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A RECONSTRUCTION OF THE PROTO-RUTARA TENSE/ASPECT SYSTEM

by

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School of Graduate Studies

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THE PROTO-RUTARA

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ABSTRACT

This study begins by locating the Rutara subgroup in the major group of Lacustrine, and by showing its internal relationships, lexicostatistically, phonologically, lexically, and morphologically. All these show that Rutara is a coherent linguistic group that originates from one common ancestral language labelled as Proto-Rutara. Out of this have evolved most of the differences that distinguish its daughter languages today. Following the classification of Rutara languages, a basic description of the tense/aspect (T/A) systems for eight languages of the group is presented. The description takes a cognitive approach, partly stemming from Guillaume's concept of chronogenesis (which concerns the mental time image and stratification of the development of verbal systems from simple to more complex forms), in the light of historical and comparative linguistics. Thus, the description has two levels: first, the analysis of the basic meanings of various T/A formatives, from simple forms to complex and compound markers, which constitute various T/A systems in the eight sample languages studied and, second, a comparative study of these formatives and markers across the group. The analysis surveys and reveals both the basic as well as the extended functions of the formatives, from a morphosemantic, morphosyntactic, and cognitive point of view. Consequently, the study proposes the levels at which the development of T/A in the Rutara languages exists.

From the cognitive point of view, the mechanisms behind the apparent asymmetry found, for instance, in the markers for Past and Future tenses, as well as in the Persistive and Progressive aspects are explained. Similarly, various cognitive and psychosemantic reasons

for the innovation of different T/A markers, and reasons for combining simple formatives to create complex markers are also established. It is argued that these processes led to the mechanism of recycling and reassigning formatives in terms of their functions, alongside phonological, morphological and semantic changes in the system(s). These complex and recycled verbal systems have created a number of distinctive tenses and aspects, most of which are characterised by morphological syncretism. Finally, the Proto-Rutara T/A system is reconstructed. This study thus shows how different markers have developed diachronically into their contemporary forms.

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The list of people who helped or assisted me in various ways is so enormous that I cannot mention everyone. However, I must gratefully mention the following, in relation to this thesis: first, my supervisor, Dr. Derek Nurse and the members of the supervisory committee, Drs. Aleks Steinbergs and Vit Bubenik and, second, Adam O.H. Korogoto, Dr. John Hewson and Dr. Josephat M. Rugemalira. I also acknowledge the support I got from Sarah Rose, Christa Beaudoin-Lietz, Dr. Harold Paddock, Towhid bin Muzzafar, Dr. Sandra Clarke, Dr. Irene Mazurkewich, and Balla F.Y.P. Masele. Also, the names of Colleen Banfield, Lawrence Greening, and Drs. Carrie Dyck and C.M. Rubagumya have a place in my memory for their contribution. I would also like to thank both the University of Dar es Salaam, the School of Graduate Studies of the Memorial University of Newfoundland, and the Canadian Bureau for International Education for their financial support.

Finally, I have special thanks to my family, my wife Consolatha, my daughter Bibe Henrietta, and all others: I cannot find appropriate words to express my feelings. We all know how tough it has been for all these years; so, let us pray for a happy and prosperous reunion. Lastly, to the beloved ones who passed away, my mother Gaudencia and my best friend Benedict M. Barongo, and others: may you all rest in peace; I wish you had lived longer to see this ending.

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SYMBOLS AND ABBREVIATIONS

⊡	Unable to determine tone
1P/2P/3P	First/second/third person plural, respectively
1S/2S/3S	First/second/third person singular, respectively
A	Aspect(ual)
ACT	Actualiser
ADV	Adverb(ial)
AFF	Affirmative
APPL	Applicative
AV	Auxiliary (verb)
CAUS	Causative
COMP	Complement
CONSTV	Consecutive
CS	Central Sudanic
E/Nyanza	East Nyanza
E/RETV	Experiential Retrospective
ET	Event Time
FV	Final vowel
H1	Ruziba (Ruhaya)
H2	Ruhyoza (Ruhaya)
H3	Ruhamba (Ruhaya)
H4	Runyaihangiro (Ruhaya)
HAB	Habitual
IND	Indicative
LOC	Locative
MD	Mood/Modal
MP	Memorial Present
MV	Main verb
NEG	Negative/negation
NF	Near Future
N/Nyanza	North Nyanza
N&P	Nurse & Philippson (1980)
NOM	Nominal (class) marker; Nominaliser
NP	Noun Phrase
NPt	Near Past (tense)
Obj	Object

OM	Object marker
PB	Proto-Bantu
PCS	Proto-Central Sudanic
PERF	Perfect
PERFV	Perfective
PERS	Persistive
PF	Post-final
PI	Pre-initial
PR	Proto-Rutara
PRSC	Proto-Rift Southern Cushitic
PROG	Progressive
-R-	Verb root; Radical
R1	Runyoro
R2	Rutooro
R3	Runyankore
R4	Rukiga
R5	Runyambo
R6	Ruhaya
R7	Ruzinza
R8	Rukerebe
REL	Relative
RESLTV	Resultative
RETV	Retrospective
RF	Remote Future
RP	Remote Past
R/RETV	Remote Retrospective
SC	Southern Cushitic
SM	Subject marker
SN	Southern Nilotic
Sub	Subject
T	Tense
T/A	Tense/Aspect
TBU	Tone bearing unit
tE	event time (Time of event)
tR	Reference time
tS	Speech event time
UT	Universe Time
V	Verb
VU	Verbal unit
W/Highlands	Western Highlands
W/Nyanza	West Nyanza

NOTATIONAL CONVENTIONS

i. Vowels

Long vowels are represented by double vowel symbols as, [ii, ee, aa, oo, uu] for IPA's [iː, eː, aː, oː, uː], respectively. This follows a long tradition in Bantu linguistics.

ii. Consonants

The following are the phonetic symbols used in this study with their equivalent in the IPA: [č] = [ʧ], [ǰ] = [ʤ], [š] = [ʃ], [ž] = [ʒ], [ñ] = [ɲ], [y] = [j]. Other symbols used are: [p, b, t, d, c, ɟ, k, g], [ʦ], [ɸ, β, f, v, s, z, x, ɣ, h], [m, ɱ, n, ŋ], [r, ɹ, l, ɺ], [w]. N represents any nasal sound.

iii. Tone

Tone is only indicated in examples which apply to a single language. For those which represent the entire group or more than one language, tones are omitted because each language (or dialect in some cases) has its own tonal structure. Thus, intra-textual morphological examples which apply to several languages are presented in braces like {tu-ka-gur-a} 'we bought', or orthographically in italics as *tukagura* 'we bought', without indicating tones, which are language specific. If the tonal structure is similar for the languages concerned with a given example, then it is indicated as in {gúra} 'buy!'. The hyphens are used to indicate morpheme boundaries, for instance: {tu-aa-guz-ire} → [twaaguzire] 'we have already bought', and the brackets "()" indicate optional elements, thus: {n-a(a)-gur-a} → [naagura] ~ [nagura] 'I have (just) bought'.

