructions. The instrumental suffix precedes other suffixes in all combinations. The instrumental combinations that are acceptable in Parakuyo are instrumental and impersonal, instrumental and motion away and instrumental and motion towards. In the following paragraphs, I describe and exemplify these combinations.

#### 4.3.4.1 Instrumental and impersonal

One of the combinations that are attested in Parakuyo is the instrumental and impersonal passive. The following clauses demonstrate the combination of instrumental suffixes *-ie* and *-je* and impersonal *-ki*, in this order, respectively.

- (52) a. *e-oku-je-ki*      *enkikombe*    *enkare*  
 3-fill-INST-IMP cup            water  
 ‘The cup will be used to fetch water’
- b. *e-sul-ie-ki*            *osinca*    *olcheta*  
 3-prune-INST-IMP    machete tree  
 The machete will be used to prune the tree

#### 4.3.4.2 Instrumental and motion away

The instrumental suffix *-ie* can co-occur with the motion away suffixes *-aa* or *-oo*. However, as mentioned above, the motion away suffix denotes a plural reading of the argument it introduces, or the sense that the event or process denoted by the verb took a long time.

- (53) *e-tur-oo-rie*            *papa inkorroman ilmoji*  
 3-plough-MA-INST    father fields    oxen  
 My father will use oxen to plough fields

The concept of motion away in this context (consider example 53 above) has been shifted to yield a reading of a coverage of a bigger area that will be cultivated. The concept can be linked to the wider scope in time and space that the event takes place.

#### 4.3.4.3. Instrumental and motion towards

The combination of the instrumental and motion towards suffixes is licit in Parakuyo. The example in (50) combines the suffix *-u* and the instrumental *-je* to denote the use of some tool to move something closer to the speaker or the doer. The instrumental suffix *-je* appears specifically with a motion towards reading because the same verbs permit the common instrumental suffix *-ie*, not co-occurring with any other suffix. The use of the motion away yields a directional (away) reading in that the suffix *-ie* indicates motion away by default when it occurs with motion verbs. In (50a) the motion towards suffix expresses the extraction of potatoes from the ground to the agent’s possession.

- (54)
- a. *e-tur-u-ɲe*                      *yeyio*      *ɔsinja*    *ilkisoyia*  
3-uproot-MT-INST    my.mother    machete    sweet.potatoes  
My mother will dig out sweet potatoes with a machete
  - b. *e-lot-u-ɲe*      *endeke*  
3-go-MT-INST plane  
He will come by plane
  - c. *e-lot-ie*      *endeke*  
3-go-INST plane  
He will go by plane

In order to counter the direction semantics, a motion towards suffix co-occurs with the instrumental suffix to denote the opposite direction of the motion. This distinction is illustrated in (54b) and (c) above.

#### 4.4 The dative in Parakuyo

The term dative that is prototypically employed in Nilotic languages to refer to the verbal suffix that introduces an event directed towards some individual, for example, beneficiary, patient or a location connected to the event (Dimmendaal 2009). In Parakuyo, the dative construction is morphologically realized by *-aki* or *-oki* in the present, subjunctive and imperative, and *-aka* or *-oko* in the perfective aspect. The selection of these suffixes depends on the lexical-semantic properties of the verb and vowel harmony. With intransitive verbs, the dative introduces the argument that assumes different semantic roles. The role assigned to the argument is subject to the morphosyntactic features of the verb and the type of a DP that is selected by the verb. In the description of the dative form, it is evident that the salient semantics role is the beneficiary, patient or theme, goal, and locative.

In the Maa varieties, the dative suffix extends the argument structure of a predicate (Payne 1997:102) by introducing an argument or by promoting a peripheral or oblique argument to argumenthood status (Payne 1997:102, 2001:547; Lamoureaux 2004:33, 65; Karani 2013). In the Eastern Nilotic languages, the dative suffix introduces a benefactive, malefactive, recipient comitative and location (Dimmendaal 2009). Consider the following examples for an intransitive clause with the verb *raɲ* ‘sing’.

- (55) a. *e-raj-aki intoyie ilomon*  
 3-sing-DAT girls guests  
 ‘The girls will sing for the guests’
- b. *e-ta-raj-aka entito ilomon*  
 3-PFV-sing-DAT girl guests  
 ‘The girl sang to the guests’

Syntactically, the argument introduced by the dative suffix is an object argument of the verb and, therefore, it is in the accusative case. In other languages, for example, Bantu languages, this construction is referred to as the applicative, which denotes that the subject argument is doing something for somebody else, the recipient, in this case, which is the object argument of the verb (see also 56a and b for transitive clauses).

- (56) a. *e-bol-oki entito enkerai olmulango*  
 3-open-DAT girl child door  
 ‘The girl will open the door for the child’
- b. *e-tuur-oko entito enkerai olmulango*  
 3-PFV-fall-DAT girl child door  
 ‘The girl made the door fall on the child’

Some verbs permit the dative suffixes *-ɪɪ* or *-iki* for the present tense and subjunctive verb, and the suffixes *-ikia* or *-ikio* for the past tense in expressing the dative. Some of the reasons for this distinction are discussed below in this section. The difference between the two suffixes: *-ɪɪ* or *-iki* is the properties of the vowel. The suffix *-ɪɪ* is referred to as Retracted Tongue Root and *-iki* is referred to as Advanced Tongue Root vowel. These features are commonly referred as [ $\pm$ ATR] in the research literature. For relevant discussion see section 2.2, and Payne et al. (2004).

- (57) a. *e-kuet-ɪɪ olaha enkare*  
 3-run-DAT calf water  
 ‘The calf will run for water’
- b. *e-kuet-ikia olaha enkare*  
 3-run-DAT calf water  
 ‘The calf ran for water’

- c. *e-mut-iki olpaian itw-elo osokoni*  
 3-late-DAT man NEG-go market  
 ‘It will be late before the man goes to the market’
- d. *e-mut-ikio olpayian elo osokoni*  
 3-late-DAT man go market  
 ‘It is late for the man to go to the market’

Tucker and Mpaayei (1955), Payne (2001, 2010) and Dimmendaal (2009) argue that diachronically, the prototypical form of the dative suffix is *-akin* as illustrated in verbs like *-gor-* ‘become angry’. This is because in dative constructions, for example, *egorokino* ‘be angry at something or somebody’ and in reciprocal (which would be confused or similar to dative morpheme), as in *igorokinono* ‘be angry at each other’. This form consists of the basic *-oki-* for dative, then *-n-* and the perfective suffix *-o*. It is possible that either the suffix *n* enters between some exceptional roots, or the dative form is *-akin-*. According to Dimmendaal (2009), the suffix *akin* and its allomorphs occur in Turkana as a dative morpheme. This suggests that *akin* may be a proto-form or a cognate of dative in Nilotic languages, since it is evident in Toposa (Schroeder 2008), Maasai (Payne 2001 and 2010) and Turkana (Dimmendaal 2009).

The dative form does not have to co-occur with the suffix *-no* which encodes reciprocal with many verbs, but it is compulsory with a few verbs, for example, *arkakino*. The verb *ark* ‘be angry at’ cannot derive a dative with the dative suffix *-aki* itself, but it must co-occur with the suffix *-ino* that indexes the patient argument, which it introduces in a clause. The arguments (nouns or reciprocal pronouns) in the reciprocal extensions sometimes are not necessarily expressed overtly, if they are known from the discourse-context.

Dative and reciprocal combinations with other verbs result in idiomatic expressions. They may not have any association with the basic meaning of the root in question. It has been stated (Tucker and Mpaayei 1995; Dimmendaal 2009) that the dative may denote an action directed to a certain goal or direction to a certain point or location. In the following set of example, the dative morpheme *-oki* denotes the goal or the end of the road. The dative refers to the point on the land’s surface where the road or path ends. Without the dative, the simple underived form of the verb would require a preposition *te* ‘at’ before the demonstrative *ene* ‘here’. Compare example (58a) and (b).

- (58) a. *e-itij-oki onkɔtoi ene*  
 3-end-DAT road here  
 ‘The road ends here’
- b. *e-itij enkɔtoi te ene*  
 3-end road at here  
 ‘The road ends here’

Dative morphemes with some verbs result in slightly different readings compared to the basic meaning of the simple verb without the suffix. The root *idim* ‘be able’, for example, basically means ‘be able’ to do something, but when combined with a dative suffix its meaning changes to ‘afford’ or ‘be able to provide’ something for the argument (benefactive/recipient or other theta roles), for example the child in (59b). Consider the example with a simple transitive verb and its dative construction.

- (59) a. *e-idim ɔlpayian aatalaa ada e fule*  
 3-able man to.pay fees of school  
 ‘The man can pay school fees’
- b. *e-idim-aka ɔlpayian aatala-aki enkerai ada e fule*  
 3-afford-DAT man to.pay-DAT child fees of school  
 ‘The man afforded to pay school fees for the student’

It is evident in the above example that in the dative construction, a new argument is introduced in the structure. In (59b) the beneficiary is introduced since the dative licenses the occurrence of the argument that is directly linked to the event performed by the agent in the clause. The difference in this structure is that there is a dative suffix occurs with the main verb and infinitive verb. The first dative suffix refers to the event denoted by the whole clause, whereas the one with the to infinitive denotes the beneficiary.

A salient aspect of dative constructions is the diverse types of arguments that the dative introduces depending on the lexical-semantics of verbs. With the verb *yel* ‘know’, for example, the dative denotes the implicit argument in the clause. In the example (60b), the dative refers to some secret that the woman knows about the girl, but it is not known to others.

- (60) a. *e-yielo endasat entito*  
 3-know woman girl  
 ‘The woman knows the girl’

- b. *e-yiel-oki endasat endito*  
 3-know-DAT woman girl  
 ‘The woman knows some(thing) secret about the girl’

If need be, the argument introduced by the dative suffix can be realized by a referential DP or by an implicit DP ‘something’, which means the woman knows something about the girl, as illustrated in the following example.

- (61) *e-yiel-oki endasat endito toki*  
 3-know-DAT woman girl something  
 ‘The woman knows something about the girl’

With ‘get verbs’ the dative behaves in a rather different manner in that it reduces the arguments in the clause. In (62a), the verb has an object argument and clause modification. The relative clause introduced by a relativizer *na-* can be translated as ‘(so) that I go to school’. The clause complement in (62b) occurs as an infinitive in a dative construction yielding an idiosyncratic reading. It appears as an object argument of the verb; yielding the reading, ‘he/she will get time to go to school’. However, the same verb constructions permit a beneficiary and theme argument as demonstrated in (62c).

- (62) a. *a-tum eɣasiata na-lot-ie fule*  
 1SG-get time REL-go-INST school  
 ‘I will have time to go to school’
- b. *a-tum-oki aafomo fule*  
 1SG-get-DAT to.go school  
 ‘I will have time to go to school’
- c. *a-tum-oki enkerai impesai e fule*  
 1SG-get-DAT child money of school  
 ‘I will get the school fees for the child’

In the second clause, the property of time is realized in the semantics of the verbal root with the dative suffix. The whole verb phrase gives a reading that ‘I will get/have time’ to do something. In the following clauses, the dative introduces the patient ‘child’ who is being subjected to nagging by the woman. The meaning is possibly derived from the verb *jij* ‘enter’ hence, the literal reading of ‘entering somebody with words or make the speaker’s words enter

somebody's heart', interpreted as 'nagging'. Thus, the argument introduced is the malefactive in the event.

- (63) a. *e-jiŋ iltuŋanak aji*  
 3-enter people house  
 'People will enter into the house'
- b. *e-jiŋ-aki endasat enkerai*  
 3-enter-DAT woman child  
 'The woman will nag the child'

Examples of the same argument occur in the following clauses where the dative construction yields the reading that 'the load will be too heavy for the boy to carry'.

- (64) a. *e-irofi ele ola*  
 3-heavy this baggage  
 'This baggage is heavy'
- b. *e-irof-iki ele ola enkayioni*  
 3-heavy-DAT this baagage boy  
 'This baggage will be heavier for the boy'

With a motion verb, for example, *doi-* 'drop' the same dative suffix assigns a different thematic role to the argument that appears in a PP. The (65b) PP *aatua olkeju* 'in the water' represents the goal, that is, the destination where the ball falls. One of the reasons for the change of thematic roles of the arguments introduced by the dative suffix may relate to the lexical semantic features of different verb classes, as exemplified by attribute and motion verb, respectively. In the examples, (65b-c), it is evident that the dative suffix itself and the combination of dative and causative do not change the theta role of the applied argument.

- (65) a. *e-do-yio empira*  
 3-drop-IPFV ball  
 'The ball will fall'
- b. *e-ita-do-iki Joni empira olkejɔ*  
 3-CAUS-drop-DAT John ball river  
 'John will drop the ball into the river'
- c. *e-ita-do-iki Joni empira aatua olkejɔ*  
 3-CAUS-drop-DAT John ball in water  
 'John will drop the ball in water'

Some idiomatic nuances that obtain with verbs the dative suffix is affixed to generally still reflect the primary meanings of the verbs. In (66b), the verb *lo* ‘go’ co-occurs with the dative suffix and it changes the reading from ‘going’ to ‘bewitch’.

- (66) a. *e-lo Saruni mujini*  
3-go Saruni town  
‘Saruni will go to town’
- b. *e-lot-oki Saruni olalaje*  
3-go-DAT Saruni brother  
‘Saruni will bewitch his brother’

The verb denotes the event where somebody goes to the witch and asks him/her to bewitch somebody else. The above examples illustrate idiomatic readings from dative constructions.

#### 4.4.1 The order of arguments in dative verb constructions

In the complete realization of the dative verb construction stem, three arguments (with three theta roles) occur and with some verbs one may be a PP argument. In clause (67a), an agent, beneficiary, theme and an instrument occur in a PP. Ditransitive verbs do not permit the causative suffix possibly because a ditransitive construction already has three arguments and to add another argument would render the construction with three object arguments which is not allowed in Parakuyo. They can realize arguments in different structures, e.g. as a direct or indirect object or oblique phrases, as in (67a), (b) and (c).

- (67) a. *e-i-foo enkayioni enkiteŋ enkare to olkarai*  
3-give boy cow water with basin  
‘The boy gave the cow water in a basin’
- b. *e-itaras-aka Joni olmalimui empalai*  
3-pass-DAT John teacher letter  
‘John passed the letter to the teacher’
- c. *e-itaras-wa Joni empalai te enkaina*  
3-pass-PFV John letter with hand  
‘John passed the letter to the teacher by hand’

The ditransitive verb *itaras* ‘pass/send something’ has a causative prefix as part of a root as in (67b) and (c). The PP above cannot introduce a locative or an instrumental argument together

with a causative nuance. Thus, when a causative prefix occurs in the verb morphology, the argument, without a preceding preposition, follows the subject argument. Some divergent views obtain on the structure of the PP-variant of double-object constructions (direct object and a PP argument) versus the double-object constructions (direct object and indirect object) (Pylkkänen 2002). It is argued that the two versions of object realization are different in that when the recipient and theme are both scope-bearing elements, the scope is viewed to be free in the PP-variant but frozen in the double-object construction (Pylkkänen 2002). Scope-bearing element refers to the element that takes scope over everything that it c-commands on the surface.

Possession verbs without a causative prefix are typical ditransitive verbs, with the event involving three arguments: an agent, beneficiary and a theme. Verbs in this class include, for examples, *ncoo* ‘give’ *ntarasai* ‘pass’ and *jan* ‘buy’. These verbs demonstrate the caused possession event structure (Levin 2015). The alternation of the dative in Parakuyo occurs through the two object arguments changing order. The benefactive, realized in (68) occurs as a PP in (68a) and as a DP adjacent to the agent in (68b).

- (68) a. *e-ijana Meja olmauai le enkerai*  
 3-buy-IPFV Meja flower of child  
 ‘Meja will buy a flower for the child’
- b. *e-ijana-aki Meja enkerai olmauai*  
 3-buy-DAT Meja child flower  
 ‘Meja will buy the child a flower’

The dative suffix increases the construction to four arguments in the clause. The hierarchical ordering of these arguments dictates the thematic roles for each of the arguments (López 2001). Tone plays a role in identifying the nominative and accusative DPs in the clause. The order of the thematic arguments in (69a) is the agent, beneficiary, theme and locative.

- (69) a. *é-igáñ-àki éntito enkerai kole enkikómbe*  
 3-fill-DAT girl child milk cup  
 ‘The girl will fill the cup with milk for the child’
- b. *\*é-igáñ-àki entito kule enkikombe enkerai*  
 3-fill-DAT girl milk cup child  
 Intended: ‘The girl will fill milk in the cup for the child’

- c. *é-igáŋ-âki entito enkerai enkikɔmbɛ kɔle*  
 3-fill-DAT girl child cup milk  
 ‘The girl will fill milk in the cup for the child’

The displacement of the beneficiary in the clause results in unacceptability, as demonstrated in (69b). The theme and the locative argument can change order as long as the agent and the beneficiary occupy the position adjacent to the verb. (69a) and (c) illustrate the changed order of the theme and location arguments.

However, the beneficiary argument can exchange positions with the theme argument as indicated in the following examples.

- (70) a. *e-ep-oko ɔlpayian enkerai ɔlkaraha*  
 3-cover-DAT man child cloth  
 ‘The man covered the child with a cloth’
- b. *e-ep-oko ɔlpayian ɔlkaraha enkerai*  
 3-cover-DAT man cloth child  
 ‘The man covered the child with a cloth’

In (66b) the theme argument bears the focus, hence, it occurs closer to the agent and the beneficiary occurs at the end of the clause. This reading obtains that the man covered the child with a cloth and not a blanket or something else. In the dative verb construction the beneficiary and the theme, for example, can be topicalized depending on the information structure properties in the clause. The theme closer to the agent demonstrates a non-canonical word order in Parakuyo since the analysis above suggests that agent-beneficiary-theme-locative/instrumental is the canonical word order for dative ‘multitransitive’ verbs.

#### 4.4.2 The combination of the dative suffix with other verbal suffixes

This section demonstrates the possible dative combinations with other suffixes in Parakuyo. The dative verb construction can allow five combinations, namely dative and reciprocal, dative and instrumental, dative and instrumental and impersonal, dative and neuter and impersonal and dative and impersonal as presented from section 4.4.21 to 4.4.2.5.

#### 4.4.2.1 The dative and reciprocal suffixes

The, dative suffix regularly co-occurs with a reciprocal suffix when denoting a reciprocating event or two individuals participating in one mutual event. These type of events need to have at least two arguments, presumably having equal chances of participation. In different combinations, reciprocals may induce argument change in various ways. Nedjalkov (2007) argues that a combination of reflexive and reciprocal entails valency reduction whereas reciprocal-sociative interpretations entails valency increase, and iterative-reciprocal polysemy does not change valency. In Parakuyo, the dative suffix licenses the beneficiary argument but by affixing the reciprocal, it changes the type of the argument it selects; instead of a beneficiary, it selects an agent, which occurs as the subject because with a reciprocal combination, the same agent as in (71) is also the beneficiary presented in a plural DP. In the perfective aspect, intransitive verbs permit either *a-te*, or *ro-te*, whereas transitives allow one of the dative suffixes, for example *-aki* and the reciprocal *-no* and the perfective *-te* to form *aki-no-te*.

- (71) a. *e-irru-aki-no ilalafera impesai*  
 3-send-DAT-REC brother money  
 ‘The brothers will send money for/to each other’
- b. *e-ta-ɲam-aki-no-te mkerá indooi*  
 3-PFV-receive-DAT-REC-PFV children buckets  
 ‘Children received buckets for each other’  
 It could be from each other or from somebody else.

Intransitive verbs permit one argument, generally, the agent, while transitive verbs allow two arguments, generally, the agent and the theme/patient. A transitive verb changes the reciprocal morpheme when it has a dative morpheme. For example, the verbal root like *ɲorr* ‘like’ permits the reciprocal suffix *-a* and a reciprocal suffix *-no* in (72).

- (72) a. *e-ɲorr-a ilalafera*  
 3-like-REC brothers  
 ‘The brothers like each other’
- b. *e-ɲorr-aki-no ilalafera emali*  
 3-like-DAT-REC brothers wealth  
 ‘The brothers (would) like each other to get rich’

The verb ‘mix’, in (73), for example, has a subject agent followed by two DPs denoting elements that are being mixed. The object, however, occurs as a coordinated object with a coordinator. The verbal phrase and the agent translate as the ‘children will mix for each other’ then followed by a coordinated object phrase ‘milk and water’. This demonstrates how the combination of dative and reciprocal can make a complex predicate with two objects represented as one in the objecthood sense.

- (73) *e-itu-ful-aki-no inkera kule we enkare*  
 3-CAUS-mix-DAT-REC children milk with water  
 ‘The children (will) mix milk with water for each other’

Another possible argument in the dative combinations is a locative PP that denotes the location where the event took place. The locative is introduced by a preposition hence it is an adjunct rather than a true argument. Unlike other languages, it is not possible to reverse the order of dative and reciprocal and get the meaning ‘the teacher will teach each other for the children’.

- (74) a. *e-itepen-aki-no ilmaalimuni inkera to nkaqitie*  
 3-teach-DAT-REC teachers children at homes  
 ‘The teachers will teach children for each other in their homes’
- b. *e-ibuy-aki-no ilpayiani imambulini te boo*  
 3-hold-DAT-REC old.men umbrella at out  
 ‘The old men are holding umbrellas for each other outside’

For a locative argument to appear, an action verb is required denoting an event that took place in/at some location.

#### 4.4.2.2 The dative and instrumental suffixes

The dative and instrumental combination focuses on the beneficiary in the clause. The suffixes for this combination are *oki-je* (for Class I verbs) and *aki-je* (for Class II verbs) for all aspectual types. The dative introduces the beneficiary in the event and the instrument with which one does something for the gain of the beneficiary. However, when the internal argument is inanimate, it assumes a different role like theme or locative, among other roles.

- (75) a. *e-ʃet-aki-ʃe ɲotoɲe inkiʃu eʃena enkaji*  
 3-build-DAT-INST his.mother cows hers house  
 Lit. ‘He built a house for his mother using her cows’ or  
 ‘He sold cows and used the money to build a house for his mother’
- b. *e-igaɲ-aki-ʃe enkérai kule enkiʃobe*  
 3-fill-DAT-INST child milk cup  
 ‘She filled milk for a child using a cup’

The combination of suffixes allows the agent to be dropped in the sentence but it can also appear explicitly as in (75b). In (75a) the agent is not realized and the beneficiary is in the accusative case encoded by tone. The construction can also omit the beneficiary if its reference can be accessed in the context, as shown in (76c).

- (76) a. *e-nap-aki-ʃe (enkérai) kule enkiʃombe*  
 3-take-DAT-INST (child.ACC) milk cup  
 ‘She takes milk in a cup for a child’
- b. *e-nap-aki-ʃe Lékoko (enkérai) kule enkiʃombe*  
 3-take-DAT-INST Lekoko (child.ACC) milk cup  
 ‘Lekoko will take milk in a cup for a child’
- c. *e-itai-ki-ʃe Lékoko olcheta endoo*  
 3-remove-DAT-INST Lekoko.NOM wood bucket  
 ‘Lekoko used the wood to pick up the bucket for somebody’

Having the beneficiary as optional in (76b) reduces the load of information in the clause.

#### 4.4.2.3 Dative and instrumental and impersonal

The dative instrumental and impersonal suffixes can co-occur in one verbal construction. In (77a) the person prefix is represented by the inverse relation ‘3>1’ where the third person acts upon or for the benefit of the first person in a particular clause. This means two arguments are encoded by the long *aa-* with the activity verb like *turr* ‘cultivate’. However, with the impersonal suffixes the agent is suppressed in both examples.

- (77) a. *aa-tur-oki-ʃe-ki ilmoɲi enkóрма*  
 3>1-cultivate-DAT-INST-IMP oxen field  
 ‘There will be cultivating of my farm using the oxen’
- b. *e-tur-oki-ʃe-ki endasat ilmoɲi enkóрма*

3-cultivate-DAT-INST-IMP woman oxen field  
 ‘There will be cultivating of the woman’s field using the oxen’

The beneficiary, instrumental and the theme arguments can all appear in the construction, as demonstrated in example (77b) above.

#### 4.4.2.4 Dative and neuter and instrumental

The dative and neuter and instrumental suffixes can co-occur to show two events happening at the same time. In the following clause, the reading obtains that father was getting home when the cows were also getting home.

(78) *e-iriam-aki-no-re* *papa mkifu e-jiŋ-ita* *aan*  
 3-happen.together-DAT-NEUTR-INST my.father cows 3-enter-PROG home  
 ‘My father got home together with the cattle (i.e. at the same time)’

Thus, the instrumental functions as an associative or accompaniment denoting morpheme in the construction above.

#### 4.4.2.5 Dative and impersonal

In the imperfective aspect, the dative and impersonal combinations exhibit the morphemes: *iki-ni* (75a), *oki-ni* and *aki-ni* (75b), whereas in the perfective the combination occurs as *oko-ki* (75c), *aka-ki* and *ikia-ki*. The suffixation of the impersonal morpheme blocks the appearance of the agent but it allows the occurrence of a maximum of three arguments. The three arguments assume different thematic roles, namely beneficiary, theme and location, as demonstrated in (75b).

(79) a. *e-iba-iki-ni* *Saruni emali epe*  
 3-hate-DAT-IMP Saruni wealth their  
 ‘Saruni is hated because of his wealth’

b. *e-pik-aki-ni* *enkerai kule emesa*  
 3-put-DAT-IMP child milk table  
 ‘Milk will be put on the table for the child’

c. *e-irór-okó-ki* *Joni*  
 3-greet-DAT-IMP John  
 ‘John has been greeted’

The dative impersonal combination can consist of only one argument, the recipient, illustrated in the example in (79c) with the verb *iror* ‘greet’.

#### 4.5 Motion away

Motion away and Motion towards in research literature have also been referred to as the andative (direction away from the hearer) and ventive (direction to the speaker), respectively; hence, they are referred to as directional suffixes. Semantically, these are space deixis, as opposed to person and time deixis. By simple definition, they are types of deictic references, which indicate going and coming motion in relation to some point of reference. The other common terms are itive and ventive (Hooper 2002). The kinds of morphemes discussed here are affixed to the verbs that are not inherently motion-directed. Verbs like ‘come’ and ‘go’ are said to be directional verbs (Talmy 2000, Shay & Seibert 2003, Wilkins & Hill 1995).

These verbs exemplify a distinction between the motion towards and motion away notions. Different languages of the world vary in the lexicalization strategies for motion and direction but in Parakuyo, direction in verb meaning is expressed through verbal suffixes with most of the verbs. The verbs that permit the motion away suffix occur in various semantic verb classes. Most of which are motion verbs that encode direction away from the deictic centre or point of reference. Although motion verbs commonly occur with this morpheme, the morpheme denotes a sense of motion compared to other verbs that have no inherent motion sense in their meanings.

The motion away pattern of semantic roles suggests that the lexicalization is likely to designate source-goal directionality (Payne and Olsen 2009, Karani and Lusekelo 2015). This has been established in Parakuyo and in Maa varieties, in general, referring to the two verbal extensions: motion away and motion towards. Specifically, motion away demonstrates the focus on the source argument in the sense that the departure point of the motion is from the speaker to a point distant from the speaker. It is not a necessity that with motion away, the goal should be certain, but the reading is that the speaker explicitly states that the subject or agent of the action denoted in the clause represents the source from where the movement commences towards another point.

### 4.5.1 Motion away morphology in Parakuyo

Tucker and Mpaayei (1955:126) argue that motion away suffixes occur with verbs of motion or otherwise static verbs in order to attribute some motion reading to the meaning. The distribution of motion away suffixes in Parakuyo depends mainly on verb class properties and aspectual types. The motion away suffixes in the imperfective aspect are *-aa* and *-oo* and in the perfective aspect, the suffixes are *-ayie*, *oyie* and *o/i-itie*. Other suffixes like *-ai* and *-oi* occur in the subjunctive and imperative constructions to express motion away. Class I verbs employ *-oo* in the present, *-yie* in the past and *-oi* in the subjunctive or imperative clauses. With Class II verbs, *-aa* occurs for the imperfective aspect, *-yie* for the perfective aspect and *-ai* and *-oi* for the subjunctive and imperative for singular subjects, and *ai/oi-ti* for plural subjects. The following discussion focuses on directed motion (specifically motion away) (Sharoff 2005:219) and situations where the morpheme denotes non-directed motion (non-specific away) notions. Consider the following Parakuyo examples, which illustrate the distribution of motion away suffixes: *oo*, *aa*, *oyo*, *aya* in the imperfective aspect.

#### *Imperfective aspect*

- (80)
- a. *e-or-oo*      *éndito oláka kioni*  
3-sweep-MA girl garbage backyard  
'The girl will sweep the dirt away to/towards the backyard'
  - b. *e-or*      *éndito enkaji*  
3-sweep girl house  
'The girl will sweep the house'
  - c. *e-sul-aa*      *enkayioni osoit*  
3-push-MA boy stone  
'The boy will push the stone away'
  - d. *e-ifo-oyo*      *papa olkiten*  
3-give-MA my.father ox  
'My father will give away an ox'
  - e. *e-bu-aya*      *oldia to osero*  
3-bark-MA dog in bush  
'The dog barks on its way out of the bush'

It should be noted that with some verbs, the motion away suffix does not change the argument structure of the clause but rather re-orient the order of arguments or introduces a locative in a DP or PP. In (80b), the motion away suffix introduces an object argument. With some verbs, the arguments of the simple underived verbal root are the same with the motion away verbal

base, as in (80d). In (80b), if the motion away is not affixed to the verb, the object argument must change from *oltaka* garbage to *enkaji* ‘house’. In (80c) the meaning of the verb has to shift from one sense to another for it to take a different argument without a motion away suffix, for example it can be *sul* ‘prune’. Therefore, internal argument (theme/patient) of the verb must change from ‘push away’ to ‘prune’.. Therefore, the ‘verbalizer’ denotes a causation sense that expresses motion away; hence, it requires a DP expressing the property of being pushed away from one point to another, for example, *osoit* ‘a stone’. Apart from the theme, the locative can also be licensed by the motion away suffix, as demonstrated in (80e). The locative is introduced by a preposition *tV*, which can be translated as ‘in’, ‘at’, ‘on’ etc. The perfective aspect in motion away employs two suffixes *oyie*, and *ayie* as indicated in (81a) and (b), respectively.

*Perfective aspect*

- (81) a. *e-ifo-oyie*      *énkayioni*      *enkitábu*  
 3-give-MA.PFV boy      book  
 ‘The boy gave a book away’
- b. *e-ta-naŋ-ayie*      *enkerai*      *empira*  
 3-PFV-throw-MA child      ball  
 ‘The child threw a ball’

If the subject is plural in a motion away verb construction, the suffix changes in the perfective aspect, in that the first vowel of the motion away suffix co-occurs with the suffix *-itie* for plural. Thus, the plural motion away suffix can be *a/o-itie* for all persons. In a clause with a plural agent argument, the motion away suffix employed is *-itie*. Consider the following examples.

- (82) a. *i-ta-naŋ-aitie*      *isoitok*  
 1PL-PFV-thraw-MA.PFV      stones  
 ‘You threw stones away’
- b. *ki-inco-oitie*      *mkitábuni*  
 1PL-give-MA.PFV      books  
 ‘We gave books away’
- c. *e-ta-naŋ-aitie*      *ilayiok*      *isoitok*  
 3PL-PFV-thraw-MA.PFV      boys      stones  
 ‘The boys threw stones away’

The plural subject argument necessitates that the object argument must also be plural. The rationale for this reading relates to the meaning that two or more arguments cannot throw one

stone. Parakuyo allows the plural subject and the singular object, for example, in verbs like *ncoo* ‘give’, with the assumption that people agreed to give something away and one of them handed it to the recipient. In contrast, with verbs like *nay* ‘throw’, a semantic anomaly results as to how can two people throw one stone. The examples in (79) illustrate the occurrence of the motion away suffix in the subjunctive and imperative verb constructions.

### Subjunctive

- (83) a. *me-iti-ɲik-ai*                      *olorika*  
SUB-CAUS-move-MA chair  
‘That he moves the chair’
- b. *me-tu-rrum-oi*                      *olayioni olpoorr*  
SUB-IMP-push-MA boy rock  
‘That the boy pushes the rock away’

### Imperative

- (84) a. *inti-ɲik-ai* *olorika*  
2.CAUS-move-MA chair  
‘(you) move the chair away’
- b. *tu-rrum-oi* *olpoorr*  
IMP-push-MA rock  
‘Push the rock away’

Table 24: Motion away suffixes

Aspect and mood	Class I	Class II
Imperfective SG	<i>oo</i>	<i>aa</i>
Perfective SG	<i>yie</i>	<i>yie</i>
	<i>aya</i>	<i>oyo</i>
1, 2 and 3 person PL	<i>a/o/-itie</i>	<i>a/o/-itie</i>
SUB/IMPR SG	<i>oi</i>	<i>ai</i>
SUB/IMPR PL Subject	<i>oi-ti</i>	<i>ai-ti</i>

## 4.5.2 Intransitive roots

Intransitive roots that permit motion away suffixes are of a certain verb category. Some of these verbs are not motion verbs. Some are *speaking* verbs and verbs of change of state and verbs of existence in terms of Levin’s (1993) verb classification. When the motion away morpheme occurs with intransitive verbs, they add the motion reading in the eventuality. These verbs do not require objects when the motion away suffix is affixed to them. The examples of verbs from different sets are *daraa* ‘shout loud’, *raɲaa* ‘sing’, *igoroo* ‘scream’, *ifiraa* ‘cry’, *manaa*

‘go round’, *rasaa* ‘become mad’, *kirraa* ‘be embarrassed’ and *bikoo* ‘live long’. With verbs of speaking, the meaning perceived is that the argument is doing that particular action while in a motion towards some point away from the point of reference. Consider the examples in (85).

- (85) a. *e-bu-aya enkerai (e-lo-ito boo)*  
 3-scream-MA child (3-go-PROG outside)  
 ‘The child (will) scream(s) (as she walks out)’
- c. *e-raŋ-aa olpayian te enkoitoi*  
 3-sing-MA man on way  
 ‘The man will sing on the way’

The motion away suffix is evident with a verb of motion like *emanaa*, which indicates the physical movement of an element from point A to B. Nevertheless, with a change of state verbs the construe is the abstract motion with the state of the mind, for example, in *rasu* ‘become mad’ or *ekirra* ‘be ashamed’. The example in (86) has an idiosyncratic reading that somebody is walking away in public doing things that make him look mad.

- (86) *e-ras-aa olpayian*  
 3-mad-MA man  
 ‘The man will go mad’

The difference with the existence verb *bik* ‘last long’ is that the semantic content that the motion away suffix adds to the reading of the verb construction relates to denoting the extension of the period the event took. In other words, the motion away semantics introduced goes beyond the physical space of the motion to the extension of time/duration or abstract space in relation to the event denoted by the verb. Verbs like *ebikoo* ‘live/stay long’ and *erasaa* ‘become mad’ do not refer to spatially related motion but rather temporal ‘motion’.

However, with many intransitive verbs, when the motion away suffix is affixed to them it makes the verbs transitive or licences a locative PP. Verbs like *bakibak* ‘loiter’ *bayie* ‘be last’ *bulu* ‘grow’ *rrag* ‘sleep’ are intransitive but they become transitive with motion away suffixes as shown in (87).

- (87) a. *e-irrag-aa ilayiok inkanjitie*  
 3-sleep-MA boys home.PL  
 ‘The boys will sleep over in homes (on their way)’

- b. *e-bul-aa osero to inkurruman*  
 3-grow-MA weed in field  
 ‘The weed will grow in the field’

In the expression of different movements away, variations occur in the manner of the motion. First, different kinds manner of motions happen when the animate argument causes the motion by itself, for example, the following verbs: *lo* ‘walking’, *lot-ie* ‘use some means to go away’ *kwet* ‘run’, *kwet-ie* ‘run away with something’ etc.

### 4.5.3 Monotransitive roots

Transitive roots contribute to realizing arguments in different forms. Some arguments are overtly realized while others are implicitly referred to in the discourse-pragmatic context. With motion away verbs, first, the focus is on the direct object, of which assumes different thematic roles, for example, patient/theme, locative, among others. Second, movements can be caused by other external forces apart from the animate argument in the clause. Third, some other motion away case results when the animate, human, uses some instruments or tools to do some job, for example, with the verb *egwat* ‘carve’ *egwataa* ‘remove bits of wood when carving’. The number of arguments participating in the event is crucial because it contributes to determine the function of the motion away morpheme in argument alternations.

For verbs that inherently require an instrument for denoting doing something, the instrumental suffix is not overt unless it is in the combined derivative. The interpretation that the speaker or hearer makes is that some instrument is used in that particular event. These events can involve, for example, transport means, building tools and other instruments, as exemplified in (88a) and (88b). (88a), for example, the analysis suggests that carving involves tools e.g. a machete, but it is not overtly mentioned in the clauses.

- (88) a. *e-gwat-aa olayioni ilkumuri*  
 3-carve-MA boy wood.PL  
 ‘The boy will carve/cut logs’
- b. *\*e-gwat-aa olayioni olkumur*  
 3-carve-MA boy wood.PL  
 ‘The boy will carve a log’

- c. *e-eβ-oo αlpayian ilβaek*  
 3-cover-MA man maize  
 ‘The man will cover maize’

In example (88c) the reading obtains that ‘the man will cover maize’, another additional reading is inferred, namely first, the things covered are many, hence a plurality sense, and second, he is using something (namely tarpaulin) to cover the maize. Numerous verbs provide a plural reading when they co-occur with motion away suffix and some motion away constructions do not allow a singular object argument as shown in the unacceptability of (88b). In other words, the motion away suffix has a number content (or large quantity for abstract and mass nouns) to the object argument that is acted upon, which may hold theme/patient thematic role in a clause. The examples of verbs that bear this sense when the motion away suffix is affixed include *etajajukoo* ‘make something similar’, *apejoo* ‘burn away’ *efetaa* ‘build a shelter for them’ *eikaa* ‘hang them’ *esiraa* write their names’ *idojoo* ‘pound them’ *aitenena* ‘teach them’, among many others. Motion verbs denote that the entities that are moved may be in two categories, namely an abstract or physical entity. From different sets of verbs, motion events can involve abstract and concrete arguments. Some of the examples come from *speak* verbs including verbs like *eigoroo* ‘scream’, *eifiraa* ‘cry’, *erajaa* ‘sing’ and *eibotoo* ‘call’.

- (89) *e-raj-aa*      *osingolio*  
 3-sing-MA      song  
 ‘He will sing the song as he goes away/along the way’

This is evident from the intransitive verbs where the abstract sense refers to the event itself.

#### 4.5.4 Ditransitive roots

Ditransitive roots behave differently when embedded with a motion away verb suffix. The clause structure demonstrates that motion away with ditransitive verbs requires a subject, direct object an oblique argument. Therefore, the second object is a PP that can be realized in various roles. It can be realized as an instrumental, locative or goal depending on the lexical-semantic properties of the verb that determines the type of argument the verb selects. In (90), a two-place verb occurs (with DP and PP arguments) in a motion away verb construction. The following example has the reading that the car is the means or vehicle with which the sender uses to transport or sends the letter (by giving it to the person in the car).

- (90) *e-ita-ras-aa yeyio empalai te ngarrim*  
 3-CAUS-pass.on-MA mother letter on car  
 ‘My mother will pass on a letter on a car’  
 (Lit. my mother will send a letter by giving somebody who is in a car travelling to the destination of the letter)

In example (89), two object arguments occur. The second object argument is realized as a DP, not a PP, and it functions as the goal or destination to where the money is sent.

- (91) a. *e-irru-aya Jóni empésai olbénki*  
 3-send-MA John money bank  
 ‘John will send money to the bank’
- b. *e-dan-aa enkerai ilmayai te ηudi*  
 3-break-MA child eggs with stick  
 ‘The child will break the eggs with a stick’

In the clause above the reading obtains that the stick is used as an instrument with which the agent breaks the eggs. The use of the instrumental suffix in the position of the motion away suffix would render a PP for the instrument argument *te ηudi* ‘with a stick’. However, the suffixation of motion away morpheme in the clause does not necessarily change the argument structure. The clause structure can occur with the same arguments without the motion away morpheme for the reason that ditransitive verbs do not depend on the suffixation process to have two arguments since this property is partly inherent to these verbs (Harley 2013). However, this view has been challenged by scholars (Acquaviva 2008, Alexiadou 2014b, Borer 2005 and Lohndal 2014) who argue that only functional heads or morphemes or small clauses can introduce arguments in the clause. In Parakuyo, verbal roots have some lexical-semantic content that correlate with functional heads in syntactic projections. The root *ibuη* ‘hold’ requires one internal argument, the direct object (*olkuma* ‘club’), but the functional category, motion away in this case, introduces additional arguments like (*enkiguana* ‘meeting’) to the event.

- (92) *e-ibuη-aa olupayan olkuma enkiguana*  
 3-hold-MA old.man club meeting  
 ‘The old man will take his club with him to the meeting’

The example (92) has the reading that the old man always goes to the meeting with his club. The verb ‘hold’ with the motion away suffix verb *eibuηaa* yields the reading ‘take with you’. A similar type of verb include verbs of dressing with which the motion away suffix occurs with

the verb *ifop* ‘dress’ denoting ‘he dressed in a certain attire then went somewhere’. The motion away semantic reading (from some point to another) is added to the *ifop* ‘dress’ to mean ‘dress for a certain occasion’ or ‘dress to attend a certain function’. Consider the following example in (93).

- (93) *e-ifop-oo esiankiki olkila elatim*  
 3-dress-MA woman skin.dress  
 ‘The young lady will dress in a skin cloth to attend the ceremony’

The information structure in this motion away construction entails that the theme (the direct object in a VSO(O<sub>i</sub>) word order) is closer to the agent, which is the subject. Thus, the patient/theme precedes other arguments such as the applied arguments, for example, instrumental, goal and locative. However, in exceptional word order, the object argument may appear adjacent to the verb, followed by the subject. Thus, the object argument can be topicalized and promoted to the position on the left, adjacent to the verb. This is a common type of object-subject argument alternation, which entails that the same form of the verbal suffix is associated with two arguments in different positions in a clause. Syntactic tone plays a key role in encoding nominative and accusative case on the subject and object arguments, respectively. The tone pattern of the agent argument and the theme does not change irrespective of its position in the clause. The agent is encoded by a nominative case even when it occurs in the clause-final position.