Low tone is not marked, thus [i, ii, e, ee, a, aa, o, oo, u, uu, ei, ai, oi]. High tone is marked by the acute accent as [í, íí, é, éé, á, áá, ó, óó, ú, úú, éí, áí, óí], and falling tone by circumflex on mono-moraic segments or by acute and grave accents on bi-moraic segments, thus [î, íì, ê, éè, â, áà, ô, óò, û, úù, éì, áì, óì], respectively. The rising tone, which is mainly found in languages outside the Rutara group, is represented as follows: [ǐ, ìí, ě, èé, ă, àá, ǒ, òó, ŭ, ùú]. There are two more vowels found in the description, namely [ɪ, ʊ], with their variants in length and tone as illustrated for other vowels above.

iv. Liquid sounds

For convenience, "r" is used as a generic representation of liquid sounds in phonemic and/or orthographic examples that apply to the entire Rutara group. The same applies to "b" for the sounds [b, β].

v. Bantu language names

Bantu names are written with their initial markers {Ki-, Ke-, Si-, Ru-, etc.} mainly in order to avoid ambiguity, confusion and aberrant labels that arise from using the anglicised forms such as *Rundi*, *Tooro*, *Haya*, and *Rwanda*. The following list introduces all other possible names, as given in brackets, that are used in other studies, despite the fact that some of these labels are disturbing:

Chiruri (CiRuri, Ciruri, Kiruri, Ruri, Ruli); Kegusii (EkeGusii, EkiGusii, IkiGusii, Kigusii, Gusii, Guzii, Kisii); Kichaga (KiChaga, Dschagga, KiShaka, Chagga, Chaga); Kiha (KiHa, Giha, Ha); Kihangaza (KiHangaza, Gihangaza, Hangaza); Kiikizu (KiIkizu, Ikizu); Kijita (Ekijita, KiJita, Cijita,

Kejita, Jita); Kikuria (EkiKuria, KiKuria, Koria, Kurya, Kuria); Kikwaya (KiKwaya, Kwaya); Kinata (KiNata, Nata); Kingurimi (KiNgurimi, Ngurimi, Ngoreme); Kinyarwanda (IkinyaRwanda, KiNyarwanda, KinyaRwanda, Urunyarwanda, Runyarwanda, Nyarwanda, Nyaruanda, Rwanda); Kiregi (KiRegi, Regi); Kirundi (KiRundi, Ikirundi, Rundi); Kishashi (KiShashi, Shashi); Kishubi (KiShubi, Shubi); Kisimbiti (KiSimbiti, Kisimbete, Simbiti, Simbete); Kisukuma (KiSukuma, Sukuma); Kiswahili (KiSwahili, Swahili); Kivinza (KiVinza, Vinza); Kizanaki (KiZanaki, Zanaki); Luganda (LuGanda, Oluganda, Ganda); Lugwere (LuGwere, Olugwere, Gwere); Lulogooli (LuLogooli, Logoli, Ragoli, Maragoli); Lumasaaba (LuMasaaba, Masaaba); Lusaamia (LuSaamia, Saamia); Lusoga (LuSoga, Olusoga, Soga); Lwisuxa (LwIsuxa, Isuxa); Ruhaya (RuHaya, Oruhaya, Oluhaya, Ekihaya, Haya, Ziba); Ruhororo (RuHororo, Hororo, Etshihororo, Horohoro); Kikerebe<Rukerebe (KiKerebe, Ekikerebe, KiKerewe, Cikerebe, Kerewe, Kerebe); Rukiga (RuKiga, Orukiga, Oluciga, Rukiiga, Ruciga, Kiga, Ciga, Chiga); Runyambo (RuNyambo, Nyambo, Ekinyambo, Karagwe, Rukaragwe, Ururagwe); Runyankore (RuNyankore, Olunyankole, RunyaNkore, Lunyankole, Nyankole, Nkore); Runyoro (RuNyoro, Orunyoro, Lunyoro, Runyooro, Nyoro); Rusyan (RuSyan, Orusyan, Syan); Rutooro (RuTooro, Orutooro, Orutoro, Tooro, Toro); Ruzinza (RuZinza, Dzindza, Zinza).

CHAPTER ONE

1. INTRODUCTION

1.1. Introduction

While the study of Bantu languages is currently expanding, the most interesting part of the history of African linguistics, and the analysis of Bantu languages in particular, begins in the nineteenth century. It is interesting in that it launched the genetic classification of African languages and, hence, the inception of the term *Bantu* (from **mu-ntu/*ba-ntu* 'person/people'). The name, which has now been commonly accepted as a legitimate name (for a group of languages under the Niger-Congo family), was first introduced by Wilhelm H.I. Bleek in 1858 in his studies of South African languages. Since that time, there have been a number of studies on the analysis and classification of this language family. Most of these studies have either been based on, or influenced by, studies and principles used in analysing Indo-European languages. The most significant studies in the history of Bantu linguistics are by Wilhelm H. I. Bleek (from the 1850s), Sigismund W. Koelle (from the 1890s), Diedrich Westermann (from the 1910s), Malcolm Guthrie (from the 1940s), Joseph H. Greenberg (from the 1940s), and A. E. Meeussen (from the 1950s). While this thesis continues the tradition of analysing and classifying Bantu languages, the analysis developed here is founded on different theories from those used in the traditional cases, ones that have been applied to Indo-European languages in both synchronic and diachronic studies, but

which are also applicable to Bantu languages, particularly with respect to the development of tense and aspect (T/A), the primary focus of this study.

1.2. The linguistic area under study

This study deals with the East African Bantu languages spoken by communities located between Lakes Victoria, Kyoga, Albert and Edward (in Uganda and north western Tanzania including Ukerewe (Bukerebe) Island). Eight sample languages have been selected for the study. These languages, and a few others, form a genetic subgroup called Rutara, as a part of the area traditionally known as *Interlacustrine*, which others call *Interlake*.[1] The two terms are basically similar in the sense that they refer to the area surrounded by the lakes (hence "between waters") listed above. Rutara, in turn, is coordinate with other subgroups

---

[1] The system of naming Bantu language groups varies from one author to another. Thus, there is a need to make a selection of the labels to be used, while trying to avoid unnecessary proliferation of labels. With respect to Lacustrine languages, this study has adopted the following nomenclature, mainly based on more "traditional" labels and, at the same time, tried to avoid ambiguities or confusion.

Nurse & Philippson (1980), etc.	**Schoenbrun (1990), etc.**	**This Study**
Lacustrine	Great Lakes Bantu	Lacustrine
East Nyanza	Mara	Mara
Interlacustrine	Interlake	Interlacustrine
East Nyanza-Suguti	East Nyanza	East Nyanza
North Nyanza	North Nyanza	North Nyanza
Rutara	Rutara	Rutara
Western Highlands	Western Highlands	Western Highlands
Suguti	Suguti	Suguti
Luhya	Luhyia	Luhya

such as North Nyanza (N/Nyanza), Western Highlands (W/Highlands) and East Nyanza (E/Nyanza) to form the larger group Lacustrine. The Rutara languages dealt with in this study (underlined in Figure 1 and with estimates of their speakers in brackets) are:[2] Runyoro (495,443 *[1991]*), Rutooro (488,024 *[1991]*), Runyankore (1,643,193 *[1991]*), Rukiga

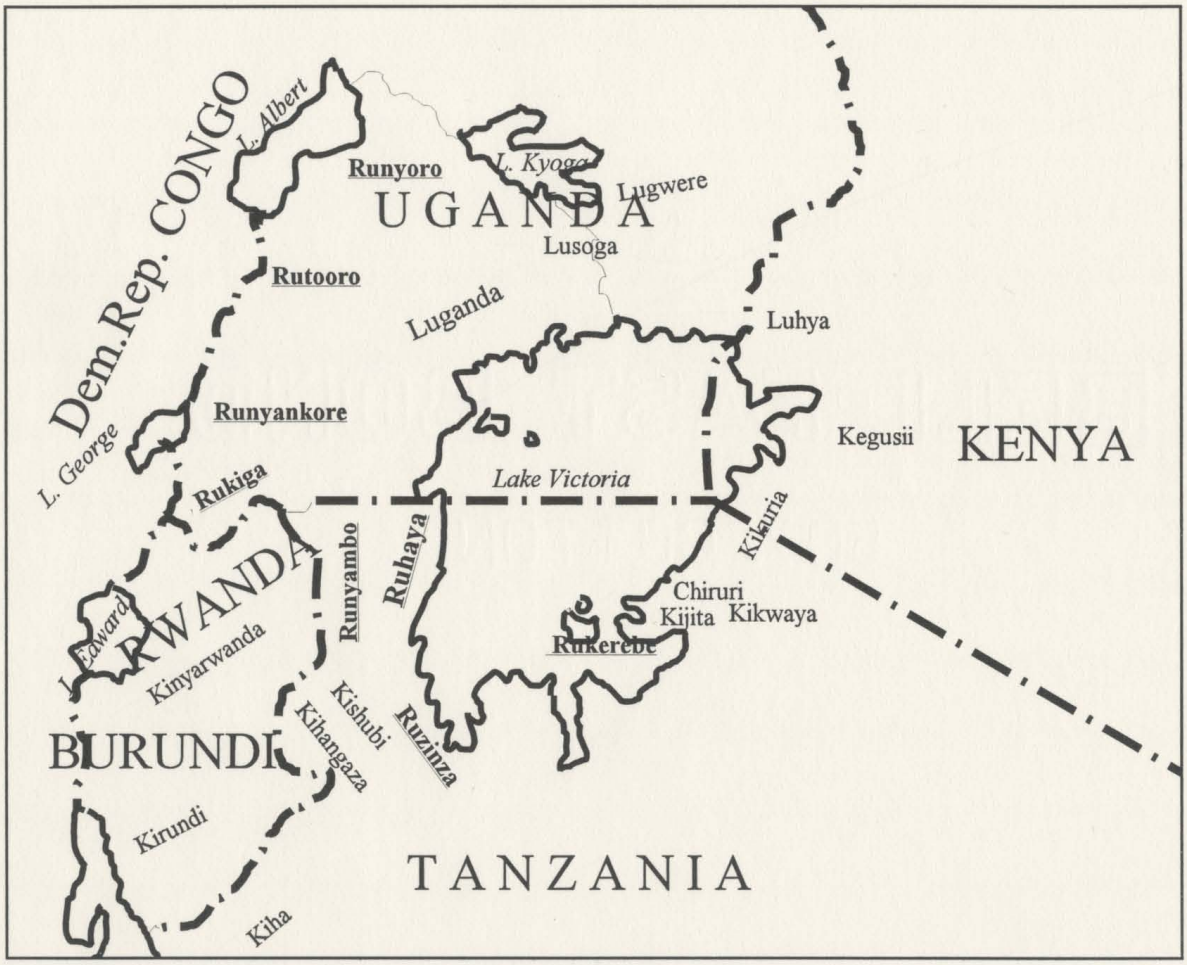

Figure 1: Rutara and some of the Lacustrine languages

[2] The estimates for Runyambo are from Rugemalira (1994), and the rest are from *http://www.sil.org./ethnologue/countries/Ugan.html*, and *http://www.sil.org./ethnologue/countries/Tanz.html*.

(1,391,442 *[1991]*), Runyambo (292,589 *[1988]*), Ruhaya (1,200,000 *[1991]*), Ruzinza (138,000 *[1987]*) and Kikerebe (hereafter referred to by the old name, Rukerebe) (100,000 *[1987]*); (*cf.* §2.3 and §2.4 below).