- (94) a. *e-naŋ-aa      ʒlayioni      osóit*  
 3-thraw-MA boy.NOM      stone.ACC  
 ‘The boy will throw a stone’
- b. *e-naŋ-aa      osóit,      ʒlayioni*  
 3-thraw-MA stone.ACC      boy.NOM  
 ‘The boy will throw a stone’

In caused motion events, the motion away suffix can occur with the directional morpheme *ngalo* ‘to the side of’ and this directional PP introduces the goal argument. This structure exhibit the ordering: ‘V DP1 DP2 directional DP3’.

- (95) *e-naŋ-aa      ʒlayioni      osóit      ngalo olkeju*  
 3-thraw-MA boy.NOM      stone.ACC      ngalo river  
 ‘The boy will throw a stone towards of the river’

Table 25: Motion away verbs

Verb	Gloss	Verb	Gloss	Verb	Gloss	Verb	Gloss
<i>ebuaya</i>	shout	<i>enamalaa</i>	busy	<i>ejijaa</i>	enter	<i>eojoo</i>	bite
<i>eifooyo</i>	give	<i>epikaa</i>	move	<i>emiraa</i>	sell	<i>emayianaa</i>	bless
<i>eitarasaa</i>	mad	<i>epejoo</i>	burn	<i>aisileenoo</i>	borrow	<i>ibunaa</i>	take
<i>eirriwaa</i>	send	<i>esayiaa</i>	pray	<i>eyamaa</i>	marry	<i>enapaa</i>	carry
<i>ewuapaa</i>	grab	<i>eifiraa</i>	cry	<i>edunoo</i>	cut	<i>egelaa</i>	choose
<i>edoyio</i>	drop	<i>eitodolaa</i>	show	<i>elejaa</i>	lie	<i>egilaa</i>	break
<i>eporaa</i>	love	<i>eikena</i>	count	<i>eifopoo</i>	wear	<i>esulaa</i>	prune
<i>eirragaa</i>	sleep	<i>eboloo</i>	open	<i>elikioo</i>	say	<i>eudoo</i>	piece

*Verbs that allow only motion away suffixes but not the motion towards suffix*

This group of verbs merit a brief comment since the expectation is that all verbs that accept directional suffixes should allow both motion away and motion towards suffixes. A few verbs appear to be compatible only with a motion away and not a motion towards suffix. A close consideration of the properties of these verbs suggests that the reason could be these verbs have synonyms that can permit a motion towards suffix. Thus, the lexical-semantic properties of these verbs do not allow the occurrence of the motion towards suffix because it results in a different reading. The motion towards suffix would provide the reading denoting the motion to the opposite direction compared to that denoted by motion away. Consider the following examples in the table with verb constructions that permit motion towards to express the opposite direction.

Table 26: Motion away suffix only verbs

Motion Away only		Motion Towards Counterparts	
Verb	Gloss	Verb	Gloss
<i>eiŋua</i>	leave something behind	<i>eiŋepu</i>	come to find it
<i>eiturraa</i>	throw something away	<i>enaŋu</i>	throw to speaker
<i>enaalaa</i>	chew something as you go	<i>enosu</i>	chew as you come
<i>eikenoo</i>	lock in something	<i>eboluu</i>	free something
<i>eokoo</i>	drink on the way	<i>elopu</i>	throw out
<i>epalaa</i>	let something go	<i>eyau</i>	bring something

#### 4.5.5 Motion away combinations

Motion away suffix can co-occur with other verbal suffixes to form a complex predicate with some effects to the argument structure in the clause. The combinations that can be formed by

the motion away suffix are motion away and impersonal and motion away and instrumental. In the following sections, these combinations are illustrated.

#### 4.5.5.1 Motion away and impersonal

The motion away suffixes *aa*, *oo*, *iyie*, *ayie* or other allomorphs can co-occur with the impersonal suffix *-ri*. As is typical of impersonals, it does not allow the occurrence of an agent argument. However, such constructions allow other modifications, for example, the locative, as exemplified in (96b).

- (96)
- a. *e-rum-oo-ri entela*  
3-push-MA-IMP cart  
'The cart will be pushed'
  - b. *e-pej-oo-ri olataka ti aŋ*  
3-burn-MA-IMP garbage at home  
'The garbage will be burnt at home'

With other verbs in (97a-d), the motion away and an impersonal express plurality of the arguments involved in the event. Singular DP arguments in the clause would result in semantic anomaly with teach-like verb construction as illustrated in (97a). Singular subjects are unacceptable with some verbs as in (97b).

- (97)
- a. *e-itepen-aa-ri inkera to inculei*  
3PL-teach-MA-IMP children at schools  
'The children will be taught at schools'
  - b. *\*e-iken-aa-ri enkera to inculei*  
3PL-count-MA-IMP child at school  
The child will be counted in schools
  - c. *e-tur-oo-ri inkorman aŋ*  
3PL-plough-MA-IMP fields our  
'Our fields will be ploughed'
  - d. *e-sul-aa-ri irŋosil lo olmiti*  
3PL-prune-MA-IMP branches of tree  
'The branch of the tree will be cut out'
  - e. *e-itu-ful-aa-ri mtare wo inki fu*  
3-CAUS-drive.together-MA-IMP goats and cows  
Cows and goats will be driven together

#### 4.5.5.2 Motion away and instrumental

This combination of motion away and instrumental denotes plurality and the instrument that is used in the event. It encodes plurality of the object for verbs that are not motion-oriented but with motion-oriented verbs as in (98c), it denotes a motion away sense and an instrumental sense as in (98a) and (b).

- (98)
- a. *e-tur-oo-rie*      *papa ilmoji inkorman*  
3-plough-MA-INST father oxen fields  
'My father will use oxen to plough fields'
  - b. *e-sir-aa-rie*      *ofundi orange ingajjik*  
3-mark-MA-INST builder colour houses  
'The builder will mark houses with colour'
  - c. *e-tanaŋ-aa-rie*    *enkapur osoit*  
3-throw-MA-INST sling stone  
'He used a sling to throw a stone'

If an instrumental occurs in the above verb suffix combination, the default order requires that the agent occur adjacent to the verb, followed by the instrumental, and then the theme argument.

#### 4.6 Motion towards in Parakuyo

The motion towards suffix is the other directional morpheme in Parakuyo. It denotes the movement of an entity from a place distant from the speaker to the point where the speaker is. This property is realized in the verbal morphology by the suffix *-u/v*, in the present tense and imperative, and the suffix *-ua/uo* occurs in the past tense (Tucker and Mpaayei 1955:123). The motion towards suffix in most cases appears with transitive verbs. This is because it expresses the location or the destination of the theme argument. In the following clauses, the readings change due to affixation of the motion towards suffix with the verbs *asioyo* 'to go early' and *alotu* 'to come'.

- (99)
- a. *e-siek-u*      *olakwi lai enkigwana*  
3-go.early-MT uncle my meeting  
'My uncle will come to the meeting early'

- b. *e-lo endito enkopis*  
3-go girl office  
'The girl will go to the office'
- c. *e-lot-u endito enkopis*  
3-go-MT girl office  
'The girl will come to the office'

In (99b) above, the verbal root *lo* denotes 'go', but a shift of direction of the motion of the argument occurs when the motion towards suffix is affixed. The stem without the motion towards morpheme simply expresses the reading that 'the girl will go to the office' which implies that the office is somewhere away from the speaker. On the other hand, the verb construction has the reading that the speaker is in the office where the girl is expected to go. The motion towards suffix changes the reading of the verb from 'go' to 'come', as illustrated in (99c).

Some verbs inherently denote the caused movement of an element in the event. Put differently, the agent facilitates the movement of an object from a certain point to the point where the speaker is, which is the point of reference in the motion towards sense. In various instances, this subject argument is animate or a natural force, for example, *wind* or *floods* that can cause the movement of another argument in the event. In addition, the reading obtains that human agents can use tools in performing some of the events. For such verbs, noticeable differences in the event structure occur in the sense that the motion towards suffix yields the reading of the expected result state. Examples of such verbs are *eoru* 'wipe/sweep' *ediru/errumu* 'push towards the speaker'. Therefore, instead of the clause, *eorr endasat enkaji* 'the woman will sweep the house', with the motion towards verbal suffix *-u*, the object argument the 'dirt' itself occurs, that is, 'leaves', for example, and not the house, as in (100a).

- (100) a. *e-or-u endasat imbalen*  
3-sweep-MT woman leaves  
(Lit. 'the woman will sweep leaves towards where we are')
- b. *e-rum-u olupayan entela*  
3-push-MT man cart  
'The man will push the cart to us'

Further investigation of the motion towards morpheme suggests that with various other verbs, the morpheme does not always denote only the movement of an entity towards the speaker but

also the movement from some other place to another point. It can also denote the interpretation that things have been detached or separated. These readings are captured in verbs like *taṇadu* ‘detach’, compare with *taṇadai* ‘drive away’ and *agel* ‘separate’, as exemplified in the following clauses.

- (101) a. *a-ṇad-u enkartasi te esimu*  
 1SG-detach-MT paper on phone  
 ‘I will detach the paper from the phone’
- b. *a-gel-u enkiteṇ na-muoi*  
 1SG-separate-MT cow REL-sick  
 ‘I will separate the sick cow from others’

Given the structure of the event, the status of the object argument remains the same in the sense that the theme argument is manipulated by the agent. With a monotransitive verb, the argument that follows the subject is the direct object. This view is supported by Tucker and Mpaayei (1955:124), who state that a number of verbs usually occur with a motion towards morpheme without a clear directional reading. They present examples like *aon-u* ‘to bite’ *aor-u* ‘to grab’ *aiṇaṇ-u* ‘to buy’ etc. However, with these verbs, there are still some motion towards notions indicating directional, though not as clearly as with other verbs. In these verbs, the interpretation of something coming or being moved to the speaker’s direction or possessions obtains. It could mean that the object argument moves towards the speaker or the outcome or result state of the event is beneficial to the speaker. The verbal stems in the following table have their basic lexical-semantic content and the motion towards nuance is added by the motion towards suffix *u*. All of these motion towards verbal bases in Table 27 have either abstract or concrete motion towards reading in the events they describe, although these meanings may not be quite clear in the English translations.

Table 27: Motion towards verbal roots

Verb	Gloss	Verb	Gloss	Verb	Gloss	Verb	Gloss
<i>e-lot-u</i>	come	<i>e-namal-u</i>	busy	<i>e-jiŋ-u</i>	enter	<i>e-oŋ-u</i>	bite
<i>e-ifor-u</i>	give	<i>e-ŋik-u</i>	move	<i>e-mir-u</i>	sell	<i>e-mayian-u</i>	bless
<i>e-itaras-u</i>	mad	<i>e-pej-u</i>	burn	<i>a-isileen-u</i>	borrow	<i>e-ibuŋ-u</i>	take
<i>e-irri-u</i>	send	<i>e-say-u</i>	pray	<i>e-yam-u</i>	marry	<i>e-nap-u</i>	carry
<i>e-isik-u</i>	escape	<i>e-ifir-u</i>	cry	<i>e-duŋ-u</i>	cut	<i>e-gel-u</i>	choose
<i>e-do-u</i>	drop	<i>e-itodol-u</i>	show	<i>e-lej-u</i>	lie	<i>e-gil-u</i>	break
<i>e-ŋor-u</i>	love	<i>e-iken-u</i>	count	<i>e-ifop-u</i>	wear	<i>e-sul-u</i>	prune
<i>e-irrag-u</i>	sleep	<i>e-bol-u</i>	uncover	<i>e-lim-u</i>	say	<i>e-ud-u</i>	piece

As discussed with reference to motion away, some verbs also occur only with the motion towards and do not allow motion away suffixes. Thus, they could have other verbal root counterparts that are compatible with the motion away suffix, denoting the opposite directional reading of motion towards, similarly to the motion readings expressed in the verbs in Table 28.

Table 28: Motion towards only roots

Verbs	Gloss	Verb	Gloss
<i>rref-u</i>	Trap	<i>edol-u</i>	Will see it coming
<i>ikaang-u</i>	roast	<i>irtikim-u-ŋe</i>	come play towards
<i>ibal-u-ŋe</i>	be clear for us to see	<i>elaŋ-u</i>	cross the road
<i>eyek-u</i>	He will come early	<i>eibakubak-u-ŋe</i>	We wonder this way
<i>eidurr-u</i>	move to this side	<i>elop-u</i>	Will throw out
<i>elak-u</i>	free and come to us	<i>elep-u</i>	Will milk milk
<i>eituruk-u</i>	Will come first	<i>imin-u</i>	Will lost this side
<i>eijor-u</i>	Will find it	<i>eya-u</i>	Will bring
<i>ailep-u</i>	appear towards us	<i>ehep-u</i>	walk along

#### 4.6.1 Motion towards suffix combinations

Motion towards suffix can combine to form different complex constructions. These combinations include motion towards and reciprocal, motion towards and impersonal, motion towards and instrumental, motion towards and instrumental and impersonal and motion towards and neuter and instrumental.

#### 4.6.2 Motion towards and reciprocal

The motion towards suffix can occur on the same verbal root with the reciprocal suffix. With the verb in (102), the stem *aidimu* denotes one can carry something towards the speaker. When

the reciprocal suffix is affixed to the stem, it refers to the ‘children’ as reciprocating arguments. The interpretation is that the children have the capacity to carry each other.

- (102)     *e-idim-u-no*     *mkerá*  
           3-able-MT-REC children  
           ‘Children can carry each other’

#### 4.9.1.2 Motion towards and neuter

The neuter suffix is a detransitivizing suffix in that it reduces by one the number of arguments in the event denoted by the verb, specifically, it suppresses the external argument. This results in the event becoming anticausative since construction does not allow the occurrence of the agent or causer. In (103a) the combination of suffixes yields a stative interpretation while in (b), a resultative event is expressed.

- (103)     a.     *e-ibal-u-ñe*             *oldoijo*  
               3-be.visible-MT-NETR mountain  
               ‘The mountain is visible’
- b.     *e-gwat-u-ñe*       *olaboboki lo olmiti*  
               3-bark-MT-NETR bark       of tree  
               ‘The bark of the tree will drop (by itself)’

The motion towards suffix, in this example, yields the reading that the bark of the tree drops down by itself towards some point near the speaker. The morpheme *-ñe* introduces change in the reading of the verb. The verb *nañ* ‘throw’ can permit the motion towards suffix to derive *nañu*, which expresses the reading ‘throw towards the speaker’. When the neuter suffix occurs the meaning of the verb changes from ‘throw’ to ‘flow’. Therefore, the construction has the reading ‘the river will flow (probably it is a seasonal river that flows after rains) towards the speaker’s location’ as demonstrated in the following example.

- (104)     a.     *e-nañ-u-ñe*     *enkare to ðljeju*  
               3-flow-MT-ñe water at river  
               ‘The river will flow’  
               (Lit. water will be thrown from up-stream)

#### 4.6.3 Motion towards and impersonal

The impersonal suffixes combine with the motion towards suffix in deriving a verbal complex with one object argument. The impersonal suffix suppresses the external argument in the clause.

Thus, it is a detransitivizing suffix in the sense that the arguments in verb the construction are reduced to one direct object, and PP modification is possible.

- (105) a. *e-of-u-ni indare aap*  
 3-drive-MT-IMP goats home  
 ‘(Somebody) will drive the goats home’
- b. *e-sul-u-ni inkitabuni te olkabati*  
 3-drop-MT-IMP books from cupboard  
 ‘The books will be dropped down from the cupboard’

#### 4.6.4 Motion towards and instrumental

The instrumental morpheme *-ne* co-occurs with the motion towards suffix to license an argument denoting as an instrument, tool or means with which someone performs an action. From the different instrumental morphemes, the suffix *-ne* appears to be compatible with the motion towards suffix rather than others like *-ie* or *-yie*. In (106a) and (b), the instrumental suffix introduces the argument denoting the means with which one travels and in (c) it licences the argument denoting the instrument, which the woman uses to unearth potatoes in the field.

- (106) a. *e-idúr-u-*ne* əlpayian mkera (to) olori (means)*  
 3-evacuate-MT-INST man children lorry  
 ‘The man moved the family here using a lorry’
- b. *e-lot-u-*ne* yeyio endeke*  
 3-go-MT-INST my.mother plane  
 ‘My mother will come by plane’
- c. *e-tur-u-*ne* yeyio osinja ilkisoyia (tool)*  
 3-uproot-MT-INST my.mother machete sweet.potatoes  
 ‘My mother will harvest sweet potatoes using a machete’

A note is in order concerning possible unclear interpretations of this combination of suffixes. It appears that an inanimate argument introduced by the instrumental suffix denotes as typical tool or instrument or means of doing something. However, for an animate argument, the suffix *-ne* yields different readings, for example a causative interpretation (i), means/tool in interpretation (ii) or reason as in interpretation (iii) . Thus, three interpretations for the following clause are possible, as demonstrated in (107).

- (107) *e-ijor-u-je olee endito impesai*  
 3-search-MT-INST man girl money  
 (i) ‘The man will make the girl earn money for him’  
 (ii) ‘The man will use money to search for a/the girl’  
 (iii) ‘The man is looking for the woman to give him money’

With other verbs, the body parts, for example, hands can be considered as instruments depending on the verbal lexical-semantics. Thus, an instrumental suffix *-je* is also employed when referring to an event performed by only hands, without any other instrument.

- (108) *e-ŋam-u-je Mesiaki inkaik enkima*  
 3-receive-MT-INST Mesiaki hands fire  
 Lit. ‘Mesiaki will receive burning woods with hands’

Verbs that are not motion-oriented, for example, psych verb *porr* ‘love’ do allow the combination of the suffixes *-je*, but the suffix *-u* renders an inchoative reading and the instrumental suffix *-je* introduces a reading denoting the reason for the event to happen. The following clause expresses an event with the reading the mother will start loving her child because of the intelligence of the child.

- (109) *ki-porr-u-je yieyino ejeno ino*  
 2SG-like-INCH-INST mother intelligence your  
 ‘Your mother will love you because of your intelligence’

The instrumental suffix thus denotes the change of state as a result of the event. Thus, the reading obtains that the event has not happened yet but it is expected to happen in the future, bringing about a state.

#### 4.6.5 Motion towards and instrumental and impersonal

The motion towards suffix can combine with two more suffixes, namely instrumental and impersonal. The impersonal morpheme deletes the agent/causer argument in the clause. With tone difference, the a-example can refer to the past or future.

- (110) a. *e-idúr-u-je-ki mkera (to) olori*  
 3-evacuate-MT-INST-IMP children on lorry  
 ‘The children have been moved here using a lorry’



causatives introduce agents, causers, instrument causers and causer event arguments in the verbal construction. Lastly, the suffix combinations that occur with the causative suffixes have been briefly discussed.

The instrumental and dative suffixes (in sections 4.3 and 4.4, respectively) both introduce an argument in the verb's argument structure and the thematic roles of these arguments vary. The instrumental suffix with many verbs introduces an internal argument, generally denoting the instruments or tools, means or reasons related to the event. Verbs from different semantic verb classes do employ the same instrumental morphemes, namely *ie*, *yie*, *ye* and *je* for stems that end with vowel and *ie*, *rie* and *te* elsewhere. The word order of arguments and the pertinent information structure properties have been analysed for instrumental clauses. Subsequently, an overview was given on the suffixes that can co-occur with the instrumental suffix. These suffixes are, namely the impersonal, motion away, and motion towards. In regard to the dative suffix, it was stated that dative morphemes are *iki/aki/oki* or *ikia/ikio* for imperfective and *aka/oko* for the perfective aspect. In dative verb constructions, the beneficiary or maleficiary argument is introduced in the event. The word order and the possible changes in word order among the arguments have been discussed in section 4.4. The other suffixes that can combine with the dative are the impersonal, reciprocal and instrumental suffixes.

The motion away and motion towards directional verbal suffixes express the direction the predicate take in motion as discussed in sections 4.5 and 4.6, respectively. They occur with different semantic classes of motion verbs. Thus, these verbs can denote the direction or some motion away reading from the speaker or towards the speaker, the speaker being the point of reference. In other cases, the speaker is not the point of reference but rather there is some other point of reference, depending on the context of the discourse. The second class of motion towards verbs discussed is the cluster of verbs that permit only the motion away suffixes. These verbs do not express a motion towards reading at all, since they are incompatible with the motion towards suffix *-u*. The third cluster represents motion verbs and a few non-motion verbs that allow only the motion towards suffix but not the motion away suffix.

## CHAPTER FIVE

### EXTERNAL ARGUMENT SUPPRESSING SUFFIXES

#### 5.1 Introduction

In this chapter, the investigation of the two verb constructions in Parakuyo-Maasai that suppress the external verb argument is conducted. First, the encoding strategies of two voices, namely impersonal passives and middles are examined in section 5.2 and 5.9, respectively. Second, the syntactic diagnostics are introduced to identify the presence or absence of an (implicit) external argument. The syntactic strategies employed focus on identifying implicit agents or causers in the event structure. The diagnostic tests include modification of a clause through agent-oriented adverbials, prepositional phrases and purpose clauses. The chapter commences by examining impersonal passives followed by the investigation of middles in the Parakuyo dialect. The chapter gives evidence that impersonal passives suppress external arguments, even through PP adjunction, whereas middles suppress agents from appearing as subject DPs while allowing some causers or instrumental-causers to appear in PP adjunctions.

#### 5.2 Impersonal constructions in Parakuyo

The non-causer argument (see discussion on clausal topic assignment by Givón 1982) is given more prominence in relation to the event. Syntactically, the impersonal passive in Parakuyo has been categorized as a verb voice that decreases the valency of the verb. The impersonal verb construction suppresses the subject argument, which in some languages may be expressed by a syntactic placeholder, for example, the dummy subject *there*, *it*, *someone* or *one*. In many cases, the expletive or existential subject does not refer to any thematic or referential content. Parakuyo lacks an overt expletive or existential elements for which such readings obtain in English translations.

- (1) *e-fet-i            esita*  
       3-build-PASS wall  
       ‘The wall is going to be built’

However, it is also common that speakers would say as in (45) ‘the wall is going to be built’ in most cases. Similarly to the case in English, the subject argument of the active voice clause is optional in passive. The impersonal passives in Parakuyo are syntactically complete without

an agent argument and the occurrence of a *by*-phrase yields ungrammaticality, hence the label of impersonal passive for this sentence construction.

The Impersonal passives in Parakuyo are morphologically expressed on the verbal stem. According to Tucker and Mpaayei (1955), (referring to it as passive) the impersonal passive morphemes are *i/i*, *ni*, *ri* denoting present and future, *tai/toi* denoting progressive, and *aki/oki* denoting the past. Many verbs permit just the vowel *i/i* for impersonal passive constructions.

- (2) *e-pik-i*            *enkare endoo*  
 3-put-IMP        water bucket  
 ‘Water will be put in the bucket’

Different verbs have a consonant that co-occurs with the impersonal passive morpheme *i/i*. These consonants differ in features, and in the environment that they occur, possibly due to morphophonological properties of the verbs. In addition, these suffixes that permit *n*, *k* or *r*, often occur in combination. Some of the combinations that permit impersonal verbal roots with suffixes like *-ni*, *-ki*, and *ri* include the motion towards, motion away and dative suffixes.

- (3) a.    *e-buk-u-ni*        *enkare te endoo*  
           3-pour-MT-IMP water from bucket  
           ‘The water will be poured from the bucket’
- b.    *e-ibuk-oo-ri*        *enkare*  
           3-pour-MA-IMP water  
           ‘The water will be poured away’
- c.    *e-tu-buk-oko-ki*                    *enkare e lukuya*  
           3-PFV-pour-DAT.PFV-IMP water on head  
           ‘Water was poured on the head’

In addition, the strong glide represented as *-yy* is employed by some verbs with the impersonal passive suffix. In the database with a sample of 400 verb roots analysed for this study, 292 (73%) allow an impersonal morpheme. This indicates that the impersonal passive is the most pervasive verbal suffix that occurs in many verbal roots. The allomorphs of this suffix are distributed randomly with roots from different lexical-semantic verb classes.

- (4) *e-kweni-yy*        *te boo*  
 3-laugh-IMP    at outside  
 ‘Laughing is happening outside’

Payne (2011:282) presented a brief discussion (with reference to Greenberg (1959:174) stating that synchronically, the impersonal *-i/i* may be etymologically related to the third person plural suffix *-i/i* in Lotuho (a language closely related to Maa). However, she also points out that this view is not convincing because the pluralizer *-i/i* is not always related to the third person plural suffix. The research literature does not establish with certainty whether *-i/i* is only pronominally bound to third person plural. The impersonal *-i/i* appears to have a pronominal function in light of the fact that the impersonal construction does not allow co-occurrence of a nominative DP. In addition, if *-i/i* represented the third person subject, the prefix *e/ε* would not appear as a third person subject morpheme in an impersonal construction.

In the descriptive grammar papers on passive and impersonal in Maa, Payne et al. (1994) and Payne (2011), respectively, argue that impersonal passives have different interpretations. These interpretations are centred around the implied external argument. One of these functions is ‘existential’ reading of the covert agent of the impersonal passive in Maasai from a communicative-functional perspective. The thrust of Payne’s (2011) discussion relates to the claim that the agent is suppressed in impersonals in Maa varieties, unlike in some other languages where it is allowed to appear optionally in the *by*-phrase. Thus, in the impersonal constructions it is possible that the agent/causer is implicit, if any, or it is unspecified non-referential general entity, ‘people’. Payne’s analysis also examined the status of the impersonal in relation to other bound pronominal prefixes for the subject and grammatical object. Compelling evidence obtains for the same functions of the impersonal suffix in Parakuyo. Similar clause structures are exemplified below to illustrate Parakuyo examples demonstrating the three functions of impersonals, that is, in (5a), the focus on the event or situation, (b) the functional passive and in (c) the existential function of the impersonal.

- (5) a. *e-duŋ-i enkérai ilpápit*  
 3-cut-IMP child hair  
 ‘There will be cut the hair of the child’
- b. *e-yieŋ-i enkíne e enkérai*  
 3-slaughter-IMP goat of child  
 ‘There will be slaughtered a goat of the child’  
 ‘The goat of the child will be slaughtered’

- c.     *e-ata-i*            *esumaf te elde kurju*  
           3-have-IMP   hunger in that village  
           ‘There exists hunger in that village’

In further analysis, Payne (2011) invokes data from a comprehensive database of Maa varieties in support of the proposal that Maa impersonals do not allow a specific human/actor agent. In terms of Minimalist syntax, it would be plausible to think that in the Maa Impersonal, the impersonal subject is a phonologically empty category, external argument, representing the general implied argument ‘people’. Another consideration relates to the existential argument in the impersonal that may or may not be referential-specific, or human or non-human (Payne 2011:280). This may be the core difference between the typical passives in languages like English versus the impersonal passives in languages like Parakuyo and other Maa varieties. Put differently, the grammar of Maasai does not allow the occurrence of overt external argument in the impersonal constructions representing the subject, agent/causer, the interlocutors have in mind during the conversation. Often in discourse context, the actor can generally be known to be a human, but not a particular individual known to the speakers. The common reading is that there has to be a human, the implied actor and if the event appears to have some other causer in the final stage, human involvement in the initial stages is understood.

In regard to discourse context, passive sub-categories are distinguished referring to the different kinds of status of the agent. These include the topical non-agent, the unknown or non-existent agent, and the non-specific human agent. For topical non-agent, the impersonal construction may have a known agent, but it may be comparatively irrelevant to the communication purposes. This could be because the speaker does not want to overtly repeat the subject noun denoting the agent mentioned earlier in the conversation. It also indicates that the reference of the agent can be retrieved from context even when it is not mentioned in the immediate conversation, or when the agent is understood as a general entity. The examples in (6) demonstrate the inverse bound pronominal prefix that encodes two arguments, namely third person and first person (indicated by 3>1). Therefore, the agent argument reference has a kind of combined subject-object prefix *áá*. The first person possessor is realized as the grammatical object of the verb to denote its high topicality (Payne 2011).

- (6) a.     *áá-gor-i*            *enkíne*  
           3>1-strangle-IMP   goat  
           ‘My goat will be strangled’

- b. *áá-te-yieŋ-ak-i* *enkíne*  
 3>1-PFV-slaughter-DAT-IMP goat  
 ‘The goat was slaughtered on me’

In some discourse contexts, an unknown or non-overt agent occurs in utterances that refer to hearsay, for example ‘it is said’. In this sense, the agent is probably unknown, anonymous or non-existent all together. This reading is encoded by the impersonal suffix *-i* on the verbal root for ‘say’.

- (7) *n-é-ij-i* *edalu enkóloŋ taata*  
 CN-3-say-IMP-PL.PFV shine sun today  
 ‘It is said the sun will shine today’

The active counterpart of the impersonal construction exhibit a generic agent subject, let say *iltuŋanak*, referring to people in the general sense.

Another kind of status of the implied agent in impersonal verb constructions pertains to denoting diffuse, non-specific human agent. The impersonal in such constructions refer to some abstract referent. At some point, one may think that it is ‘people’ or ‘one’ in a general sense but there are no clear pragmatic clues to infer reference of a particular subject.

- (8) *e-n-e-ikun-un-i* *enkanit*  
 F.SG-REL.F-3-do-MT-IMP respect  
 ‘How respect is earned/made’

Furthermore, the existential function is demonstrated in the impersonal verb constructions when the agent does not refer to any argument participating in the event denoted by the verb.

- (9) a. *n-e-ata-i* *enamali*  
 CN-3-have-IMP trouble  
 ‘There exists a problem’
- b. *n-e-m-e-ata-i* *endaa ti aŋ*  
 CN-3-NEG-3-have-IMP food at home  
 ‘There is no food at home’

### 5.3 Impersonal passives and the external argument

The external argument is the argument that functions as the agent or causer of the event denoted by the verb. Generally, in languages, the traditional subject of the underived verbal root is the agent/causer of the event. Hence, the subject argument is the initiator or trigger of the event. Possible subjects in Parakuyo that assume semantic roles as agents or causers in a different construction are considered in the following sections. These subject arguments can include human agents, natural forces/causers, causer events and instrumental causer. Each of these types of arguments has distinct properties and effects the change of state or situation in a distinct way. The external argument is introduced by Voice (Katzner 1996, Pylkkanen 2008, Marantz 2013, Wood and Marantz 2017, Harley 2013). This view, among other issues, is further discussed in the examination of impersonal passives in Parakuyo in Chapter Three. The following examples are in active voice demonstrating different types of external arguments that can occur in the subject position. In subsequent sections, the discussion is concerned with how these arguments occur as subject DPs rather than prepositional phrases.

- (10)
- |    |   |                     |
|----|---|---------------------|
| a. | <i>e-dap olayioni oldirifa</i><br>3-break boy window<br>'The boy will break the window'                                   | (agent)             |
| b. | <i>e-dap olkutati oldirifa</i><br>3-break wind window<br>'The wind breaks the window'                                     | (natural force)     |
| c. | <i>e-tu-tur-o oltrekta enkorma</i><br>3-PFV-plough-PFV tractor field<br>'The tractor ploughed the field'                  | (instrument-causer) |
| d. | <i>e-tu-dum-ua embuata oldia enkerai</i><br>3-PFV-wake.up barking dog child<br>'The barking of the dog woke up the child' | (causer event)      |

The salient property of Maa impersonals and Parakuyo, in particular, is that the impersonal suffix does not license the occurrence of an explicit external argument. Thus, impersonal passives also disallow an agent argument in a *by*-phrase. This property seems similar to SE-passive in Romance languages. The SE-passive in these languages bars the adjunction of the *by*-phrase in a clause (see Schafer to appear for relevant discussion).

- (11)
- a. *e-mur-i*            *enkaji*                            (*IMP atelic*)  
3-plaster-IMP house  
'The house will be plastered'
  - b. *e-mur-itá-i*            *enkaji*                            (*progressive*)  
3-plaster-PROG-IMP house  
'The house is being plastered'
  - c. *e-tú-mur-a*            *Sendui enkaji*            (*non-impersonal*)  
3-PFV-plaster-PFV    *Sendui* house  
'Sendui has plastered the house'
  - d. *e-tu-mur-ak-i*            *enkaji*                            (*IMP-telic*)  
3-PFV-plaster-PFV-IMP house  
'The house has been plastered'

However, in the analysis proposed by Tucker and Mpaayei (1995), they claim that *tai* occurs in the passive continuous aspect but that further analysis suggests that *ita* is associated with the progressive, whereas *-i* is an impersonal morpheme. I propose two different morphemes, namely *ita-i*. The reason for this view relates to the reading *e-mur-ita* reading, 'she/he is plastering' from *emurr* 'plaster'. For impersonal in the past, I propose that the morpheme is *-i*, instead of *-aki*, as proposed by Tucker and Mpaayei (1955). The rationale for this view is that in the stem *e-tu-mur-a* 'he has plastered' in (10c), *-tV...a* denotes the perfective while in the impersonal construction, *e-tu-mur-ak-i* in (10d), the perfective is morphologically realized by the prefix *tV* and the suffix *-ak-* for Class I verbs in Maa dialects (see Konig 1993, Payne 1995, for perfective *-ak-* in Camus Maa). Thus, when *-i* is suffixed to the verb, as in (11d), it yields a passive reading 'the house has been plastered. For discussion of the perfective aspect, see Andrason and Karani (2017b). Evidence from the Parakuyo data suggests that the function of the impersonal morpheme *-i* is not only attested in the perfective aspect but also in the imperfective aspect. The reason is that even the imperfective aspect can refer to the perfective or imperfective aspect in some contexts. The verb *eirutieki* from *irutie* 'frighten', for example, yields two possible aspectual readings, namely perfective and imperfective. The distinction of these aspects is realized by tone.

- (12)            *e-irut-íe-ki*                            *enkerai*  
3-frighten-CAUS-IMP child  
'The child is/will be/was frightened'

In the combination of extensions (such as causative and impersonal constructions) *-ki* occurs as an impersonal suffix (see Tucker and Mpaayei 1955:143). In order to derive a change-of-

state verb for verbs that require an implied external argument, the causative suffix must occur. Thus, a combination of the causative *-ie* and the impersonal passive suffix *-ki* occurs in the following example.

- (13)      *e-ibórr-ie-ki*              *enkaji*  
             3-white-CAUS-IMP    house  
             ‘The house is/will be/was made white’

As mentioned above, this verbal stem is neutral in terms of aspect or specific time reference, unless specified by temporal modifications or context in which the utterance occurs. Hollis (1905:67) argues that the morpheme *ki* denotes the passives in the past. This argument may not hold given that, the following examples demonstrate that *-ki* can also refer to the future in some verb constructions. Therefore, *-ki* is an allomorph for the impersonal morpheme *-i* that is common with many verbs. A plausible morphophonological explanation, at least for this case of causative and impersonal, is that the consonant *k* breaks the sequence of vocalic morphemes *-ie* and *-i* that co-occur as the causative and impersonal suffixes.

- (14)      *e-iropij-ie-ki*              *kule*  
             3-cool-CAUS-IMP    milk  
             ‘The milk has been cooled’

Hollis (1905) provides the example in (15) among others, in proposing that *-ki* is associated with passive in the past. However, it is evident that the perfective morphemes also co-occur with the impersonal form. The glossing in the following examples (of the same example provided by Hollis) illustrates both aspectual and impersonal morphemes. The perfective aspect is morphologically realized on the verb in two slots, that is, before and after the verbal root, followed by the impersonal suffix.

- (15)      *aa-tu-suj-a-ki*  
             3>1-PFV-follow-PFV-IMP  
             ‘I have been followed’

Another suffix that refers to both the present and the future time is *-ni*, as exemplified in (16) (also see Hollis 1905:67 for Standard Maasai). The occurrence of allomorph is restricted to the imperfective aspect. The subject argument, ‘someone’, in the impersonal is referred to in a general sense denoting an unknown agent.

- (16)
- a. *e-limu-ni*      *esipata*  
3-tell-IMP      truth  
'The truth will be told'
  - b. *e-yieu-ni*      *enkayioni*  
3-want-IMP      boy  
'The boy is needed'
  - c. *e-rasu-ni*  
3-be.mad-IMP  
Lit. 'Someone will become mad'
  - d. *e-puku-ni*      *boo*  
3-exit-IMP      outside  
(Lit. someone will go out)
  - e. *e-laku-ni*      *enkinde*  
3-untie-IMP      goat  
(Lit. someone will untie the goat)

The impersonal suffix *-ri* with other verbs also denotes the imperfective aspect. Thus, the reading obtains that the action may or may not be done later in the future, as in the following examples.

- (17)
- a. *e-ita-dua-ri*      *enkare*  
3-CAUS-bitter-IMP      water  
'The water will be made bitter'
  - b. *e-ita-ruo-ri*      *enkare*  
3-CAUS-spoil-IMP      water  
'The water will be spoilt'

The distinction may be insufficiently clear between this suffix *-ri* for the impersonal and the suffix *-ri* for motion away or reflexive. The motion away suffix *-ri* is only compatible with motion-related verbs and with some non-motion verbs, it yields an impersonal reading and a reflexive interpretation with other verbs. Although these suffixes are homophonous, they vary in the types of verbs they co-occur with in a clause and the modifiers allowed by the predicate.

As pointed out above, I advance the view that the glide <yy>, (strong <y>, as is called in the Maa sound system) is an impersonal passive suffix (for discussion of Maasai phonology, see section 2.2). The intransitive verbs in (18) demonstrate the concept.

- (18)
- |    |  |                       |
|----|--|-----------------------|
| a. | <i>e-kweni-yy te aji</i><br>3-laugh-IMP in house<br>'Someone is laughing in the house'           | <i>impersonal</i>     |
| b. | <i>e-kweni entito te aji</i><br>3-laugh girl in house<br>'The girl is laughing inside the house' | <i>non-impersonal</i> |
| c. | <i>e-itoti-yy enkerar</i><br>3-feed-IMP child<br>'The child will be fed'                         | <i>impersonal</i>     |
| d. | <i>e-itoti endasat enkerar</i><br>3-feed woman child<br>'The woman will feed the child'          | <i>non-impersonal</i> |
| e. | <i>e-toni-yy te boo</i><br>3-sit-IMP at outside<br>'Someone will sit outside'                    | <i>impersonal</i>     |
| f. | <i>e-toni ilayiok te boo</i><br>3-sit-IMP boys at outside<br>'The boys are sitting outside'      | <i>non-impersonal</i> |

A rather uncommon combination occurs of the antipassive and impersonal suffixes. The impersonal suffix *-i* can also appear in an antipassive verb construction. This is due to the fact that the antipassive form is an active intransitive; hence, the environment allows the occurrence of the impersonal suffix.

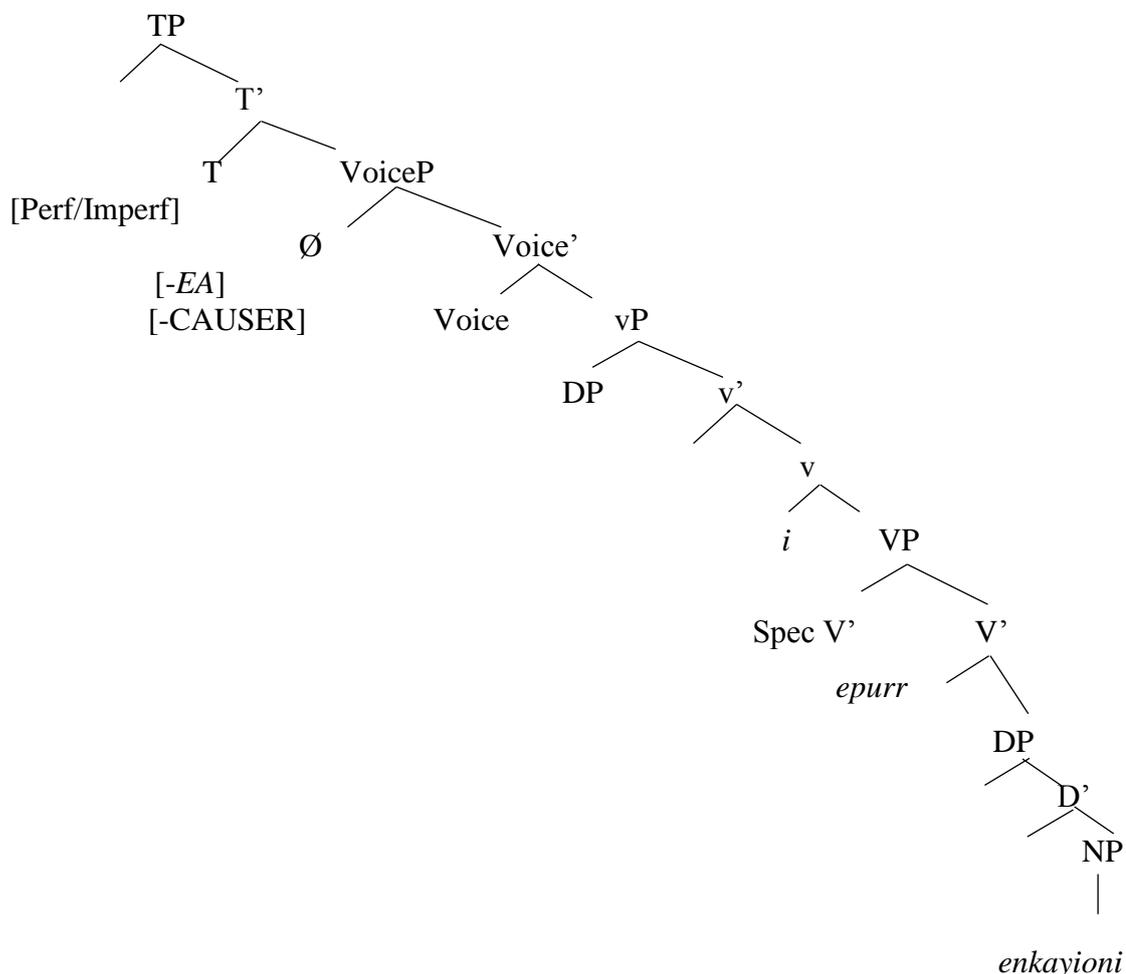
- (19)
- e-purr-ifó-i*  
3-steal-APAS-IMP  
'The stealing happen'  
'Some people do steal'

In a different context, however, the same construction can yield future tense, change of state or 'becoming' interpretations.

- (20)
- e-purr-ifó-i enkayioni*  
3-steal-APAS-IPFV boy  
'The boy will later become a thief'  
'The boy will steal'

It is common for the suffixes *i* or *yi/yu* to express the event expected to occur in the future or the change of state envisaged in a verb construction.

A Parakuyo impersonal passive clause, for example, *e-purr-i enkayioni* ‘the boy will be robbed’, can be schematically represented in the following figure.



#### 5.4 Impersonal passives and possessor-possesee alternations

Impersonal passives can be realized in structures that alternate between a transitive verb and an impersonal verb construction with a possessor and possessee expressions. The examples in (21) demonstrate two versions of impersonal passives, whereby one co-occurs with a dative suffix and the second without suffixes. The dative suffix verb requires the beneficiary argument to be adjacent to the verb followed by a theme argument ('the book'). Thus, this argument alternation changes the semantic roles of arguments. In (21a) the reading obtains that the child is the beneficiary of the event effecting the book, but in (21d) the child is the possessor of the book and the event has no effect on the child. Thus, the child in (21a) is the indirect object argument of the verb but in (21d) it is an oblique argument realized in a PP, 'of the child'. The

dative verb construction allows the occurrence of the agent as in (21b), but if the impersonal passive suffix is affixed, it results to ungrammaticality as illustrated in (21c).

- (21)
- a. *e-isom-aka-ki enkerai enkitabu*  
3-read-DAT.PFV-IMP child book  
'The child was read the book for'
  - b. *e-isom-aka olmalimui enkerai enkitabu*  
3-read-DAT.PFV teacher child book  
'The teacher read the book to the child'
  - c. *\*e-isom-aka-ki olmalimui enkerai enkitabu*  
3-read-DAT.PFV-IMP teacher child book  
Intended: 'The teacher read the book to the child'
  - d. *e-isoma-i enkitabu e nkerai*  
3-read-IMP book of child  
'There will be reading of the child's book'

In the imperfective aspect, the impersonal passive suffix changes the consonant between the vowels. Instead of a *k*, an *n* occurs between the dative suffix and the impersonal suffix. Consider the following example.

- (22) *e-isom-aki-ni enkerai enkitabu*  
3-read-DAT-PFV-IMP child book  
'(someone) will read the book for the child'

The possessor, 'the child', of the 'book' in the active transitive verb construction, follows the possessee, as illustrated in the following clause. As for thematic roles assignment, the order is the agent, followed by the theme/patient then the beneficiary is realized in by the prepositional phrase. These arguments can alternate in a dative suffix verb construction, with the beneficiary argument appearing adjacent to the agent, but excluding the possession. In example (23a), the morpheme encoding the possession precedes the possessor whereas in (23b) the possessive morpheme does not occur because the dative topicalizes the beneficiary argument.

- (23)
- a. *e-isom-a olmalimui enkitabu e nkerai*  
3-read-PFV teacher book of child  
'The teacher reads book of the child'  
'The teacher read the book of the child'

- b. *e-isom-aka olmalimui enkerai enkitabu*  
 3-read-DAT.PFV teacher child book  
 ‘The teacher reads the child a book’

A verb like ‘buy’ behaves similarly. However, in (24a) the reading obtains that the child is the beneficiary while in (24b) the child is just the owner of the book. In (24a) the book is bought for the child but in (24b) the book was sold and bought by some unknown buyer and from there it will not belong to the child anymore. In the impersonal, the agent is not interpreted to buy the book for the benefit of the child, and the motion towards suffix does not occur denoting some abstract motion of a book coming in to the child’s possession. Rather, in the impersonal, the impersonal passive suffix introduces that refers to an unknown agent who will buy the child’s book.

- (24) a. *e-ijana endasat enkitabu e enkerai*  
 3-buy-MT woman book of child  
 ‘The woman buys the book of child’
- b. *e-ijana-i enkitabu e enkerai*  
 3-buy-IMP book.ACC of child.ACC  
 ‘The book of the child will be bought’

The difference between (25) and (25b) relates to aspect. The example in (25a) is in the perfective aspect while (25b) is in the imperfective aspect. Thus in (25a), the perfective morpheme *-ki* occurs, whereas in (25b) the imperfective suffix *-ni* is employed, both co-occurring with a dative suffix.

- (25) a. *e-ijana-aka-ki enkerai enkitabu*  
 3-buy-DAT.PFV-IMP child book  
 ‘The book was bought for a child’
- b. *e-ijana-aki-ni enkerai enkitabu*  
 3-buy-DAT-PFV-IMP child book  
 ‘The book will be bought a child’

Impersonal passives can have an idiomatic interpretation, as with the verb slaughter. In Parakuyo, a sentence can have the reading that because the chief did something wrong to the people he has to be fined a goat. This means that the goat has to be slaughtered and eaten by all.

- (26)
- a. *e-te-yieŋ-a*                      *ɔlaigwanani enkine e Mali*  
 3-PFV-slaughter-PFV chief              goat of Mali  
 ‘The chief slaughtered the goat of Mali’
- b. *e-te-yieŋ-a-ki*                      *ɔlaigwanani enkine*  
 3-PFV-slaughter-PFV-IMP chief              goat  
 Lit. ‘The chief was slaughtered a goat’
- c. *e-yieŋ-i*                              *ɔlaigwanani enkine*  
 3-PFV-slaughter-PFV-IMP chief              goat  
 Lit. ‘The chief will be slaughtered a goat’

In discourse-pragmatic context, the reading obtains that the chief was told to provide a goat to the elders, for example, as a fine for wrongdoings to people and the goat has to be slaughtered. An active verb version of this clause occurs in (26a) with the reading that the agent slaughters a goat that belongs to Mali, the possessor noun realized in a PP. Thus, in the impersonal clause, possession is morphologically expressed with the two arguments not realized in a structure with a possessive morpheme. This reading obtains through arguments alternation in the impersonal verb construction.

## 5.5 The implicit arguments in impersonal passive constructions

Alexiadou (2010:192), in discussing agentivity in Greek, German and English maintains that there are verbal roots that have an agentivity feature in their encyclopaedic semantics. In generative syntax, posits that in personal and impersonal passives an implicit argument occurs, not realized syntactically but which is contextually implied. Little *pro* appears in a subject position of a finite clause. Little *pro* is equated to an indefinite or a definite pronoun similar to English *one* (Hornstein 1999:91).

Given that in some Parakuyo constructions, the subject argument or the object argument is not overtly realized, it is possible to postulate that it is a pro-drop language. Thus, some pronominal readings are not phonetically realized. The DP that is dropped (covert *pro*) is nevertheless represented in the clausal structure. Impersonal passives can occur in an intransitive verb clause (Payne 2011) without other predicate modification. Consider the following intransitive verbs, with an impersonal reading in (27a), and in example (27c) which demonstrates a location/destination reading.

- (27)
- a. *e-kwet-i*  
3-run-IMP  
'Running will happen'
  - b. *e-kweni-yy*  
3-laugh-IMP  
'Laughing will happen/some people will laugh'
  - c. *e-kwet-i aaŋ*  
3-run-IMP home  
'Running home will happen'

As stated above, impersonal passives in Parakuyo and other Maasai varieties do not allow agent subject DPs or PPs. However, PPs can introduce arguments that assume other thematic roles like instrumentals and locatives. This is different from that which obtains for passives in English and German type languages, where PPs introduce agents (Alexiadou 2014, Alexiadou et al. 2015. among others). An event-oriented adverbial or a purpose clause can modify the verb in an impersonal passive construction, as demonstrated in (28a) and (b), respectively.

- (28)
- a. *e-kwet-i aŋ rreerree*  
3-run-IMP home quickly  
'Running home will happen quickly'
  - b. *e-kwet-ie-ki enkerai aŋ pe-lo aana endaa*  
3-run-CAUS-IMP child home REL-go INF.eat food  
'Rushing the child home will happen so that she gets food'  
'The child was rushed home so that she gets food'

A perfective interpretation obtains in the above impersonal construction in (28b). Temporal adverbials referring to a specific time in the past, for example *ŋole* 'yesterday' make the temporal interpretation specific. Otherwise, the construction without an adverbial remains open for a perfective and imperfective interpretation.

Impersonal passives have common properties with middles, particularly in regard to agentivity. In these constructions, the external agent is differently suppressed. Although middles do not provide possibilities for inferences of an implicit agent, subject arguments of middles are accorded some agentive attributes. This is due to the reading that they appear to act on their own, even if they are inanimate (see section 5.9 for further discussion). Therefore, a distinction obtains between impersonals and middles. Alexiadou et al. (2015) considers the question of the implicit external argument as a feature in distinguishing causative from anticausative

constructions. Passives license a *by*-phrase in English, hence permit the external argument, whereas the anticausatives do not. Generally, almost any transitive verb can passivize. However, only a subset of transitive verbs like *duŋ* ‘cut’ and *daŋ* ‘break’ in Parakuyo form middle constructions. Break-like and cut-like verbs behave almost the same way in different languages. The current study demonstrates that in Parakuyo, these verbs, among others, manifest middle constructions. Argument alternations examined in the following Parakuyo examples illustrate that verbal suffixes correlate with voice and argument alternation.

- (29)
- |    |  |                             |
|----|--|-----------------------------|
| a. | <i>e-duŋ olayerani inkiriŋ</i><br>3-cut cook meat<br>‘The cook will cut meat’                                  | <i>(active)</i>             |
| b. | <i>e-duŋ-i inkiriŋ</i><br>3-cut-IMP meat<br>‘The meat will be cut’<br>‘There will be an event of cutting meat’ | <i>(impersonal passive)</i> |
| c. | <i>e-tu-duŋ-e enkeene</i><br>3-PFV-cut-MID rope<br>‘The rope cut/broke’  | <i>(middle)</i>             |

The verb *daŋ* ‘break’ behaves correspondingly to *duŋ* ‘cut’ semantically and syntactically. By contrast, the agent is completely suppressed in impersonal and middle constructions. This property of agent suppression is introduced by the suffixes *-i* and *-e, a* (as in (30c) and (d) for impersonal and middle verbs respectively). Furthermore, it is possible to topicalize an agent if it is the focus or new information as in (30b).

- (30)
- |    |   |                               |
|----|---|-------------------------------|
| a. | <i>e-ta-daya Billi ekioyo</i><br>3-PFV-break Bill glass<br>‘Bill broke the glasses’                             | <i>(active)</i>               |
| b. | <i>Billi o-ta-daya enkioyo</i><br>Bill REL-PFV-break glass<br>‘It is Bill who broke the glass’                  | <i>(agent topicalization)</i> |
| c. | <i>e-daŋ-i ekioyo</i><br>3-break-IMP glass<br>‘The glass will be broken’<br>‘There will be breaking of glasses’ | <i>(impersonal)</i>           |
| d. | <i>e-ta-daŋ-e enkioyo</i><br>3-PFV-break-MID glass<br>‘The glasses broke’                                       | <i>(middle)</i>               |

Arguments can be displaced in active verb clauses displacement and for the purpose of topicalization. However, when the impersonal voice occurs, this argument topicalization is impossible, as illustrated in the following unacceptable clause.

- (31) *ɔlmukatei e-tú-duŋ-ó-ki \*ɔlayierani*  
 bread 3-PFV-cut-PFV-IMP baker  
 ‘Intended: It was the bread that was cut by the baker’

Bhatt and Pancheva (2006) argue that the implicit external argument in impersonal passives participates in syntactic processes. They present a discussion of different implicit arguments, including PRO, *pro* and A/A’ (argument) traces in different constructions. In passives, in particular, the implicit argument at issue discussed is a *pro* that is introduced by a *by*-phrase in many languages like English. In such languages, some roots specify for agents, which are obligatorily required to appear in the clause. Voice encoded agentives are expressed in agentive roots that necessitate the occurrence of agent in a clause. Davis (2000) and Doron (2003) maintain that in agentive verb constructions the agents cannot be suppressed. They state that if an agent is specified in the lexical thematic meaning of the root, it cannot be removed by any mechanism. Instead, the structural representation of the agent in non-active clauses can be realized in a passive construction. In contrast, Parakuyo is a language that does not allow the *by*-phrase introducing an agent argument in a non-active voice clause like impersonal passives. When the agentive root permits verbal morphology introducing non-active voice, impersonal passive in particular, the agent argument cannot be introduced by any mechanism. This property contrast with Davis and Doron’s (ibid) argument on agentive verbs in languages without a complex verbal morphology.

## 5.6 Modifications in impersonal passives

In generative syntax research, various diagnostics have been employed by researchers to investigate the lexical-semantic properties of verbs in relation to the other expressions permissible in the clause. In argument alternation constructions modification through various phrases or clauses can modify a predicate. Among the diagnostics that have been employed for determining agentivity in (impersonal) passives are expressions realized in *by*-phrases, other prepositional phrases, different types of adverbials, *by*-itself phrases and clause control modification. These tests demonstrate the properties of adjunction of elements in different

constructions including non-canonical verb constructions, for example, impersonal passives and middles. The aim of employing such diagnostic tests is twofold: (i) to determine the invisible presence, or the absence of an agent argument in these constructions and (ii) to examine and describe the properties of the non-occurrence of the agent argument in the eventuality and its effect in the event architecture.

### 5.6.1 Licensing of the *by*-phrase

The use of the *by*-phrase is among the generative linguistic diagnostics that are applied in order to test if there is an implicit external argument in the clause structure. The equivalent of this in Parakuyo would be the appearance of the argument in a PP after the introduction of the impersonal suffix in a verbal base. The impersonal suffix disallows the occurrence of an external argument in Parakuyo grammar. Note that in Maa varieties, there is no preposition/morpheme equivalent to ‘*by*’ in English that introduces an animate-argument (agent for this matter) the way the *by*-phrase does in English. The preposition *te* that introduces an argument in a non-active voice can only introduce instruments, other causer, instrument-causer or causer event in the impersonal passives. For more discussion on such modifications, see section (5.6.2) and (5.6.6). The rich data below provide architectural differences between different constructions compared to the impersonal version of the same example.

- (32)
- |    |   |                                |
|----|---|--------------------------------|
| a. | <i>e-gil endito olceta</i><br>3-break girl wood<br>‘The girl will break the wood’                               | <i>(active)</i>                |
| b. | <i>e-gil-i olceta</i><br>3-break-IMP wood<br>‘There will be breaking of wood’<br>‘..... will break a wood’      | <i>(impersonal passive)</i>    |
| c. | <i>e-gil-i (*endito) olceta</i><br>3-break-IMP girl wood<br>(Intended: the wood will be broken by the girl)     | <i>(impersonal with agent)</i> |
| d. | <i>e-gil-i olceta *te endito</i><br>3-break-IMP wood by girl<br>(Intended: the wood will be broken by the girl) | <i>(impersonal with agent)</i> |
| e. | <i>e-ti-gil-e olceta</i><br>3-PFV-break-MID wood<br>‘The wood broke’  | <i>(anticausative variant)</i> |

The equivalent of the *by*-phrases that introduce the external argument of the verb in a passive voice clause in English, for example, results in ungrammaticality of the Parakuyo clause as seen in (32d). The occurrence of an agent in the impersonal verb in a clause results in ungrammaticality in Parakuyo, as illustrated in (32c). In addition, in regard to the variations of argument realization in different languages, the word order of these languages also has to be taken into consideration. Given that Parakuyo Maasai is VSO, the order of the arguments in relation to the verb is different to that of some Indo-European languages that informed some theoretical approaches (Bruening 2013).

### 5.6.2 Causer, natural force and causer event PPs in impersonal passive

The causer or instigator argument of an event is not only expressed by animate, volitional participants in the event but also by inanimate arguments. The event denoted by the verb can be caused or initiated by other entities like natural forces or events that cause other events to occur. A few natural forces that cause events include the sun, thunderstorm, flood, wind, rain, in different contexts. Therefore, these natural forces act like causers of events in various situations. Some may occur naturally without any help but some may require some instigation from human agents. In the impersonal passives in Parakuyo, PPs can introduce causers of this nature. Furthermore, such causers can also be introduced in middles, as seen in section 5.1.1 on middles. Thus, this is yet another feature common to middles and impersonal passives in Parakuyo and, presumably, other Maa variants. In the following example, the causer argument, the sun, is introduced in a PP as a causer of an event of drying maize.

- (33) *e-itoyio-i ipaek te enkolon*  
 3-dry-IMP maize with sun  
 ‘Maize will be dried under the sun’  
 Lit. ‘By spreading maize under the sun they will dry’

Therefore, in the above event, an agent has contributed to the natural force. Thus, from the event stages getting to the result state, the reading obtains that the human being must prepare the context for the natural force to act upon the object. Verbs like *toi* ‘dry’ allow the occurrence of a causer PP because both the theme argument and the causer PP have to be involved equally in the eventuality. The interpretation from this clause is that *enkolon* ‘the sun’ acts as some kind of instrument in the general sense with the interpretation the event of ‘the sun drying the

maize’ as a causer rather than of an instrument. This is because when the sun does that, it does it alone. This shows some autonomy to the sun. In the same way an agent would act. However, the categorization of *enkoloŋ* ‘the sun’ as a causer or natural force depends on the categorization of other natural forces like wind, storm or thunder etc. According to Alexiadou and Schafer (2006), this type of event-instigator is a causer. In the corresponding transitive verb clauses below, the causer appears in the subject position, demonstrating that causers have a reading of autonomous function.

- (34)
- |    |  |                  |                     |                     |
|----|--|------------------|---------------------|---------------------|
| a. | <i>e-ito-yio</i>   | <i>enkoloŋ</i>   | <i>ipaek</i>        | <i>(active)</i>     |
|    | 3-dry-CAUS   | sun              | maize               |                     |
|    | ‘The sun will dry maize’                                   |                  |                     |                     |
| b. | <i>e-ito-yio-i</i>   | <i>ilpaek te</i> | <i>enkoloŋ</i>      | <i>(impersonal)</i> |
|    | 3-dry-CAUS-IMP   | maize under      | sun                 |                     |
|    | ‘There will be drying of maize with the sun’               |                  |                     |                     |
| c. | <i>e-ta-bol-o</i>  | <i>olkutati</i>  | <i>oldirifa</i>     | <i>(active)</i>     |
|    | 3-PFV-open-PFV   | wind             | window              |                     |
|    | ‘The wind opened the window’                               |                  |                     |                     |
| d. | <i>e-bol-i</i>   | <i>oldirifa</i>  | <i>*to olkutati</i> | <i>(impersonal)</i> |
|    | 3-PFV-open-PFV   | window by        | wind                |                     |
|    | Intended: There will be opening of the window by the wind’ |                  |                     |                     |

The appearance of causer PPs in an impersonal passive in Parakuyo demonstrates the difference between the agent and the causer in impersonal constructions. The causer is allowed in the PP in the final position of the clausal though not all causers. Example (33b) is different from (33d) because of the lexical properties of the causer argument. *Enkoloŋ* ‘The sun’ can occur in the impersonal passives unlike the ‘wind’ or ‘flood’. This is because it does not yield the reading of being used as a tool. Thus, there is no possibility for agentive input in the construction. Put differently, humans cannot use wind or floods to make events happen the same way the heat from the sun helps to dry maize. In the above example, the change of state verbs, namely ‘dry’ licence the causer in a PP. Thus, the schematic projection posited to represent the causer PP in the Voice theory is vCAUS, as indicated in (35).

- (35) [Voice [vCAUS [Root]]].

Other examples occur where the PP introduces arguments that vary between a causer and an instrument reading. The example in (36) demonstrates how *fan* ‘rain’ acts as the means or facilitator in the growing of crops.

- (36) *e-un-i ilpombok te ena fan* (causer)  
 3-grow-IMP beans with this rain  
 Lit. ‘Beans will be planted with this rain’  
 ‘After this rain, beans will be planted’

However, in the transitivity alternation of arguments, a different reading occurs where ‘rain’ is interpreted as the causer and the causing event. When the falling rain (as an event) causes something to happen the interpretation is that the event of raining triggered the effect.

- (37) *e-ti-gil-a olopiro o-fa-ita ilkeek* (causer event)  
 3-PFV-break-PFV heavy.rain REL.rain.PROG trees  
 ‘The falling rains broke the trees’  
 (The heavy rain, that is falling now, broke trees)

Thus, aspectual verb types contribute to the interpretation of the eventuality and it also contributes to differentiating the causing event from the causer. Similarly, the event denoted by a transitive active voice verb exhibits argument alternation whereby the causer or causer event realized in a PP is realized in the subject position. In this case, the causer argument assumes a quasi-agent role showing some autonomy to work on its own without human involvement. This makes the causative construction in Parakuyo compatible with all possible subject arguments that trigger the event, such as agents, causers, causer events, natural forces and instrumental subject arguments in the active clause.

### 5.6.3 Licensing of a *by-itself* phrase

The *by-itself* phrase is not sanctioned by impersonal passives in Parakuyo but it is permitted with many verbs that licence the anticausatives form (see Alexiadou 2010:191 for related discussion). Thus, in Parakuyo impersonal passives, *by-itself* phrases are impermissible, but they are allowed in middle constructions. The following examples illustrate the distribution of the reflexive anaphoric pronoun *open* for ‘by itself/him/herself’ or *oopen* for ‘by themselves’.

- (38) a. *e-ti-gil-a*                      *Joni olmulango opej*                      (causative)  
 3-PFV-break-PFV John door                      himself  
 ‘John broke the door by himself’
- b. *e-ti-gil-a-ki*                      *olmulango \*opej*                      (impersonal)  
 3-PFV-break-PFV-IMP door                      itself  
 ‘The door was broken \*by itself’
- c. *e-ti-gil-e*                      *olmungo opej*                      (middle)  
 3-PFV-break-MID door                      itself  
 ‘The door broke by itself’

The phrase *by-itself* in the causative conforms to the argument to which the *by-itself* phrase is co-referential, namely the agent or causer of the event. However, in middles, the *by-itself* phrase is co-referential with the argument of certain verbs of a particular class e.g. *break* and *open* verb classes and the *by-itself* is not a different or additional argument within the thematic role architectural if it refers to the same argument expressed in the event.

From the Voice theoretical perspective, passives do not only demote an agent but also demote the argument it introduces. This predicts that passives only occur with agentive verbs (Wunderlich 2001:12). However, for impersonals in Parakuyo, the external argument of agentive verbs is completely suppressed although syntactic diagnostics like agent-oriented adverbials demonstrate that the speakers have an implicit agent in mind in discourse context. From a discourse-pragmatic view, the impersonal passive is employed with different intentions. It is employed when the speaker does not want to disclose the agent for some reasons, or when the agent is not important in the information structure, in an event, or the object is topicalized, when the agent is unknown or when the agent refers to a general entity like people/society, or when the interlocutors know the agent.

#### 5.6.4 Impersonal and agentive adverbs modification

Agentive adverbs are commonly invoked in research on various languages to test the interpretation of agentivity in a clause. Adverbs denote intention, or volitionality attributes among others, hence they are associated with a human argument. If a verb accepts modification of an agent-oriented adverb, it implies that an agent is involved in that particular event. This is in contrast with the view that this type of adverbs requires both an agent and an event (Roberts 1987:84). An agent presupposes an event but an event does not always presuppose an agent. The investigation of the distribution of adverbs in the clause demonstrates that agent-oriented



adverbial in the initial position exhibits topicalization of the adverbial. Thus, it emphasizes the motive, or reason for the event that the verb denotes. Also, consider the following example with an agent-oriented adverbial expressing deliberate action from the implicit external argument.

- (41)        *e-duŋ-i*        *enkeene aaotiki*  
              3-cut-IMP    rope    deliberately  
              ‘The rope will be cut deliberately’

Since the agent-oriented adverbials are restricted to the modification of agent arguments clauses with subject arguments that are other kinds of event instigators, like causers (e.g. natural forces), instrumental causers and causing events, do not allow this kind of adverbials. In the example above, the adverbial ‘deliberately’ refers to the intent of the agent argument to do something at will, hence agent-oriented adverbials require that the agent has to be a human actor who can act volitionally.

In Parakuyo, agent-oriented adverbials modify the implicit agent similarly the modification overtly expressed agents in English for example in ‘the boat was sunk *deliberately* (by the pirates)’. However, in Maasai impersonal passives, the implied agent is contextually realized in different ways. In some clauses, as exemplified in section 5.3, the reference of argument an agent is not known and cannot specifically be retrieved from context. In other examples, we have a general agent in mind, which are ‘people or other things in a general sense’. This is different from languages that allow agents in passives because the adverbial can modify the agent as in the example of the English passive: ‘the boat was sunk *deliberately* (by the pirates).

The blocking of the overt occurrence of an external argument in Parakuyo impersonal passives is intriguing for the reason that the agent-oriented adverbial refers to some implicit agent. This constitutes evidence that an understood agent (implicitly expressed) occurs, which is the causer of the event denoted by the verb.

### **5.6.5 The impersonal and purpose clause modification**

The impersonal construction in Parakuyo allows a purpose or reason. The subject argument of the matrix verb clause can control the subject argument in the purpose clause though implicitly. These clauses occurring in the impersonal passives denote information of the purpose or

reasons for the events. In Parakuyo, the purpose clause is introduced by a subordinate element *pe-* that is connected to the verb root. The reading of this morpheme is equivalent to ‘so that’, ‘in order to’ or ‘for the reason’, depending on the function of the clause. Thus, the subordinating morpheme introduces a subjunctive clause, depended on to the matrix verb clause.

- (42) a. *e-yer-i inkirinj p-e-na ilomon*  
 3-cook-IMP meat SUB-3-eat guests  
 ‘The meat will be cooked *so that* guests can eat’
- b. *e-ijanw-ak-i olgauni nejuk to olduka p-e-ifor-i endito*  
 3-buy-PFV-IMP dress new at shop SUB-3-give-IMP girl  
 ‘A new dress has been bought from the shop, so that it is given to the girl’

The subjunctive clause introduced by *pe-*, which is inflected for third person and the impersonal suffix occurs in the matrix post-verbal position as exemplified in (42) above. This clause can be interpreted in English as a *to*-infinitive clause *peifori entito* ‘to be given’ as in (42b). In (42a) it is introduced by ‘so’ and a complementizer ‘that’. This clause that denotes purpose or intention is expressed as an embeded clause. Both clauses may have to be impersonal verb constructions when two events are expressed and with none of them the agent is allowed. Hence, unlike anticausatives, the implicit matrix argument in impersonals can control the *pro* subject of the rationale clause through the implicit external argument (Alexiadou et al. 2015). Consider the following examples of impersonals.

- (43) a. *e-itafie-yie-ki engarrim pefo*  
 3-stop-CAUS-IMP car without.purpose  
 ‘The car was stopped without purpose’
- b. *e-itafie-yie-ki engarrim [pro p-e-piki-i ilmusikoni]*  
 3-stop-CAUS-IMP car [pro SUB-3-put-IMP loads  
 ‘The car was stopped [pro to be loaded with luggage]’

Alexiadou et al. (2015) states that it is problematic to posit an empty subject in the analysis of passives since no *pro* antecedent occurs for some agents. Thus, such *pro* can only refer to some intentional agents but not non-human causers, such as natural forces. Human agents allow agentive adverbs, control into purpose clause or instrument adverbials, which non-human causers cannot allow and therefore *pro* is not possible in such clauses. .

### 5.6.6 Instrumental PPs in impersonal passives

Impersonal passive verbs in Parakuyo have an impersonal suffix with a PP denoting an instrument used to perform certain activities. The fact that an instrument occurs in an impersonal clause does not imply that it effects the event on its own. Although an overt agent argument is suppressed the verb denotes an event that is commonly performed by a human agent. On the other hand, the clause also has the interpretation that the clause expresses a general fact or state of affairs. In this regard, information structure properties are relevant as discussed in section 5.7 below where through word order in a clause, the focus or topic in a clause is realized. The topicalized element, for example, in (44b) below is *inkirij* ‘meat’ – since *inkirij* ‘meat’ is cut with a knife; the occurrence of ‘meat’ on the left periphery indicates topicalization (see Andrason and Karani 2017a for details on left dislocation in Arusa Maasai).

- (44) a. *e-duŋ-i inkirij te enkalem*  
 3-cut-IMP meat with knife  
 ‘The meat is cut with a knife’
- b. *inkirij e-duŋ-i te enkalem*  
 meat 3-cut-IMP with knife  
 ‘The meat is cut with a knife’

In the clauses in (45a-c), a manner adverbial can co-occur with an instrumental PP. The adverbial in this context is event-oriented. The position of the manner adverbials in Parakuyo is not fixed, as opposed to agent-oriented adverbials as discussed in 5.6.4. It can appear before or after the verb following the object argument, or follow the instrumental prepositional phrase.

- (45) a. *reere e-duŋ-i inkirij te enkalem*  
 quickly 3-cut-IMP meat with knife  
 ‘The meat will be cut with a knife quickly’
- b. *e-duŋ-i inkirij reere te enkalem*  
 3-cut-IMP meat quickly with knife  
 ‘The meat will be cut quickly with a knife’
- c. *e-duŋ-i inkirij te enkalem reere*  
 3-cut-IMP meat with knife quickly  
 ‘The meat will be cut with a knife quickly’

## 5.7 Information structural properties in impersonal passive

Information structure relates to different ways of presenting the same propositional content. It is concerned with various issues such as word order, new information, shared knowledge, prosody, presupposition, topic and focus (Lambrecht, 1996, Erteschik-Shir 2007, Schwabe and Winkler 2007, Endo 2007, López 2009, Mereu 2009, Féry 2007, Zimmermann and Fery 2010, Fiedler and Schwarz 2010, among others). Word order is the common way natural languages use to organize information. Information structure in Parakuyo impersonal passives is structured in a way that denoted by the verb topicalizing the event. Therefore, the focus of the information is the event itself rather than the object argument. This is because essentially, the impersonal passive construction has two constituents, namely the verbal phrase denoting the event argument and an object. Modifications with adverbials are optional. The agent argument is suppressed in discourse-pragmatic context realized in the morphosyntactic restrictions introduced by the impersonal suffix. The reference of the agent can be known in some cases where the interlocutors have shared knowledge about the topic under discussion. In an extended discussion, the discourse context may provide an indication of the reference of the agent, for example, where the impersonal form occurs in a discourse. In this regard, the impersonal expresses some generic reference of the assumed agent as ‘people or someone’, in a general sense.

In Parakuyo Maasai, the impersonal passive clause contains a verb phrase and a primary object for a basic clause, and/or other o like a secondary object for ditransitive verbs, a PP, an adverbial or a purpose clause in this order (VO+(Obl/PP/Adv/clause). The categories indicated here in brackets are optional and they can appear in different environments. An oblique argument can be a theme/patient, beneficiary or malefactive argument, depending on the lexical-semantic properties of the verb. The locative, for example, can appear as a DP or in a PP constituent. A PP can introduce an instrument whereas an adverbial can express purpose, manner, as attributes of an agent argument that is suppressed in some way. Thus, the verb has to specify arguments that assume different thematic roles like theme/patient, beneficiary, locative, goal, instrument, among other roles. Information about agents or causers is not of any significance in the event denoted by impersonal passives in Parakuyo. In addition, the information structure properties in impersonal passives have some similarities with those of object argument topicalization where the object argument occurs left-adjacent to the verb, in contrast with the regular order of VSO.

## 5.8 Impersonal passive aspectual verb types

According to Smith (1991, 1997), situation types express different viewpoints from which the event is understood. The telicity of the eventuality is expressed through the viewpoint of the speaker uttering the clause. The viewpoint aspect of a clause denotes whether the speaker expresses temporal meaning in respect to the entire (in)complete event or part of the (in)complete event. A telic event denotes the endpoint while an atelic does not provide sufficient information as to whether the event was completed or not. The impersonal construction can be telic or atelic in Parakuyo. Consider the following examples.

- (46)
- |    |  |                           |                 |
|----|--|---------------------------|-----------------|
| a. | <i>e-te-yiera-ki</i>                               | <i>endaa</i>              | <i>(telic)</i>  |
|    | 3-PFV-cook-IMP food                                |                           |                 |
|    | ‘The food was/is cooked’                           |                           |                 |
| b. | <i>e-yer-i</i>                                     | <i>endaa to saai are</i>  | <i>(atelic)</i> |
|    | 3-cook-IMP food in hours two                       |                           |                 |
|    | ‘The food is/will be cooked <i>for two hours</i> ’ |                           |                 |
| c. | <i>e-te-yer-ak-i</i>                               | <i>endaaa to saai are</i> | <i>(telic)</i>  |
|    | 3-PFV-cook-PFV-IMP food for hours two              |                           |                 |
|    | ‘The food was cooked in two hours’                 |                           |                 |

The prepositional phrases *tV* ‘in/for’ for phrases testing telicity are employed to determine whether the event ended or continues (see Smith 1997, Rothstein, 2004 for relevant discussion). In Parakuyo, an atelic reading obtains in an imperfective aspect clause, which expresses the reading that the event has not reached the endpoint. On the other hand, a telic event occurs in a perfective aspect construction. The perfective aspect generally expresses a past event that is already completed. In Parakuyo, however, the equivalent reading to the English phrases with the prepositions *in* and *for* is *to* which stands for the *in* or *for* reading depending on the aspectual verb type of a clause. The perfective aspect is similar to the reading from the *tV in* phrase as in (46c), while the imperfective renders the interpretation *for*, as exemplified above in (46b).

In other languages like German, for example, telicity can effect grammaticality of an impersonal clause. In Parakuyo, however, the change of telicity does not change the grammaticality of the clause. This is because the same impersonal suffix occurs with telic and atelic clauses, without altering the interpretation of the clause.

- (47)
- a. *e-isomá-i enkitabu to saai are*  
3-read-IMP book for hours two  
'The the books will be read for two hours'
  - b. *e-isóma-ki enkitabu to saai are*  
3-read.PFV-IMP book in hours two  
'The book was read in two hours'
  - c. *e-isòm-aki-ni enkitabu to saai are*  
3-read.DAT-IMP book in hours two  
'The book will be read for him in two hours'

The example in (47b) can be interpreted to refer to a future time or imperfective aspect with a dative suffix verb and different tone pattern. For a perfective interpretation, the high tone occurs on the root syllable while in the imperfective aspect a low tone is occurs on the same syllable. Further discussion on dative and impersonal passive combination is given in section 4.7.2.3.

As mentioned earlier, the *by*-phrase is illicit in the impersonal construction in Parakuyo. Therefore, the following clauses contain necessary elements for a meaningful impersonal construction, namely VP and patient/theme.

- (48)
- a. *e-bol-i oldirifa*  
3-open-IMP window  
'The window will be opened'
  - b. *e-ta-bol-o-ki oldirifa*  
3-PFV-open-PFV-IMP window  
'The window was opened'

It was pointed out above that impersonal passives in Parakuyo can co-occur with agentive adverbials. This suggests, therefore, that interpretation of an implicit agent is assumed in the analysis of impersonals in the current study. Thus, an impersonal passive construction is viewed as a non-active voice clause with an existentially implicit external argument (see Alexiadou 2014:108, and Collins 2017).

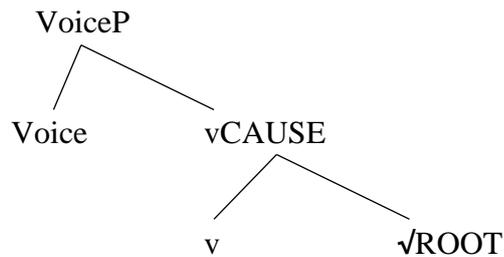


Figure 5: VoiceP model

The impersonal aspectual phrase (AspP) occupies the space higher in the tree structure. The aspectual morpheme commonly precedes the verbal base but for some verbs, it can also occur after the verbal base. Therefore, two slots are available for aspect encoding with a verb like *bol* ‘open’. In the perfective aspect, *tV* occurs as a prefix, and a vowel is suffixed to the root. In the imperfective aspect, no morphological realization occurs; instead, the simple present tense verb form contributes to express different viewpoints. The simple present verb form can occur in the habitual, progressive aspect and future time (see Andrason and Karani 2017b for more details on perfective functions).

In terms of Voice theory, an aspectual phrase to represent perfective and imperfective aspect, respectively, is projected above VoiceP in Parakuyo. The Parakuyo impersonal verb construction yields an ‘unknown’ agent or causer interpretation that is presented as an existential subject in the English translation. The following syntactic representation demonstrates the null DP denoting the agent/causer argument.

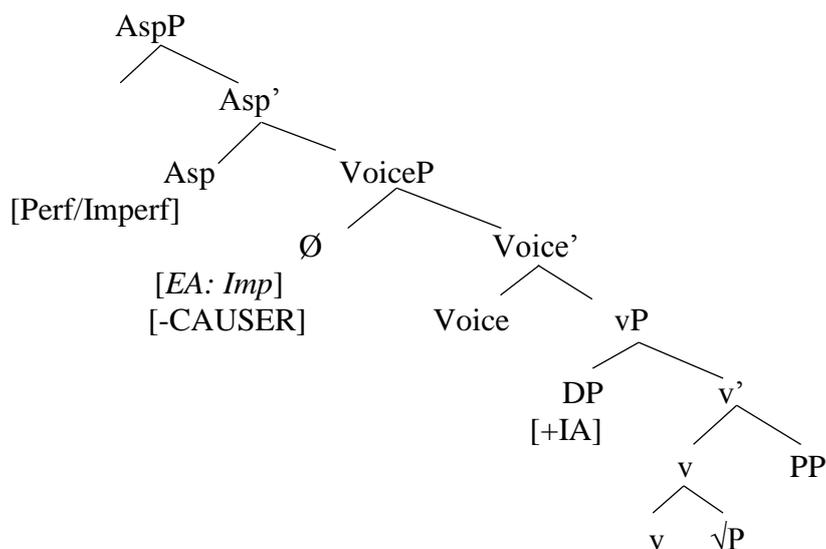


Figure 6: Syntactic representation of the impersonal in Parakuyo

The Parakuyo impersonal sentence can be illustrated as follows.

- (49) *e-yer-i endaa*  
 3-cook-IMP food  
 The food will be cooked

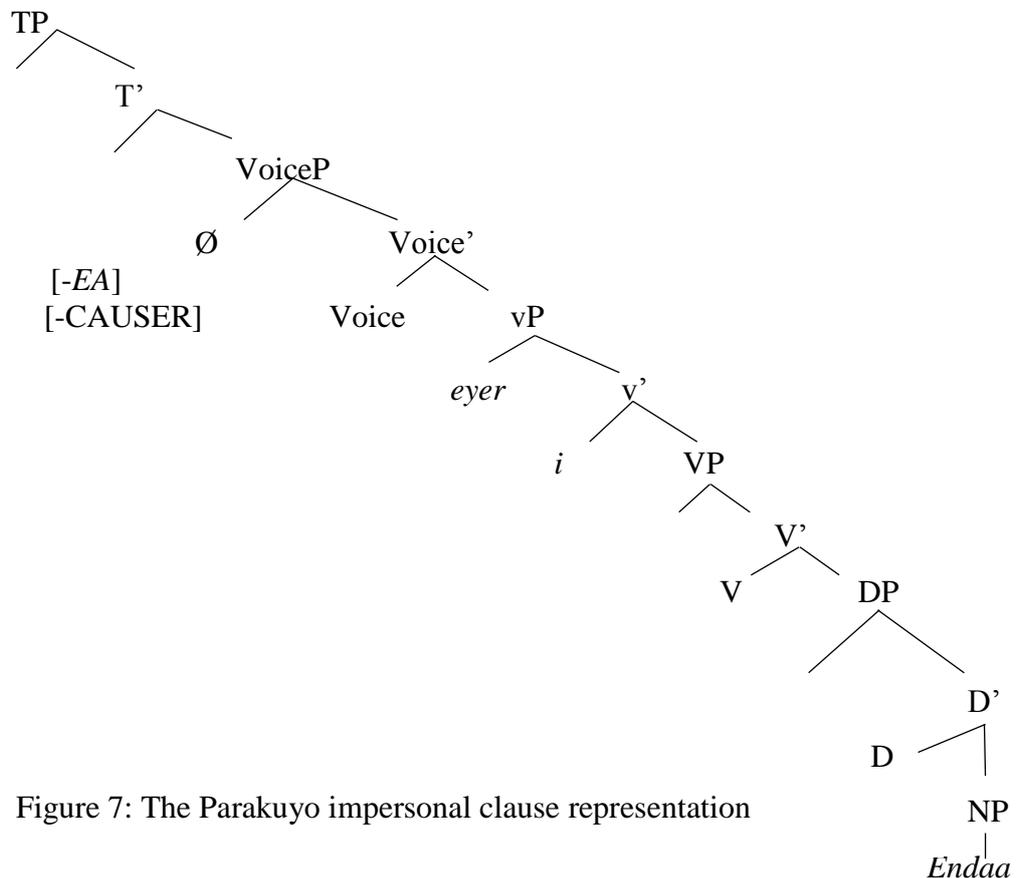


Figure 7: The Parakuyo impersonal clause representation

## 5.9 Middle verb constructions in Parakuyo

The middle in Parakuyo is expressed in two ways. The first strategy entails zero encoding in the sense that no overt morpheme occur for the middle verb. Second, the middle verb has a morphological realization by suffixation of a morpheme. The common suffixes for middle are *-a*, *-e*, and *-o*, whereas *-ai* expresses both middle and modality (Lamoureaux 2004). The distributions of these suffixes are subject to aspectual verb type properties and lexical properties of the verbal root. The difference between the morphological encoding and zero morphology is that zero realization typically expresses general facts/ideas or situations without specific time reference. The morphological realization provides facts/ideas or situations in different aspectual types. The perfective aspect morpheme must occur in the verbal phrase for those verbs that permit the perfective morphemes. From constructions in the imperfective

aspect, two interpretations obtain. The first is the middle reading and the second is modal notion. This means that some if not many of the middle constructions present modal readings – that there is possibility of the action/event to happen.

The investigation above of middles supports the view that anticausatives are common in verbs that express spontaneous events, such as the verbs *gil* ‘break’ and *bol* ‘open’ and other verbs in Parakuyo that denote instant events. Furthermore, these verbs have almost the same property in clause structures, possibly because they have similar morpho-syntactic and semantic properties. These properties relate to the fact that Parakuyo is an agglutinating language unlike languages like English.

### **5.9.1 Zero morphology middle verb constructions**

Alexiadou et al. (2006, 2007, & 2015) discussed zero morphology middles in their analysis of Greek, Italian, German, and English and established that these verb constructions are formed by verbs of the so called Class B verbs. They state that middles in this subset of verbs are morphologically unrealized and these unrealized anticausatives and pure unaccusatives lack a functional layer, VoiceP, which introduces an external argument Alexiadou et al. (2015). Alexiadou et al. (2007) present a similar analysis for Greek, which has verbs that form anticausatives with active morphology, as opposed to verbs that form anticausative with non-active morphology.

According to Alexiadou et al. (2015), these examples suggest that middles are statements that refer to general facts (generic statements) or the truth in the real world or state of being. In these languages, the middle construction of such verbs does not permit a middle suffix in their verbal roots and dispositional middles tend to, and in some languages they occur with an adverbial or a modal element (Alexiadou 2014:21). Thus, they are regarded as zero morphology middles. This is common with verbs that have instruments as subject arguments referring to a generic sense or facts in the real world, examples in ‘the scissors cut the paper’, ‘the stone breaks the window’ ‘graters mush tomatoes’. This generic statement can appear in Parakuyo verb constructions with an adverbial modification or without it, as shown in the following examples.