There is general agreement that Rutara is a genetic linguistic group (Nurse and Philippson 1980; Schoenbrun 1990). Other studies that at least have some focus on Rutara are Ladefoged *et al.* (1971), and Nurse (1979b). Heine's (1973) *Zwischenseen-Gruppe* 'Interlake Group', however, refers to a larger group which we call Lacustrine in this study. However, no general consensus has been reached so far as regards the genetic composition of the Lacustrine group, on the one hand, and the nature of coordination between the sub-groups that constitute Lacustrine on the other.[3] Two studies can be used to illustrate this point. According to Nurse and Philippson (1980), Lacustrine branches into three major coordinate groups, namely Luhya, E/Nyanza and Interlacustrine, which in turn branches into N/Nyanza, Western Highlands and Rutara (see Figure 2). On the other hand, Schoenbrun (1990), Lacustrine branches into five major groups, Luhya, Rugungu (a single-language group), Western Lakes, E/Nyanza, and W/Nyanza, which in turn branches into N/Nyanza and Rutara, as illustrated in Figure 3. In both models, Rutara forms a genetic group. They differ in two main respects: first, Schoenbrun further analyses the genetic relationship between the languages while Nurse and Philippson present the Rutara languages as a terminal node.

---

[3] For arguments and debate regarding the validity and genetic composition of Lacustrine, see Ehret *et al.* (1973); Mould (1976, 1981); Nurse and Philippson (1980); Schoenbrun (1990); Nurse (forthcoming); and Nurse and Muzale (forthcoming).

Figure 2: Lacustrine languages (N&P 1980), *mutatis mutandis*

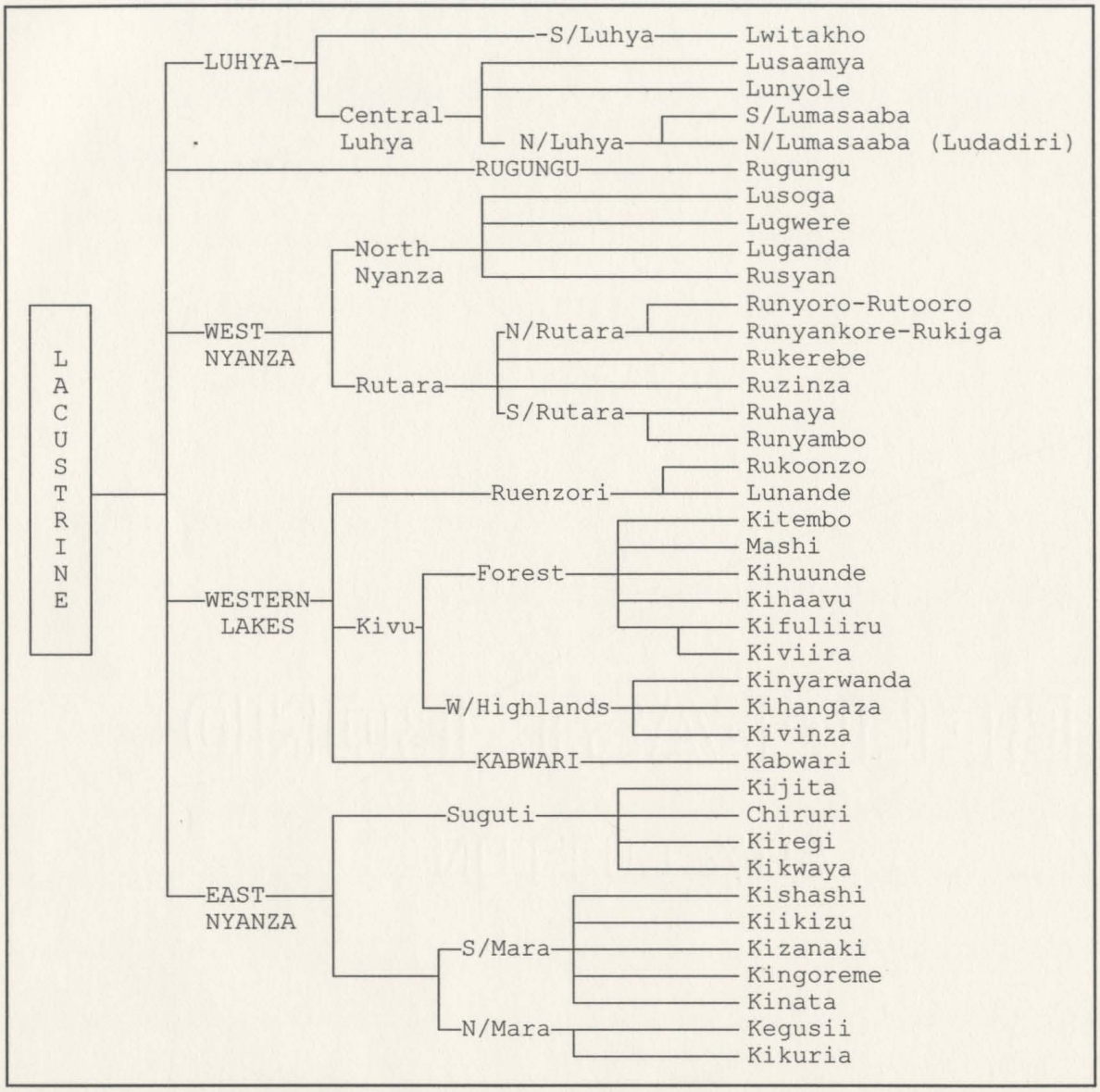

Figure 3: Lacustrine classification (Schoenbrun 1990), *mutatis mutandis*

Second, they differ in the way Rutara is viewed as it is coordinate with other subgroups to form Lacustrine. Moreover, Schoenbrun (1990) does not regard Interlacustrine as a genetic entity, based on his findings that the group has only one lexical innovation (*i.e.* 'animal fat') out of his 100-word list.

1.3. Aims of the study

The study aims mainly at achieving the following two goals, which are hierarchically related and interdependent:

A. To carry out a morphosemantic analysis of the tense/aspect (here after referred to as T/A) systems of the Rutara languages using a cognitive approach.