- (50) a. *e-yier ena moti endaa* (active generic sense)  
 3-cook this pot food  
 ‘This pot cooks food’
- b. *e-yier ena moti endaa (sidai)* (event-oriented adverbial)  
 3-cook this pot food well  
 ‘This pot cooks food (well)’

In the above examples, the reading expresses the general fact about the pot that ‘it cooks’ or ‘is always being used to cook’. Thus, the reading of the above clause is that it expresses the fact that the pot cooks food better than other pots do, or even that it cooks nicely without burning. The interpretation is crucial in patient/instrumental argument alternation. Patient/instrumental argument alternation in the middle verb clause is demonstrated in (51a) and in (51b) the corresponding active verb clause is exemplified.

- (51) a. *e-yier ena moti endaa sidai*  
 3-cook this pot food nice  
 ‘This pot cooks food well’
- b. *e-yier-ie endasat ena moti endaa*  
 3-cook-INST woman this pot food  
 ‘The woman will cook food with this pot’

The noun *emoti* ‘pot’ in the example (51b) denotes an instrument that is used by the woman to cook food, whereas, in (51a) the ‘pot’ is a quasi-agent argument that appears to have some attributes of an agent. This poses a challenge in assigning theta roles to middle verb subject arguments like ‘pot’ since their reading seem to be in between the reading of the agent/patient or agent/instrument.

### 5.9.2 Morphological realization of the middle verb

Morphological realization occurs as the second strategy for middle verb expression in Parakuyo. As mentioned earlier, the suffixes *-e*, in the perfective, and *-a* and *o* in imperfective, express middles in the verbal root (Tucker and Mpaayei 1955, Payne and Olsen 2009). However, these suffixes should be distinguished from other functions performed by the suffix *-e* (namely perfective aspect) in final position in the verbal morphology. The crucial difference between the zero morphology middles and the morphologically realized middles relates to the property that the zero encoded middles expressing a generic statement whereas the

morphologically expressed middle incorporates aspectual type in the event. This can be either perfective aspect, as in (52a), or imperfective aspect as shown in (52b).

- (52) a. *e-ti-gil-e*            *embaoi*  
3-PFV-break-MID timber  
'The timber broke'
- b. *e-yer-a*            *endaa sidai*  
3-cook-MID food well  
'The food is cooking well'
- c. *e-er-ai*            *enkima te enkare*  
3-kill-MID.MOD fire by water  
'Fire can be put off by water'

The example in (52c) expresses the general fact that fire can be put off by water but also the possibility reading is available. The difference between (52c) from the middle verb with a zero morpheme or *e* is that for *-ai* an impersonal passive reading also obtains. In this case, an implicit agent is suppressed by the middle suffix.

Parakuyo middles do allow manner adverbials *sidai* 'nicely/well' and *rerrerree* 'quickly' (see dispositional middles in Greek as presented by Alexiadou 2014, among others). However, the positions for the occurrence of these adverbials are different in Parakuyo. Some verb examples have a manner adverbial *rerrerree* 'quickly; instead of *sidai* 'well' or 'nicely' with a verb like *mir* 'sell'.

- (53) *e-mir-ai*            *ena kitabu reeree*  
3-sell-IMPF.MOD this book quickly  
'This book sells quickly/well'

In the above construction, two interpretations are available. First, it can be interpreted as a middle when, for example, the reading obtains the general characteristic of a certain book that sells quickly because many people like it, or it is a good book from a famous author. Second, it can express modality, namely the possibility that it can sell quickly for some reasons known to the speakers. Thus, modality here implies a reading that such kind of a book can be sold in a certain market but the speaker is not sure if that will be the case or not.

## 5.10. Adverbial modification in middle verb constructions

Middle and anticausative predicates in Parakuyos allow manner-oriented or event-oriented and result-oriented adverbial modification. The adverbial adjuncts express information about the event denoted by the verb. This means that the verb, for example, a motion verb, change of state verb or an activity verb can have an adverb, which describes further the situation expressed by the verb. Thus, the anticausative predicate permits *-a/ai* in the imperfective and *-e* in the perfective aspect, as in (54a and b).

- (54) a. *e-yier-a endaa aakiiji (anticausative)*  
 3-cook-MID.PROG food slowly  
 ‘The food is cooking slowly’  
 ‘The food cooks slowly’
- b. *e-te-yier-e endaa reeree te moti*  
 3-PFV-cook-MID food quickly in pot  
 ‘The food cooked quickly in the pot’

A middle predicate can also be modified by both a manner adverbial and an adjunct PP, in locative/instrument argument alternation as in (54b). In example (54a) above, the manner adverbial for ‘slowly’ can appear in different positions in the clause. Thus, that it can appear in the initial, medial or final position of the clause.

However, other adverbials cannot appear in different positions in a clause. In (55) the manner adverbial *sidai* ‘well’ is restricted only to the final position. This middle construction exemplifies the zero morphology middles discussed above in section 5.10.1.

- (55) a. *e-yer ena moti endaa sidai (generic middle)*  
 3-cook this pot food well  
 ‘This pot cooks food well’
- b. *e-yer ena moti (\*sidai) endaa*  
 3-cook this pot nice food  
 ‘This pot cooks food well’
- c. *e-yer (\*sidai) ena moti endaa*  
 3-cook nice this pot food  
 ‘This pot cooks food well’

- d.     (\**sidai*) *e-yer ena moti endaa*  
           nice 3-cook this pot food  
           ‘This pot cooks food well’

This suggests that event-oriented adverbials must obligatorily occur in certain positions to realize the scope of the adverbial in a clause. If the adverbial *sidai* does not occur as an event-oriented adverbial but rather as a DP complement, it yields the interpretation that, it is modifying the DP ‘pot’ *emoti*. Thus, it renders the reading like ‘this nice pot cooks food’ but it is not common in Parakuyo, in that, it entails an odd word order in terms of information structure. When these modifiers modify clauses or verbal phrases, they take scope over the whole event as manner adverbials, but when they follow DPs, they function as adjectives, hence modifiers of the noun phrase.

## 5.11 PP modification in Parakuyo middle verb constructions

In Parakuyo middles adverbial PPs are of different types. Some arguments are introduced by PPs as optional constituents in the clause. Instrumentals, causers and causing events are syntactically introduced by the PPs as discussed in the following sections.

### 5.11.1 *By-itself* phrases

Middle roots in Parakuyo license reflexive pronouns translated in English as *by itself/him/herself* or *by themselves* in English. These pronouns in Parakuyo follow an object in a clause without a preposition. Therefore, it can be argued that *by*-phrases are language-specific adjunctions that can be encoded differently among languages. In Parakuyo middles, word order indicates that the reflexive pronouns are co-referential to the subject argument in a clause. The Parakuyo reflexive pronouns are compatible with internally caused events. The modification occurs with both zero middles and morphological middles. (56a) illustrates a zero encoded middle with an internally caused change of state verb, *bul* for ‘grow’, and in (56b) the morphological suffix *-e* encodes the middle.

- (56)     a.     *e-bul inkujit oopen*  
               3-grow grass PL.itself  
               ‘The grass grows by itself’

- b. *e-iken-e olmulango opej*  
 3-close-MID.PFV door itself  
 ‘The door closed by itself’

I propose that the functional head projection for this kind of roots is indicated as by vCAUSE for internally caused change-of-state verbs.

### 5.11.2 Causer, natural force and locative PPs in middle verb constructions

The PPs realize causative instigators thematically associated with a causing event (Alexiadou et al. 2015:36). These PPs exhibit similar behaviour in different languages (consider the cases of *apo*-phrases in Greek, *from*-phrases in English and the *tV*-phrases in Maasai). For externally caused events with DP subjects, I propose the projection VoiceP for the external argument appearing above the ‘little’ v. This DP is generated in Spec VoiceP given the fact that a causer, as an external argument, projects above the vP since its syntactic properties are similar to those of the agent. The hypothesis provided by the Voice theory is that only the internal argument is the spec of VP and not the external argument. With anticausatives, the arguments exhibit different thematic roles. Unlike German (Alexiadou et al. 2006:185), Parakuyo anticausatives do not allow agent DPs realize in PPs (see (56c) but they do allow instrumental, causer and causing events phrases. The following examples illustrate causer/natural force arguments in PPs. In some verb construction, the suffix *-ri*, instead of the middle suffix *-e* occurs yielding a middle reading as in (57b). It is somewhat difficult to gloss *-tV* as ‘because of’ or ‘of’ or ‘form’ since its reading depends on the context in which it occurs in clause. Thus, I gloss it as *t* and a relevant vowel (e.g. *te/to/ti*) and provide a free English translation invoking a speaker’s intended meaning.

- (57) a. *e-iken-e oldirifa to olkutati*  
 3-PFV-close-MID window to wind  
 ‘The window closed from the wind’
- b. *e-tu-uro-ri enkaji te encan*  
 3-PFV-*ri* house *te* rain  
 ‘The house fell from the rain’
- c. *e-ta-bol-e olmulango (\*tolbae le Meri)*  
 3-PFV-open-MID door (\*because of Mary)  
 ‘The door opened (\*by Mary)’

The structure proposed by Alexiadou et al. (2006) for anticausative constructions is considered here to determine whether it can represent Parakuyo middles. The only initiator licensed by the middle verb in Parakuyo appears in a PP. This suggests that it should appear in Spec of vP not VoiceP. Thus, the representation in (58b) can represent the general structure of the middles in Parakuyo.

- (58) a. [(Voice) [CAUS(e) [Root + Theme]]]  
 b. [CAUS(e) [Root + Theme]]

With a group of verbs that allow middle suffixes in Parakuyo, the instigating arguments are limited to only causers, natural forces and locatives in PPs. Agent arguments are not allowed and hence no agentive adverbs. As noted earlier, event or manner and resultative adverbials are the types of adverbials that can modify middle verbs. Therefore, it is possible to have a *from*-phrase if the causer is the event and not the agent DP, as illustrated in (59). This shows that in Parakuyo grammar, middles sanction the causer PP similarly to the functions of *by*-phrase and *from*-phrases in other languages like English (Kallulli 2006, 2007 among others).

- (59) a. *e-ta-daj-e*            *enkioyo te enkima*  
 3-PFV-break-MID glass from heat  
 ‘The glass broke from the heat’  
 b. *e-ti-gil-e*            *olcani to olkutati*  
 3-PFV-break-MID tree from wind  
 ‘The tree broke from the wind’

In (60b), the PP is topicalized. Thematically, it represents a locative adverbial PP. The PP *te enkima* ‘on the fire’ indicates the location where the food was placed to cook. This reading makes sense to Maasai speakers because the kitchen design consists of three stones arranged in a triangular manner on the floor inside the house or in an open space. The PP causer cannot appear as the subject in the middle because it must be introduced by the preposition. It exhibits a reading of topicalization of the PP causer if it occurs in clause-initial position.

- (60) a. *e-te-yer-e*            *endaa te enkima*  
 3-PFV-cook-MID food from fire  
 ‘The food cooked on a stove’  
 Lit. ‘The food cooked by being put on stove/fire’

- b.     *te enkima e-te-yer-e      endaa*  
           on fire 3-PFV-cook-MID food  
           ‘The food cooked by being put on the fire’  
           Lit. ‘The food cooked by putting it on the stove’
- c.     *e-te-yer-a              endito endaa*  
           3-PFV-cook-PFV girl    food  
           ‘The girl cooked food’

In middle constructions, the clause has the reading, which is non-specific as to whether there was any human help in the cooking event. In discourse-pragmatic context, a scenario can obtain where the cook prepares everything and put the pot on the fire to cook until the food gets ready. The middle suffix detransitivizes the verb whereas if it is replaced by the vowel *a*, as in *eteyera*, the verb is transitive; hence, it requires the agent, as illustrated in the example in (60b).

The following schematic diagram illustrates the generic middle construction in Parakuyo

- (61)     *e-yer-a inkiriŋ sidai*  
           3-cook-MID meat well  
           the meat cooks well

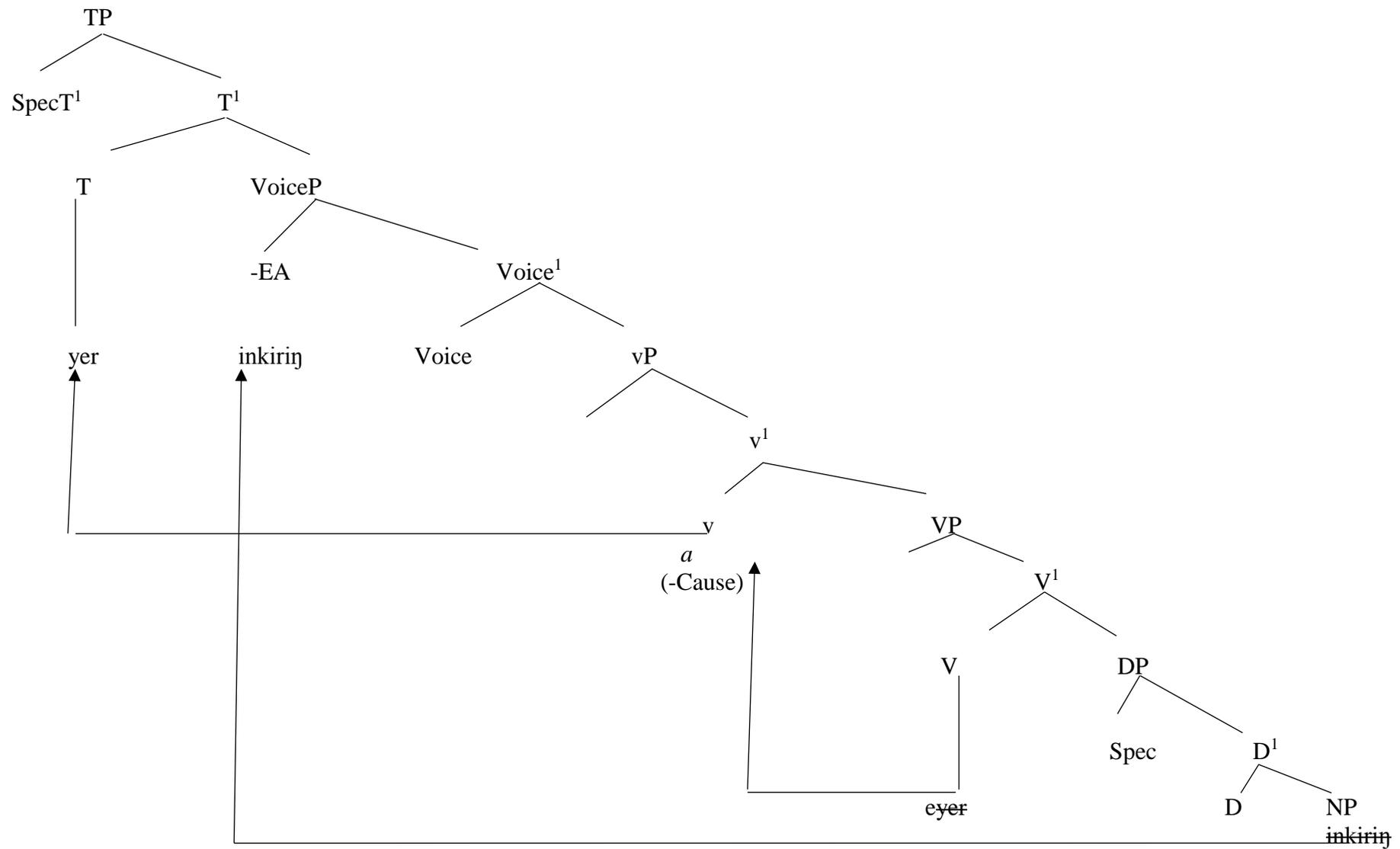


Figure 8: The representation of Parakuyo generic middle with the verb *yer* 'cook'

### 5.11.3 *By*-phrases in middle verb constructions

In Parakuyo middles, an agent argument in a *by*-phrase is disallowed. This property can be attributed to the middle having the interpretation that the event is the focus with the theme/patient argument. In Parakuyo, the occurrence of an agent in middle constructions results in unacceptability due to semantic anomaly. However, a PP introducing a causer, natural force, the instrument or a locative argument is felicitous.

- (62) *e-te-yer-e endaa (\*te endasat)*  
 3-PFV-cook food (\*from woman)  
 ‘The food cooked (\*by the woman)’

The instrumental argument has the interpretation that it functions as an animate or human with volition and capacity to manipulate the theme argument. In example (63), the reading obtains that the key opened the door without reference to an agent, or the fact that it is a human who used the key as an instrument. This is evident considering the ungrammaticality of the clause with the agent *Peter* that has the reading ‘the door opened with Peter’. This verb construction is thus illicit with a middle suffix. This suggests that, for an acceptable meaningful reading to obtain, the clause has to be in the active voice, not in a non-active voice. This also relates to the fact that the other non-active voice, the impersonal passive, does not sanction an agent argument in *by*-phrases.

- (63) *e-ta-bol-e olmulango to olfunguo/\*Pita*  
 3-PFV-open-MID door with key/\*Peter  
 ‘The door opened with the key/by Peter’

In some instances, a stative reading is also possible in middle verb constructions. Consider the example in (64) where the reading obtains that the pot is in the state of cooking and someone is reporting that the food is cooking well on the fire. This interpretation relates to the state of affairs of the food at that particular moment. It is of significance that two interpretations are possible in (64), namely a middle, and a stative interpretation.

- (64) *e-yer-a esupurria sidai te ngima \*endasat*  
 3-cook-MID pot well te fire \*woman  
 ‘The food cooks/is cooking well on the fire (\*by the woman)’  
 (The pot is used to cook food)

Instruments can appear as subject DPs in Parakuyo middles. The appropriate discourse-pragmatic context for this reading obtains when the speaker compares two instruments, for example, an axe and a machete and states that one does the job better than the other. The middle construction can alternate with the antipassive construction that yields the same interpretation as in (65b). The antipassive has an agent, causer or instrument causer as a subject, which results in ungrammaticality of the c-example, where the clause can only allow a locative PP to exclude this semantic anomaly.

- (65)
- a. *e-duŋ endolu olmiti sidai*  
3-cut axe tree well  
'An axe chops a tree well'  
(i.e. it does it better than a machete)
  - b. *e-duŋ-ifo osinca sidai te endim/\*to olee*  
3-cut-APAS machete well in forest/\*by the man  
'The machete chops well (in the forest) (\*by the man) [locative phrase]'
  - c. *e-duŋ-ifo osinca \*to olmiti*  
3-cut-APAS machete on tree  
Intended: 'The machete chops on a tree \*by the man'

However, Alexiadou and Schafer (2006) demonstrated that some kinds of instrumentals can occur in the subject positions. Some subject DPs denote pure instruments in a clause and they function as instrument-causers. In addition, some machines designed for particular function demonstrate some agent-like properties. The sense obtains that they are semi-autonomous and they can perform actions with minimal, or without, human control, for example, in the statement like "the crane picks up the crate". This suggests that the lexical-semantic properties of the DP subjects and the nature of the instrument determine their occurrence as subject DPs.

#### 5.11.4 *From-phase modification*

Middles in Parakuyo allow causers or causing events introduced by the conjunction *te(olbae)* equivalent to the English 'from-phrase, or 'because of' with some verbs. These types of causers indirectly facilitate the internal cause of change of state of the theme with selected roots like *blossom* and *wilt*. This kind of causation is represented by the VOICE + CAUS combination as argued for by Alexiadou et al. (2006) and Kallulli (2006). Similar examples occur in Parakuyo where some anticausative alternants allow a *from-phrase* to express causer, causer

event or reason readings in the clause by employing a *tV*-phrase similar to the English *from*-phrase. Consider the examples in (66a-g).

- (66)
- a. *e-bul inkujit te enkɔilelio*  
3-blossom.MID grass from dew  
'The grass will grow from the dew'
  - b. *e-ita-nay-e olmauai tɔlbae le enkirowuaj*  
3-CAUS-wilt-MID flower because of heat  
'The flower wilted from the heat'
  - c. *e-idum-a te njida*  
3-jump-PFV from happiness  
'She jumped from happiness'
  - d. *e-itengelw-o te emion*  
3-limp-IMPFV from pain  
'He limps from pain'
  - e. *e-ta-bua oldia te enajata*  
3-PFV-bark dog from blow  
'The dog yelped from the blow'
  - f. *e-idum-a Meri te/to olbae le ejida*  
3-jump-PFV Mary because of happiness  
'Mary jumped out of happiness'
  - g. *e-irobi esederr ai tolbae lo olkutati*  
3-cold cheek my because of wind  
'My cheek is cold from the wind'

### 5.11.5 Instrumental PP modification

It is common in Parakuyo to have an instrumental introduced by a PP (as a tools or means with which the agent performs a function) in post-verbal position. However, it is uncommon in some languages to have an instrument as a subject in a clause (Schafer 2006). In constructions where the agent is not overly mentioned, it can be assumed that the agent is present but implicit. It is explicitly expressed in a corresponding active construction. In the following example, an instrumental argument is understood when there is shared background knowledge among speakers or if the agent is clearly understood in the context. An appropriate context for the following example obtains with the reading that instruments can be used to open the door (e.g. remote control, fingerprint) but they failed, and a person tries to use a the key which then opened the door. Consider the following clause.

- (67) *e-ta-bol-e olmulango to ofunguo*  
 3-PFV-open door with key  
 ‘The door opened with the key’

The preposition *tV* introduces the DP instrument argument. As stated above, I propose that this preposition be labelled *tV*, because the vowel changes depending on vowel harmony (the vowel similar to the initial vowel of the DP that encodes gender, that is *e/ε* for feminine and *o/ɔ* for masculine). Therefore, in introducing the causer of the event in the anticausative, the phrase *tolbae* (which is possibly a combination of *tV* ‘of’ and *olbae* ‘thing’ hence ‘of thing’) meaning ‘because of’ or ‘from’ or ‘by’ appears as a modifier in the clause. Thus, the preposition *tV* introduces the instrument DP as an optional adverbial phrase, normally in the final position in the clause.

Kamp & Rossdeutscher (1994:144) suggested distinguish two types of instruments in relation to event structure and arguments relation.

**“Pure instruments:** *instruments whose action is conceived as strictly auxiliary to that of the agent by whom they are being employed.*

**Instrument-causers:** *instruments that can be conceived as acting on their own, once the agent has applied or introduced them.”*

According to Alexiadou & Schafer (2006), instruments cannot appear in the subject position in transitive verb classes. However, in Parakuyo a transitive VSO occurs in (67a) with the reading that expresses the general statement that ‘the knife cuts meat’, as opposed to, another instrument like ‘a machete’. The same instrument subject can appear as a PP in the corresponding middle clause in as illustrated (68b), meaning ‘by the use of the knife the meat was cut’.

- (68) a. *e-duŋ enkalem enkiriŋo*  
 3-cut knife meat  
 ‘The knife cuts meat’
- b. *e-tu-duŋ-e enkiriŋo te enkalem*  
 3-PFV-cut-MID meat with knife  
 ‘The meat is cut with the knife’

The prepositional phrase is optional in middle verb constructions in the sense that the event instigator (agent, causer and instrument-causer) is not an essential argument of the middle

construction. The impersonal structure with modification by the PP is similar to the middle construction in regard to form, except for the middle suffix and the aspectual morphemes. The instrument can be topicalized by fronting the PP as in (68a). Thus, the information that is given more prominence in the clause relates to the knife (the instrument used to perform the event) and not any other instrument. However, instrumental focus in middles is not as common in Parakuyo as is in impersonal clauses. Thus, the middle version is appropriate in a particular discourse context where emphasis is on the tool/instrument that was used.

- (69) a. *te enkalem e-tu-duŋ-e enkiriŋo*  
 with knife 3-PFV-cut-MID meat  
 ‘The meat is cut with the knife’  
 ‘It is with the knife the meat cut’
- b. *e-duŋ-i enkiriŋo te enkalem*  
 3-cut-IMP meat with knife  
 ‘The meat will be cut with the knife’

The above example can also have the reading that some other instruments might have been used, before using the knife, but only when the knife was used, the meat was cut.

### 5.11.6 Causer event PPs in middle verb constructions

Phrases denoting causer events are different from other instigators of the event since they are sub-events on their own (relative clauses or nominalized clauses introduced by PPs) that cause another event to happen. This suggests that the arguments of the causer event are different from the event denoted in the matrix clause. For example, when one says [[the banging of the door of John] woke up the child]], the focus is on the event of waking up the child and the instigator of the action is ‘the action of John banging the door’ that led to the noise that eventually woke up the child. In the following clause, the post-verbal suffix *ne* occurs that provides the middle reading. Therefore, the clause in (70) expresses the general statement that – whenever children make noise near the sleeping child, the child will definitely wake up. This example demonstrates the genericity property of middle constructions.

- (70) *e-dúmú-ne enkerai te endárata o nkulie kera*  
 3-wake.up-MID child of screaming of other children  
 ‘The child wakes up from the noise of others’  
 ‘The screaming of other children wakes up the child’

The causer event can be expressed by a nominalized clause (with a DP structure) introduced by a prepositional phrase.

- (71) a. *e-ta-bol-e            ɔlmulango to osiwuo o-kut-ifo*  
 3-PFV-open-MID door from wind REL.blow.PROG  
 ‘The door opened from the blowing wind’
- b. *e-uro-ri inkajjik te enkirikirata enkop*  
 3-fall-ri houses of shake earth  
 ‘The house was destroyed by the hit of the earthquake’

Causer events are construed as events (within a matrix event) that have on some effect other arguments of the event denoted in a clause. Thus, it is possible to differentiate the causer or natural force from the causer event. Specifically, natural force elements and the causer-event may have the same source of force, or causer but the difference is that the natural force in the causer-event occurs in an eventuality configuration, which makes it an event on its own realized as a single constituent.

## 5.12 Reflexivity in middle verb constructions

Reflexivity in middles is common with inherently reflexive verbs, for example, verbs of bodily care (*wash, comb*) and naturally reciprocal verbs (*meet, kiss* and *hug*). However, genericity is a defining property in the interpretation of middle verb clauses. The clause is in the middle voice if the subject argument has a patient/theme thematic role. Thus, the subject is not an agent but acting by itself or upon him/herself (Stroik 2005, 199; Giorgos et al. 2015). Verbs in these classes occur in constructions of which the only argument is the subject, which has the thematic role of patient or theme.

As pointed out above, a common adjunct to anticausatives is the reflexive pronoun phrase *by-itself*. The theme is the causer of the event by default if other instigators are not indicated. The reflexive pronoun denoted emphasis that the subject acted upon itself. Chierchia (2004:41-42) and Koontz-Garboden (2009:102) observe that the *by-itself* phrase assures that the subject argument is interpreted as the only causer/initiator or (source in some way) of the change of state/situation in the eventuality denoted by the verb. In the following example, the reading obtains that the rope broke by itself without any causer or force from outside. However, it could

be that there is an invisible force, or the rope is worn out but by the time the event happened but one could not attribute it to any immediate cause.

- (72) *e-tu-duŋ-e*      *enkeene opeŋ*  
 3-PFV-cut-MID rope      itself  
 ‘The rope cut by itself’

Not all anticausative verbs permit a reflexive pronoun. Verbs that denote processes that culminate in resultative states or verbs that by necessity involve a covert agent do not license reflexive pronouns. Although the example in (73) is grammatical, speakers find it semantically awkward without a specific context. This example represents the class of verbs that express complex events in contrast to instantaneous events like *break*, *close*, *cut* etc.

- (73) *?e-te-yeŋ-e*      *endaŋ opeŋ*  
 3-PFV-cook-MID food      itself  
 ‘The food cooked itself’

Alexiadou et al. (2015:70) propose that three morphological classes of anticausative verbs occur cross-linguistically. The first one is Class A verbs that form the anticausative with the reflexive pronoun. In German, for example, the pronoun *sich* and Italian reflexive clitic *si* for Class A verbs are employed in anticausative constructions (Schafer 2008). According to Alexiadou et al., the findings suggest that the verbs with Italian *si* focus on the result while the verbs that do not permit *si* focus on the change of state (also see Jezek 2001).

This section examines constructions with the verbs that have been grouped into three clusters for Parakuyo. Given the similar semantics of middles and reflexives, they are sometimes coded identically in verb constructions in various languages (Kemmer 1994). In Parakuyo, as possibly in Maa varieties in general, (Lamoureaux 2004), a certain verb class construction yields middle reflexive interpretations. In addition to the verb semantics, pronouns (varying in number and person) can occur in a clause for emphasis purposes. Middles in Parakuyo present a reflexive reading in some lexical-semantic verb classes. The reflexive pronoun must occur if the speaker’s intention is to focus on the theme acting by itself without a sense of agentivity. The reflexive pronouns that can occur in Parakuyo middles are *opeŋ* ‘itself/himself/herself’ and *oopen* ‘themselves’ for intransitive verbs and *kewán* ‘him/herself’ and *ate* ‘themselves’ for inherently reflexive verbs. Pronouns in the latter pair (that is *kewán* ‘him/herself’ and *ate* ‘themselves’) occur specifically with verbs denoting an event done by the subject for/upon

oneself. Unlike the latter set, the former set of reflexive pronouns (*opeɲ* ‘itself/himself/herself’ and *oopeɲ* ‘themselves’) can be employed with verbs that denote actions that do not benefit the speaker in the utterance.

However, the sets *kewán/ate* and *opeɲ/oopeɲ* are not optional in reflexive active voice clauses. These pronouns have to occur if reflexivity is encoded. Although these pronouns are co-referential to the subject, they differ in distribution. The expressions *kewán* and *opeɲ* in (74a and b) are compatible with a perfective aspect if the reading obtains that the agent is doing for herself. Because the suffix *-e* yields a self-reflexive reading, the reflexive *kewán* is not acceptable, as in (74d). (74b) demonstrates the possibility of having a patient argument *enkerai* ‘child’ as an object replacing the reflexive pronoun *kewán*, as an option compared to (74c and d).

- (74)
- a. *e-isúj-a endito (kewán)*  
3-wash-PFV girl herself  
‘The girl washed herself’
  - b. *e-isúj-a endito enkerai*  
3-wash-PFV girl child  
‘The girl washed the child’
  - c. *e-isúj-e endito (opeɲ)*  
3-wash-PFV girl herself  
‘The girl washed herself’
  - d. *e-isúj-e endito (\*kewán)*  
3-wash-PFV girl herself  
‘The girl washed herself’

In regard to the imperfective aspect, it is possible for a verb to occur without a suffix in these constructions, and the patient argument is allowed in both clauses, (75a and b). Thus, that the argument affected by the event can be somebody else, different from the agent, as illustrated in (75c).

- (75)
- a. *e-isúj endito kewán*  
3-wash girl herself  
‘The girl will wash herself’
  - b. *e-isúj-a endito (opeɲ)*  
3-wash-IMPFV girls herself  
‘The girl is washing herself’

‘The girl will wash herself’

- c. *e-isúj endito enkerai*  
 3-wash girl child  
 ‘The girl will wash the child’
- d. *e-isuj-à endito enkerai*  
 3-wash-PFV girls herself  
 The girl washed the child

In (75b), with a tone difference, the clause can occur in the perfective aspect with an agent and patient argument, as demonstrated in (75d).

A list of verb classes for Parakuyo similar to Class A verbs in German and Italian was compiled for this study. These verbs include *agil* ‘break’ *aibeleken* ‘alter’ *aijeyie* ‘wake up’ *abol* ‘open’ *aiken* ‘close’ *aitoodor* ‘extend’ *arrar* ‘crumble’ *arif* ‘divide’ *amut* ‘fray’. Most of these verbs permit middle interpretations but some (for example, *aitoodor* ‘extend’ and *aijeyie* ‘wake up’) do not yield a reflexive reading with causer event PPs.

- (76) a. *e-ta-bol-e olmulango (open)*  
 3-PFV-open-MID door itself  
 ‘The door opened (by itself)’
- b. *e-ti-gil-e ejudi (open)*  
 3-PFV-break-MID stick (itself)  
 ‘The stick broke (itself)’
- c. *e-iken-e oldirifa (open)*  
 3-close-MID window itself  
 ‘The window closed by itself’

Animate arguments are likely to appear with a reflexive pronoun because they can instigate the event. Other inanimate subjects (instrument, instrument-causer, causer and causing event) may initiate events caused by animate causers. However, some inanimate arguments cannot allow a reflexive pronoun. This can be attributed to the possibility for it to cause the event by themselves or with the assistance of some external forces. The implicit external argument of alternating verbs can optionally be either an agent or a causer. This suggests that the nature of the external argument theta-role may not be a ruling criterion for identification of an external argument (Alexiadou et al. 2006:189). Alexiadou et al. (2015:68) maintain that “verbs that select for agent subjects can reflexivize only if the theme is human, thereby qualifying to take

up the external argument agent role in addition to its theme role.” Thus, with some verbs, the lexical-semantics does not license overt or covert external arguments that are causers or effectors of the event.

I propose that the thematic role of an internal argument in causative verbs constructions occur in two respects. The non-human internal argument can assume the theme/patient role and in reflexives, it acts as the external causer or effector of the event with some verbs. With this type of verbal roots, the reading obtains some abstract causer in mind, or an unspecified causer. This raises the question of the difference between the implicit external arguments in passives and the kind of unspecified external arguments in anticausatives in Parakuyo (see Alexiadou et al. 2006:187 for the same in Greek). With verbs like *musan* ‘fray, or depreciate’ or *rif* ‘divide’, a causer of the event can be named if asked to identify explicitly. For example, a cloth can fray because of being worn for so long, or because of dirt, being exposed to sunlight for so long, or contact with acid. Water can divide (anticausative) because of the landscape or other external force. This is not explicitly expressed in discourse context where anticausative alternants occur in natural conversation. As suggested above, they may not be the focus in the information structure. In these middle examples, the middle suffix appears to sufficiently denote a reflexive reading that demonstrates that the subject is ‘capable’ of causing the change of state that happened to itself. It may be possible that middle, in a sense, denotes the properties of the subject argument, without considering the external argument, agent or causer.

- (77)
- |    |                     |                   |
|----|---------------------|-------------------|
| a. | <i>e-tu-mut-e</i>   | <i>enkabutura</i> |
|    | 3-PFV-fray-MID      | short             |
|    | ‘The short frayed’  |                   |
| b. | <i>e-ti-rif-e</i>   | <i>enkare</i>     |
|    | 3-PFV-divide-MID    | water             |
|    | ‘The water divided’ |                   |

Given that middles disallow the agent as a typical external argument, the discourse reading obtains that interlocutors do not think about the external argument. Anticausative verbs generally denote the action done by subject arguments themselves. In Parakuyo, it is meaningful if a person says that ‘the door opened’, even when the person herself has opened the door. The context could be that possibly the door was hard to open, therefore, after trying for a while, it finally opened. This reading is more pertinent to information structure in which the focus is on the theme and not any other arguments (e.g. external argument) of the verb.

- (78) a. *e-ibelegeŋ-e enkiŋaŋa naleŋ*  
 3-alter-MID price very  
 ‘The price altered significantly’
- b. *e-iken-e enkaji*  
 3-close-MID house  
 ‘The house closed’

According to Alexiadou et al. (2015), the reflexive *si* demotes the external argument. In Parakuyo, the reflexive pronoun suppresses the external argument since there is no possibility of co-occurrence of both the reflexive pronoun and the external argument in the middle construction. Thus, the middle suffix excludes the occurrence of the external argument. Both the causative and anticausative exhibit active-voice morphology in contrast with impersonal passives that demonstrate non-active voice morphology. Alexiadou et al. (2015) classified some verbs as “Class B which form unmarked anticausatives (John broke the vase) and Class C, which form anticausatives optionally, with or without, the reflexive pronoun (the water cooled)”. In Italian, for example, as is the case in Greek, three morphological classes of verbs are identified for anticausatives.

A salient question in research in regard to anticausatives crosslinguistically relates to determining a set of verbs that undergo this argument alternation. Research generally demonstrates that these verbs differ from one language to another. One of the reasons for this variation relates to the difference between the valency and semantic properties of verbs crosslinguistically. Consider the example of class A, B, and C verbs established for reflexive middles in Greek and German. Because of the different lexical semantic properties of the (near) equivalents of the same verbs in other languages, some verbs do not have corresponding anticausative variants in some languages but do alternate in other languages. To consider the verb categories that may alternate, Alexiadou et al. (2006) and Alexiadou (2010:2) present a classification of verbal meanings based on verb root properties.

The rough analysis according in the same line of classification in Parakuyo demonstrates a lack of (near) equivalents to English verbs. In addition, single verbal roots occur (see Table 29) with multiple senses. One of the examples is the root *-rr-* for *murder*, *assassinate* and *kill* which are classified as different entries in English but in Parakuyo, they are in different verb classes in Alexiadou’s classification. The investigation of Parakuyo verb classes and the anticausative

alternation suggests that other criteria for classification have to be explored. Alexiadou et al. (2006) propose in this regard, that cross-linguistic variation stems from two domains: verb restrictions and selection restrictions across languages. Although the class of alternating verbs differs across languages, evidence from this study shows that a fair number of verbs in Parakuyo still demonstrate properties similar to those observed in Alexiadou's anticausative subset of verbs in Greek and German.

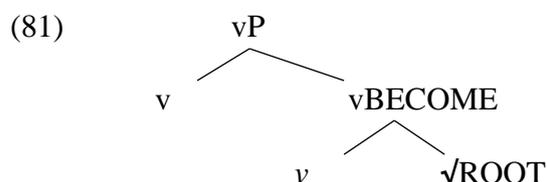
Table 29: Causativity and agentivity in a subset of verbal roots

Root	Gloss	Root	Gloss	Agentivity
<i>rr</i>	murder	<i>rr</i>	assassinate	√agentive
<i>bul</i>	blossom	<i>nay</i>	wilt	√internally caused
<i>nal</i>	destroy	<i>rr</i>	kill	√externally caused
<i>gil</i>	break	<i>bol</i>	open	√cause unspecified

The representation of events in Parakuyo middles demonstrates that anticausatives lack a head that introduces an external argument VoiceP. However, anticausatives and causatives do not differ in event complexity since anticausatives also have a causative event or features that are specified under the node vBECOME (see Pylkkanen 2002, Martin and Schafer 2014, Alexiadou et al. 2015, and references therein). I propose the following decomposition for the anticausative compared in Parakuyo, contrasted with causative.

- (79) a. *ebolo olmulango* (the door opens)  
 b. [v-BECOME [the door √ OPEN]]

- (80) a. *ebol Joni olmulango* (John opens the door)  
 b. [John Voice [v-CAUSE [the door √ OPEN]]]



### 5.13 Middle verb constructions and telicity of events

Aspectual verb types and the viewpoint in which an event is expressed are key aspects in the interpretation of a clause. Thus, verbs that permit the middle suffix also have specific aspectual

readings. With a verb that allows the middle suffix *-a*, for example, the construction is in the progressive aspect denoting continuity of the event. In addition, in such a verb construction, the event is atelic. This means that the event has not reached an endpoint. In contrast, middles with the perfective aspect morpheme and *te...e*, or only *-e* (for perfective and middle for Class II verbs) with a middle suffix are telic in that the event is completed. In telic and atelic events, the middle suffix occurs with the verbs as exemplified in (82).

- (82)
- a. *e-yier-a*                      *endaa*  
3-cook-MID.PROG    food  
'The food is cooking'
  - b. *e-te-yier-e*                      *endaa (sidai) te moti*  
3-PFV-cook-MID    food    well    in pot  
'The food cooked (**well**) in the pot'
  - c. *e-isuj-e*                      *Joni open*  
3-wash-MID.PFV    John himself  
'John washed himself'

Phrases with the prepositions *in* and *for* are diagnostics employed in order to establish the situation types in the constructions. It was pointed out that distinct equivalents for English prepositions *in* and *for* in Parakuyo are not available. Rather, the context contributes to establish the relevant reading.

- (83)
- a. *e-te-yer-e*                      *endaa to saai are*                      (*telic*)  
3-PFV-cook-MID    food    for two hours  
'The food cooked for two hours'
  - b. *e-te-yer-e*                      *endaa saai are*                      (*atelic*)  
3-PFV-cook-MID    food    hours two  
'The food cooked in two hours'

Middle verb constructions in Parakuyo can be represented by the following syntactic structure, illustrating decomposition of the verbal layers. Since causativity is not permissible in middles, the external argument node is empty to represent the property that an agent or causer argument is not allowed to occur as subject DP.

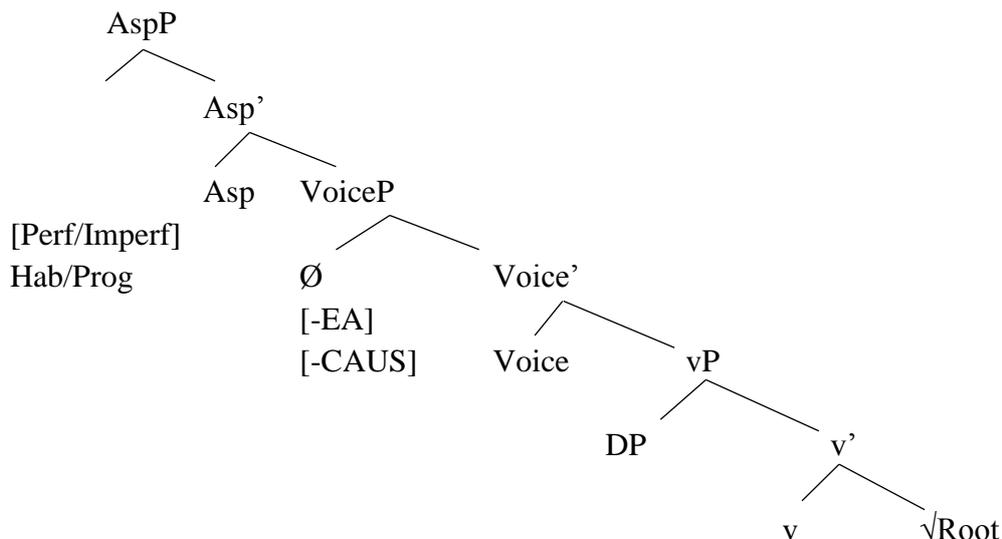


Figure 9: Middle representation in Parakuyo

## 5.14 Summary

Chapter Five investigated two verbal suffixes that suppress the external argument in the verb construction in Parakuyo. These suffixes are the impersonal, which was examined in section 5.2 and the middle, which was examined in section 5.9. Each section started by examining the strategies employed in Parakuyo to express the specific readings. Verb construction can yield an impersonal or middle reading through zero morphology and functional words. In this regard, different morphemes with their allomorphs were described. The first suffix investigated was the impersonal in section 5.2. The impersonal is particularly characteristic in that an external argument is not allowed to occur overtly in the clause. The impersonal suffix in Parakuyo disallows the agent to occur as a subject DP or in a PP adverbial in a clause.