B. To compare the systems of the sample languages and then reconstruct a system for Proto-Rutara (PR).

C. To confirm that Rutara languages form a coherent genetic linguistic group.

1.4. Significance of the study

It is well known that lexicostatistics alone is not sufficient to justify the degree of genetic relationship between languages, especially when the figures are relatively low. For instance, Batibo (1982), in his review of Nurse (1979b), expresses major concerns about lexicostatistics, especially its unreliability when used exclusive of other methods, especially for Bantu languages. Consequently, some of the findings and conclusions from such studies are still tentative, while other studies have urged further investigation. Hinnebusch (1981:2), for instance, points out categorically that: "...it is expected that they [current hypotheses] will change as in-depth study of Bantu progresses and our knowledge of Bantu sound changes and morphosyntactic processes improve". Yet, not many intensive studies have been carried out since. Schoenbrun (1990) attempted to do so, but again used lexicostatistics.

Mould (1976, 1981) employed phonology and morphology to establish the genetic affiliation of Luhya to Lacustrine. Despite his interesting results, he points out the shortcomings of his study and thus suggests that there is "a need for more detailed analysis as well as a reexamination of both lexicostatistics and a broadening of the reconstruction of tense/aspect morphology" (Mould 1981:224). It should be pointed out, however, that his morphological analysis of the T/A system of Rutara uses one language only, Runyoro, which he claims represents Rutara but not necessarily the southern languages (meaning Ruhaya, Runyambo and Rukerebe). In this case, while the current study intends to start from where other studies like Mould (1981) left off, the following are its merits as compared to such previous studies:

A. It starts with the lowest level of subgroups, thereby paving the way for a better classification of higher level groupings, such as Lacustrine.

B. It uses a morphological approach that incorporates other components like phonology, rather than being based solely on the lexical component. The results of this morphological investigation can then be compared to the results of previous lexical and phonological studies, in order to test and establish points of similarities and differences.

C. It studies a system rather than less structured elements of language like lexical items and atomistic accounts of morphemes.

D. In order to accomplish (B and C), it takes a cognitive approach which takes into account the three major aspects of language analysis: form, function and

meaning. Thus, it starts with the formal and semantic analysis of the elements (formatives) and categories of the paradigm(s), then traces their functions and constraints, and the way in which they combine together to form a meaningful T/A system.

E. Mainly, but not exclusively, it studies the T/A system(s) from a historical and comparative perspective. This is crucial not only in understanding the history of the language(s) and T/A system(s) in particular, but also in accounting for the underlying principles that give rise to surface morphosyntactic structures, as part and parcel of genetic linguistics. This can only be achieved by tracing the processes of sound and morphological changes *vis-à-vis* the semantic and functional changes of linguistic elements within a system. As pointed out by Bybee, *et al.* (1994), a diachronic approach is desirable for at least four reasons: one, it greatly increases the explanatory power of linguistic theory; two, a language is not a static system and, therefore, grammatical meaning is changing constantly as well; three, the cognitive, semantic and communicative factors of the system that underlie grammatical meaning are very often and more clearly revealed by linguistic changes; four, the diachronic perspective reveals more reliably crucial similarities among languages in a comparative study like this one.

1.5. Methodology

This study relies on the proposition that genetically related languages exhibit some systematic linguistic relationships attributable to their common origin or genetic history. Systematic diachronic changes will leave systematic linguistic traces, phonological, morphological or morphosyntactic, that are crucial in the reconstruction of proto-language systems, especially for languages with an undocumented history such as the Rutara languages. This study starts with a firm assumption that Rutara languages share one ancestral language, at some point in their history. That is, Rutara languages are historically related and, therefore, any study, whether lexical, syntactic, morphological or semantic will inevitably lead to this conclusion. It is this shared ancestral language that we call Proto-Rutara and whose T/A system we attempt to reconstruct in this study.

This study combines phonology, morphology and semantics, to support the cognitive approach. Although phonology is central in most studies of language classification, similarity in phonological innovations between two or more languages does not necessarily mean that shared phonological rules are inherited. They could be due to the fact that those languages have been contiguous long enough for the rules to be transferred, a phenomenon that is very likely for the geographical area under study. It is for this reason that an approach that goes beyond lexis and phonology is called for, and its application in this study is as follows.

1.5.1. The phonological component

Firstly, previous studies are examined to establish basic patterns of phonological changes from Proto-Bantu to the contemporary languages (see §2.5). Using lexical lists (see §1.6), these patterns are re-examined briefly and modifications made accordingly. The study then establishes trajectories denoting phonological developments and changes across time (see §2.5.2). A comparison is then made between these changes among the languages under study. This in turn, leads to the process of distinguishing shared phonological innovations from shared retentions, which should pave the way towards the reconstruction of a phonological inventory of Proto-Rutara.

1.5.2. The morphological component

The study looks into the T/A systems of the sample languages by studying the forms, their basic meanings, extended functions, and areal distribution. The direction of analysis in this study is a bottom-to-top one, sometimes called working back upstream in time towards the origin. This approach makes it easier to establish the congruency of patterns at the lower level where the most closely related languages behave like dialects of the same language, for instance, Runyoro-Rutooro, Ruhaya-Runyambo and Runyankore-Rukiga (Taylor 1959, 1966, 1985; Rugemalira 1994). That is, it is easier for a comparative study to work from simple to compound and complex forms, and from a single language to a group and further to larger groups, than the opposite way round. The analysis itself is guided by the morphological structure of the systems. It searches to establish patterns of symmetry in a T/A system under

the hypothesis that any apparent asymmetry in a system is the result of a mismatch between the basic meaning of a formative and its new morphosemantic function(s) or assumed role(s) in the system, and that this mismatch is mainly a result of diachronic processes, changes or innovations. Two categories – tense and aspect – are examined in two paradigms: main clause affirmatives and main clause negatives, of both simple and compound verbal units (VUs). The analysis tries as much as possible to use the same verb stem(s) as well as the same functional and semantic labels of T/A across all the sample languages. One major verb is selected for the analysis of T/A systems, {ku-gur-a} 'to buy', which is underlyingly similar across the group, in both tone and meaning. This ensures a more reliable comparative study for all the sample languages, and also makes it easy to uncover the interplay between form, function and meaning which is given prominence in this study.

1.6. Data

The data for this study can be categorized into three parts, as follows. Part I, the most important part, is a collection of data from the sample languages, in both written and tape-recorded forms. The tape-recorded data were used to edit the written versions, especially with regard to the phonetic realizations of sounds.

Part II consists of two lists of lexical items (450 and 350, respectively) elicited from at least two native speakers of each language (late 1994 and 1996). List I was compiled by the researcher using lexical items which he regarded as very common vocabulary. In order to avoid ambiguity and have a good representation of the translated meaning, and also due

to the fact that informants were of diverse linguistic abilities in terms of bilingualism, the list was provided in two languages, Kiswahili and English. This list was also supplemented by a more or less similar (but longer) list compiled by Dr. D. Nurse (Memorial University) in the late 1970's for all eight languages. Dr. Nurse's list had to be reedited by the current researcher to remove the less relevant features, and harmonize the lexemes morphologically.

The lexical items in List II were taken from Guthrie's (1971) Proto-Bantu noun stems and verb radicals, but were all modified into stems to make it easy for informants to decipher. The informants produced the corresponding current lexemes found in their respective languages. These lists were meant for the phonological analysis, that is, for establishing regular correspondences and phonological differences that help to uncover diachronic changes that have taken place in the languages under study.

Part III contains a list of clause structures, or sentences, which were collected at the same time, in the same manner and for the same languages as List I. This list has 200 structural items for the morphological analysis. It provides extra input for the analysis of T/A systems, including relative clauses, with regard to the use of various verbs. However, these structures were collected from only four languages: Ruhaya, Runyambo, Ruzinza, and Rukerebe.

Most of the informants were university students with ages ranging between 20-40 years. All were native speakers of the respective languages. The first phase of data collection was conducted in 1994/95. In 1996/97 some of the data were given to other native speakers for editing and correcting. In all cases, the data were collected in two forms: written

transcriptions and tape recording. This strategy helped to minimize the number of errors and also to get a good representation of a language from different dialects. The final recording was done in late 1997 at the University of Dar es Salaam (UDSM) where a new group of informants and some old ones were recorded without being exposed to the former data. This was meant to check for consistency and establish reliability, as well as getting answers to questions which had developed during the first stage of data analysis, especially on T/A.

Other sources of lexical and T/A data are Maddox (1902), Taylor (1959, 1985), Hyman and Byarushengo (1984), Bona-Baisi (1960), Nurse (1979b), Mould (1981), Schoenbrun (1990), and Rugemalira (1994). The following table thus summarizes the data that have been collected for each sample language, where CT1 = Taylor (1959), CT2 = Taylor (1985), DN1 = Nurse's notes (1970s), DN2 = Nurse (1979b), DO = Dave Odden (ms, 1997), H&B = Hyman and Byarushengo (1984), HEM = Maddox (1902), H&H = Hubbard & Hyman (1993)[4], HM = the current researcher, IB = Bona-Baisi (1960), JM = Rugemalira (1994), MG = Guthrie (1971), M&K = Morris and Kirwan (1972), MM = Mould (1981).

[4] This list was downloaded from the *Internet*, University of California at Berkeley (*http://bantu.berkeley.edu/DB/CBOLD.html*: 1997). It was originally compiled by Hubbard in 1993 and edited later by Larry Hyman.

Table 1.1: The major sources of data [5]

Language	Major sources		
	Lexical List I	**Lexical List II**	**T/A**
Runyoro (R1)	DN1, HEM	HEM	HEM, MM, DN1
Rutooro (R2)	HM, DN1	MG, HM	HM, DN1
Runyankore (R3)	DN1, CT1	MG, CT1	CT1, CT2, M&K
Rukiga (R4)	HM, DN1, CT1	MG, CT1	HM, CT1, CT2, M&K
Runyambo (R5)	HM, DN1, JM	MG, HM	HM
Ruhaya (R6)	HM, DN1, IB	MG, HM	HM, H&B, DN2
Ruzinza (R7)	HM, DN1	MG, HM	HM
Rukerebe (R8)	HM, DN1, H&H	MG, HM	HM, DN1, DO

1.7. Scope of the study

The Rutara group contains several linguistic communities ranging from large and well researched to small and under-researched ones. Ladefoged *et al.* (1971:78), for instance, mention Ruhororo whose phonetic relationship to Runyankore, Rutooro, Runyoro and Rukiga is 90%, 88%, 87% and 87%, respectively. These figures suggest that Ruhororo is also part of Rutara. Similarly, Schoenbrun (1990:132) mentions other linguistic groups which belong to Rutara such as "KiZiba [sic], IkinyaIhangiro [sic], EkiHamba, Ekimwani and IkinyaKisasa" and which, he says, owing to their high cognate percentages with some related language(s), could be considered to be dialects.[6] It was necessary to be selective;

[5] This arrangement of these languages R1–R8 specifically portrays the nature of the languages' contiguity, that is, the way they are geographically arranged from Runyoro in the north to Ruzinza in the south and Rukerebe (south east) which is detached from the group.

[6] Ruziba (H1), Ruhyoza (H2), Ruhamba (H3) and Runyaihangiro (H4) are the major dialects of Ruhaya, spoken mainly in the former chiefdoms of Kiziba, Kyamutwara, Kihanja and Ihangiro, respectively.

consequently, only the following eight linguistic communities have been selected: Runyoro, Rutooro, Runyankore, and Rukiga (from Uganda), and Ruhaya, Runyambo, Ruzinza and Rukerebe (from Tanzania). These languages were selected mainly because their data were relatively easily available, and also because they are larger communities. The geographical location of these languages is illustrated on the map (see Figure 1).

1.8. Theoretical framework

The operations of linguistic systems are closely related to cognitive processes, and the two are connected to the outside world through consciousness. That is why in cognitive linguistics, syntax is said to be dependent on semantics, pragmatics, and communicative function (Lakoff 1987). This leads us to one of the fundamental questions pertinent to this study: what is the relevance of cognitive processes to the T/A system? To answer that question, we first need to look at the meaning of both T/A and cognition. Talking about tenses and aspects presupposes the element of time in relation to events or actions, which are recorded in, or retrieved from, the mind; this constitutes cognitive processing.[7] The fact that time is not static leads to its representation (together with what pertains to it) in terms of movement(s) from infinity, at one end, to another infinity on the other end of the temporal continuum in the universe. All this takes place in the mind (as linguistic mental processes) which is the centre for cognitive processes, and the basis for the cognitive approach. This

[7] The term *event* here and elsewhere in this study is used as cover term for all semantic realisations of verbs, such as actions and states, both concrete and abstract, in both the real world and the imaginary.

particular cognitive approach used in this thesis, is that of the French linguist Gustave Guillaume (1883–1960).