By employing the syntactic diagnostics for determining agentivity, hence the occurrence of an external argument in a clause, the analysis suggests that an implicit external argument occurs in the Parakuyo impersonal. The diagnostics employed include different clause modifications, such as licensing of a *by*-phrase in section 5.6.1, causer, instrument-causer and causer-event PP modification in section 5.6.2 and licensing of a *by*-itself phrase in section 5.6.3. Other clause modification diagnostics examined include purpose or reason clause discussed in section 5.6.5, agent-oriented adverbials modification in section 5.6.4 and instrumental PPs modifications in impersonal passives in section 5.6.6. With regard to the investigation of clauses and the syntactic diagnostics, it was demonstrated that the impersonal constructions in the Parakuyo

do not allow an agent argument in a *te*-phrase, which is a prepositional phrase similar to the English *by*-phrase. The findings of this study, however, demonstrate that some event causers are licit in Parakuyo. For example, the causer PPs denoting natural forces, such as *enkoloj* ‘the sun’, *encan* ‘rain’ do occur in a clause as optional constituents with verbs such as *dry* and *grow*, respectively. Some nouns denoting natural forces like *olkutati* ‘wind’ are not licensed in this clause structure that allows ‘the sun’ and ‘the rain’ to occur. The reason could be attributed to lexical-semantic properties or idiosyncratic nature of certain verbs.

In addition, a purpose or reason clause is permissible in Parakuyo impersonal verb constructions as demonstrated in section 5.6.5. The impersonal gives evidence that the subject of the matrix clause controls the subject argument of the purpose clause (which should not be in impersonal passive voice) in the impersonal construction. Impersonal constructions allow agent-oriented adverbials. This entails that diagnostics contribute to establishing the view that an implicit agent is structurally present in impersonal constructions in Parakuyo. In addition, the findings provide grounds for the view that instrumental PPs can occur in Parakuyo impersonal clauses. This aspect has been examined in section 5.6.6. Lastly, the discussion of the syntactic diagnostics provides evidence that impersonals allow instrumental PPs, for example, *te enkalem* ‘with a knife’.

Section 5.9 examined middle constructions in Parakuyo invoking theoretical perspectives from Kratzer (1996) and Alexiadou et al. (2015) concerning ‘little’ v and Voice theory, in particular. In Parakuyo, middle verb constructions occur with *-e*, *-a*, *-o* and *-ai* suffixes. The middle suffix *-ai* expresses middle and modality interpretations. Apart from middle constructions that permit the suffix *-e*, other middle verb constructions denote atelic events in Parakuyo. The findings demonstrated that verbs which are not morphologically encoded render middle interpretations that express a general statement in the habitual aspect. Middles can also denote a reflexivity reading entailing that the subject itself effected the change of state denoted by the verb. The Parakuyo data investigated confirmed some evidence for positing an unspecified implicit agent in the middles. Subject DPs and PPs introducing agents yield semantic anomaly in middle constructions in Parakuyo. However, middle and anticausative predicates allow manner-oriented and result-oriented adverbial modification. A middle predicate can also be modified by a manner adverbial or a PP adverbial that realizes locative or instrumental argument alternation. Some manner adverbials like *akiiji* ‘slowly’ can appear in the initial, medial or clause-final position. Other manner adverbials, for example, *sidai* are restricted only in clause-

final position and unacceptable in clause-initial and clause-medial position as exemplified in section 5.11.1.

The findings give evidence that middles in Parakuyo allow a reflexive pronoun in a clause that yields a reading similar to English *by-itself* phrase. This adjunction occurs for emphasis purposes by modifying a clause with a reflexive pronoun. The reading obtains that the subject effected the event by itself without any force from the external argument. The analysis also suggests that from the *by-itself* interpretation the anticausatives occur with internally caused change of state verbs. Similarly, Parakuyo middles permit causer PPs denoting the instigator of the event. These causers demonstrate unique properties relating to the interpretation that it facilitated the event indirectly, as in *eteyere endaa te enkima* ‘the food cooked on fire’. Apart from causer PPs, middles also allow instrumental, for example, key (section 5.11.5), instrumental-causer, causer event section 5.11.6 and locatives PPs, for example, *te endim* ‘in the forest’ *te enkima* ‘on/with fire’ depending on the lexical-semantic properties of the verbal root and the middle suffix.

Parakuyo middles allow pure instruments PPs that yield the reading that they cause the change of state by themselves, for example, *etabole enkaji to ofunguo* ‘the house opened with the key’ *etuduje enkiroŋo te enkalem* ‘the meat cut with the knife’. Unlike other languages (Schafer 2006), pure instruments can occur as subjects with transitive verbs in Parakuyo in active voice clauses. In a middle voice clause, the instrument must be introduced by a PP resulting in argument alternation. PPs with *tV*-phrases which are closely related to English *from*-phrases (for causer, instrument-causer and causer event) denote indirect facilitation of an event with internally caused change of state verbs, for example, in *bul* ‘bloom’ and *nay* ‘wilt’ verbs.

## CHAPTER SIX

### VERBAL SUFFIXES NOT SUPPRESSING THE EXTERNAL ARGUMENT BUT AFFECTING THE INTERNAL ARGUMENT

#### 6.1 Introduction

This chapter is organized into four main sections in which the investigation of the morphosyntactic aspects of Parakuyo verb constructions with verb suffixes that do not suppress the external argument but which affect the internal argument are presented. The verbal suffixes discussed in this chapter include the reflexive, reciprocal, inchoative and antipassive. The nature of these suffixes entail that they do not necessarily license the external argument and they do not suppress it either, if the lexical-semantic properties of the verb allow the external argument to appear. Section 6.2 explores the reflexives strategies in Parakuyo. Section 6.3 analyses reciprocal verbs, reciprocal suffixes in the verb morphology and reciprocal pronouns. Section 6.4 examines inchoative suffixes in Parakuyo verb constructions. Two types of causation of verbs are examined, namely internally caused change of state and externally caused change of state verbs, which are distinguished in relation to inchoativity. In this section telicity and aspectual verb, types are also investigated for Parakuyo. In section 6.5, antipassive constructions are analysed with respect to the kinds of arguments in the eventualities, especially the external argument, as it relates to functional category projections. Lastly, in this chapter, clause modifications that are permissible in the four respective constructions are examined in relation to arguments realization and alternation.

#### 6.2 Reflexive verb constructions

Reinhart and Reuland (1993) and Reuland (2000) adopting a generative syntax approach to reflexivity proposing that the distribution of anaphors is controlled by binding conditions. They discuss the conditions in regard to the view that (i) a reflexive-encoded syntactic predicate is reflexive, and (ii) a reflexive semantic predicate is reflexive-encoded. In further elaboration, they argue that the definitions of reflexive and reflexive-encoded constructions entail that (i) a predicate is *reflexive* if and only if two of its arguments are co-indexed, (ii) a predicate (of P) is *reflexive-encoded* if and only if either (a) P is lexically reflexive or (b) one of P's arguments is a self-anaphor.

Cross-linguistically, previous studies on reflexivity focused on three types of strategies that can be identified for reflexivity. The first strategy pertains to naturally reflexive verbs (NRVs). According to Kemmer (1993:58), NRVs entail that these verbs inherently lack evidence in their meaning that the two semantic roles they refer to will refer to distinct entities. This group includes social interaction verbs in Parakuyo *dol (dua-re)* ‘meet’, *arr (aara-ri)* destroy, *ηtut (ηtuta-ro)* ‘kiss’, *yam (yam-ro)* ‘marry’; grooming verbs like *suj* ‘wash’, *kurr* ‘comb’ *soβ* ‘dress’ (see Schafer 2009, Embick 2004a for related discussion). The second strategy is realized through a set of verbs that employs reflexive morphology. The third strategy of expressing reflexivity relates to the use of a reflexive pronoun (Alexiadou and Schafer 2013, 2014; Kemmer 1993; Reinhart and Siloni 2004 among others).

The reflexive verb has the same referent as subject and object argument. This kind of relationship between the arguments in the clause is common with naturally reflexive verbs as opposed to naturally disjoint verbs. According to Alexiadou and Schafer (2014), naturally reflexive (or naturally reciprocal) verbs disallow a referential DP to be replaced by a reflexive pronoun in a clause. Naturally disjoint verbs relate to the fact that the reflexive pronoun can be replaced by a referential DP in a clause. With naturally disjoint verbs, (others call ‘other directed verbs’, see Koenig & Vezzosi 2004 for discussion) the assumption is that the two semantic roles they refer to are represented by different arguments (Giorgos et al. 2015). Alexiadou and Schafer (2014) maintain that cross-linguistically, reflexive elements can occur as full DPs, anaphors, clitics or bound morphemes affixed to the verb. In addition, reflexivity can also be implied in the verbal semantics, for naturally reflexive verbs. Hence, different languages employ various reflexivization strategies such as lexical and morphological strategies. In Parakuyo, the expression of reflexivity is threefold. Firstly, it is realized in naturally reflexive verbs, secondly, through a reflexive suffix and thirdly by the use of a reflexive pronoun. In the subsequent sections, an analysis of Parakuyo reflexives is presented.

### **6.2.1 Reflexive morphology in Parakuyo**

In this section, the focus of the investigation is on the class of verbs that employs the suffix *-ri* or its allomorphs *-re* and *-ro*, (henceforth *rV*) to express reflexivity of the subject or the object argument of the clause. In Parakuyo, the suffix *-rV* is co-referential with the subject argument in intransitive verb clauses, and to either the subject or the object argument in transitive verb

clauses. The reflexive suffix *-rV* can be ambiguous with reciprocal, Motion Away (MA) or instrumental suffixes that have the same morphological form. However, among these suffixes, the distinguishing feature relates primarily to the type of verbs in terms of their lexical-semantic properties. The lexical-semantic properties of the verb are significant in that, they determine the types of arguments the verbs select. Hence, the interpretation of the reflexive verb with the suffix *rV* is restricted to certain readings, depending on the lexical-semantics of the verb. Given that three options obtain for the function of the suffix *rV*, the root meaning determines the appropriate interpretation among the three verbal derivations, namely the reflexive, the motion away and the instrumental reading. Likewise, in terms of Voice, the reflexive suffix *rV* appears in anticausative and in impersonal passive verb constructions. This is due to the voice syncretism perspective as argued by Schafer (to appear). With Voice syncretism (elements which have the same phonological form, but fundamentally different semantic and syntactic functions) the same verb construction can realize different interpretations. Thus, Voice syncretism refers to situations in which distinct syntactic alternations (e.g. passive and reflexive) are realized with identical verbal morphology (Embick 1998).

Some generative researchers have argued that reflexive morphology appears for phase-theoretic reasons (Schafer 2008, Basílico 2012). The most common feature of the reflexive construction is that the argument position of the VP remains unsaturated at the point in the derivation. This could happen when the strong phase is triggered by the light verb *v* of the VP for Logical Form (LF) interpretation (Chomsky 1995, 2001; Kratzer 1996). Without reflexive morphology, the VP contains an unsaturated argument position that has to be filled by a reflexive element.

The clause constructions in Parakuyo examined in this section exemplify verb argument alternations. With transitive verbs, the reflexive suffix realizes a co-referential relationship with the subject argument. Therefore, in the following example in (1a), the reflexive suffix *-re* is co-referential to the patient *endasat* ‘woman’. This is evident in the unacceptability of the clause without a reflexive suffix in (1b). Example (1c) elucidates the complexity of the function of the reflexive suffix *-rV*. Without the suffix *-rV* in the morphology of the verb *tumo* ‘meet’, it is not possible to identify the agent or the initiator of the event. For example (1b) to be grammatical, a coordinator needs to link the two arguments of the event denoted by the verb. If the conjunction occurs between the two arguments as in (1c) ‘the man’ and ‘the woman’, the clause will yield a reciprocal reading. Hence, the reflexive suffix substitutes the coordinator to

yield a reflexive reading in a clause or the coordinator substitutes the reflexive verbal suffix to yield a reciprocal reading. Thus, reflexivity specifies the agent in the clause especially with naturally reciprocal verbs like ‘meet’ (Schafer 2013, 2012a). Thus, reflexive morphology assigns a theta role to the subject argument while the second argument appears as the patient/theme argument of the verb.

- (1) a. *e-tumo-re olpayian endasat*  
 3-meet-REF man woman  
 ‘The man will meet the woman’
- b. *\*e-tumo olpayian endasat*  
 3-meet man woman  
 Intended: The man will meet the woman’
- c. *e-tumo olpayian oo endasat*  
 3-meet man with woman  
 ‘The man will meet with the woman’

Contrary to the argument that reflexive morphology increases the number of arguments of a predicate, hence deriving a transitive verb from an intransitive verb, only aPP adjunction occurs that introduces a locative as illustrated in the following example. Although *hide* is a transitive verb, the DP object may not co-occur with a reflexive suffix verb. When the reflexive suffix is omitted, the motion away suffix licences the subject and object arguments to occur. The view is that motion away suffix is an argument-increasing suffix as discussed in Chapter Four.

- (2) a. *e-isido-ri enkayioni to osero*  
 3-hide-REF boy in bush  
 ‘The boy is hiding himself in the bush’
- b. *e-igwána-re ólpayian ilayíok ti ay*  
 3-advise-REF man boys at home  
 ‘The man advised boys at home’
- c. *e-isid-oo enkayioni enkalem*  
 3-hide-MA boy knife  
 ‘The boy will hide the knife (away)’

Furthermore, with a two-place verb as in (2a), the clause can be modified by a locative argument. Thus, this gives evidence that the occurrence of a subject and object in the clause does not exclude the occurrence of a locative PP or other PP modifications. The suffix *-rV* can co-occur with a motion away suffix yielding an impersonal reading, as in (3b). The following

examples demonstrate environments where these homophonous morphemes can be distinguished. The interpretations that obtain is that example (3a) occurs with a motion away suffix showing that ‘the knife’ has been hidden far from where the speakers are and in (b) that the reflexive suffix that follows the motion away is co-referential with the object argument, ‘the knife’.

- (3) a.     *e-isid-oo  enkayioni  enkalem to osero*  
           3-hide-MA boy      knife   in bush  
           ‘The boy will hide the knife in the bush’
- b.     *e-isid-oo-ri      enkalem to osero*  
           3-hide-MA-REF knife   in bush  
           ‘The boy will hide the knife in the bush’

In studies on some languages, for example, Bantu languages, some linguists maintain that the reflexive morpheme is an object prefix in the verbal morphology. Amidu (2004, 2011) argues that in Kiswahili, the reflexive morphology functions as an object agreement morpheme because it is in a co-referential relationship with the object in the clause. By contrast, in French and Kannada, for example, reflexivity is encoded differently depending on whether the antecedent is the clausal subject or not (Ahn 2015). In the Parakuyo dialect, in a certain verb class, the reading of the verb with *-rV* is associated with both reducing and increasing the verb’s arguments. In (4b) below, the suffix derives a transitive verb from an intransitive verb by suffixation of *re*. This is similar to the argument advanced by Alexiadou and Schafer (2014:2) that naturally reflexive verbs are inherently transitive because even though they occur as intransitive verbs, they still have null reflexive objects, in for example German. They demonstrate the relationship of the intransitive version of the middle and the corresponding reflexivity, illustrated in the following Parakuyo examples. From the middle construction which has a naturally reflexive verb *suj* ‘wash’, a reflexivity reading results in the interpretation of the clause, even with the lack of a reflexive morphosyntactic element.

- (4) a.     *e-isuj-e          Daudi nasirie*  
           3-shower-MID David morning  
           ‘David washed himself in the morning’
- b.     *e-isuja-re      Daudi enkare nasirie*  
           3-shower-REF David water morning  
           ‘David showered himself in cold water in the morning’

- c. \**e-isuja Daudi enkare nasirie*  
 3-shower David water morning  
 Intended: ‘David showered in cold water in the morning’

The object *enkare* ‘water’ in (4b) above is licensed by the reflexive suffix, without which the clause is ungrammatical, as shown in (4c). Therefore, it is plausible to argue that the reflexive suffix accords patient/theme or instrumental status to the object of the verb in a reflexive verb construction. Put differently, the semantic role of the subject argument in the reflexive verb clause is agent or causer, whereas the semantic role of the subject argument in a clause without a reflexive suffix can be either the patient/theme, instrument or other argument, depending on the lexical-semantic properties of the verb. In some verbs the reflexive suffix *tV* may present an instrumental reading in Parakuyo clauses.

In some cases, the lexical meaning of the verb is altered when the reflexive suffix is affixed to the verb. In the verb below the reflexive suffix with the verb root *-rr* ‘destroy’ brings about the idiomatic reading, ‘become old’ but the reflexivizer *-ri* is felicitous in such context. This example presents further evidence for the view that the reflexive suffix derives an intransitive verb from a transitive verb.

- (5) a. *e-ta-ar-a*                      *enkare enkaji*  
 3-PFV-destroy-PFV water house  
 ‘The water destroyed the house’
- b. *e-ta-ara-ri*                      *enkaji*  
 3-PFV-age-REF house  
 ‘The house has become old’

The combination of the antipassive suffix and the reflexive suffix *-rV* yields an ambiguous interpretation. The first reading entails an instrumental interpretation, where the object argument is an instrument used to perform the action. The second is a reflexive reading. However, the instrumental reading is more of a reflexive reading, possibly because the reflexive suffix is not strongly bound to its antecedent in the clause. No agreement relationship exists; rather an arbitrary association obtains of the suffix *-rV* to another argument in the clause. The following clause illustrates the instrumental role denoted by the suffix *-re*.

- (6) *e-tu-tur-ifo-re*                      *olee olkembe*  
 3-PFV-cultivate-APAS-re man hoe  
 ‘The man cultivated with the hoe’

The above reflexive verb constructions can be modified by a purpose or reason clause. This reading is compatible with a reflexive construction because the event performed mutually and the two individuals are equally involved in the event as denoted by the verb. The embedded purpose clause expresses a reading of the reason (i.e. so that they start a business together) for the two participants to decide to marry each other. This is typical of naturally reciprocal verbs in languages like English but with a language-related cultural difference in that, the verb does not denote an equally reciprocal event in terms of the Parakuyo culture-related interpretation in accordance to which a man marries a woman, but a woman does not marry a man, while marrying each other is acceptable.

- (7) *e-yama-ro inkera olmarei leje p-e-bol esiai*  
 3-marry-REF children homestead their SUB-3-open business  
 ‘The youth of their clan will marry so that they start a business’

An agent-oriented adverbial can modify a reflexive verb. Such adverbials are not conventional adverbials since they inflect for person and aspect. Furthermore, such adverbials appear to correspond morphologically to auxiliary-verb-like words. They appear to function syntactically as auxiliary verbs, but semantically as adverbials that have to co-occur with the infinitive forms of the main verb. In the following clause, the adverbial-like light verbal root *-otiki* ‘intentionally’ inflects for person because it is closely linked to the key argument of the event, the agent. These adverbials may be viewed as lexical words undergoing grammaticalization. Auxiliary verbs that have the semantic function of adverbials in Parakuyo commonly occur in various clauses.

- (8) *e-otiki enkayioni a-isido-ri to osero*  
 3-intentionally boy INF-hide-REF in bush  
 ‘The boy will hide himself in the bush intentionally’

A reflexive verb permits an event-oriented adverbial that expresses the manner in which the event took place.

- (9) *e-isido-ri enkayioni reeree ti aji*  
 3-hide-REF boy quickly in house  
 ‘The boy hid quickly in the house’  
 ‘The boy will hide quickly in the house’

The property of telicity of an event denoted in a reflexive verb construction can be demonstrated in two clause – one denoting a telic event, and the other an atelic one, by considering the occurrence of the aspectual morphemes and temporal prepositional phrases, as exemplified below. However, some sense of ambiguity obtains in the interpretation of the atelic clause. One of the interpretations holds that within a two-hour period the boy may hide, the second reading is after two hours (from the speech time) the boy will hide or did hide for an extended period. However, some consultants did not accept the reading of the atelic version.

- (10) a. *e-isido-ri enkayioni to saai are ti aji* (telic)  
 3-hide-REF boy for hours two in house  
 ‘The boy hid for two hours in the house’
- b. *e-isido-ri enkayioni tiatua saai are ti aji* (atelic)  
 3-hide-REF boy in hours two in house  
 ‘The boy will hide in two hours (from now) in the house’  
 ‘The boy will hide for a two hour-period’

The uncertainty about the preposition *tiatua* ‘in/inside’ is that the sentence may not be acceptable when speaker intends to refer to time but acceptable for reference to space or location. Therefore, the interpretations are context dependent in that it is determined by the shared knowledge among the interlocutors in the discourse-pragmatic context.

### 6.2.2 Reflexive pronouns

In the Parakuyo reflexive verb construction, the DP antecedent functions as an anaphoric pronoun equivalent to the English reflexive pronouns *himself* or *herself* for singular and *themselves* for plural. These anaphors are co-referential with the (subject or object argument) of the verb in a clause. Hence, in this kind of reflexive clause in Parakuyo two nominal elements representing the same argument in the event occur, namely the subject DP and the reflexive pronoun. In terms of the semantic roles, the subject argument is associated with both agent and the patient in the clause. Furthermore, the grammatical object of a reflexive verb construction with an intransitive verb is the reflexive pronoun of which the antecedent is the subject DP. In the Parakuyo dialect, the reflexive pronouns are *kewán* for first, second and third person singular, and *ate* for first, second and third person plural. Other reflexive pronouns are *open* ‘himself/herself/itself’, *oopen* ‘themselves/ourselves’. The occurrence of two elements in a syntactic binding relationship is common in languages of the world, as argued by Reinhart and Siloni (2005). In this regard, they raise the question of a syntax-language and a lexicon-

language in expressing reflexivity. In the analysis of reflexivity, Papangeli (2004:5) argues that English is a lexicon language while Greek is a syntax language. Accordingly, I propose that Parakuyo resembles a syntax language in regard to this reflexive construction.

Ahan (2015) proposes that in English the anaphoric expression like ‘himself’ fills an argument position regardless of the Voice or the grammatical role of an antecedent. This appears to be a universal feature of reflexive pronouns. Haspelmath (2008) maintains that the reflexivity pattern is common because languages that have first person reflexive pronouns must also have third person reflexive pronouns. The following examples demonstrate the anaphoric pronouns that refer to the subject argument of the transitive verb in (a, b), and the intransitive verbs.

- (11)
- a. *e-isuj-a Mali kewán*  
3-wash-PFV Mali himself  
‘Mali washed himself’
  - b. *e-isuj-a ilayiok ate*  
3-wash-PFV boys themselves  
‘The boys washed themselves’
  - c. *e-ewuo papa opej*  
3-come.PFV my.father himself  
‘My father came himself’
  - d. *e-wuon-u ilayiok oopej*  
3-come-MT boys themselves  
‘The boys will come themselves’

In Parakuyo, the VSO word order necessitates that SO or Object and the anaphor to be close proximity, or adjacent to each other. This may be due to the fact that Parakuyo does not differentiate gender or case in the form of anaphors, making long-distance binding impossible in Parakuyo. That is, it is impossible to have a clause in Parakuyo like ‘Tom talked to Jane about herself’, given that the reflexive morphology appropriate in this clause will not differentiate the antecedent to which it is co-referential to, that is whether the reference is to Tom or Jane.

From a typological perspective scholars like Haspelmath (2008), Haiman (1983), among others, attempted to categorize verbs that express reflexivity. The first set of verbs they identified pertains to introvert verbs containing verbs which express reflexive actions for example ‘wash oneself’. The second group identified pertains to extrovert verbs that are

transitive, such as ‘kill’, ‘hate’ and ‘attack’ (Haspelmath 2008:4). They maintain that the former group relates to verbs that are employed reflexively more often than other verbs. The argument here refers to the principle of coding predictable information in a clause. Haiman (1983:807) proposes a principle which states that predictable semantic words receive less coding than semantically unpredictable words.

The examples (11a-d) above, illustrate the occurrence of these reflexive pronouns. One of the differences between the singular reflexive pronouns *kewán* and *opeŋ* is that *kewán* refers to an agent, specifically an animate, while *opeŋ* refers to both an agent and a non-agent which may be an animate or inanimate argument. Further discussion on the functions and differences between *kewán* and *opeŋ* is given in section 5.12. Consider the following example of an inanimate argument with the verb *gil* ‘break’.

- (12)        *e-ti-gil-e*                    *olorika opeŋ*  
               3-PFV-break-MID chair    itself  
               ‘The chair broke by itself’

In middle constructions like the example (12) above, the reflexive pronoun is not necessarily required because the event did not involve the causer/agent, in addition to the theme, which appears in the clause.

The distribution of the reflexive pronouns in the clause can vary in Parakuyo. One set of pronouns, *kewán* and *ate*, can appear in the clause-initial position. By contrast, the other set of pronouns namely, *opeŋ* and *oopeŋ* cannot occur in clause-initial position. This may be due to the fact that the former can occur in the nominative case whereas the latter cannot. The first set (*kewán* and *ate*) can be fronted to the clausal left periphery, for the purpose of the discourse-pragmatic effect of agentivity emphasis, yielding the reading that the subject argument acted upon himself. The second set (*opeŋ* and *oopeŋ*) seem to observe the accusative case function, hence, these pronouns occur in the post-verbal position. The informational structure properties of such a clause entail that the discourse-pragmatic knowledge about the event is understood by the interlocutors and the new information entails that the boy himself executed the event denoted by the verb to himself.

- (13) a. *kɛwán e-to-roŋ-o enkayioni*  
Himself 3-PFV-trim-PFV boy  
'The boy trimmed his hair himself'
- b. *ate e-to-roŋ-o ilayiok*  
themselves 3-PFV-trim-PFV boys  
'The boys trimmed their hair themselves'

The unacceptability of word order in which a pronoun from the second set of reflexive pronouns occurs in clause-initial position is evident in the following examples. This phenomenon is relevant to Chomsky's (1981) conditions of Binding Theory. Condition A requires that reflexive anaphors, for example, 'herself' in English, be bound in some specified domain. Condition B requires that pronouns like 'her' be free in the same domain. With the evidence in the following examples, Condition A seems to apply in Parakuyo data.

- (14) a. *\*opeŋ e-ta-roŋ-o enkayioni*  
himself 3-PFV-trim-PFV boy  
Intended: 'The boy trimmed himself'
- b. *\*oopeŋ e-ta-roŋ-o ilayiok*  
themselves 3-PFV-trim-PFV boys  
Intended: 'The boys trimmed themselves'

The reflexive pronoun *opeŋ* in a non-argument position can function as an adverbial-like element, as illustrated in (15).

- (15) *e-te-feta Tom enkaji opeŋ*  
3-PFV-build Tom house himself  
'Tom has built the house alone'

### 6.3 Reciprocal verb constructions

Maslova and Nedjalkov (2013) and Siloni (2008) maintain that different languages express reciprocal by employing a range of elements, such as verbal affixes, pronouns and adverbs. English, for example, has the reciprocal pronouns, 'each other' and 'one another'. These nominals merge two reciprocating events in a single clause without repeating the same verb. In Bantu languages such as Xhosa, the nature of reciprocals, according to the research literature, suggests that morphological reciprocals are valency-reducing affixes (Du Plessis and Visser 1992). The reciprocal suffix reduces the direct of the verb in the clause.

However, Nedjalkov (2007:21) notes that some exceptions occur in this regard. One of these exceptions pertains to pronominal reciprocals in languages like English where no argument is reduced. Since the syntactic object place is occupied by the reciprocal pronominal ‘*each other*’. He presents a classification of different types of reciprocals, for example morphological, syntactic and lexical reciprocals. Thus, it is evident that cross-linguistically, reciprocals are expressed by different word categories, for example, adverbs, pronouns, bound morphemes among other morphemes. Hence, in different languages, reciprocals can be expressed mainly through one or more of three strategies, namely morphologically, lexically and syntactically.

Reciprocal constructions express an event in which two arguments have a binary relationship in the event structure. The two arguments (participants) need to have an identical participation in the event denoted by the verb in order to present a prototypical reciprocal reading (Mchombo and Ngunga 1994). A symmetrical event is characteristic to reciprocal constructions. A necessarily symmetric event is an event expressing a binary relationship indicating two arguments have a necessary identical participation. In the example ‘*John kissed Mary*’, the relationship between *John* and *Mary* is the same as the relationship between *Mary* and *John*, hence they are *mutuant(s)* in Haspelmath (2007) terms.

Nedjalkov (2007) uses the term *reciprocant(s)* in referring to the reciprocal involvement of participants of the event expressed by the verb. Alexiadou (2014:58) states that naturally reciprocal verbs include verbs of social interaction or affectionate events, for example ‘kiss’, ‘hug’ and verbs of antagonistic events like ‘fight’. Some linguists argue that two types of reciprocals, namely grammatical reciprocals and lexical reciprocals can be identified. In addition, from a typological point of view, Haspelmath (2007) argues that the focus of syntacticians has traditionally been on the description of grammatical reciprocals in many languages rather than lexical reciprocals, such as ‘*Pedro and Aisha are similar*’ (ibid:1).

The following example demonstrates the Parakuyo psych-verb *nor* ‘love’ giving a reading of two individuals being involved in a mutual event. The reciprocal verb construction in (16c) expresses these two mutual events in (16a) and (16b).

- (16) a. *e-nor olupayan endasat* (clause 1)  
 3-love man woman  
 ‘The man loves the woman’

- b. *e-nor endasat olpayian* (clause 2)  
 3-love woman man  
 ‘The woman loves the man’
- c. *e-nor-a olpayian oo endasat* (reciprocal)  
 3-love-REC man with woman  
 ‘The man and the woman love each other’

In the above examples, the subject argument in the clauses in (16a) and (b) are conjoined in a single clause in (16c) with an intransitive reciprocal verb. The conjoined subject with two arguments means that they are both experiencers of the situation (for psych-verbs like *nor* ‘love’). In the English translation above, the object position is occupied by a reciprocal anaphor ‘each other’. In the Parakuyo reciprocal verb morphology, this reciprocity reading is realized by the reciprocal verb suffix *-a*.

### 6.3.1 Reciprocal suffixes in Parakuyo

Reciprocal verbs in Parakuyo are morphologically expressed by verbal suffixes. The forms of these bound morphemes are *-a*, *ro*, *no*, and *o* in the imperfective. The suffixes *-a* and *-ro* are affixed to intransitive verbs, whereas transitive roots allow the dative suffix and the reciprocal suffix *no*. This occurs in a dative and reciprocal combination as discussed in sections 4.4.2.1 and 4.6.1.1. With a small set of social interaction verbs like *tum* ‘meet’ and *ruk* ‘agree with each other on something’, only the morphemes *-o* for imperfective or *ote* for perfective expresses reciprocity. Morphosyntactically, these reciprocal suffixes are co-referential with the subject argument in the clause. Therefore, the reciprocal suffix sets a coreferential relationship between the suffix itself and the subject argument. The reciprocal verbal suffix denotes the reading of ‘each other’ to the verb to which it is affixed.

The examples in Table 30 illustrate the person prefix *e-* in the initial position of the root and the reciprocal suffix of the root. With the imperfective reciprocals the reciprocal suffixes are *a*, *-ro* *-no*, *-o*. In the perfective aspect the perfective prefix is *tV* for Class I verbs followed by the root and the reciprocal suffix *-a*, *-ro* *-no*, *-o*, and then *-te* in the final position for the perfective again. Thus, the perfective aspect is encoded by two morphemes in such constructions. The final suffix *-te* expresses reciprocal with Class I verbs since a reciprocal suffix occurs in these constructions (see Table 30 examples (a-e, i and j)). The view is supported that *-te* is a special perfective morpheme of reciprocal verbs. As for Class II verbs, (verbs whose

roots commence with *i/ɪ* or *e/ɛ* except for some irregular verbs, (see section 2.8 for Maasai verb classes) the reciprocal suffixes (*a*, *ro*, *no*, *o*) occur with the suffix *-te* expressing the perfective aspect (see section 6.3.5 for discussion on aspectual types). In contrast, the examples in Table 30 (g, h) and (k) are examples of Class II verbs that permit the same reciprocal suffix in both aspect realizations, and employ *-te* as the only perfective morpheme in the construction.

Table 30: Reciprocal suffixes

	Imperfective	Gloss	Perfective	Gloss
	<i>-a, -ro -no, -o</i>		<i>(tV)-Root-a/ro/o/no-te</i>	
a	<i>e-du-a</i>	they'll see each other	<i>e-ta-du-a-te</i>	they saw each other
b	<i>e-rrep-a</i>	they'll praise each other	<i>e-te-rrep-a-te</i>	they praised each other
c	<i>e-kurr-a</i>	they'll comb each other	<i>e-tu-kurr-a-te</i>	they combed each other
d	<i>e-ɲor-a</i>	they'll love each other	<i>e-to-ɲor-a-te</i>	they loved each other
e	<i>e-er-a</i>	they'll hurt each other	<i>e-taa-r-a-te</i>	they hurt each other
f	<i>e-ela-ro</i>	they'll paint each other	<i>e-ela-ro-te</i>	they painted each other
g	<i>e-ipoto-ro</i>	they'll call each other	<i>e-ipoto-ro-te</i>	they called each other
h	<i>e-ikilikwana-ro</i>	they'll interrogate e/o	<i>e-ikilikwana-ro-te</i>	they interrogated e/o
i	<i>e-yeu-no</i>	they'll want each other	<i>e-ta-yeu-no-te</i>	they wanted each other
j	<i>e-yelou-no</i>	they'll know each other	<i>e-ta-yeleu-no-te</i>	they have known e/o
k	<i>e-ifop-o</i>	they'll dress each other	<i>e-ifop-o-te</i>	they dressed each other

### 6.3.2 Reciprocal pronouns

A reciprocity interpretation can also be realized syntactically in Parakuyo through reciprocal pronominals like, *atɛ* or *oopeɲ* for 'themselves' in other languages. Such a pronoun occurs after the antecedent, normally in the clause final position. However, in Parakuyo the reciprocal suffix cannot co-occur with the pronominal, *atɛ*, which has the meaning of 'each other' in English. The pronominal *atɛ* may not denote a meaning equivalent of 'each other', especially with intransitive verbs (see section 6.3.4 for discussion of the use of this pronoun with transitive verbs). The interpretation of 'each other' understood from *atɛ/oopeɲ* corresponds to a reflexive pronoun meaning 'themselves'.

In support of the view of the reciprocal corresponding to the reflexive analysis, Maslova (2008) and Maslova, et al. (2013) argue that the reciprocal affixes refer to two reciprocal arguments in a single noun phrase in plural form or to a collective DP. A Parakuyo example is the plural DP *mkerá* 'children' in the clause like (17a) '*Children love each other*'. In the example (17),

with a reciprocal suffix verb, the sentence strictly yields a reciprocal interpretation. A reflexive reading option is not available. In the following example in (17b), the reflexive pronoun yields a reflexive interpretation ‘children love themselves’, and has no implication of a reciprocal interpretation. However, in (17c) the reflexive pronominal *oopej* co-occurs with a reciprocal suffix, hence, two interpretations are possible, that is, reflexive and reciprocal. In addition, the sense is expressed in this example that ‘children loved each other by themselves’, and not anybody else made them love each other. Thus, it is evident that through the distribution of these pronominal elements in Parakuyo two interpretations obtain. One interpretation considers such pronominal element as exclusively reciprocal and the other occurs as both a reflexive and reciprocal suffix.

- (17)
- a. *e-nor-a mķera*  
3-love-REC children  
‘Children love each other’
  - b. *e-nor mķera ate*  
3-love children themselves  
‘Children love themselves’
  - c. *e-to-nor-a-te mķera oopej*  
3-PFV-love-REC-PFV children themselves  
‘Children loved themselves’  
‘Children love each other (by themselves)’

With transitive verbs, the dative suffix must occur in a verb construction to license a reciprocal suffix. The dative suffix is required to introduce a reciprocating argument in the event, as evidenced by the unacceptability of (18b), where only a simple root base with a reciprocal suffix occurs.

- (18)
- a. *e-yer mķera endaa*  
3-cook children food  
‘Children cook food’
  - b. *\*e-yera-no mķera endaa*  
3-cook-REC children food  
Intended: ‘Children cook food for each other’
  - c. *e-yer-aki-no mķera endaa*  
3-cook-DAT-REC children food  
‘Children cook food for each other’

The dative suffix licences the introduction of an argument in the event. Thus, there is no ground for the view that the reciprocal increases verb transitivity, rather it licenses the dative. That is, the dative suffix triggers the condition to derive a verb a two-place verb, but the reciprocal suffix suppresses that selectional property by associating the recipient slot created by the dative to the same subject argument, and requiring a plural. The occurrence of a plural DP with a reciprocal verb denotes one argument only. Thematically the subject argument is associated with both the agent and the beneficiary/recipient. Thus, the reciprocal suffixed to the verb expresses reciprocity in respect to the subject argument in a clause.

Similarly, with transitive verbs, a conjoined subject DP can occur, for example, *Lelo* and *Ngoipa* in example (19b). *Lelo* and *Ngoipa* as agents require a theme, ‘the letter’. This is evident when the two examples are compared, namely (19a) and (b). In (19a), the recipient is not overt because the motion away suffix requires locative argument or goal, not a recipient. The occurrence of locative or goal in such structure is optional in Parakuyo if in the discourse context the interlocutors know the destination or the goal, that is, where the letter is being sent. The verbal stem for ‘send away’ does not necessarily have to be ditransitive. It can read *eirruwaya Ngoipa empalai* ‘Ngoipa will send a letter’. A contrastive focus reading can obtain in (19c) specifically. In this case, the emphasis is on the ‘letter’, – it is the letter that Ngoipa will to send, and not, for example, a parcel.

- (19) a. *e-irriw-aa Ngoipa empalai* (non-reciprocal)  
3-send-MA Ngoipa letter  
‘Ngoipa will send a letter’
- b. *e-iriw-aki-no Lelo oo Ngoipa impala* (reciprocal)  
3-send-DAT-REC Lelo and Ngoipa letter  
‘Lelo and Ngoipa will send letters to each other’
- c. *impala e-irruw-aki-no Lelo oo Ngoipa*  
letters 3-send-DAT-REC Lelo and Ngoipa  
‘It is letters that Lelo and Ngoipa will send to each other’

Two DPs in the reciprocal construction are conjoined by the coordinator *oo*, yielding the reading in (19b) that Lelo and Ngoipa did something for each other. However, if in discourse-pragmatic context the interlocutors know both arguments, one of the event participants may be overtly expressed as a subject although it is understood that both arguments are involved in the action denoted by the verb, as illustrated in the following example.

- (20) *e-rriw-aki-no loo Kereku impala*  
 3-send-DAT-REC CON Kereku letters  
 ‘Kereku (and the other) will send letters to each other’

The coordinator *o* is affixed to a gender prefix *l*, for example (*l* for masculine or *n* for feminine), to form *lo* which precedes the DP, an agent followed by the theme/patient argument. Thus, the DP *loo Kereku* can simply mean, for example, *Kereku* and his partner are together in business. This kind of clause structure is acceptable when referring to collective DPs, or DPs that have a group interpretation.

### 6.3.3 Monadic and dyadic verb reciprocals

Hurst (2010), with reference to Swahili examples, examines two types of reciprocal suffix verb constructions, namely the basic monadic verb (when one plural DP represents two or more arguments) form, and the dyadic verb (when both reciprocating arguments appear in the clause structure) alternations. These types of reciprocal constructions have also been studied for other languages. Hurst presents an analysis of reciprocals in two dimensions, depending on the involvement of the arguments in the event. A monadic reciprocal verb structure subsumes both arguments as subjects in a single subject DP. This is exemplified in (21a), as presented by Hurst (2010:291). I provide the corresponding Parakuyo clauses for comparison in (21b).

- (21) a. *Juma na Halima wa-li-pig-an-a*  
 Juma and Halima 3PL-PST-hit-REC-FV  
 ‘Juma and Halima hit/fought each other’
- b. *e-ta-ar-a-te Juma oo Halima*  
 3-PFV-hit-REC-PFV Juma and Halima  
 ‘Juma and Halima fought each other’

The two arguments have approximately equal chances on the scale of their participation in the event. Furthermore, they are assumed to have participated equally in the event denoted by the verb. In the conjoined subject, the implicit object argument of the clause appears as conjunct in the subject argument. The reading obtains that any of the participants might have instigated the fight. The verb ‘hit’ alternates in African languages like Kiswahili but in Parakuyo, there is no structural difference between the dyadic reciprocal verb structure and the monadic verb version, illustrated in the following example.

- (22) a. *Juma a-li-pig-an-a na Halima*  
 Juma 3SG-PST-hit-REC-FV with Halima  
 Juma and Halima hit each other  
 Lit. ‘Juma hit/fought with Halima’
- b. *e-ta-ar-a-te Juma oo Halima*  
 3-PFV-hit-REC.PFV Juma and Halima  
 ‘Juma and Halima fought each other’

If *Juma* and *Halima* have to appear as subject and object arguments in a clause with a reciprocal verb suffix in Parakuyo, then one of the DPs is fronted and in the resulting reading, it has focus. The relative prefix indicates that the clause provides focus information about *Juma*. It denotes a reciprocal reading, but with imbalance on the roles and scale of active participation between the two arguments. The reading obtains that *Juma* may have instigated the event and probably *Halima* may have participated passively. Consider the equivalent structure in Parakuyo.

- (23) *Juma o-ta-ar-a-te oo Halima*  
 Juma REL-PFV-hit-REC.PFV with Halima  
 ‘It is Juma who fought with Halima’

In regard to the dyadic reciprocal verb construction, Hurst (2010) argues that the process of instigation and participation in the event is not equal. Hurst observes that the interpretation is that *Juma* is usually the instigator and *Halima* does not necessarily have to match *Juma*’s participation. Nevertheless, in my view, this comment may not have considered other contextual aspects, for example when two boxers fight or even when *Halima* is the first to be asked who she fought with. The same construction in Swahili will certainly be understood that way. This is, similar to the reading in Parakuyo by using a relativizer *o* to denote focus on the emphasized argument in the event. The Parakuyo VSO word order necessitates that if the subject or object argument occurs clause-initial, it must realize topicalization.

### 6.3.4 Contrasting reciprocal and reflexive

In the above sections, it was stated that morphologically realized reciprocals represent one of the reciprocity strategies in Parakuyo. The second strategy relates to the use of a reflexive pronoun that denotes a reciprocal reading option with some verbs. The reflexive pronoun refers to the antecedent in the subject DP, hence these syntactic arguments represent the same entity. Syntactically, the reciprocal anaphor behaves like an argument of the verb as observed by

Haspelmath (2007), but semantically refers to the same argument. With transitive verbs in Parakuyo the reflexive pronoun, *atε* also yields a reciprocal interpretation. Consider the reflexive pronominal *atε* in the following example in (24).

- (24) *e-sir indasati atε to olkaria*  
 3-draw woman themselves with local.make-up  
 ‘Women decorate themselves/each other with local make-up’

Depending on the context, two interpretations are possible for the example (24). The first one entails a reflexive reading: ‘the women will decorate themselves’ and second entails a reciprocal reading ‘the women will decorate each other’. A reciprocal reading can only obtain if the plural form of the pronouns occurs, for this case ‘*atε*’. The singular forms will only restrict the interpretation to a reflexive sense. These pairs are *kεwán* him/herself, *atε* themselves, and *oopen* him/herself, and *ooopen* themselves. The later can co-occur with the reciprocal suffix *-no* unlike the former. The co-occurrence of both (suffix and pronominal) elements denotes both reflexive and reciprocal interpretation. Furthermore, the reflexive pronoun is used for emphasis purposes; hence, in the research literature it has been labelled as an ‘emphasizer’. The intricacy in this reading is related to the view that the reflexive pronoun emphasises the reflexive reading whereas, with a reciprocal suffix affixed to the verb, there is no option for the reading that somebody else, different from the children, would perform the event. In fact, there is no significant interpretative difference between the two examples. Consider the following examples in (25a) and (b). The analysis suggests that for (25a) context and discourse aspects play a key role in differentiation between a reflexive and reciprocal interpretation, since the construction without a reflexive pronoun has both interpretations.

- (25) a. *e-ifop-oki-no mkerá ilkarafi oopen*  
 3-dress-DAT-REC children clothes themselves  
 ‘Children will dress themselves’  
 ‘Children will dress each other’
- b. *e-ifop-oki-no mkerá ilkarafi*  
 3-dress-DAT-REC children clothes  
 ‘Children will dress themselves’  
 ‘Children will dress each other’

As noted earlier, the two reflexive pronouns have different properties. *Oopen* can co-occur with the reciprocal suffix, whereas *atε* is incompatible with the occurrence of the reciprocal suffix in the morphology of a transitivized verb.

- (26) a. *e-ifop-oki-no mķera ilkarafi \*ate*  
 3-dress-DAT-REC children clothes themselves  
 ‘Children will dress themselves’  
 ‘Children will dress each other’
- b. *e-ifop-oki mķera ate ilkarafi*  
 3-dress-DAT children themselves clothes  
 ‘Children will dress themselves’  
 ‘Children will dress each other’

Another difference between *open* and *ate* realates to the property that the word order in a sentence is acceptable when *open* is in the final position. Thus, *open* can follow the subject, yielding the reading that *open* is topicalized. On the other hand, *ate* cannot follow the subject. This structure was confirmed by consultants’ disapproval of the following clause with *ate* in the final position as in (27).

- (27) *e-ifop-oki mķera ilkarafi \*ate*  
 3-dress-DAT children clothes themselves  
 ‘Children will dress themselves’  
 ‘Children will dress each other’

For emphasis on the reflexive reading, *ate* can be fronted, as in (28). The reading obtains that children will dress themselves (as individuals) they will not be dressing each other. Hence, the construction does not permit a reciprocal interpretation.

- (28) *ate e-ifop-oki mķera ilkarafi*  
 themselves 3-dress-DAT children clothes  
 ‘Children will dress themselves’

In addition, the data suggest a relationship between a reciprocal and possessive interpretation with *give*-verbs. The argument alternation is made possible when the reciprocal suffix and reciprocal pronoun occur with *give*-verbs. In example (29a), with the verb *buy*, the reciprocal suffix *-no* also yields a reading of possession whereas the same reading is expressed by the pronoun in the second clause. Hence, in the example in (29b) the clause contains a verb, an agent followed by an anaphor co-referential with the agent.

- (29) a. *e-ijan-aki-no mķera inkitabuni*  
 3-buy-DAT-REC PL.child PL.book  
 ‘Children will buy books for each other’

- b. *e-ijana-aki inkerā atē inkitabuni*  
 3-buy-DAT PL.child themselves PL.book  
 ‘Children will buy (their own) books themselves’  
 ‘Children will buy books for each other’

Thus, the reciprocal suffix verb and the reflexive pronoun both express a reciprocity and possession reading. Both the reflexive pronoun and the reciprocal suffix are linked to the DP ‘children’ which is the agent of the clause.

Cross-linguistically, research gives evidence that reciprocal and reflexives have similar morphosyntactic features, as discussed by Heine (2000); Haspelmath (2007); Nedjalkov (2007) Evans et al. (2011) and Siloni (2012), among others. These studies have explored reciprocal and reflexive verb constructions together for the reason that they share some properties and may interrelate in some languages. Thus, if the speaker uses ‘themselves’ to mean ‘each other’ some ambiguity arises. It can mean ‘each other’ in some context, or it can be interpreted that either of the participants is acting by himself upon himself. The term argument refers to a reciprocal pronoun, considering the fact that anaphors behave like arguments of the verb.

In examining reciprocal constructions in Parakuyo, the combination of dative and reciprocal suffixes is relevant. This combination is evidenced in transitive and ditransitive verb constructions. The dative suffix introduces an additional argument to the verb, which can be an instrument, reason or associative argument. Two verb classes are distinguished. The first class contains verbs that can express the reciprocal without a dative suffix, and the second class a reciprocal verb that employs other suffixes with or without a dative suffix. In the configurations of the latter category, the dative suffix alters the meaning of the reciprocal extension. When the suffix occurs to denote reciprocity, one reading is provided but when the dative suffix is affixed, the second reading is realized. This may be due to differences in the verb classes concerning their argument structure capabilities. Consider the following examples.

- (30) a. *e-eṅa-ro ilcorueta*  
 3-disagree-REC friends  
 ‘Friends will disagree with each other’
- b. *e-eṅ-iki-no ilchorueta impesai*  
 3-deny-DAT-REC PL.friend money  
 ‘Friends rejected money from each other’

(Meaning: Both owe each other some money but both want to pay by instalment, hence, both of them refused to receive money because they want full payment at once).

In the intransitive clause (30a), the reciprocal is encoded by the suffix *-ro* on the verb; but with the verb extension where dative and reciprocal occur, the different reciprocal suffix *-no* is employed. This suggests that these suffixes occur in complementary distribution.

However, verbs with other combinations of the dative and reciprocal suffixes do not necessarily yield the reciprocal reading. For example, when the two suffixes co-occur with the verb *emando*, they denote the reading that somebody is doing something very slowly or reluctantly. This is an idiomatic reading resulting from the suffixation. These suffixes alter the semantics of the verbal root. This suggests that some verbs in Parakuyo provide evidence for the perspectives of Distributed Morphology theory that roots have minimal semantic content but no functional specifications (that are realized by verbal affixes that extend meaning and clause elements) until the verbalizer is introduced to form a verbal base (Embick and Noyer 2007, Marantz 2009b, Embick 2010, D'Allessandro et al. 2017, among others).

- (31)      *e-mand-oki-no*            *endasat enkilimore*  
              3-relactant-DAT-no    woman weeding  
              ‘The woman is weeding very slowly’  
              Lit: ‘The woman is going around the weeding activity’

A question arises in regard to the function of the suffix *-no*. The explanation is that the reciprocal suffix functions as a reflexive suffix in this context and co-referential with the object argument that is the *weeding* event in this case and not the agent. The dative extension, as stated above, licenses the object or an additional argument in the clause which is merged with the subject by the reciprocal suffix in a mutual event.

With the intransitive motion verb like *e-ijur-aa-ro* ‘leave each other’ or *e-im-aa-ro* ‘pass by each other’s house’ a motion away suffix occurs extending the verb with an argument, in addition to the reciprocal suffix. This demonstrates that the two arguments are in a mutual relationship in the event denoted.

- (32)      *e-ijū-aa-ro*          *indoyie*  
           3-leave-MA-REC      girls  
           ‘Girls will leave each other’

The reciprocal verb construction, introduces an additional argument. The event denoted merges two arguments as one argument in plural.

### 6.3.5 Aspectual verb type properties of reciprocal verb constructions

The aspectual types in reciprocal constructions vary in terms of the viewpoints of the event. Temporality is encoded through various strategies to express how situations emerge in time (Smith 1991). In Parakuyo, reciprocal events occur in two aspectual types. The verbs that express a mutual event between two individuals is morphologically realized by a suffix *-a* or *-ro*, yielding a habitual aspect reading. In a sense, it also yields a simple present reading. This situation type expresses a situation or state and in some constructions, it expresses a general fact about a situation. The example in (33a) expresses two arguments involved in the event, namely ‘the children love each other’. However, this aspectual type, as seen in the following paragraph, is conventionally referred to as the imperfective aspect, which specifically realizes habitually in the event denoted by the verb. Thus, the reciprocal suffix with psych(ological)-verbs can be viewed as expressing the state of affairs denoted by psych-verbs, or something that happens frequently, for events denoted by activity verbs. The following examples illustrate the habitual aspect in reciprocal verbs.

- (33)      a.      *e-ɲor-a*          *mkerā*  
                   3-love-REC      children  
                   ‘Children love each other’
- b.      *e-iba-ro*          *mkerā*  
                   3-hate-REC      children  
                   ‘Children hate each other’

In contrast to the habitual, reciprocal suffix verb constructions in the imperfective aspect may express events that always happen, or processes in progress (hence the progressive aspect), or some event that will happen in the future. Therefore, three event types can be interpreted from an imperfective reciprocal verb construction. This is the case in respect to transitive verbs, which occur with a dative suffix, particularly activity verbs, as illustrated in (34a) and (b). However, in some contexts, the imperfective occurs referring to the past if the event denoted

by the verb was happening at the time that another event was happening (see Andrason and Karani 2017b for discussion on the perfective aspect in Arusa, a dialect of Maa). The following examples in (34) illustrate the interpretations of the three viewpoints that obtain in the reciprocal verb construction in the imperfective aspect.

- (34) a. *e-isom-aki-no*            *mkera enkitabu*  
 3-read-DAT-REC      PL.child book  
 ‘Children read a book for each other’  
 ‘Children are reading a book for each other’  
 ‘Children will read a book for each other’
- b. *e-kwet-iki-no*            *ilaho*  
 3-run-DAT-REC      PL.calf  
 ‘Calves run towards each other’  
 ‘Calves are running towards each other’  
 ‘Calves will run towards each other’

From a theoretical viewpoint, the perfective gives information about endpoints while the imperfective gives information about internal stages (Smith 1997:9).

The perfective aspect is encoded by the perfective morpheme *tV* placed in the post-verbal position. Given that with Class I verbs the perfective aspect is morphologically expressed by two morphemes in the reciprocal, the reciprocal suffix precedes the second perfective suffix -*te* as in (35a and c). The perfective morpheme also appears in the final position with Class II verbs, as exemplified in (35b). Example (35c) illustrates that the combination of the dative suffix and the reciprocal suffix that transitivizes the verb.

- (35) a. *e-to-nor-a-te*            *mkera*  
 3-PFV-love-REC-PFV children  
 ‘Children loved each other’
- b. *e-iba-ro-te*            *mkera*  
 3-hate-REC-PFV      children  
 ‘Children hated each other’
- c. *e-ti-sir-aki-no-te*            *mkera impalak*  
 3-PFV-write-DAT-REC-PFV children letters  
 ‘Children wrote letters to each other’  
 ‘Children corresponded’

### 6.3.6 Person inflectional affixes and subjects in reciprocal verb constructions

In reciprocal clauses, the plural person number or DP denoting a group appears as subject yielding the reading that the act is a reciprocating event where two individuals do something for each other. Thus, for the second person plural the prefix *ki-* ‘we’ is employed while the third person plural is encoded by the prefix *e-* as illustrated in the following examples. The first two examples in (36a and b) illustrate the events in isolation and the clause (36c) illustrates in reciprocal verb event.

- (36)
- a. *aa-ret-oki Sandi esirare*  
3>1-help-DAT Sandi writing  
‘Sandi will help me with writing’
  - b. *a-ret-oki Sandi esirare*  
1SG-help-DAT Sandi writing  
‘I will help Sandi with writing’
  - c. *ki-ret-oki-no esirare oo Sandi*  
2PL-help-DAT-REC writing with Sandi  
‘We (Sandi and I) will help each other with the writing’

If a collective or plural DP subject or coordinated singular DP (i.e. compound subject) occurs a subject, the prefix *e-* is affixed to the pre-verbal position as a subject prefix realizing subject-verb agreement. In other words, the subject of the clause can also be encoded by person prefix without a lexical noun subject, as in (37).

- (37) *e-iba-ro*  
3PL-hate-REC  
‘They hate each other’

Alternatively, the subject can be overtly expressed in the clause as in (38) below. In this regard, Haspelmath (2007:4) presents a figure that demonstrates mutual situations where the arguments can either be left implicit, or expressed explicitly, as illustrated in the following examples.

- (38) *e-iba-ro ilayiok*  
3PL-hate-REC boys  
‘The boys hate each other’

From a typology research perspective, as pointed out in regard to Swahili, among other languages, the view holds that when the ‘accompanee’ and a ‘companion’ participate in an

event, the comitative phrase denotes that the participants are involved in a mutual action. In Parakuyo as evidenced above, ‘*oo* John’ is a comitative phrase associated with the object argument ‘John’, yielding a comitative argument. In terms of its structure, comitatives are distinct from instrumental and associative argument since comitatives denote companionship in an event. However, the views relating to comitative phrases by researchers across languages do vary. For example, the dyadic verb reciprocal is viewed to have a comitative phrase. However, in Parakuyo, the comitative phrase is not optional in the clause (at least for morphologically realized reciprocals. Rather, it is compulsory with the predicate, without which the clause is incomplete. This is contrary to Hurst’s claim (2010:296) that cross-linguistically, a dyadic verb phrase adds an optional argument to an event. For discussion on whether the comitative phrase is an argument or an adjunct, see Hurst (2010) and Rákosi (2003, 2008).

In some languages, reciprocal verb constructions contain universal quantifiers or anaphors (the term anaphor is used in a general sense, as employed by Haspelmath (2007) not in the context of Binding Theory of Chomsky (1981), or in a pronominal sense as posited by Nedjalkov (2007), instead of the argument itself. Research on reciprocal verb constructions suggests that in regard to semantic roles a prominence hierarchy obtains in the order: agent > recipient > patient. This is evident for a sentence structure that has DPs and reciprocal anaphors expressed explicitly in the clause, as in the following example for English.

- (39)      a.      John loves Mary.  
              b.      Mary loves John.  
              c.      John and Mary love each other.

Therefore, the analysis suggest that Maasai does not allow the occurrence of an anaphoric pronoun reciprocal construction. The reciprocal interpretation is obtained by affixation of the reciprocal suffix denoting the equivalent to ‘each other’. The near equivalent pronominal with a reciprocal-like interpretation are the pronominals *kewán/ate*, which in many cases yield a reflexive reading: ‘him/herself/themselves’.

#### **6.4 The inchoative verb construction**

Inchoative verbs denote the beginning of a process, or the act of becoming, or a change of state of some kind in a clause. Inchoative verbs denote an event that appears to occur by itself

without involvement of an agent. Some scholars refer to the inchoative alternation as the anticausative or decausative (Mel'čuk 1993, Kulikov 2001, Haspelmath and Müller-Bardey 2004, Horvath and Sioni 2011, among others). In the Maasai research literature (Hollis 1905, Tucker and Mpaayei 1955), the verb suffixes are also referred to as inceptive verbs. The inchoative suffix encodes the beginning of an action, state or event that indicates some change of state regarding the event arguments or some change regarding the patient argument of the process. Thus, inchoative verbs denote the beginning of the process, that is, the process of changing from one state or situation to another. Inchoative verb derivations are salient in yielding argument alternations; hence, in the causative/inchoative argument alternation a verbal root can occur in intransitive and transitive verb structures, as exemplified in (40a) and (b).

- (40) a. *e-rok-u*      *emoti*  
 3-black-INCH pot  
 'The pot will become black'
- b. *e-ito-rok*      *emburuo*      *emoti*  
 3-CAUS-black smoke      pot  
 'The smoke will blacken the pot'

The inchoative and inceptive are terms that are often employed interchangeably to refer to verb constructions that express the beginning of the event/process or change of state. In Parakuyo, the inchoative interpretation usually obtains with verbs in the imperfective aspect although in certain environments inchoative verbs can express past events. Research on some of the world's languages (Lithuanian) has shown different interpretations and functions of the inchoative (Haspelmath 1993). In some languages, the inchoative verb is associated with a temporal aspect, and inchoative aspects are identified as past inchoative, frequentative past inchoative, and future inchoative for the purpose of realizing differences between the exact times the change of state occurred.

In Maa varieties, the inchoative is a verbal suffix that derives inchoative verb constructions. Thus, an inchoative suffix is viewed as a verbalizer in the sense that with transitive verbs it introduces causation in the event denoted. Aspectual verb types and inchoative verbs are grammatically and semantically different though related. They are related in regard to the imperfective (which is homophonous to the inchoative suffix) in that the inchoative suffix *-u* implies imperfective aspect by default. However, future time can also be encoded by other

temporal aspectual morphemes and adverbials which may occur as adjuncts to the inchoative verb construction.

#### 6.4.1 The inchoative verb suffix

The inchoative suffix in standard Maasai and in the Parakuyo dialect is affixed in post-verbal position in all the morphological verb classes. The suffixes are *-u* and *i* in the imperfective aspect, and *ua/uo* in the perfective aspect and in the subjunctive. In the case of some verbs with roots that end in a vowel, the inchoative suffix begins with the glide *j* as in *api* ‘be brave’ *apiju* ‘become brave’. It has been argued by Tucker and Mpaayei (1955) that these morphemes occur more readily with change of state verbs like colour verbs, but in Parakuyo they also occur with causative verbs. Causative verbs are distinguished in two main classes, namely internally caused change of state verbs and externally caused change of state verbs. With both types of causative verbs, the inchoative has the function of denoting the beginning of the change of state.

- (41)
- a. *e-dor-u*      *enkoŋu epe*  
3-red-INCH eye his  
‘His eye will become red’
  - b. *e-mo-i*      *endasat*  
3-sick-INCH woman  
‘The woman will become sick’
  - c. *e-pi-ju*      *ele cani*  
3-strong-INCH this medicine  
‘This medicine will become bitter/strong’

The evidence above that inchoative denotes change of state conforms to that of Tucker and Mpaayei’s (1955:40), on the inceptive verbal suffix *-u* as denoting the beginning of an event or process. This is pertinent to verbs that express a change of state and events or processes that go through different stages. With some verbs, the object argument of the inchoative verb denotes the result state of the event or process (see the discussion of change of state verbs as presented by Levin (1993)). However, Alexiadou (2014a) argues that inchoativity is more clearly expressed with internally caused change of state verbs, as opposed to externally caused change of state verbs because the lexical semantic properties of internally caused change of state verbs express the reading that the event is happening naturally without the interference of external forces. With these verbs, the instigator of the event is not expressed although natural

forces may facilitate the change of state in some way, but are involved not directly, as in (41) above.

I argue that in Parakuyo causative/inchoative and inchoative verbs occur with a subset of verbs like *gil* ‘break’. A number of these verbs occur in German and Greek languages. Haspelmath (1993) refers to these alternations as the labile alternation. Another strategy for this kind of argument alternation is referred to as the suppletive alternation, where two verbs that are not morphologically related alternate, for example kill/die (Piñón 2001). The salient thematic roles involved in the inchoative and causative/inchoative argument alternation constructions are agent/causer, patient/theme and recipient/benefactive. The subject or agent/causer commonly co-occurs with the patient/theme and recipient/benefactive arguments as objects. The agent can be animate or inanimate nouns denoting natural forces and the object can be the patient or theme, depending on the lexical-semantic properties of the arguments of the verb. With inchoative verbs, intransitive verbs in particular, the subject argument can be the patient or the experiencer.

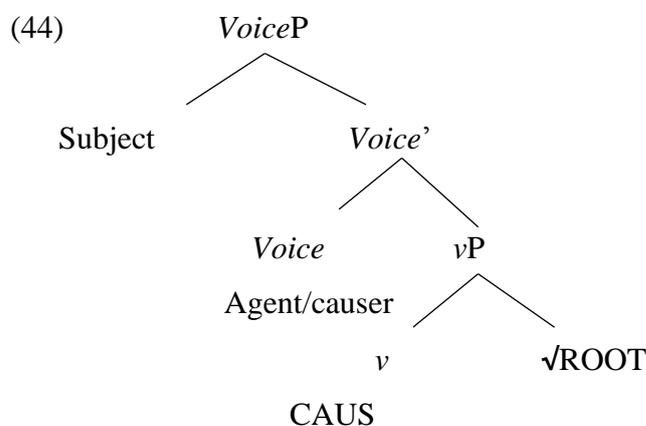
- (42)        *e-tu-bul-ua*                *enkerai rrerree*  
               3-PFV-grow-INCH    child    quickly  
               ‘The child grew up quickly’

In terms of a change of state reading, the inchoative suffix verb in Parakuyo is compatible with both internally caused change of state verbs and externally caused change of state verbs. These verbs denote events that happen to the theme/patient argument. Although structurally unexpressed, the reading of agent/causer arguments with in the internally caused change of state verbs, it may implicitly entail some source of force from discourse context, which in some way resulted in the internal change of state. However, such implicit agents/causers are morphosyntactically not of the same status and properties as human agents in sentences with externally caused change of state events. Thus, internally caused change of state verb clauses appear as anticausative with only one argument and, possibly, modifiers. The externally caused event version with an inchoative verb has a causative prefix. Consider the examples (43a) and (b).

- (43)        a.        *e-dan-u*                *ele cáni*  
               3-bloom-INCH    this tree  
               ‘This tree blooms’  
               ‘This tree will bloom’

- b. *e-itu-bul-ua*                    *énkare olmáuai*  
 3-CAUS-grow-INCH water flower  
 ‘The water made the flower grow’

The examples above demonstrate inchoative/causative alternation in Parakuyo where by the external argument is introduced by a Voice head (See, among others, scholars who argued for a Voice head in different languages, Bowers 2002, Folli and Harley 2005, Alexiadou et al. 2006, Marantz 2007, Pylkkänen 2008, Harley 2009, Alexiadou and Iordachioaia, 2014; and Wurmbrand & Shimamura 2017). The following figure represents the causative event decomposition for the inchoative/causative alternation in Parakuyo.



#### 6.4.2 Inchoative verbs and argument structure

Generally, verbs that permit the inchoative suffix in Parakuyo exemplify argument alternation in an active/inchoative and causative/inchoative version of the same verb clause, depending on the lexical-semantic properties of the entity that the argument denotes, given that the inchoative suffix yields a change of state reading. From a lexical-semantic perspective, these verbs are inherently resultative in the sense that they have the reading that at the end of the event/process some end product state or results. Even with causative inchoative verbs like ‘cook’, the product reading is salient, i.e. the food resulting as the product of the process of cooking. In Parakuyo, inchoatives verbs denoting, for example, the cooking of food or baking of a bread render the interpretation that there must be a bread or food cooked as a result. The reading obtains that carving a wooden spoon directly entails that a spoon will be made at the end of the process. This reading is evident with the verb *gwat* for ‘carve’ in (45c) and (d) which shows that the resultative interpretation is only possible if the inchoative suffix appears with the verb. Such a

result-oriented reading is impossible in the corresponding simple active construction with the same verb in (d). In (45a) the reading obtains that herbs (could be a mixture of different leaves or roots) are being boiled to make medicine. In (45b) the interpretation is that it is the medicine itself (which may have been made by somebody else) that is being boiled by the man.

- (45) a. *e-yer-u olpayian olcani* (inchoative)  
 3-cook-INCH man medicine  
 ‘The man will prepare the medicine’
- b. *e-yer olpayian olcani* (non-inchoative)  
 3-boil man medicine  
 ‘The man boils the medicine’
- c. *e-gwat-u olee olmuiko* (inchoative)  
 3-carve-INCH man wooden.spoon  
 ‘The man will make the wooden spoon’
- d. *e-gwat embao* (non-inchoative)  
 3-carve wood  
 ‘He carves the wood’

The main difference between the stative/active verb construction and the inchoative verb constructions relates to the interpretation that the inchoative construction is result-oriented. In addition, the inchoative verb argument must relate to the initial stage and the result state denoted by the verb. The active verb construction necessitates that its object is the material-argument (as opposed to product-argument) that undergoes the process in the inchoative verb eventuality. This property pertains to the lexical-semantic distinction of verbs, namely result-oriented versus manner-oriented verbs. With some verbs, the simple active clause is ungrammatical, as in (46b) when it co-occurs with product-argument (46a). This is attributed to the fact that the verb *itibirr* ‘make’ does not have the lexical-semantic properties to allow mention of the material-argument, let say ‘dough’ or ‘wheat meal’ of which in the process of change of state the bread results as a product. Such restrictions of the inchoative verbal constructions suggest that not all verbs can allow the inchoative suffix unless it carries some change of state nuance.

- (46) a. *e-itibir-u endito olmukatei*  
 3-make-INCH girl bread  
 ‘The girl will bake a bread’

- b. \**e-itibirr entito olmukatei*  
 3-make girl bread  
 Intended: ‘The girl will bake a bread’

Table 31: Inchoative verbal roots

Root	Gloss	Root	Gloss	Root	Gloss
<i>ɲayuk</i>	similar	<i>irofi</i>	heavy	<i>lelek</i>	cheap
<i>damu</i>	remember	<i>todor</i>	reddden	<i>libu</i>	sadden
<i>dua</i>	bitter	<i>eeku</i>	become	<i>lili</i>	nauseate
<i>iba</i>	hate	<i>laku</i>	untie	<i>melok</i>	sweet
<i>iborr</i>	white	<i>ibelekeɲ</i>	change	<i>mod</i>	fool
<i>ikaf</i>	recover	<i>lala</i>	widen	<i>nana</i>	soften
<i>duɲ</i>	cut	<i>ealanu</i>	confuse	<i>ɲorr</i>	love
<i>ɲor</i>	decrease	<i>leku</i>	remain	<i>nut</i>	pregnant
<i>ɲoi</i>	rot	<i>ok</i>	ripe	<i>duɲ</i>	cut
<i>ɲu</i>	smell	<i>fet</i>	build	<i>isuj</i>	wash
<i>lib</i>	angry	<i>ras</i>	mad	<i>yel</i>	smear
<i>oj</i>	scratch	<i>iju</i>	swell	<i>fol</i>	melt
<i>oɲ</i>	light	<i>bul</i>	grow	<i>yer</i>	cook

### 6.4.3 Modification in inchoative verb constructions

Internally caused change of state verbs are intransitive verbs and causative-inchoative verbs are transitive. Both these types of verbs have lexical-semantic properties compatible with agentivity diagnostics. The inchoative and causative-inchoative alternation constructions permit agent, instrument, causer and causer events as subjects. These sentences can also have causers or initiators of the event in PPs as optional adjuncts (47a). Further modifications relating to the event are permitted in inchoative verb constructions such as a purpose or reason clause in (47b), and event-oriented adverbials in (47c). Agent-oriented adverbials appear in the clause-final position as in (47d).

- (47) a. *e-fol-u-ɲe eilata te ɛnkoloɲ*  
 3-melt.INCH-NTR fat te sun  
 The fat will melt under the sun
- b. *e-fol-u eilata te ɛnkoloɲ pe-yer-iho-re*  
 3-melt-INCH fat te sun SUB-cook-APAS-INST  
 He will melt fat so that he cooks with it

- c. *e-ta-daj-ua*                    *olmauai rrerree*  
 3-bloom-INCH.PFV flower quickly  
 The bloomed quickly
- d. *e-yieŋ-u*                    *olpayian eilata te enkarriyiano*  
 3-slaughter-INCH man            fat    with skill  
 The man will extract fat (from meat) skilfully

Accomplishment verbs in inchoative verb constructions can have a reflexive pronoun in the object position. The interpretation of such a sentence entails that this pronoun emphasizes that the agent performed the action upon him/herself in (46). This semantic class of verbs common to these sentence constructions is identified as ‘make or create verbs’ by Levin (1993) some of which are inherently causative verbs that have an object as the theme argument expressing the product of the process denoted by the verb.

- (48) *e-fet-u*                    *olpayian enkaji opeŋ*  
 3-build-INCH man            house himself  
 ‘The man will build a house himself’

Different verb classes in Parakuyo express change of state in various ways. Some inchoative verb constructions specify a change of state involved in the event denoted, for example, *nuku* ‘become cloudy’, *kaangu* ‘roast/burn’ and *oku* ‘ripen’. Another verb class constitutes verbs that denote a change of state lexically, for example, *ibelekeŋ* ‘change’ and *itool* ‘alter’.

The following clauses illustrate how various suffixes (impersonal, inchoative and a combination of the impersonal and inchoative) select arguments expressed in the verb’s argument structure.

- (49) a. *e-yieŋ-i*                    *enkiteŋ*                    (*impersonal*)  
 3-slaughter-IMP cow  
 ‘The cow will be slaughtered’
- b. *e-yieŋ-u-ni*                    *inkiriŋ*                    (*inchoative and impersonal*)  
 3-slaughter-INCH-IMP meat  
 ‘The meat will be slaughtered’
- c. *e-yieŋ-u*                    *olee inkiriŋ*                    (*inchoative*)  
 3-slaughter-INCH man meat  
 ‘The man will slaughter meat’

- d. *e-yieŋ-u-ni* *inkiriŋ \*olee* (*inchoative and impersonal*)  
 3-slaughter-INCH-IMP meat man  
 ‘The meat will be slaughtered \*by the man’  
 Intended: ‘The cow will be slaughtered by the man’

For a causative variant of the causative/inchoative alternation, a corresponding causative sentence occurs, of which, with non-causative verb roots, the causative prefix has to be affixed to the verb. To render the causative reading, the prefix *itV* replaces the inchoative suffix *-u* and licenses a subject agent/causer-argument reading of the event denoted by the verb, for example, *nana* ‘soften’. The resulting sentences realize the causative and inchoative variants of causative/inchoative alternation with a causer and theme argument, as demonstrated in the following examples.

- (50) a. *e-ita-nana* *enkoloŋ empira* (*causative*)  
 3-CAUS-soft sun rubber  
 ‘The sun will soften the rubber’
- b. *e-nana-u* *empira* (*inchoative*)  
 3-soft-INCH rubber (*Type I*)  
 ‘The rubber will become soft’
- c. *e-fol-u-ne* *eilata* (*inchoative*)  
 3-melt-INCH-NETR fat (*Type II*)  
 ‘The fat will melt’
- d. *e-fol-u* *olpayian eilata* (*inchoative*)  
 3-melt-INCH man fat  
 ‘The man will make fat’
- e. *e-nana-u* *empira te enkoloŋ*  
 3-soft-INCH rubber by sun  
 ‘The rubber will become soft under the sun’

The sentence in example (50a) has the reading that the heat (from the sun) will soften the rubber after having being exposed to the sun light for a while. The interpretation of example in (50b) is that the change of state happened to the rubber after the state of softening is reported. (50b) exemplifies an inchoative verb construction, with the verb root having an inchoative suffix.

The above examples suggest that the inchoative constructions in Parakuyo have three representations. First, constructions occur, as described above with only a verbal root and an inchoative suffix, to which I refer as type I. Second, constructions are identified that have both the inchoative suffix and the neuter suffix *-ne*, (not to be confused with the instrumental suffix

-*ne*) to which I refer as type II, as in (50c) and (d). The salient feature of the second verb type is that the neuter suffix suppresses the external argument of the verb. This reading is expressed by the following representation that illustrates the decomposition type I and type II inchoative verbs. Rafael and McNally (2011) suggests that the verb BECOME is useful in discussing inchoativity, change of state and telicity. This verb illustrates the initial stage of change of state of the element expressed in the construction. The following representation exemplifies the causative event decomposition.

(51) [v-BECOME [the rubber  $\sqrt{\text{SOFTEN}}$ ]]

Regarding the analysis of the inchoative verb, some scholars categorized verbs that license the causative-inchoative alternation into two groups (Piñón 2001). The first group comprises of the group of verbs that are inherently causative alternating verbs, for example *turrurr* ‘collect’ in Parakuyo, and the second comprises of inherently inchoative alternating verbs, for example *bul* ‘grow’. Verbs like *turrur* ‘collect’, *gil* ‘break’ and *doη* ‘crush’ are inherently causative. Thus, they are different from verbs that are inherently non-causative in that they only render an inchoative reading denoting change of state. The relationship of the inchoative to the causative verb relates to the property that the inchoative intransitive verb expresses a change of state while the transitive variant of the causative-inchoative verb denotes a causing event that results in a change of state (Piñón 2001). An inchoative verb can denote the beginning of a change of state or it can express the reading that a change of state has happened in a certain eventuality. In the lexical semantic structure of causative verbs such as *rr* ‘kill’, three distinct interpretations of the event obtain. One denotes *causing/making*, the second relates to *becoming*, and the third denotes *being* in a particular state as a result of the process (see Jackendoff (1990), for modelling of the causative event). According to this view, an inchoative construction in Parakuyo is realized in the middle stage, that is, BECOME, and oriented towards the last stage of the event.

The causative variant of the causative-inchoative alternation in Parakuyo is derived by affixation of a causative suffix to the inchoative verb. In the examples verb constructions in (53), for example, the causative suffix is suffixed to the inchoative verb to yield the causative variant of the causative-inchoative alternation. Haspelmath (1993) argues that this is one of the ways of deriving the causative variant of the causative/inchoative alternation in some languages. In the inchoative variant example in (53a), a change of state verb can be realized in

respect to the theme/patient argument but in the causative variant of the alternation, a causative prefix *-itV* occurs with the verb, introducing a causer argument following the verb, with the theme/patient argument appearing in the sentence-final position. I term this the inchoative type III, where a combination of the causative and inchoative suffixes in the same verb construction occurs (50). The representations of causative and anticausative event decomposition are explored by Alexiadou et al. (2006) and Schafer (2008, 2009), among others. Using the following notation, the verb KILL stands for a causative verb where the causation process take place represented by CAUSE involving argument ‘x’ which then through the process BECOME it gets into a certain state labelled as ‘y’, and according to the verb ‘kill’, the resultant state expected in ‘y’ is DEAD.

- (52) *KILL*: [CAUSE (x, [BECOME (y, [DEAD])])] (Schafer 2009)

This kind of sentence construction poses a challenge to the representation in (52) that the change of state for an inchoative starts from BECOME. Given the sentence structure in (51b) it rather appears that the change starts from the CAUSE, as in (51b). Consider the following examples for clarification.

- (53) a. *e-ŋo-i enkiriŋo* (inchoative)  
e-rot-INCH meat  
‘Meat will rot<sub>inch</sub>’
- b. *e-ita-ŋo-i enkirowuaj enkiriŋo* (caus and incho)  
3-CAUS-rot-INCH heat meat (Type III)  
‘The heat will make the meat rot<sub>caus-inch</sub>’  
‘The meat will get rot from the heat’
- c. *e-gol-u esementi* (inchoative)  
3-solidify-INCH cement  
‘The cement will solidify’
- d. *e-ita-gol enkare esementi* (causative)  
3-CAUS-solidify water cement  
‘The water will solidify the cement’

The following syntactic representation illustrates externally caused change of state and internally caused change of state inchoative verb construction in Parakuyo. This structure, which is adopted from Ramchand (2008), represents the properties of the Parakuyo inchoative verb constructions in respect to the property that it projects process and resultant state nodes

(identifying them as Proc and Res below), the properties that are salient in Parakuyo inchoative verbs. The specifier in the initial phrase represent an agent or causer argument of the causative/inchoative verb construction.

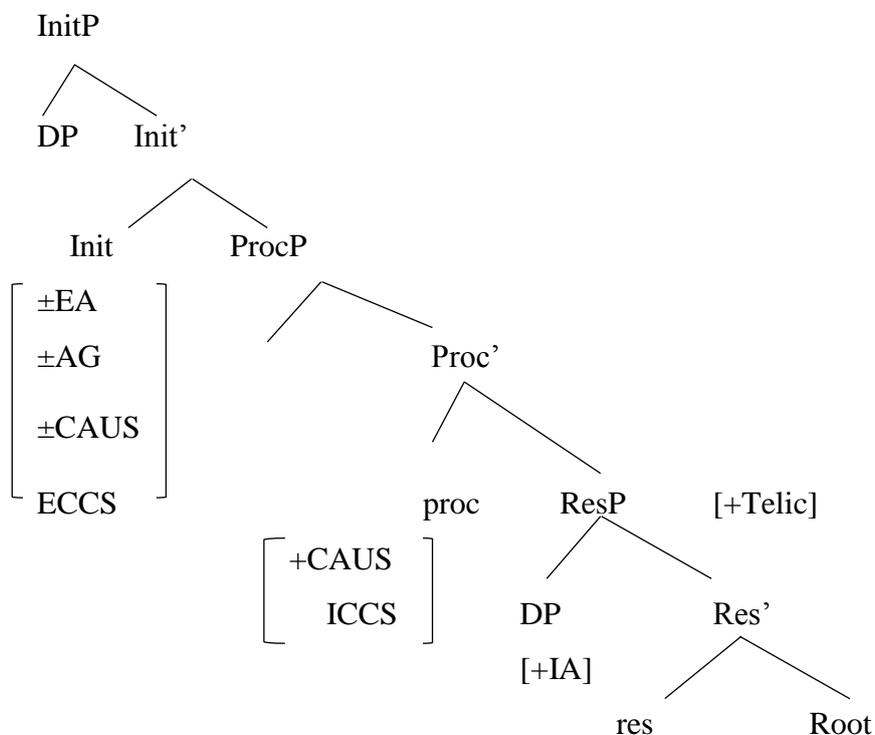


Figure 10: The syntactic decomposition for externally caused change of state inchoative verbs in Parakuyo

Linguists have pointed out that some languages derive inchoatives by affixation of the inchoative or causative suffix to the stative adjectives (Heidi 2010). This is particularly common with some colour adjectives and stative verbs in Parakuyo, where the verbalizing inchoative suffix derives the verb from the adjective to express a change of state (colour) of a certain item. Consider the following examples of the inchoative in the inchoative variant, and the causative variant of the causative/inchoative alternation.

- (54) a. *e-rok-u esupuria* (inchoative)  
 3-black-INCH pot  
 ‘The pot will turn black’
- b. *e-ito-rok enkima esupuria* (causative)  
 3-CAUS-black fire pot  
 ‘The flames will turn the plate black’

In regard to the inchoative/causative alternation in Parakuyo, the verbs examined give evidence for the view that not every inchoative verb has a causative counterpart, and not every pair causative-inchoative verb alternation has an inchoative variant. Verbs that license the inchoative variants are those that have a causer subject argument as initiators of the change of state.

*Inchoative verb construction representation for internally caused change of state verbs*

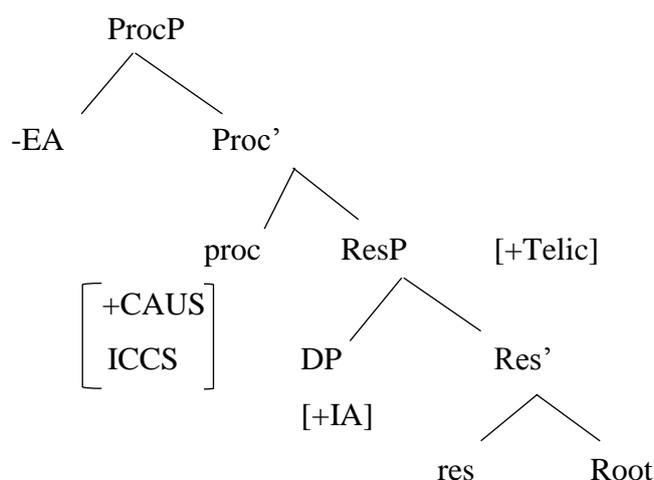


Figure 11: The syntactic representation of internally caused change of state verbs in Parakuyo

#### 6.4.4 The relationship between inchoative and middle verb constructions

Examples from Parakuyo suggest that a close relationship obtains between middle verb and inchoative verb constructions, particularly with respect to the property of agentivity. Middle constructions, in some way imply that an implicit agent occurs (Sohn 1998) while inchoatives for a certain set of transitive verbs allow an agent/causer to co-occur with the inchoative suffix verb. In Parakuyo, with the set of internally caused change of state verbs, the inchoative suffix suppresses the occurrence of an agent, that is, the external argument. In this regard, the inchoative assumes a middle-like reading as in *edaju olmauai* ‘the flower blooms’ (inchoative) versus *eboloi olmulango* ‘the door opens’ (middle). One of the diagnostics for agentivity in middle verb constructions is that the argument modified by the manner adverbial ‘well’ or ‘nicely’ reflects the subject argument of the verb (see section 5.10 for discussion). Sohn argues that the agency implication of the middles is based on the pragmatic effects that obtain from a generic reading of the clause and the lexical conceptual properties of the verb. Although the

inchoative allows a generic reading in habitual constructions, with the internally caused change of state verbs, no clear implication of agentivity obtains. Thus, a close relationship obtains between middles and inchoatives across languages. The shared characteristic between these two constructions pertains to the property that the surface subject of both is the theme/patient object of the transitive verb.

- (55) a. *e-raa-i ena kideere sidai middle*  
 3-ride-MID this bicycle well  
 ‘This bike rides well’
- b. *e-nana-u empira aakiiji inchoative*  
 3-soften-INCH rubber slowly  
 ‘The rubber will become soft slowly’

The above two verb exhibit constructions in transitivity feature, hence they only have one argument. However, the thematic roles of each argument (in middle and inchoative) differ. In the middle, the argument has features of both agent and patient, whereas in the inchoative the argument is a theme/patient. The argument in the inchoative undergoes a change of state or in one way or another; that is it is affected by the event. The construction in (55b) expresses that the rubber will become soft but no overt reference is given about the causer of the event.