1.8.1. Theoretical background

Guillaume's (1883-1960) perception of a linguistic system (such as a T/A system) is evident in two laws: the *Law of Coherence* and the *Law of Simple Sufficiency* (Hewson 1980, 1994). The former explains that the coherence of the linguistic system lies in the realm of content, while the latter states that the expression system need only be sufficiently coherent to express the content. The two laws together thus underscore the point that a subsystem expressing content is relatively more stable than its form. This can be further illustrated by the fact that, in language systems which have a binary classification of number (singular *vs* plural) at the content level, their respective paradigms show this division in morphology, no matter which particular forms are used for the realisation; and the same is true for languages with ternary classification (singular, dual, plural). The same principle applies to T/A systems in that a language develops tense formatives depending on how the speakers' minds partition real time in the universe. All of these elements and components constitute the subsystems which in turn form larger systems (such as paradigms or language in general) which cannot exist without the individual elements or components. In order to understand and workout the system of a language, we need to examine carefully what every form represents in the paradigm, not only as individual elements, but also as they relate to each other. Saussure's [1916] (1959:22f, 88f) makes an appropriate distinction here between *internal* and *external*

arrangements of a language system. He draws a comparison "between the functioning of language and a game of chess" whereby the set of chessmen corresponds to the external (*i.e.* form) while the rules of the game correspond to the internal system. In terms of T/A systems, the external organization concerns the T/A formatives, while the internal concerns their meaning such as "past" or "perfect". Note, however, that at the functional level, elements in use are not necessarily restricted to their basic meaning. In a T/A system, for instance, a form that basically means one thing can be used to mean another. The best example is the use of the Present Progressive for Future meaning as in (1).

(1) a. English: We **are** leav**ing** tomorrow morning
= 'We will leave tomorrow morning'

b. Ruhaya: Nyenkyá **ni**-tu-**Ø**-gyá Bukôba
Tomorrow PROG-1P-T-go to Bukoba
'We are going to Bukoba tomorrow' = 'We will go to Bukoba tomorrow'.

Similarly, forms for the Near Past tense in the Rutara languages do not bear tense marking but instead use the (aspectual) Perfect formative {-ire}, hence {tu-**Ø**-guz-**ire**} 'we bought (yesterday)'. This suggests that the aspectual marker has extended its usage to function as tense. This, as will be demonstrated in later chapters, has been one of the contributing factors to the development of either new tense/aspects or new formatives and which, in some cases, leads to morphological syncretism. {-ka-}, {-ire}, and {-a(a)-} in Lacustrine languages are such examples of formatives which have a multitude of meanings and functions, as shown in (2).

(2) Ruhaya: n-áá-ku-téèra
1S[SM]-T/A-2S[OM]-beat

(i) 'I have beaten you'
(ii) 'I beat you (earlier today)'
(iii) 'I am just about to beat you'

That is, the T/A formative expresses more than one meaning or function. A cognitive approach addresses these morphosemantic problems better than other approaches and it is for this reason that it is adopted in this study. In order to determine the basic meaning of the formative or marker, the following steps are proposed in terms of questions: (1) what are the various morphophonological forms of the formative? (2) what are the relevant functions of the formative in the system? (3) what is the relationship between these functions? (4) how do these functions relate to temporal representations, with regard to the speaker's mind, Event Time, and Universe Time (see §1.8.2)? (5) what is the nature or direction of extension in terms of its application across categories? (6) what is the cognitive relationship between the categories in which the extended functions operate? (7) which of the meanings or functions appears to be central and which ones are secondary?

1.8.2. The functional approach

Analyses of T/A have varied over time. Hewson (1997) lists various studies that have dealt with T/A systems from the 1920s to 1990s. He classifies these studies into four types: formal, cognitive, functional, or real world category. He maintains that there has been confusion between the form, meaning and function of linguistic categories. Explaining this confusion, Hewson (1997:1f) says:

> Some might want to label as future tense any verb that represents future time, so that the verb in *I leave for Montreal on Saturday* would then be considered future tense. For similar reasons *I have read that book* is considered by some to be a past tense, *e.g.*, Huddleston 1995:102ff, in spite of the fact that the only tense marked in the form is the present or non-past tense of the auxiliary. Here we have a confusion between what is represented (the event taking place in time) and the means of representation (the linguistic category). It is also a confusion between the systemic entity and function: if I take a kitchen knife to tighten a screw, must I consequently call it a screwdriver, and refuse to call it a kitchen knife? To rely on function alone, and ignore the morphological and systemic evidence, inevitably leads to a certain amount of error and confusion.

This viewpoint forms part of the basis for this T/A analysis.

As far as Bantu languages are concerned, and Rutara in particular, a more "traditional" functional model has been mainly used, for instance, by Taylor (1959, 1985), Nurse (1979b), and Hyman and Byarushengo (1984). This functional approach consists mainly of a ternary categorization of the entire time reference (hereafter referred to as Universe Time) into Past, Present and Future. The Past and Future tenses are segmented into three subcategories namely: Near, Mid(dle), and Remote (also called Distant or Far). Thus, generally, Near Past refers to events/actions that took place on the same day before the time of speech event, while Mid Past refers to yesterday's events/actions, and Remote Past to those which took place before yesterday. In this approach, structures are listed and given labels depending on their apparent functions, such as {tu-ka-gur-a} 'we bought' is "Far Past", {tu-guz-ire} 'we bought' is "Mid Past", and {tu-aa-gur-a} 'we bought' is "Near Past".

These approaches appear to have two characteristics in common. First, they are mainly based on either the functional meaning of formatives in major T/A constructions, or

on temporal divisions (as determined by cooccurrence with adverbials). Comrie (1985:30) cautions about this kind of approach, (see §5.2.2) saying,

> ... although collocation of tense with time adverbials can be an important tool in investigating the meaning of tenses, that tool cannot be applied mechanically because there are other intervening factors that may upset any simple correlation between tense and time adverbials.

Botne (1981, 1987) goes further to study the semantic correlation of form and meaning between one structure and another in English and Kinyarwanda, and the semantic and pragmatic aspects of T/A in Rukerebe and Kinyarwanda, respectively. He pays particular attention to their temporal divisions (references). However, only one language belongs to the Rutara group.