Inchoative verbs in Parakuyo, as is general across languages, are closely related to the middle constructions. This close relationship is expressed in the semantic and syntactic properties of the two verb constructions. First, the subject argument in both constructions is inanimate. Both are the intransitive variants of the transitive verbs whereby the object argument of the transitive verb clause appears as the subject argument of the intransitive inchoative (Levin 1993). Thus, both are variants in transitivity alternations. With middle verb constructions, an agentivity interpretation is only available in the transitive verb variant while in the intransitive verb clause agentivity is suppressed. In the inchoative variant, the reading obtains that the agent/causer is known to discourse participants. However, middle verb constructions express an event in a different way from inchoatives in that the middles do not express events that are bound to specific time reference, whereas inchoatives do (Negro 2011). Therefore, the aspect of tense is salient in inchoatives as it relates to the property of telicity that is (in)completeness of an eventuality. Conversely, middles do not encode aspectual properties or tense but they rather refer to a general statement realizing habitual aspect about some event, as in the Parakuyo

examples *melelek pegila encuma* ‘iron rods seldom break’ versus *egilai encuma tewei ηojijoj* ‘the iron rod will break at its weakest point’.

#### 6.4.5 Telicity and aspect in inchoative verb constructions

The telicity refers to a property of a clause to express completeness (telic event) or incompleteness (an atelic event) of an event. In various languages, for example English, telicity is commonly tested by two phrases: ‘in’ and ‘for’, namely ‘in an hour’ (within an hour) and ‘for an hour’ to denote a time-span as opposed to the time frame (Smith 1991, 1997). Therefore, ‘for an hour’ phrase is employed as diagnostic for a time-span adverbial. The example (56a) is regarded as semantically fine but the following example in (56b) is said to yield semantic anomaly because of the lexical-semantic properties of the verb bake.

- (56) a. Fine: John baked a cake *in an hour*  
 b. Bad: John baked a cake *for an hour*

Various, issues need to be considered for these phrases to function as diagnostics for telicity. These aspects relate to tense, aspect and context. Aspectual types like the progressive may affect the interpretation and the property of telicity of a clause. This entails that the simple past tense is a suitable construction for testing telicity. In addition, the definition provided by Grey (1957) delineates telic verbs as verbs that express an action tending towards a goal envisaged as realized in a perfective aspect, but as contingent of an imperfective aspect. In Parakuyo, achievement verb sentences provide typical examples for telicity. Atelic verb constructions contain verbs that do not express any goal or endpoint in their event structure, but rather denote actions that are realized as soon as they begin (Verkuyl 1989, 1993 Vendler (1967)). Recently, some researchers described telicity as a situation aspect that denotes a goal reached or action completed as intended (Smith 1997). Krifka (1998) states two aspects are considered in determining the aspectual properties of predicates. These are the nature of the verbal head and the nature of the nominal argument. She discusses the examples ‘eat two apples as telic, and ‘eat apples’, as atelic. This suggests that a quantized entity or specified quantity and the lexical semantics of the verb are salient in a telic clause. A general statement without any limitations, realizes a clause as atelic. In other words, an atelic event lacks measurable features, which would suggest completeness of an event.

Semantically, the temporal adverbial phrase ‘in an hour’ can have two interpretations in English, namely it can mean ‘in the span of an hour’, (within an hour), or it can mean that the event will take place ‘one hour from now’. These two interpretations yield the phrase ‘in an hour’ ambiguous. In addition, a context exists in English where the phrase ‘for an hour’ can be telic rather than atelic. The notion of completeness is, therefore, relative, as expressed in some events. This makes sense when telic verb phrases refer to events that are conceptualized or presented in a way that implies some endpoints (Smith 1997, Krifka 1998). Conversely, atelic verbs should be taken as events that are presented or conceptualized as lacking an endpoint. Nonetheless, the notion of the endpoint is understood when one considers the event in the real world discourse context, rather by looking at the expression itself, since arguably all events can have a beginning and an endpoint in some context.

Properties identified by researchers that characterize aspectual classes in aspectual theory include inchoativity, change of state, telicity and dynamicity (Smith 1997). According to Vendler (1967), verbs are aspectually classified into four kinds, namely state, activity, accomplishment and achievement, according to their properties, in respect to temporal on a set of diagnostics. Telicity is closely related to the aspectual framing of an event in the grammar of a language. In languages like Parakuyo where aspect can be viewed to be more dominant than tense, telicity is particularly pertinent. Telicity, in events structure, is deduced from the morpheme that encodes aspects (except for habitual) in the verbal derivational morphology. In this case, telicizing affixes occur that shape the eventuality determined by the spell-out of the whole structure (Lyutikova and Tatevosov 2013). The term event refers to all non-stative eventuality types, including activities, accomplishments and achievements (ibid). Generative research on other languages has partly focused on determining whether the inchoative affix is spelt out in *v* or *V*. The investigation in the present section focuses on verbs that allow the inchoative suffix and the grammatical properties of the verbal complexes that allow inchoative suffixes. In Parakuyo, not all verbs permit the inchoative suffix but a large number of change of state verbs do.

Aspectual types of the inchoative variant in the causative/inchoative alternation in Parakuyo constructions are illustrated in the readings of perfective and imperfective clauses that render the ‘in’ and ‘for’ reading in English. The imperfective morpheme may provide the ‘in’ reading and the perfective renders the ‘for’ reading in the following examples. As mentioned above, the inchoative verb with the suffix *-u* in Parakuyo occurs in the imperfective in the following

clause with the reading of future time. The inchoative suffix *-ua* expressing the perfective aspect co-occurs with the perfective prefix *tV* with Class I verbs.

- (57)
- a. *e-gwat-u      əlmuiko      to saai are*  
 3-carve-INCH wooden.spoon in hours two  
 ‘He will make a wooden spoon in two hours’
- b. *e-ta-gwat-ua                      əlmuiko                      to saai are*  
 3-PFV-carve-INCH.PFV wooden.spoon                      for hours two  
 ‘He made a wooden spoon for two hours’

Telicity properties of verbs can also be considered in order to determine issues relating to aspectual verb classes in Parakuyo. This elucidates the nature of the property of which telicity effects the eventuality in terms of the state of the event in inchoative verb constructions. Telicity relates to causativization, hence, properties of the inchoative have been compared to that of the causative as a general instantiation of argument alternation in many languages. Consider the following sentences in Parakuyo, in (58a), (b), and (c) in respect to telicity. Thus, for change of state verbs in Parakuyo, an event occurs as atelic when it appears in the imperfective aspect, and stative in the perfective aspect, as demonstrated in *eku* ‘become’ and *nor* ‘love’.

- (58)
- a. *e-ek-u                      papa əlmalimui*  
 3-be-INCH                      father teacher  
 ‘My father will become a teacher’
- b. *e-norr-u                      enkitabū*  
 3-like-INCH                      book  
 ‘He will start to like the book’
- c. *e-norr enkitabū*  
 3-like book  
 ‘He likes the book’

In the following paragraphs, analysis of two kinds of aspects in Parakuyo is considered, namely the imperfective, and the perfective aspect in a number of sentence constructions.

Imperfective aspect in Parakuyo is realized in three different situation types, namely habitual, progressive and future time. With verbs other than change of state verbs, the suffix *-u/i* denotes future tense or imperfective aspect in Parakuyo. This suggests that the inchoative suffix *-u/i*

inherently denotes future time in addition to other features like inchoativity. This suffix is closely related to future time and ‘becoming’ senses as it denotes the reading of something coming into existence. With result-oriented verbs, the result-argument is the dominant argument in the clause.

- (59)
- a. *e-dal-u*            *enkoloŋ taata*  
3-shine-INCH sun    today  
‘It will be sunny today’ or  
‘The sun will shine today’
  - b. *e-ŋo-i*            *ibenek taisere*  
3-rot-INCH vegetable tomorrow  
‘The vegetable will rot tomorrow’
  - c. *e-nuk-u*            *tenakata*  
3-cloudy-INCH right.now  
‘It will become cloudy right now’

Unlike the imperfective aspect, the perfective aspect in Parakuyo is only of one type. The recent perfective and remote perfective are both morphologically encoded by the same morpheme.

- (60)
- a. *e-to-fol-ua*                    *ɔlpayian eilata*                    (*inchoative*)  
3-PFV-melt-INCH.PFV man    fat  
‘The man has made animal fat’
  - b. *e-ta-pej-uo*                    *ɔlpayian olmukaa*                    (*inchoative*)  
3-PFV-burn-INCH.PFV man    charcoal  
‘The man has made the charcoal’

The above examples in (59) and (60) exhibit similar properties outlined in the following notations, namely (a) (BECOME (x (STATE))), for internally caused change-of-state verbs, and (b) (CAUSE (BECOME (x (STATE)))) for externally caused change-of-state verbs, as proposed by McKoon and Mackfarland (2000).

Table 32: Different categorizations of change of state verbs in Parakuyo

Quantity	Physical	Colour	Shape	Quality	Size	Psychological
<i>irofiu</i> 'heavy'	<i>enanau</i> 'be soft'	<i>itorok</i> 'blacken'	<i>enapuku</i> 'resemble'	<i>errirriu</i> 'roughen'	<i>elalau</i> 'widen'	<i>eibai</i> 'hate'
<i>enenenu</i> 'light weight'	<i>ejoi</i> 'rot'	<i>eitanokien</i> 'brown'	<i>eibelekej</i> 'turn'	<i>eduaru</i> 'bitter'	<i>itorongen</i> 'narrow'	<i>emodai</i> 'foolish'
<i>enoru</i> 'decrease'	<i>eliliu</i> 'nauseate'	<i>eiborrie</i> 'whiten'	<i>emusanu</i> 'be old'	<i>emeloku</i> 'sweeten'	<i>itodor</i> 'lengthen'	<i>emunanu</i> 'blessed'
<i>eigan</i> 'fill'	<i>eiropiju</i> 'cold'	<i>etodorr</i> 'redden'	<i>salaaf</i> 'spread'	<i>eleleku</i>	<i>itasapuk</i> 'enlarge'	<i>eelanu</i> confuse
<i>epona</i> 'add'	<i>enuku</i> 'cloudy'	<i>tonorij</i> 'make green'		<i>eoku</i> 'ripen'		<i>enorrus</i> 'like'
				<i>eikaanga</i> 'roast'		<i>elibu</i> 'angry'

Table 33: Internally and externally change of state verbs in Parakuyo

Internally caused change of state				Externally caused change of state			
Root	Gloss	Root	Gloss	Root	Gloss	Root	Gloss
<i>dan</i>	bloom	<i>noi</i>	rot	<i>italepoo</i>	abate	<i>itonua</i>	fossilize
<i>fikifik</i>	blister	<i>okutu</i>	rust	<i>mukut</i>	atrophy	<i>mut</i>	fray
<i>furr</i>	corrode	<i>bul</i>	sprout	<i>neyie</i>	awake	<i>itodorr</i>	redden
<i>rroyo</i>	deteriorate		stagnate	<i>rrarr</i>	crumble	<i>toyio</i>	shrive
<i>orr</i>	erode	<i>ij</i>	swell	<i>tasas</i>	thin	<i>bel</i>	splinter
<i>muk</i>	ferment	<i>nay</i>	wilt	<i>dan</i>	explode	<i>fol</i>	thaw
	wither				fade	<i>kirikir</i>	vibrate

## 6.4.6 Inchoative suffix combinations with other verbal affixes

### 6.4.6.1 Inchoative and neuter suffix verbs

As noted above, in the type II inchoative, a combination occurs of the inchoative and the neuter suffixes *-u* and *-ne*. The neuter and inchoative suffixes in this context suppress the external argument of the verb. Compare the inchoative example in (61a) and the sentence in (b), without *-ne*, but with an external agent in the causative alternant. The b-example has the reading that the event is happening by itself without agent involvement, a reading that is common with internally caused change of state verbs like *fol* 'melt'.

- (61)
- a. *e-fol-u-ɲe eilata*  
3-melt-INCH-NETR fat  
'The fat will melt'
  - b. *e-fol-u olee eilata*  
3-melt-INCH man fat  
'The man will make animal fat'
  - c. *e-fol- olee eilata*  
3-melt man fat  
'The man will melt fat'

The interpretation obtaining in (61b) is that the man will roast fatty beef to extract animal fat, as a result state or output of the event or process. Thus, the reading about fat entails collecting fat, produced as the resultant state of the event caused by the agent, the man. This reading demonstrates the change of state of an entity to a partially similar or different entity altogether. By contrast, the simple verb clause without the inchoative or neuter suffix yields a change in the verb semantics (from make to melt) to the process interpretation obtaining. The reading in (62) with the neuter and inchoative suffixes gives a resultant state interpretation. In terms of argument structure, in the combination of inchoative and neuter suffixes, the neuter suffix blocks the external argument, namely agent or causer.

- (62)
- a. *e-te-yier-u-ɲe olcani*  
3-PF-cook-INCH-NETR medicine  
'The medicine boiled in the water'  
(i.e. boiled (barks or roots) and dissolved in water ready for drinking)
  - b. *e-yier-u olee olcani*  
3-cook-INCH man medicine  
'The man will make the medicine'
  - c. *\*e-te-yier-u-ɲe olee olcani*  
3-PF-cook-INCH-NETR man medicine  
Intended: 'The man made the medicine'

The view is generally assumed in research studies that the internal argument of change of state verb is interpreted as a product of the process. The argument *olcani* 'medicine' is appropriate as an internal argument of the verb boil/extract. It is an extracted product from the process that changed the state of the material (barks or roots of trees) boiled in water. Thus, the lexical properties of an internal argument DP (which undergoes a process) in a simple verb clause are



of the remaining DP reversed in that the ergative subject becomes non-ergative. The antipassive has generally been characterized as a common feature of ergative languages. Polinsky (in press) maintains that antipassive is not restricted only to ergative languages, although she acknowledges that it is more noticeable in ergative languages. Researchers (Dixon 1979, Cooreman 1994, Authier and Haude 2012,) emphasized the salience of antipassive in ergative languages but some studies in typology maintain that antipassive verb constructions have also been attested in accusative languages (Heath 1976, Polinsky 2005, Creissels 2006, Janic 2016). The term antipassive expresses the notion that it is structured in an opposite direction to the passive. Both sentences alter the status of the object of the clause. The antipassive demotes or deletes the object argument of the clause, whereas the passive promotes the object argument of the corresponding active verb to the subject position (Schroeder 2015).

Schroeder (2015) argues that a number of typical properties of antipassive in Nilotic languages obtain. First, a transitive verb becomes intransitive verb when the antipassive suffix is affixed. This process is considered as demotion of the direct object in Relational Grammar (Dixon 1994). Second, an antipassive construction demotes the object of the clause in one of two ways: the object can be expressed as an oblique argument or it can be completely absent. Third, the agent of the transitive clause is the subject of the derived intransitive clause. Fourth, there has to be some encoding of an antipassive construction, namely a verbal affix or a periphrastic element.

A recent study by Bostoen et al. (2015) proposes that also in Bantu languages antipassive verb constructions are attested through the reciprocal suffix *-an*, a highly polysemous verbal suffix. Bostoen et al. argue that a dedicated antipassive suffix occur in Kisongye, Kikete, Lucazi, and Cilunda. These are the languages from Guthrie's Central Bantu zones L and K. They state that in Ciluba, the suffix *-an-* deletes the patientive object with monotransitive verbs and the recipient-like object if the verb base is ditransitive. In a language like Kirundi, the antipassive suffix is exclusively depatientive. In Bantu languages, however, the same suffix *-an* generally expresses a reciprocal and associative verbal derivational morpheme. In a survey conducted from the research literature available, Bostoen et al. (2015) argue that in a number of those languages the suffix *-an* derive an antipassive verb construction. However, the authors caution that the data considered is inconclusive as to whether the suffix *-an* is a productive antipassive suffix in other Bantu languages. Thus, some linguists are sceptic of this argument until further studies across other Bantu languages are conducted to present support for this claim.

In ergative languages, the deletion of the object argument is associated with the subject changing from ergative case to absolutive case. The major criterion employed to classify languages with regard to permitting the antipassive relates to the non-occurrence of the object argument. Thus, the antipassive suffix does not allow a patient/theme-like object argument to be expressed in the construction. Hence, the patient may be viewed as an implicit argument since it is syntactically non-overt unspecified or generic (Schroeder 2015). However, some languages appear to allow a patient-like argument to be realized as an oblique object in antipassive verb construction. A rather lucid description of an antipassive is given as a grammatical voice that does not license an object argument, and if an object argument must appear, it should be realized with oblique case (Polinsky in press). Hence, in antipassives, the subject argument (agent/causer) is the most salient argument in the construction. Polinsky (in press) argues, “Antipassives are constructions of which the logical object of a two-place verb is not realized as a direct object but rather occurs either as a non-core argument or is deleted”. She argues that although the object is deleted, it is presupposed in the context. It is widely agreed that the antipassive is an object-demoting diathesis which is realized in a construction opposite to that of a passive (for relevant discussions see Dixon 1979, 1994; Kulikov 2011:380, Polinsky in press, Bostoen et al. 2015, Janic 2016, Sansò 2017, among others). However, in some ergative languages, the antipassive morphology does not change the verb valence, as proposed by Dixon (1994: 149) for the following Dyirbal examples.

- (64) a. *biya Jani-ŋgu gunyja.n* (active)  
 beer.ABS John-ERG drink.NFUT  
 'John is drinking beer.'
- b. *Jani gunyjal-ŋa-nyu (biya-gu)* (antipassive)  
 John.ABS drink-ANTIP-NFUT beer-DAT  
 'John is drinking (beer).'  
 (Dixon 1994: 149)

Some scholars argue that the antipassive is also attested in a number of marked-nominative languages, Maasai included (Tucker and Mpaayei 1955, Payne and Olsen 2009, Schroeder 2015). However, other languages in the Nilotic family are ergative and have ergative morphology. Shilluk spoken in Southern Sudan and Sudan is one of the Nilotic languages that have an ergative morpheme, referred to as the *yi*-structure (Miller & Gilley 2001, Schroeder 2015). According to Schroeder (2015), Western Nilotic languages exhibit a mixed alignment of nominative-accusative and ergative-absolutive systems of case encoding. Schroeder (p. 30) states that Toposa, one of the languages of Eastern Nilotic has lost the antipassive but has some

residues of syntactic ergativity (in relative constructions) and morphological ergativity (in agreement patterns). This view led to the suggestion that the origin of Nilotic languages is from ergative languages, rather than accusative languages (Schroeder 2006, 2015, Dimmendaal 2014). However, Andersen (1988: 320-323), Reh (1996: 359-357), and König (2006: 704) hold the opposing view, namely that Nilotic is originally accusative with some innovative exceptions of an ergative-absolutive system.

The question arises of whether Parakuyo exhibits subject control or object control into infinitive clauses to express control on the subject or the implicit object of the antipassive verb construction and the impersonal passive. The Parakuyo antipassive constructions exhibit a reading suggesting the presence of an implicit internal argument. This implies that the non-overt object may be a small *pro* (Spreng 2001). However, the following example of Parakuyo antipassive demonstrates the absence of an overt object. This suggests that Parakuyo antipassive employs *pro*-drop in that when the antipassive suffix is attached to the intransitive or transitive verb the clause does not require an explicit object.

- (65)        *e-dol-ifo*        *enkiteŋ*  
               3-see-APAS    cow  
               The cow sees

In addition, a cross-linguistic survey suggests that the theme argument in antipassives is backgrounded as opposed to the agent, which is foregrounded. From the view of information structure in antipassive, the subject argument is prominent, a property referred to as “agent foregrounding” or “agent focusing” or “agent maintenance” (Polinsky in press).

Researchers have employed different approaches cross-linguistically in addressing the morphology and syntax of antipassive constructions. Two main approaches identified are the lexicalist approach and the syntactic approach. The lexicalist approach maintains that the antipassive constructions are common with manner verbs (Rappaport Hovav and Levin 2010). Different perspectives on the analysis of antipassive resulted in varying terminologies introduced for antipassive constructions. The view that antipassive is common with manner verbs is supported by Parakuyo data as outlined in the subsequent sections. Object arguments in antipassives are left implicit or suppressed yielding emphasis to the agent subject. The syntactic approach to antipassive maintains that the accusative/absolutive case is absorbed in the vP since it is the internal argument of the verb (Polinsky in press). Researchers holding

different approaches agree that the difference between the transitive and the antipassive verb constructions relates to the status of the logical object argument. This suggests that antipassive verbs in some languages license the object but the grammatical realization of this licensing differs from that of a transitive verb (Polinsky in press). Wunderlich (2001) proposes a formal representation of the antipassive construction which assumes that antipassive is transitive by nature but the internal argument is covert.

- (66) Antipassive: a. Voice  
Aff( $\text{pro}_{\text{case}}$ )  
b. {[Ag(x) & VERB(e)] & Aff(pro)}  
(Wunderlich 2001)

### 6.5.1 The antipassive suffix

The rich derivational morphology in Parakuyo realizes different argument alternations, and also argument suppression in antipassive, passive and middle verb constructions, among others, all associated with distinct morphology and semantics. Antipassive in Parakuyo is principally encoded by the antipassive suffix *-ifo/itho* in the imperfective and *-ife/ithe* in the perfective aspect. Diachronically, the antipassive suffix has been associated with the closely related semantics of the middle and reflexive verb constructions, (see example (67b) and (68b) for middle/antipassive interpretation). In the example (67a) below, an agent and a theme argument occur whereas in the antipassive construction in (67b), only the agent occurs. The theme is contextually implied; hence, in the example in (67), the theme compatible to the normal discourse context can be ‘beer’ but also it can mean that he is drinking all sorts of drinks. The antipassive form of the verb *ok* ‘drink’ cannot be if the theme of the event is *enkare* ‘water’, for example. The three examples in (67) demonstrate the respective active, antipassive and impersonal passive constructions illustrating their morphological and syntactic distinctiveness.

- (67) a. *e-ok Ndoikai olbiarr* (active)  
e-drink Ndoikai beer  
‘Ndoikai drinks beer’
- b. *e-ok-ifo Ndoikai* (antipassive)  
3-drink-APAS Ndoikai  
‘Ndoikai is drinking’  
‘Ndoikai drinks’



- (69) *e-yier-ifo endasat*  
 3-cook-APAS woman  
 the woman is cooking

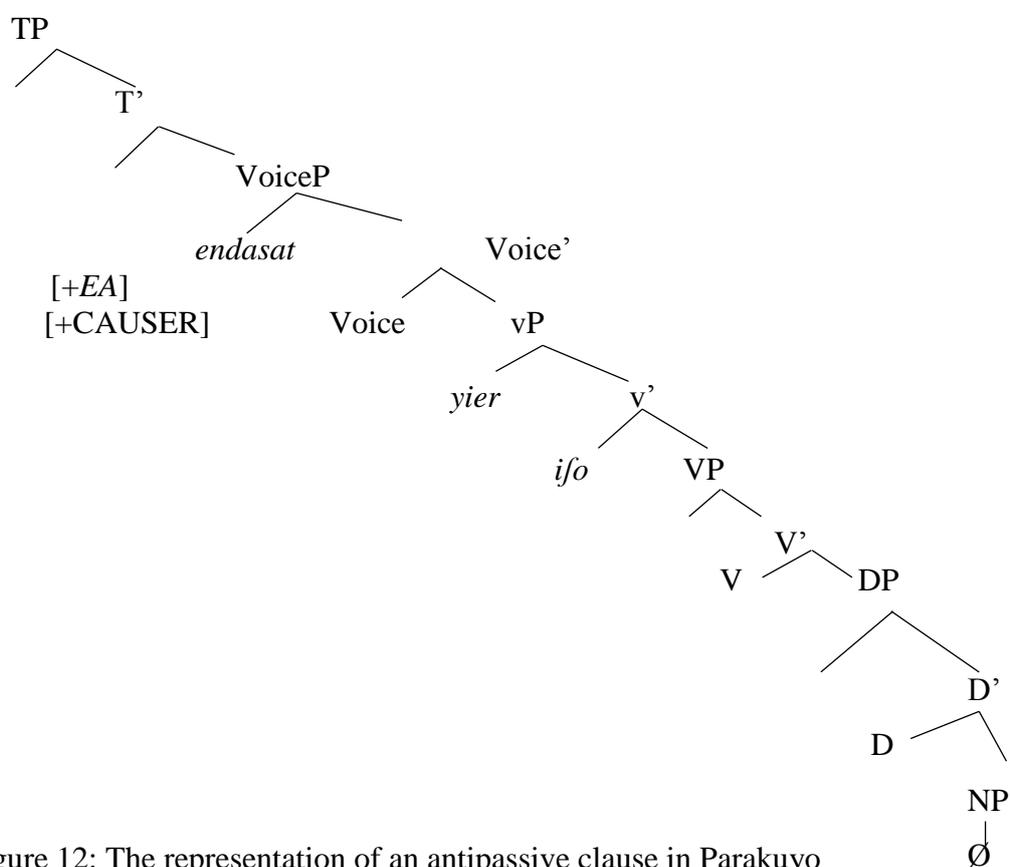


Figure 12: The representation of an antipassive clause in Parakuyo

### 6.5.2 Purpose clauses in antipassive constructions

A purpose clause can occur as modifier in an antipassive verb construction in Parakuyo, denoting the reason or the motive for the agent to do something. The clause that is adjoined in the matrix clause is introduced by a subjunctive morpheme *pe*.

- (70) *e-isom-ifo endito pe-iim mitihani*  
 3-read-APAS girl SUB.pass examination  
 The girl reads so that she passes examination

The reading yielded by the antipassive entails focus of the agent argument. This view is supported by the diagnostic test employed to determine whether the subject argument of the purpose clause can refer to the subject argument of the matrix clause. This diagnostic can also be invoked to establish the presence of an implicit object, if any, in the antipassive construction.

In the example (71a), occurrence of the purpose clause yields clause ungrammatical because it refers to an object argument, rather than the agent subject.

- (71)
- a. *e-raŋ-ifo endasat \*pe-ŋida mŋera*  
3-sing-APAS woman SUB-happy PL.child  
'The mother sings so that children get happy'
  - b. *e-raŋ-ifo endasat pe-niŋ iltuŋanak*  
3-sing-APAS woman SUB-hear people  
'The mother sings so that she is heard by the people'
  - c. *e-raŋ-ifo endasat pe-ŋorruni*  
3-sing-APAS woman SUB-like-INCH  
'The mother sings so that she is liked'

The sentence in (71b) is acceptable in that the subject in the purpose clause is co-referential with the matrix clause subject agent. It cannot refer to an argument (different from the subject) not realized in the clause as illustrated in the ungrammaticality of (71a). Thus, the subject argument of the main clause controls the subject argument of the subjunctive clause. This correlates with the view that the antipassive suffix makes the verb intransitive and that an implicit argument is present. The following set of clauses demonstrates that an inanimate argument cannot occur as subject argument in the subjunctive clause. In the unacceptable clause (71b), the subject argument of the subjunctive clause is *enkurruma* 'field' contrasting with the human subject *olee* 'man'.

- (72)
- a. *e-tur-ifo olee pe-tum endaa naleŋ*  
3-plough-APAS man SUB-get food a.lot  
'The man ploughs so that he gets a good harvest'
  - b. *e-tur-ifo olee \*pe-itai enkorma endaa naleŋ*  
3-plough-APAS man SUB-produce field food a.lot  
'The man ploughs so that the field produces good harvest'

Other kinds of modification of the subject argument of antipassive verb constructions include agent or initiator-oriented and manner adverbials. Some adverbials are referred to as initiator-oriented rather than agent-oriented for the reason that non-agent causers also occur as subject arguments in antipassive verb constructions. Instrument-causer arguments such as *enkalem* 'knife' or *olkembe* 'hoe' occur as subjects; hence, they assume the causer role in the eventuality denoted by the verb. When manner adverbials occur in an antipassive verb construction with

an instrument as subject argument, the resulting interpretation is similar to that of a middle verb construction.

- (73)
- a. *e-tur-ifo oiḡoni naleḡ*  
3-plough-APAS ox a.lot  
'This ox ploughs a lot'  
Lit. 'The ox has a lot of energy; hence, it works a lot'
  - b. *e-gwat-iḡo ena alem sidai*  
3-carve-APAS this knife well  
'This knife carves better/nicely'
  - c. *e-isuj-iḡo endasat akiḡni*  
3-wash-APAS woman slowly  
'The woman washes slowly'

However, antipassive verbs can also be modified by other adverbials for example temporal and frequency and adverbials, among others.

### 6.5.3 The locative in antipassive constructions

A locative PP can modify the clausal verb in antipassives in Parakuyo. In the following sentence, it is evident that a locative argument is introduced by the preposition. The preposition that introduces the locative DP in Parakuyo is *tV*, denotes 'in' or 'at'. This preposition identifies the spatial location where the event takes place. If the locative appears in the antipassive construction, then it has to occur at the periphery of the clause in a PP, that is, the object is introduced as an oblique argument in the clause. Consider the following examples.

- (74)
- a. *e-iteḡen-iḡo ḡlpadiri te kanisa*  
3-teach-APAS priest in church  
'The priest is teaching in church'
  - b. *e-yer-iḡo yieyio ti aḡi*  
3-cook-APAS mother in house  
'My mother is cooking in the house'
  - c. *e-isom-iḡo entito to oldarasa*  
3-read-APAS girl in class  
'The girl is reading in the class'

By contrast, antipassive semantics cannot obtain in the example sentence in (75) where the locative argument is not introduced by a preposition, as is illustrated by the unacceptability of the following clause.

- (75) *e-isom-ifo entito \*oldarasa*  
 3-read-APAS girl class  
 Intended: ‘The girl is reading in the class’

Similarly, a generic habitual or progressive aspect reading of the antipassive is possible only if the antipassive suffix occurs. Unless, a specified context for possible interpretation obtains, the clause in (76) is semantically anomalous.

- (76) *e-isoma entito \*(empalai) to oldarasa*  
 3-read (letter) girl letter in class  
 ‘The girl reads (the letter) in the class’

A possible context in which (76) could be felicitous is when it acts as a response to a question, for example, ‘where did the girl read the letter?’ The reply then can be ‘the girl read the letter in the class’.

In Parakuyo, the antipassive verb construction can allow the corresponding active transitive verb object to appear as a locative noun in a PP. Consider the following clauses in (77a) and (b).

- (77) a. *e-ilim-ito endasat enkorma*  
 3-weed-PROG woman field  
 ‘The woman is weeding the field’  
 b. *e-ilim-ifo endasat te enkorma*  
 3-weed-PROG woman at field  
 ‘The woman is weeding at the field’

In the above antipassive verb construction, the direct object argument of the verb is being realized as a locative phrase by introducing the locative with a preposition *te* in a PP. This presents support for the view that the antipassive construction provides the progressive aspect interpretation in Parakuyo. The differences between these constructions pertain to the properties of the progressive suffix *ito* and the antipassive suffix *ifo*.

#### 6.5.4 Instrumental PPs in antipassive constructions

In Parakuyo, the antipassive construction can have a PP with an argument that receives an instrumental role, as proposed here. Thus, the covert object that is excluded by the antipassive suffix is the argument, which assumes the theme/patient theta role. Rather than having, for example, *enkurruma* ‘field’ the PP introduces an instrument in the event, as illustrated in (78).

- (78) *e-tur-ifo*      *ɔlpayian to ɔlkembe*  
 3-plough-APAS man    with hoe  
 ‘The man is ploughing with the hoe’

The clause in (79a) expresses the reading of the instrument used by the agent. In the second example, the DP in brackets (theme/patient), which could denote the direct object argument, is not allowed; hence, the sentence is ungrammatical because an overt object of the verb appears.

- (79) a. *e-naŋ-ifo*      *ilayiok to isoitok*  
 3-throw-APAS boys with stones  
 ‘The boys are throwing stones’  
 ‘The boys throw stones to people’
- b. *e-naŋ-ifo*      *ilayiok (\*iltunganak) to isoitok*  
 3-throw-APAS boys    people            with stones  
 Intended: ‘The boys are throwing stones to people’
- c. *e-naŋ*      *ilayiok iltunganak to isoitok*  
 3-throw PL.boy people with PL.stone  
 ‘The boys will throw stone to people’

If a subject agreement affix occurs in the verbal morphology, it is also possible for a lexical subject argument to be dropped if it can be understood in discourse context. The third person subject agreement prefix represents the agent (even though implicit) as the verb’s subject argument. This construction occurs if the event represents new information or focus. It is possible for the antipassive suffix to co-occur with the impersonal suffix, as in (80).

- (80) a. *e-naŋ-ifo*      *to isoitok*  
 3-throw-APAS with stones  
 ‘They are throwing stones’

- b. *e-naŋ-iŋo-i*                      *to isoitok*  
 3-throw-APAS-IMP with stones  
 ‘There will be stoning’  
 ‘There will be throwing stoning at people’

### 6.5.5 The DPs subject in antipassive constructions

In addition to the agentive subjects in antipassive constructions, an instrument argument may occur as grammatical subject. Thus, subjecthood in Parakuyo antipassive constructions is not restricted in terms of animacy or semantic role properties. The middle voice interpretation is possible in clauses with instrument arguments, as in (81). Two possible readings obtain, namely that the knife can be cutting by itself, or that an implicit agent is using it to cut.

- (81)            *e-duŋ-iŋo*            *enkalem*  
 3-cut-APAS    knife  
 ‘The knife cuts’

The below example illustrates that the antipassive verb can licence an agent and an instrument such as *enkalem* ‘knife’ to co-occur if the instrumental suffix *-re* is suffixed after the antipassive suffix. This is in line with the view stated above that, the antipassive is morphosyntactically intransitive; hence, does not license the structural realization of a direct object argument. Although the latter in Parakuyo, as demonstrated in the following example, is semantically implicit, the antipassive suffix verb can co-occur with other suffixes, such as the instrumental. In this case, the direct object argument is introduced by the instrumental suffix. Therefore, the view that the antipassive does not license a direct object argument holds.

- (82)            *e-duŋ-iŋo-re*            *entito enkalem*  
 3-cut-APAS-INST    girl    knife  
 ‘The girl will cut with a knife’

### 6.5.6 Aspectual type properties in antipassive verb constructions

Concerning aspectual types in Parakuyo antipassive verb constructions, different interpretations obtain depending on the aspectual properties of a clause. The anticausative predicate can express habitual, progressive, or perfective aspect and future time. The antipassive has an imperfective correlation with other aspectual meanings specifically the inchoative, inceptive, durative, progressive and iterative. However, these properties are not

common in all languages (see Tchekoff 1987, Cooreman 1994, Dixon 1994 Dowty 1991, Tsunoda 1981, Spreng 2010, 2012 and Polinsky in press).

### 6.5.6.1 The perfective suffix *ife*

The perfective suffix in the antipassive construction in Parakuyo is realized as *ife/ihe*. It differs from the imperfective form in the final vowel *e*, while the vowel *o* occurs in the imperfective. In addition, the perfective morpheme *tV* also occurs with some verb roots with the antipassive suffix *ife*. It is evident that the antipassive suffix occurs in both morphological verb classes, (Class I & II) in Parakuyo. However, the perfective *tV* does not occur with all Class II verbs as the antipassive suffix does. Thus, in such constructions, the perfective aspect is encoded by two morphemes, namely the verbal perfective prefix *tV*, and the antipassive suffix *ife*, for perfective. Consider the following examples.

- (83)
- a. *e-te-fet-ife*                      *ɔlpayian tiaŋ*  
3-PFV-build-APAS.PFV man      home  
‘The man built at home’
  - b. *e-tu-tur-ife*                      *ɔltrehta*  
3-PFV-plough-APAS.PFV tractor  
‘The tractor ploughed’
  - c. *e-irrag-ife*                      *Sam too ingaŋitie*  
3-sleep-APAS.PFV Sam in home.PL  
‘Sam slept in some homes’

However, when an intransitive is derived from a transitive verb, the perfective affix has dual morphological encoding. In the second person plural, the verb *kitaŋifote* renders an intransitive reading, that is, ‘we sang’. The example in (84b) illustrates the transitive version of the clause with an object, while in (84a) the object is omitted due to the antipassive suffix.

- (84)
- a. *ki-ta-raŋ-ifo-te*                      *te enda aji ɲole kewarie*  
2PL-PFV-sing-APAS-PFV at that house yesterday night  
‘We sang in that house yesterday night’
  - b. *ki-ta-raŋ-a*                      *osingolio ɲejuk ɲole*  
2PL-PFV-sing-PFV song      new yesterday  
‘Yesterday, we sang a new song’

### 6.5.6.2 The imperfective suffix *ifo*

The antipassive suffix *-ifo* is associated with various interpretations with regard to the aspectual distinctions it encodes. Thus, verbs with the suffix *-ifo/iho* can yield different interpretations in the imperfective aspect relating to progressive (that the event is ongoing), habitual (it always happens) and future time (it will happen) properties. The ambiguity can usually be resolved by the occurrence of additional temporal adjuncts specifically, adverbials for example, *ofi* ‘always’, ‘often’, *tenakata* ‘now’ *taisere* ‘tomorrow’ in the clause. In addition to the habitual and progressive readings that obtains, adverbials add emphasis, since the clause without the adverbial can still denote both interpretations of habitual and progressive. The readings for progressive and imperfective aspects in antipassive verb constructions have also been attested in other languages, such as Georgian (Authier and Haude 2012). The only adverbial, which yields a specific interpretation, is the future time adverbial *taisere* ‘tomorrow’, as demonstrated in (85c).

- (85)
- |    |   |                  |                   |                                     |
|----|---|------------------|-------------------|-------------------------------------|
| a. | <i>e-ri-f-iho</i>                           | <i>ofi</i>       | <i>olaignanak</i> | <i>(habitual/generic statement)</i> |
|    | 3-reconcile-APAS always councillors         |                  |                   |                                     |
|    | ‘The counsellors always reconcile’          |                  |                   |                                     |
|    | ‘The counsellors are reconciling’           |                  |                   |                                     |
| b. | <i>e-er-ifo</i>                             | <i>ofi</i>       | <i>enda kiteŋ</i> | <i>(habitual)</i>                   |
|    | 3-fight-APAS always that cow                |                  |                   |                                     |
|    | ‘That cow often fights/hits’                |                  |                   |                                     |
| c. | <i>e-igwan-ifo</i>                          | <i>ewau</i>      | <i>taisere</i>    | <i>(future time)</i>                |
|    | 3-advise-APAS grandmother tomorrow          |                  |                   |                                     |
|    | ‘The grandmother will advise tomorrow’      |                  |                   |                                     |
|    | ‘The grandmother will be advising tomorrow’ |                  |                   |                                     |
| d. | <i>e-sir-ifo</i>                            | <i>ololorika</i> | <i>(tenakata)</i> | <i>(progressive)</i>                |
|    | 3-write-APAS chairperson now                |                  |                   |                                     |
|    | ‘The chairperson is writing (right now)’    |                  |                   |                                     |

The occurrence of the antipassives in habitual aspect denotes a situation, or expresses the properties of a subject if the subject is inanimate. The modification of the antipassive verb by a manner adverbial yields a middle interpretation, as exemplified in (86a). The reading obtains of a general statement that expresses a fact about a certain entity. A habitual reading is salient in these sentences since they denote an event that happens frequently or a state that is true all the time.

- (86) a. *e-sir-ifo ele kalamu sidai* (antipassive/middle)  
 3-write-APAS this pen well  
 ‘This pen writes well’  
 ‘This pen is writing well’

In some languages, verbs that permit the antipassive suffix are classified as perception or emotion verbs (Cooreman 1994). However, in the Parakuyo lexicon, these verbs appear to be distributed in various lexical-semantic verb classes, although a considerable number of psych-verbs permit the antipassive suffix. Generally, any two-place verb is more likely that it can permit an antipassive suffix, which then derives in an antipassive verb, which can allow a PP or adverbial modification. In this regard, it can be pointed out that the antipassive suffix in Parakuyo is also syncretic with detransitivizing affixes such as the anticausative, reflexive, reciprocal, middle and passive suffixes.

Table 34: Eventuality features of some verb constructions

(Verb examined: *duj* ‘cut’, *turr* ‘plough’, *fol* ‘melt’, *tumo* ‘meet,’ *igwan* ‘advise’)

Features	ACT	APAS	INCH	MID	IMP	REF	REC
Dynamic	√	√	√	x	√	√	√
Stative	√	x	x	√	√	√	√
Durative	√	√	√	√	√	√	√
Non-durative	√	x	√	√	?	?	√
Telic	√	√	√	√	√	√	√
Atelic	x	√	x	x	√	√	√
Causative	√	√	√	√	√	?	√
Anticausative	√	√	√	√	x	√	x
Resultative	√	x	√	x	√	?	x
Accomplishment	√	√	√	√	√	√	√

Table 35: Causativity and arguments distribution

Constructions	Examples	Gloss	CAUS	ANTICA US	Ext arg	Inter arg	Both Ext&Int
IMP	<i>eboli oldirifa</i>	the window will be opened	√	x	?	√	x
MID	<i>etabole oldirifa</i>	the window opened	x	√	x	√	x
REF	<i>etumore Joni Esta</i>	John will meet Estha	x	√	√	√	√
INCH	<i>efolu Joni eilata</i>	John will make/melt fat	√	√	√	√	√
REC	<i>etumo Joni oo Esta</i>	John and Estha will meet	x	?	√	√	x
APAS	<i>efolifo endasat</i>	The woman melts/makes fat	√	x	√	x	x

Table 35 presents a distribution of arguments in relation to causativity in some constructions. The aim is to demonstrate arguments that are allowed in different verbal extensions like impersonal passive, middle, reflexive, inchoative, reciprocal and antipassive. However, this types of verbs may not be exhaustive in showing all the possible options of arguments occurrences but can provide a basic structure of each construction.

### 6.5.7. Antipassive suffix combinations

Antipassive verbal construction co-occur with instrumental suffix with a wider range of verbs. In such combinations, the antipassive sense remains while the instrumental introduces the instrument with which the event is performed.

#### 6.5.7.1 Antipassive and instrumental

The reverse order combination is called reverse because the ‘templatic’ order of the suffixes is different from the canonical affix order of Parakuyo. The linear order of affixes in the verbal phrase is largely regular. However, there are few examples that demonstrate a different behaviour whereby a suffix that usually occurs in the final position can follow another suffix that usually appears in the final position in the verb morphology. These final suffixes have been labelled as closing suffixes by some researchers (Manova 2010b, Manova and Aronoff 2010). Thus, one would not expect to find an instrumental following an antipassive suffix because the antipassive is a closing suffix. Consider the following examples.

- (87) a. *e-nap-ifo-re endasat olkaraha*  
 3-carry-APAS-INST woman cloth  
 ‘The woman carries things using the cloth’
- b. *e-isom-ifo-re enkerai enkaji e baba*  
 3-read-APAS-INST SG.child SG-house of father  
 ‘The child reads in my father’s house’

The above examples illustrate exceptions but they are worth noticing since they are common in conversations. Notice that not all possible morphosyntactically realized combinations have been discussed in Parakuyo.

This study established that, in Parakuyo, closing suffixes include the impersonal, middle, reflexive and reciprocal. They are categorized as closing because they tend to appear in the final position in the verbal morphology and they do not allow further extensions with other suffixes.

Consider the following Voice representation of the antipassive verb construction in Parakuyo.

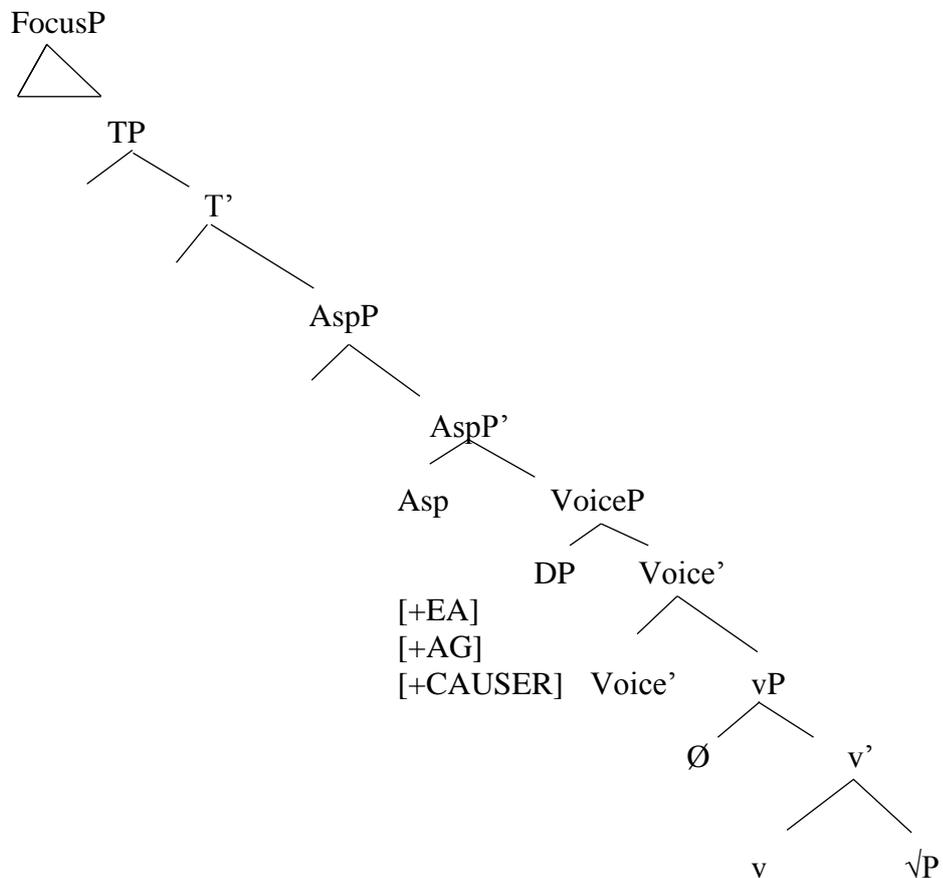


Figure 13: The syntactic representation of antipassive in Parakuyo

Table 36: The distribution of arguments and clausal modifications in Parakuyo

	CAUS	INST	DAT	MT	MA	IMPR	MID	REF	INCH	REC	APAS
Agents	√	√	√	√	√	x	x	x	√	√	√
Instruments ( <i>subj</i> )	√	√	x	√	√	x	x	x	√	x	√
Instrument PP ( <i>te</i> ‘with’)	√	√	√	√	√	√	√	x	√	x	√
Causers ( <i>subj</i> )	√	x	√	√	√	x	x	x	√	x	√
Causer PP ( <i>te</i> )	√	x	x	x	x	√	√	x	√	x	x
Causing events ( <i>subj</i> )	√	x	√	√	√	x	x	x	√	x	√
Causing events PP ( <i>te</i> ‘from’)	√	x	x	x	√	√	√	x	√	x	x
Natural forces ( <i>subj</i> )	√	x	√	√	√	x	x	x	√	x	√
Natural forces (PP)	√	x	x	x	x	x	√	x	√	x	x
By itself ( <i>open</i> )	x	x	√	√	√	x	√	√	√	x	x
Reason/purpose clause ( <i>pe-</i> )	√	√	√	√	√	√	x	√	√	√	√
Agent-oriented adv.	√	√	√	√	√	√	x	√	√	√	√
Initiator-oriented adv.	√	x	√	√	√	x	x	x	√	x	√
Event-orient adv.	√	√	√	√	√	√	√	√	√	√	√
Result-oriented adv.	√	x	x	√	x	x	x	x	√	x	x
Manner-oriented adv.	√	√	√	√	√	√	√	√	√	√	√
for/in ( <i>te/tiatua</i> )	√	√	√	√	√	√	√	√	√	√	√
Reflexive pronoun <i>subj/obj</i>	√	√	√	√	√	x	√	√	√	√	√

Table 37: Affix combinations in Parakuyo

Number of affixes		CAUS	INST	DAT	MT	MA	IMP	NETR	REC	APAS	Total combinations
Two affixes	CAUS		√	√	√	√				√	5
Three suffixes	CAUS			DAT+IMP DAT+REC DAT+INST	CAUS+INST	MA+INST MA+IMP					3
Two	INST				√	√	√				3
Two	DAT		√				√		√		3
Three suffixes	DAT		INST+IMP					NETR+INST			2
Two	MT		√				√		√		3
Three suffixes	MT		INST+IMP					NETR+INST			2
Two	MA		√				√				2
	INCH						√	√			2
	APAS		√				√				2

## 6.6 Summary

In this chapter, I examined four distinct Parakuyo verb suffix constructions, namely the reflexive, the reciprocal, the inchoative and the antipassive. These verb constructions were examined with respect to various properties including their morphological realization, lexical-semantic content and pronouns. Some of these verb constructions are closely related to each other, for example, both the reciprocal and reflexive interpretations for some verbs can obtain in a single clause. The section presented an account of morphological and syntactic strategies of reflexivity in Parakuyo. The reflexive suffix introduces an internal argument with some verb classes whereas the reflexive pronoun transposes the internal argument thematic role to the subject argument. For each type of reflexive construction, I examined the verbal suffixes and the arguments occurring in the construction. Concerning the arguments, the focus was on the status of the external argument in the clause. I investigated the question of whether the external argument is realized overtly or covertly in the construction. In addition, I explored for each construction the kinds of modification that are allowed with the particular verbal suffix in Parakuyo.

Section 6.2 investigated the properties of reflexive verb constructions in Parakuyo. Reflexive constructions in Parakuyo are realized in three different structures. The first relates to naturally reflexive verbs, that is, verbs that have inherent reflexive semantics in their root meaning. Verbs like *tum* ‘meet’, *ɲutut* ‘kiss’ and *yam* ‘marry’ are reflexive in nature. Although the reflexive suffix occurs with these verbs in their intransitive forms, they cannot occur in a transitive form without a reflexive pronoun that is co-referential to the argument of the reciprocal verb. This argument may be absent because of the lack of a plural subject argument or reflexive reciprocal verbal suffix. The reflexive pronouns *kewán/ate* and *opeɲ/oopeɲ* ‘him/herself/themselves’ are used for emphasis when the reflexive verb is encoded by a suffix, or to express reflexivity in verb constructions where the reflexive suffix is absent. The third strategy relates to the reflexive suffix *rV* that is affixed to the verb final position.

Section 6.3 examined reciprocal verb constructions in Parakuyo. Reciprocal verb constructions express mutual events acted upon two arguments in the event. Reciprocals are closely related to reflexives, with the difference that reflexives do not involve two arguments in the same events acting upon each other. In the verbal morphology, reciprocity is denoted by the suffixes

*a, ro, no, o* in the imperfective aspect and the same suffixes with the suffix *-ote* in the perfective aspect. However, not in all verb categories are the reciprocal suffixes permissible. The investigation demonstrated that these morphemes are compatible with the reciprocal verbs like *ruk* ‘agree’ *tum* ‘meet’. In addition, the dative and reciprocal suffixes occur with transitive verbs to allow dyadic reciprocals. In the dative and reciprocal combination, two interpretations obtain, namely reciprocal and reflexive in some verb constructions. Reciprocal pronouns, corresponding to reflexive pronouns, are employed for specificity in some verb constructions, which as a result may be ambiguous since it merges reference of the object and the subject argument into one plural argument. The occurrence of pronouns is essential in resolving ambiguity in addition to their use for emphasis purposes. It is evident that these pronouns demonstrate unique properties in their distribution in clauses in that each pronoun appears in a particular position, such as clause-initial, medial and clause-final position. Lastly, apart from the dative and reciprocal combination, motion away and reciprocal combinations are also attested in Parakuyo.

Inchoatives in Parakuyo, as explored in section 6.4 are of three types. Type I comprises of the verbal root and the inchoative suffix *-u/i/* in the imperfective aspect, and the suffixes *ua/uo* in the perfective aspect. Type II consists of the verbal root and the inchoative suffix *-u* and the neuter suffix *ne*. I proposed that type III encompasses a combination of a causative prefix *-itV*, verbal root and the inchoative suffix. These three realizations of inchoativity realize the principal function of inchoativity of denoting the beginning of the event or process or some change of state. It was demonstrated that the two classes of verbs, however, have different morphological and lexical semantic properties that result in the use of expressing a certain type of inchoativity. Most of the internally caused change of state verbs in Parakuyo do not co-occur with an external argument. However, in some cases they do co-occur with a causer argument in a clause. The lexical-semantic property of an argument that appears as an object argument in an inchoative verb construction has to exhibit some features that can change during or after the change of state denoted by the verb. In the examination of inchoatives, it emerged that material-arguments are suitable for some verbs whereas other verbs (result-oriented verbs) take product-arguments. Telicity and aspectual verb type are key properties in the interpretations of inchoative verb constructions. Some verb constructions realize completeness of the event while others exhibit stages of the event during the change of state process.

The antipassive verb suffix in Parakuyo has been examined in regard to the syntactic and semantic effects of this suffix to the clausal structure. I identified various properties of the antipassive in Parakuyo. First, antipassive are encoded by the suffix *ifo/ iho* for verbs in the imperfective aspect and *ife/ihe* for verbs in the perfective aspect. This suffix is a detransitivizing suffix in that it changes transitive verbs into intransitive verbs in that it excludes the overt occurrence of the object argument of the clause. Hence, in general, the core structure of the antipassive comprises of the agent DP and the verbal phrase, while the object argument of the verb is suppressed. Purpose clause modification has been employed in determining the presence of an implicit internal argument. This investigation concludes that no evidence for an implicit argument is found. Similarly, other modifications with adverbials are restricted to modification of the agent or the event. However, locatives can occur as optional adjuncts in the clause when introduced by a preposition. Although the agent subjects are common in antipassive constructions, instrumental subjects can also occur. This suggests that other causers and causer events are permissible in antipassives in Parakuyo.

## CHAPTER SEVEN

### SUMMARY AND CONCLUSIONS

#### 7.1 Introduction

This chapter presents the summary and conclusions of the study, focusing on the core investigation chapters, that is Chapters Four, Five and Six. These three chapters constitute the main body of the study in regard to the data analysis, discussions and findings on various verb suffixes in the Parakuyo dialect. The study aimed to investigate in particular the questions posed in the introductory chapter. The central focus of this investigation was concerned with the different realizations of verb arguments triggered by verbal affixes in a range of verb constructions. The various kinds of argument realizations and alternations triggered by different verbal affixes, have been grouped into three types, examined in Chapter Four, Five and Six, respectively. Section 7.3.1 presents a summary and conclusions on argument introducing affixes, and section 7.3.2 presents the summary and main conclusions drawn from the verbal affixes that suppress the external argument in Parakuyo. Lastly, section 7.3.3 offers the summary of the key issues from the discussion and findings in Chapter Six, on the Parakuyo verbal suffixes that do not affect the external argument but affect the internal argument in the verb construction.

A multi-perspective framework has been employed in this study for the reason that different morphological and syntactic operations taking place in the Parakuyo grammar cannot adequately be expressed using a single framework within a broad generative grammar theory. Among other frameworks, Distributed Morphology has been assumed since it is suitable for providing an account of the argument alternation properties of constructions introduced by verbal derivational affixes, and the inflectional morphology, such as person, number, and gender agreement. Cartography makes provision for a Foc(us) and Top(ic) Phrases as assumed for the discourse-pragmatic representation in syntax of, for example, the subject argument in the anti-passive. The ‘little’ *v* (associated with the respective suffix) relates to the functional category Voice (which introduces the external argument, i.e. agent/cause argument, or theme/patient which moves to the Spec of Voice position from the internal object position. This is possible if the suffix specifies suppression of the external argument which are necessitated in providing a comprehensive account of the nature of the various argument realisation of the various derivational verb constructions in Parakuyo-Maasai.

## 7.2 General overview of the study

The current study is constituted of seven chapters of which four chapters explore the grammar of the Parakuyo dialect with two general goals. The first goal relates to the documentation of Parakuyo grammar given that Parakuyo is an undescribed. In this chapter, I examine various grammatical aspects, relating to the phonology, morphology and syntax including different word categories, Parakuyo. In section 2.2, an analysis and description of the sound system is given, that is, the vowel and consonant system has been examined. The data suggest that Parakuyo has nine short vowels. It has also been demonstrated that long vowels are contrastive in Parakuyo. The vowels occur in two sets differentiated by  $\pm$ ATR vowel harmony, where four vowels are specified as -ATR the other set has four +ATR vowels, and the ninth vowel <a> is ATR neutral. Concerning the consonants, in Parakuyo, 22 consonant symbols have been identified in section 2.2.2.

In Chapter Two, in section 2.3, I explored the Parakuyo noun morphology particularity person, number and gender features. These features have been discussed in regard to adjectives and for different kinds of pronouns. This investigation gives evidence that nouns, adjectives, pronouns, (demonstrative, possessives and person pronouns) and some numerals exhibit number, gender prefixes in Parakuyo. Thus, these agreement features create agreement patterns with other modifiers. Hence, for an adjective to modify a feminine or masculine noun, it must also exhibit a masculine or feminine inflectional prefix to agree with the gender features of the noun it modifies.

The different verbal affixes were briefly discussed in 2.6.1 to identify the range of derivational affixes that occur with verbs in Parakuyo. This descriptive analysis demonstrated that a derivational verbal affix acts as a reflex of the argument realization, the verb construction. Since the core of the current study is concerned with the interface between Parakuyo verbal affixes and argument structure, in-depth investigation of the Parakuyo verbal suffixes were reserved for Chapter Four, Five and Six. Thus, section 2.6.1 presented a discussion of a table with derivational verbal affixes that occur in Parakuyo. These include the causative prefix *itV*, for Class I verbs and the suffix *-ie* for Class II verbs, the instrumental suffixes, namely *-yie*, *-ie*, *-ye*, and *-ne*, which occur with verbs that end with vowels, and the suffixes *-ie* *-rie* and *-te* that occur elsewhere. Dative suffixes increase the number of arguments in the verb construction

by introducing a beneficiary, patient/they, goal or locative argument. The dative suffixes are *-aki* and *-oki* for present tense, subjunctive and imperative while the dative suffixes *-aka* and *-oko* occur with perfective aspect verb constructions. With other dative verbs suffixes *-ikia* and *-ikio* suffixes occur.

Motion away suffixes are *-aa*, *-oo* for the imperfective, *-ayie*, *-aya* *-oyo*, *-oyie*, for the perfective, *-ai*, *-oi* for subjunctive and imperative singular, while *-ai-ti* or *oi-ti* occurs for plural arguments and *-yie/itie* for the perfective aspect with Class II verbs. Motion towards suffixes are *u* in the imperfective aspect and *-ua* or *-uo* for the perfective aspect. These directional morphemes express motion towards the speaker or another point of reference. The findings suggested that reflexive suffixes *-re*, *-ro*, *-ri* (hence *rV*) are a reflex of the object argument of the predicate. The inchoative suffixes occur in inchoative verbs in Parakuyo to express a change of state denoted by the verb. Various inchoative suffixes occur with Parakuyo, namely *-u*, *-i* and *-ju* for the imperfective aspect and *-ua* or *-uo* for the perfective aspect.

The description of the Parakuyo grammar demonstrates that the antipassive suffix *iho* or *ifo* occurs in the imperfective aspect while *ife* or *ihe* occurs in the perfective aspect. In regard to argument realization in the antipassive verb construction, it was stated that the antipassive suffix suppresses the internal argument of the verb. The antipassive construction permits only the subject argument to surface in a clause and suppresses the object argument. The reciprocal suffixes, *-a*, *-ro*, *-no*, *-o*, reduce or decrease the number of arguments in a clause by transposing the reference of object argument to the clause subject argument by merging the two arguments of the reciprocal verb into a single plural DP. Another argument-suppressing suffix is the middle which deletes the external argument of the verb. Middle suffixes (*-a*, *-o*, *-e*, *-ai*) occur with the middle verb construction and suppress the agent argument. This yields the reading that the subject argument acts on its own as the agent and theme. Lastly, the impersonal passive suffixes suppress the external argument of the verb but differ from the middle suffixes in that the impersonal verb satisfies key diagnostics for the presence or absence of an implicit argument in the clause. Impersonal suffixes in Parakuyo are *-i*, *-tai/toi*, *-yy*, *-ki*, *-ri*, and *-ni*. The distribution of these suffixes with different verbs depends on the morpho-phonological properties of the verbs.

Other syntactic categories discussed in Chapter Two include adjectives and adverbs in section 2.7 and 2.8, respectively, morphosyntactic properties of prepositions in section 2.9,

conjunctions in section 2.10, ideophones in section 2.11 and interjections in section 2.12. The VSO clause structure in Parakuyo was discussed in section 2.13, where exemplification was given of verb-subject-object word order and adverbial modifications that occur in Parakuyo. Exceptional word order is allowed when focus or topicalization of certain information is intended by the speaker. The last section investigated negation strategies in phrases and at the clause level in section 2.14. Two negation morphemes, namely *itu* and *mV* were examined in appropriate contexts. Both these negative morphemes can occur in isolation or as enclitics in the phrases that they negate. That is, they can occur conjunctively with the word they modify especially in spoken and written language. In a predicative context, the negative element *itu* provides a reading similar to ‘no’ or ‘not’ as an answer to a question.

The second main part of this study was concerned with presenting the theoretical perspectives and principles in the analysis of the Parakuyo verbal suffixes. Generative grammar perspectives and other theoretical approaches have been employed in the analysis of the verbal affixes in relation to argument structure in various verb constructions. The main theoretical perspective drawn from Minimalist Syntax was reviewed in section 3.4.1 and other theoretical perspectives that complement each other including Cartography was discussed in section 3.4.3, Distributed Morphology in section 3.4.4, ‘little’ *v* and Voice theory in section 3.4.5.1 and 3.4.5.2 respectively. The Distributed Morphology theory posits that syntax is the only generative mechanism that governs derivation of words in which the morphological operations are distributed, rather than being condensed in a separate component. Therefore, Distributed Morphology was employed to provide an account of the nature of functional heads in a verb construction in this study.

## **7.3 Summary of the major findings of the study**

### **7.3.1 Summary on arguments introducing affixes**

In Chapter Four, I investigated five types of verb suffix constructions in Parakuyo, each of which increases the number of the verbs arguments in the clause. These various affixes thus introduce an internal or external argument when affixed to a verbal root. The principles of the Distributed Morphology theory on functional morphemes were invoked especially the ‘late insertion’ principle, which posits where the categorization of the verbal construction is realized after the insertion of a verbal affix. In Distributed Morphology theory, verbal affixes are viewed

as verbalizers with different functions, one being to categorize roots as verbal and second, to introduce the (internal and external) arguments in a clause. Thus, affixes establish a causation relationship among the arguments in the event denoted by the verb. The findings demonstrated that labels for the verbal constructions that appear in Parakuyo invoke a combination of semantic contents of both the root and the verbal affix. The lexical-semantic properties of the verbs combine with the semantic properties of functional categories for a complete verbal meaning in a clause.

In causative verb constructions, a distinction is made between inherently causative verbs, internally caused change of state verb, and externally caused change of state verbs. Most of these verbs alternate in Parakuyo, including internally caused change of state verbs, which do not readily alternate in other languages. The analysis suggests that internally caused change of state verbs can alternate, giving evidence of a silent instigator of the event, for example, *esugari* ‘sugar’ *enkirobi* ‘mist’ and other elements that act as catalysts or triggers of internal causation of an event/process within another entity. These kinds of silent non-overt causers of internally caused change of state verbs can appear as subject DPs in an externally causative alternation, for example, *eitoŋwa esugari ilalak* ‘sugar rots teeth’. These verbs can be placed into the anticausative/causative alternation contrast. Internally caused change of state verbs e.g. *bul* ‘blossom’ can allow an indirect or silent causer in Parakuyo, resulting in the causative/inchoative alternation.

In Parakuyo, typical change of state verbs that do not require the causative affix occur. These verbs are similar to the change of state verbs discussed by Levin (1993) that are inherently causative. In Parakuyo, the causative prefix in these verbs is a morpheme of the roots; hence, it cannot be separated. Other issues discussed regarding the causative relate to the thematic roles that are licensed by the affixes and the information structure in causative constructions. In terms of thematic role, it was stated that the causative affixes introduce an argument that occurs as an agent, causer, instrument-causer and causer-event in DPs subject arguments. Each particular semantic role realized in the causative verb construction depends on the lexical-semantic properties of the verb. The causer (i.e. causer, instrumental-causer, causer-event), but not the agent can occur as a PP adverbial in Parakuyo. With internally caused change of state verbs, the agent/causer can occur. This contrast with Levin and Hovav (1995) who maintain that internally caused change of state verbs do not alternate. This could also be attributed to the fact that some verbs demonstrate language specific properties that are distinct from the

properties of the same verbs in other languages. However, a verb construction can permit a causative affix but the external argument may not occur, for example, in a causative/impersonal combination. Lastly, the suffix combinations that extend the causative stems have been described briefly.

The causative construction with the prefix *itV* permits a combination of two suffixes to co-occur in a verb construction. A slot for the second affix (in a combination with a one-layer suffix) is occupied by the dative, motion away, motion towards, instrumental and antipassive suffixes. Thus, the causative prefix co-occurs with another suffix in the same verb construction. In such combinations, the causative prefix co-occurs with two suffixes in the verb morphology. Suffixes that can co-occur in combinations include (i) motion away and instrumental, (ii) motion towards and instrumental, (iii) motion away and impersonal, (iv) dative and impersonal, (v) dative and reciprocal and (vi) dative and instrumental. Various suffixes occur with the roots in projecting the syntactic heads in the clause in Parakuyo. These suffixes necessitate the occurrence of some arguments realized by syntactic operations. As proposed by Backer (1985) and others, the morphological operations trigger syntactic operations that stem from the predicate. The layering of these suffixes conforms to the Mirror Principle in that the instrumental follows the causative, which results in the causative and instrumental argument word order in a clause where the reciprocal and impersonal passive appear as closing-suffixes in the verb construction.

Section 4.3 offers a discussion on the instrumental suffixes. The instrumental suffix in Parakuyo verbs introduces one internal argument in a clause. The instrumental argument can denote an instrument, tool, means or reason, depending on the event semantics of the verb. With some inherent motion verbs, for example, *puku* ‘exit’ the instrumental argument assumes a locative or source thematic role. The current study demonstrates that other thematic roles are exhibited by an instrumental argument, for example, associative (matching two items), that is, a person with whom you talk or share something, and various idiomatic usages. The findings demonstrate that applied instrumental arguments in Parakuyo can appear as a DP or adverbials in PP with various lexical-semantic properties. The lexical semantic properties of the arguments can denote concrete, liquid, abstract (disease, idea), locative, reason, value, directional and associative entities as illustrated in section 4.3.2.

In a combination, the instrumental suffix permits two other suffixes to follow in two different verb constructions, namely a combination of the instrumental and the impersonal suffixes, *ie-ki* and the instrumental and the antipassive suffixes *ifo-re*, or their contextual allomorphs. These suffixes occur with both morphological verbs classes in Parakuyo, that is, Class I and II verbs. In addition, an instrumental suffix may denote idiomatic readings relating verb idiosyncrasies. The interpretations of some of the roles of the applied arguments introduced by the instrumental suffix depend on the discourse-pragmatic context. This verb idiosyncrasy may change the role of the instrumental suffix to, for example, a motion away reading. In regard to word order in an instrumental verb construction, the order of arguments entails that the instrument (or applied) argument precedes the patient/theme argument. Instrumental verb constructions can be modified by a reason or purpose clauses. These subordinate clauses denote the reason for the events to happen, or the rationale for its occurrence, if it occurred in the past. If the instrumental argument occurs as an optional adverbial PP in a clause, the verb cannot permit the instrumental suffix. Instead, the word order exhibited is the simple active verb stem, followed by the agent and the instrumental argument in a PP.

Section 4.4 explored the effect of the dative suffix on verb constructions in Parakuyo. The section investigated dative morphology and the semantic roles realized by the dative argument introduced in a clause. The thematic roles assigned to a dative argument can be beneficiary, patient, recipient, theme and goal. With some verbs, the dative can reduce or decrease the beneficiary argument when an idiomatic reading obtains, for example, with the verb *tum* ‘get’ *atumoki*. The order of arguments and the possible change of argument realizations and alternations in the dative verb construction have also been examined. The order of arguments in the dative verb construction comprises of at least three arguments, namely the subject, the object, indirect object or oblique arguments. This hierarchy of arguments order mirrors the hierarchy of semantics roles, that is, agent-beneficiary-theme (see section 4.3.2 for discussion). With verbs, for example, *ncoo* ‘give’ the subject argument co-occurs with two objects or an oblique introduced by oblique *te*.

The findings established that in Parakuyo, the order of arguments in dative verb constructions is agent-beneficiary-theme-locative/instrumental. The locative and instrument argument occupy the same verb template slot in the verb in a complementary distribution. The dative can license four arguments in a clause, without the use of PP adjunction, for example, with the verb

‘fill’ *é-igáŋ-àki entito enkerai kule enkikombe* ‘The girl will fill the cup with milk for the child’ where the order of thematic roles is agent-beneficiary-theme-locative. Other suffixes can combine with the dative suffix, as discussed in section 4.4.2. Thus, in the dative verb construction combinations occur of (i) the dative-reciprocal, (ii) dative-instrumental, (iii) dative-impersonal, (iv) dative-instrumental-impersonal and (v) the dative-neuter-instrumental.

The motion away directional verbal suffixes express the direction the predicate takes in motion, as discussed in sections 4.5. They occur with different categories of motion verbs and non-motion verbs. In other words, these verbs can denote the direction or some motion away reading from the speaker or towards some point of reference. The speaker is not the point of reference but rather some other point of reference, depending on the discourse-pragmatic context. Semantically, the motion away suffix is a space-deictic reference element that expresses directionality with verbs in that it denotes a going away motion in relation to some point of reference or deictic centre. Semantically the deictic centre can be realized as a goal, destination or locative.

The study presented an extensive discussion of motion away suffixes regarding their distribution. The analysis suggested that they are suffixed to verbs that are not inherently motion directed verbs. Motion directed verbs like *wou* ‘come’ and *fomo* ‘go’ do not permit the motion away suffix. With activity verbs, the motion away suffix yields the reading that the agent does the action denoted by the verb while moving away from the point of reference to some other direction. If the motion away suffix occurs with a verb, it has some syntactic ramifications in that some intransitive verbs become transitive as exemplified by the verb *rap* ‘sing’ *rapaa osingolio* ‘sing the song as you walk away’.

The clause structure shows that a motion away suffix with ditransitive verbs requires three argument, namely the subject, direct object, indirect object or oblique arguments. The second object can be a DP or a PP that can realize various semantic roles. This object argument can be an instrumental, locative or goal/destination argument depending on the lexical-semantic properties of the verb. In contrast to the motion towards suffix, which expresses some achievement or resultant state of the event, motion away provides a random atelic interpretation, with the verb *gwat* ‘carve’, for example. With ditransitive verbs, the motion away suffix renders a plural reading to the event denoted by the verbs. This entails that the

internal argument of the predicates is pluralized. In addition, idiosyncratic properties of verbs yield motion away related notions to the verbs that are not directly related to motion, for example, an associative reading that obtains from verbs such as *eibunjaa* ‘carry it away with you’, *eifopoo* ‘dress in a certain way’. In Parakuyo, a few motion related verbs seem to be compatible only with a motion away suffix but not a motion towards suffix. Motion away verb constructions can allow a combination of motion away, impersonal and motion away-instrumental suffix verb to co-occur. The combination of the impersonal suffix suppresses the external argument while the one with an instrumental increases the internal arguments. In terms of Voice theory perspectives, the representation of motion away and impersonal suffix combination does not vary in terms of argument structure given the structural representation of the impersonal construction, as discussed in Chapter Five.

Section 4.6 presented an account of the motion towards suffix verb constructions in Parakuyo. The study gives evidence that the motion towards suffix verb re-orient the structure of arguments in a clause and introduces a location or destination argument in DPs and PP. Noticeable differences with some verbs that permit the motion towards suffix in terms of the aspectual verb type or event structure in the sense that some motion towards verb constructions yield the reading that focuses on accomplishment. As is the case with the motion away suffix, the study established that a number of non-motion verbs permit the motion towards suffix without a typical directional reading. Verbs such as *aon-u* ‘to bite’ *aor-u* ‘to grab’ *ajnaŋ-u* ‘to buy’ express the event of moving some item to the speaker’s possession. The third cluster represents motion and a few non-motion verbs that allow only the motion towards suffix but not the motion away suffix. Motion towards suffixes can co-occur with other suffixes as attested in the Parakuyo dialect in two categories as demonstrated in section 4.6.1. First, it permits one additional suffix namely reciprocal, neuter, impersonal, and instrumental. Second, two suffixes can follow the motion towards suffix, namely the instrumental and impersonal as one combination, and the neuter and instrumental, as another one.

### **7.3.2 Summary of external argument suppressing affixes**

The second major part of the current study was concerned with the investigation of argument-suppressing suffixes, with special attention to the external argument examined in section 5.2 and 5.9. Both the impersonal and middle suffixes suppress the external argument in Parakuyo. Each section begins by describing the verb morphology in which the suffix appears. Different

morphemes with their allomorphs were described. The first suffix investigated was the impersonal in section 5.2. This suffix entails that the external argument is not allowed to occur overtly in any environment in the clause. The impersonal suffix disallows the agent to occur as a subject DP or as a PP in the clause. However, by employing the syntactic diagnostics for external argument in a clause, the analysis suggests that there is evidence of an implicit external argument in the Parakuyo impersonal.

The diagnostics employed relate to different clause modifications, namely licensing of a *by*-phrase in section 5.6.1, causer, instrument-causer and causer-event PP modification in section 5.6.2 and licensing of a *by*-itself phrase in section 5.6.3. Other clause modification diagnostics include the purpose or reason clause, as discussed in section 5.6.5, agent-oriented adverbials modification in section 5.6.4 and instrumental PPs modifications discussed in the impersonal in section 5.6.6. With regard to the investigation of clauses with the syntactic diagnostics, it was demonstrated that the impersonal constructions in Parakuyo do not allow the agent argument in a *te*-phrase, which is a preposition phrase similar to English *by*-phrases. However, some event causers are permissible in Parakuyo, for example, the causer PPs denoting natural forces, namely ‘the sun’, *enkoloŋ*, *encan* ‘rain’ do occur in a clause as optional constituents with verbs such as *dry* and *grow*, respectively. By contrast, some natural forces like *olkutati* ‘wind’ are not licensed in the same clause structure that ‘the sun’ and ‘the rain’ occur. The reason for this difference could relate to the lexical-semantic properties or idiosyncratic nature of certain verbs.

Furthermore, a purpose or reason clause is permissible in impersonal verb constructions in that the subject of the matrix clause controls the purpose clause in the impersonal construction in Parakuyo. Impersonal constructions allow agent-oriented adverbials. This entails that the diagnostics are invoked to establish support for the view that an implicit agent can be posited for impersonal constructions in Parakuyo, hence whether the findings in this regard provide grounds for the view that instrumental PPs may occur in an impersonal clause. This issue has been examined in section 5.6.6. The examination of the syntactic diagnostics provided evidence that impersonals allow instrumental PPs, for example, *te enkalem* ‘with a knife’.

Section 5.9 examined middle constructions in Parakuyo by invoking theoretical perspectives from Kratzer (1996) and Alexiadou et al. (2015) relating to models of ‘little’ v and Voice theory, in particular. Parakuyo middle verb constructions occur with the suffixes *-e*, *-a*, *-o* and

*-ai* suffixes. The middle suffix *-ai* expresses middle and modality interpretations. Except for middle constructions that permit the suffix *-e* for telic readings, other middle constructions denote atelic events. The findings demonstrated that verbs that are not morphologically encoded for middle can render middle interpretations that express a general statement in the habitual aspect. Middles can present a reflexivity reading entailing that the subject itself effected the change of state denoted by the verb. The Parakuyo data investigated confirmed support for the view of positing an unspecified implicit agent. For middle verb constructions subject DPs and PPs introduced agents may result in semantic anomaly in middle constructions. Middle and anticausative predicates allow manner-oriented and result-oriented adverbial modification. A middle verb can be modified by both a manner adverbial and a PP adverbial that expresses a locative or instrument argument. Some manner adverbials like *akijni* ‘slowly’ can appear in the initial, medial or clause-final position. Other manner adverbials, for example, *sidai* ‘nicely’ are restricted to clause-final position only and are unacceptable in clause-initial and clause-medial position, as exemplified in section 5.11.1.

In addition, the findings give evidence that middles in Parakuyo allow a postverbal reflexive pronoun in a clause that yields a reading similar to English *by-itself* phrase. Thus, a preposition equivalent to *by* does not co-occur with a reflexive pronoun. The reflexive pronoun optionally occurs for emphasis purposes by modifying a verb with a reflexive pronoun. This postverbal reflexive pronoun denotes that the subject effected or performed the event by itself without any help from an external force. The analysis also suggested that the reflexive interpretation occur with anticausatives, particularly with internally caused change of state verbs. Similarly, middles permit causer PPs denoting the instigator of the event. These causers demonstrate unique properties expressing the reading that it facilitated the event indirectly, as in *eteyere endaa te enkima* ‘the food cooked on fire’. Apart from causer PPs, middles also allow instrument adjunct, for example, *key* (section 5.11.5), instrumental-causer, causer-event discussed, in section 5.11.6 and locatives PPs, for example, *te endim* ‘in the forest’ *te enkima* ‘on/with fire’, depending on the lexical-semantic properties of the combination of a verbal root and the middle suffix.

Middles allow pure instruments PPs that yield the reading that the entity caused the change of state it/him/herself or by themselves, for example, *etabole enkaji to ofunguo* ‘the house opened with the key’ *etuduje enkironjo te enkalem* ‘the meat cut with the knife’. Unlike other languages (Schafer 2006), pure instruments can occur as subjects in transitive verb constructions in

Parakuyo. To derive a middle verb clause from such constructions, the instrument must be introduced by a PP, resulting in argument alternation, as discussed in section 5.11.5. PPs with *tV*-phrases closely equivalent to English *from*-phrases, can introduce an argument which indirectly facilitates an event denoted by internally caused change of state verbs, for example, in *bul* ‘bloom’ and *nay* ‘wilt’ verbs. Inchoative verb constructions in Parakuyo demonstrate lexical-semantic properties compatible with agentivity diagnostics. The inchoative and causative-inchoative alternation constructions realize agent, instrument, causer and causer as the arguments in the variants. Thus, the causative-inchoative alternants can also have causers or initiators of the event in PPs as optional adjuncts as illustrated in section 6.4.3. The modifications permitted in inchoative verb constructions include event-oriented adverbials and purpose clauses. Agent-oriented adverbials are permitted to appear in the clause-final position.

### 7.3.3 Summary on verbal suffixes affecting the internal argument

In chapter 6, I examined four different Parakuyo verb constructions, namely the reflexive, reciprocal, inchoative and the antipassive. These verb constructions are realized by using various morphosyntactic strategies, including their morphological elements, lexical-semantic properties and pronouns. Some of these verb constructions are semantically closely related to each other, for example, both reciprocal and reflexive interpretations can obtain in a single clause with a reciprocal or reflexive verb. Section 6.2.1 and 6.2.2 provided an account of morphological and syntactic strategies of reflexivity in Parakuyo. The reflexive suffix is co-referential to the internal argument with verbs from some verb classes whereas the reflexive pronoun transposes the reference of the internal argument thematic role to the subject argument. For each of the reflexive construction, I investigated verbal suffixes and the types of arguments that occur in the construction. Concerning arguments, the focus was on the nature of the external argument in the clause. I investigated the question of whether the external argument is realized overtly or covertly in the construction. In addition, I explored for each constructions the kinds of modification that are grammatically and semantically acceptable in the particular construction in Parakuyo.

Reflexive constructions in Parakuyo are realized in three structures. The first kind relates to naturally reflexive verbs, that is, verbs that have inherent reflexive semantics in their root meaning. Verbs like *tum* ‘meet’, *ηutut* ‘kiss’ and *yam* ‘marry’ are reflexive in nature. Although the reflexive suffix occurs with these verbs in their intransitive forms, they cannot occur in a

corresponding transitive form without a reflexive pronoun expressing the reading of a reciprocating argument, which may be absent because of a non-plural subject, or reciprocal verb suffix. The reflexive pronouns *kewán/ate* and *opej/oopej* ‘him/herself/themselves’ are used for emphasis where the reflexive is encoded by a suffix, or to encode reflexivity in verb constructions where the reflexive suffix is absent. The third kind of construction relates to the reflexive suffix *rV* that is affixed to the verb-final position.

Section 6.3 examined reciprocal verb constructions in Parakuyo. These verb constructions express a mutual event acted reciprocally by two arguments in the event. Reciprocals are closely related to reflexives, with the difference that reflexives do not involve two arguments in the same events acting upon each other. In the verbal morphology, reciprocity is denoted by the suffixes *a*, *ro*, *no*, *o* in the imperfective aspect and the same suffixes and the suffix *-ote* in the perfective aspect. However, the reciprocal suffixes are not permissible with all verb categories. The investigation demonstrated that these morphemes are compatible with reciprocal verbs like *ruk* ‘agree’ *tum* ‘meet’. In addition, dative and reciprocal suffixes occur with transitive verbs to form dyadic reciprocals. In verb constructions with the dative and reciprocal combination, two interpretations obtain, namely reciprocal and reflexive. Reciprocal pronouns, corresponding to reflexive pronouns, are employed for denoting specificity in some verb constructions, which, as a result, may be ambiguous, since it merges the object and the subject argument into one plural argument as discussed in section 6.2.2, 6.3.2 and 6.3.4. The occurrence of pronouns is essential in resolving ambiguity in addition to use for emphasis purposes. In addition, these pronouns exhibit certain properties of occurrence. It is evident that they demonstrate unique properties in their distribution in clauses in that each pronoun appears in a particular position, such as clause-initial, medial and clause-final position. Lastly, apart from dative and reciprocal suffix verb combination, motion away and reciprocal suffix combinations are also attested in Parakuyo.

Inchoative verb constructions in Parakuyo, as explored in section 6.4 are of three types. Type I inchoative verbs comprises of the verbal root and the inchoative suffix *-u/i/* in the imperfective aspect, and the suffixes *ua/uo* in the perfective aspect. Type II consists of the verbal root and the inchoative suffix *-u* and the neuter suffix *je*. Type III inchoative verbs, I proposed encompasses a combination of a causative prefix *-itV*, verbal root and the inchoative suffix. These three realizations of inchoativity have the function of denoting the beginning of the event or process or some change of state. It was demonstrated that the two classes of verbs in

Parakuyo have different morphological forms and lexical semantic properties that result in various ways of expressing inchoativity. Internally caused change of state verbs in Parakuyo usually do not co-occur with an external argument. However, in some cases they do co-occur with causer arguments in a clause. The lexical-semantics of an argument that appears as an object in the inchoative verb construction has to exhibit some features that will change during or after the change of state denoted by the verb. In the examination of inchoatives, it emerged that material-arguments are suitable for some verbs, whereas other verbs (specifically result-oriented verbs) take product-arguments. Telicity and aspectual verb type are key properties in the interpretations of inchoative verb constructions. Some inchoative verb constructions realize completeness of the event while others exhibit stages of the event during the change of state process.

Antipassive verb constructions in Parakuyo have been examined in section 6.5 in regard to the syntactic and semantic effects of the verbal suffix to the clausal argument structure. I identified various properties of the antipassive in Parakuyo. First, antipassives are encoded by the suffix *ifo/ iho* for verbs in the imperfective aspect and *ife/ihe* for verbs in the perfective aspect. This suffix is considered a detransitivizing suffix in that it changes transitive verbs into intransitive verbs in that it excludes the overt occurrence of the object argument of the clause. Hence, the general structure of the antipassive comprises of the agent the DP and the verb phrase, given that the object of the clause is suppressed. Purpose clause modification has been invoked determining support for the view of an implicit internal argument but no indication of such an implicit argument is found. Similarly, other modifications like adverbials are restricted to modifying the agent or the event. However, locatives can occur as optional adjuncts in the clause when introduced by a preposition. Although the agent argument appears to be dominant in antipassive constructions, instrumental subjects can also occur as subject DPs or oblique PPs. This fact suggests that other causers and causer events are also permissible in antipassives in Parakuyo.

## **7.4 Concluding remarks**

The current study presented a twofold investigation of the Parakuyo dialect. The first goal of the study was to present a brief descriptive analysis of the Parakuyo dialect. The descriptive analysis of the morphosyntactic properties of Parakuyo provided empirical data for the theoretical analyses and discussions of different phenomena conducted in Chapters Four, Five

and Six. This documentation of the theoretical and empirical properties of Parakuyo aimed to contribute to the general body of knowledge in Nilotic linguistics. In terms of the second goal, the study invoked theoretical perspectives from generative grammar especially the Minimalist Syntax and other frameworks, namely Distributed Morphology, Cartography, ‘little’ v and Voice theory, among others, in the investigation of Parakuyo verbal affixes. It has been identified and described that the external argument is suppressed in impersonal and middle. These theoretical approaches were employed in the analysis of Parakuyo verbal suffixes invoking the interfaces between the linguistic sub-fields of morphology, syntax, lexical-semantics and discourse-pragmatic. The study invoked relevant theoretical perspectives in accounting for verbal affixes and the realization of arguments in Parakuyo clauses. The investigation focused on the argument alternations in sentence constructions that result from the presence or absence of the verbal affixes in Parakuyo verb constructions. The summary in the sections above recapitulated the key findings of this study pertaining to the investigation invoking lexical morphological and syntactic interfaces invoked in accounting for different realizations and suppression of arguments by various verb suffixes in Parakuyo clauses. The findings of the study on the verb constructions contribute to theoretical developments in research on neuter, middle, impersonal, antipassive and reflexive verb constructions cross-linguistically.

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