Second, these studies tend to treat categories as if they were independent entities in the system. For instance, a formal or purely functional approach would tend to list formatives like {-aa-, -ka-, -ire, ni-, -kiaa-, -aa-...-ire} as tense/aspect markers and then illustrate their semantic attributes without describing their underlying meanings *vis-à-vis* their contrastive roles in a system. Thus, they fail to address the intra-paradigmatic relationships that also contribute to holding the system together both synchronically and diachronically. For instance, they do not address questions like: (i) Why should a language have the same form {tu-guz-ire} for both the Near Past Performative and Present Perfect/Retrospective? (ii) What is the relationship between the formative {-a(a)-} found in {tu-a(a)-gur-a}, {tu-kiaa-gur-a} and {tu-aa-guz-ire}, of the {-a-} found in forms like {tu-a-gur-aga} and {ti-tu-a-guz-ire}, and of {-ire} found in {tu-guz-ire} and {tu-aa-guz-ire}? (iii) Why should elements

purporting to perform the same macro function of either tense or aspect occupy different slots in the verbal unit? That is, while some are initial prefixes like {ni-}, others such as {-a(a)-, -ka-, -raa-}, appear between the SM and verb stem and others as final suffixes like {-ire} and {-aga}. The cognitive model which forms the basis for this thesis is more successful in attempting to answer these and other related questions.

1.8.3. The cognitive approach

The cognitive approach refers to *cognition*, the mental process that is involved in utilizing the mind to perceive, retain and (re)organize ideas about the material world, to understand it, and to develop abstractions about it. It is from this kind of mental activity that we get notions like *cognitive skills*, *cognitive abilities*, and *cognitive development*. In this case, cognition can be said to have a close relationship with *consciousness* and, at certain levels, it is believed to have a direct relationship with language. The only major difference in opinion extant among linguists is the extent to which cognition and language are related (Snyder 1984).

These cognitive processes are synthesized in what Hewson (1993, 1997) calls "elements of consciousness" namely, memory, perception and imagination. One could argue that this reduction of cognitive processes to only three in number is geared to purely linguistic analysis and T/A in particular. It is part of the attempt made by cognitive linguists to relate the *mental structures of language* to the *mental operations of cognition* (Moore 1973, Anderson 1983, Deane 1992, Dunbar 1992). Perception, for instance, involves expressing

the *here-and-now* of events or actions. Whereas the faculty of cognition perceives (through senses or thought) what is taking place at that particular time and space, the language system provides the structures for expression, hence the trichotomy between form, content and function. Therefore, by studying the T/A system of a language, we should be able to elucidate the three basic issues: first, the speakers' mental operations in language and the language operations in the mind; second, their perception of time *vis-à-vis* events and the universe; and third, how the mind works in time and time in the mind. This can be summarized by Hewson's (1997:2) explanation on Kant's comment about knowledge and experience: "Not only our experience of time, but also our representation of time is based upon consciousness. We do not represent the world as it is, we represent the world as we perceive it".

It should be pointed out, however, that this thesis is a historical and comparative study rather than a purely cognitive or semantic analysis of T/A. Consequently, it is only those principles and concepts of the cognitive approach that are relevant to historical and comparative linguistics which are adopted in this study. The most relevant principle in this regard is the representation of the time image which Guillaume called chronogenesis (Hirtle 1975, Guillaume 1984, Hewson and Bubenik 1997, Vassiliev 1997, Hewson and Nurse (forthcoming), Hewson, Nurse and Muzale (forthcoming); see further details below), which has proved to be not only applicable, but also productive in analysing Bantu languages, as it is for Indo-European (IE) languages, but, of course, with significant typological differences

which cannot be found in IE languages. These factors make this thesis different from other studies of T/A.

The major differences between this study, and the previous studies cited in §1.2, 1.4, and 1.8.2, are these: first, the current study deals with a group of languages rather than studying a single system. Second, this study is historical. It employs the synchronic analysis of contemporary structures only as the basis for insights and observations, from which it is easy to move backwards in time. The mode of operation is, therefore, to establish the *chronogenetic* levels which represent the cognitive development of T/A, which is in turn used to establish the historical development of the T/A system from Proto-Rutara to the contemporary languages. Thus, the following stages of analysis will be presented in this thesis:

A. Use the data to formulate the T/A system with regard to the form and meaning(s) of the formatives and other relevant structures.

B. Establish the functions of the elements identified in the system.

C. Search for the basic forms of the system and the principal slots of the formatives according to their categories in order to distinguish between tense and aspectual markers.

D. Formulate the levels of complexity between structures, from the basic simple forms to complex ones.

E. Work out the relationship(s) among the levels established in (D).

F. Assign the structures and their formatives to the stratified levels (chronotheses) of chronogenesis.

G. Compare and contrast the T/A systems under study from (F), and then work out the correlation between those chronogenetic stages and the diachronic changes of the forms, meaning and functions.

Using the cognitive model, we will show that the continuum of time of the Rutara T/A system is best viewed as a binary contrast: the basic contrast is between Past and Non-Past. This contrast is based on the function of the mind with regard to what has already been recorded to memory and that which has not. Thus, events that have already been recorded belong to Past and those which have not belong to Non-Past. Assigning Present and Future to one subcategory of Non-Past *versus* Past also enables the analysis to explain how and why the system is able to extend the inter-formative and intra-formative functions of its T/A markers within a subcategory plane of the same tense category (such as the use of the Present tense markers to express Future (see §4.5.2)). However, the precise boundaries of these categories depend on the language, the linguistic context, and the context of situation of the utterance, hence T/A pragmatics. Both Past and Future tenses are sub-categorized into Remote/Far and Near, hence Remote/Far Past, Near Past, Remote/Far Future and Near Future (the traditional labels are maintained though not always with the same meaning, especially for the "Near Past" which we call *Memorial Present*, as explained later in §5.2.3). Present Tense is sub-categorized into two, namely, Memorial Present and *Experiential Present* (see

§5.2.4). This categorization is mainly based on the morphosemantic functions exhibited by the formatives of the system(s) which express contrasts in terms of binary oppositions. Figure 4 illustrates how binarity will be used to analyse the T/A system in subsequent chapters and sets the background for arguments regarding {-ire} and {-a(a)-} which pose problems in the analysis.[8] This analysis uses a continuum of time from an indefinite past to an indefinite future, as indicated in Figure 4.

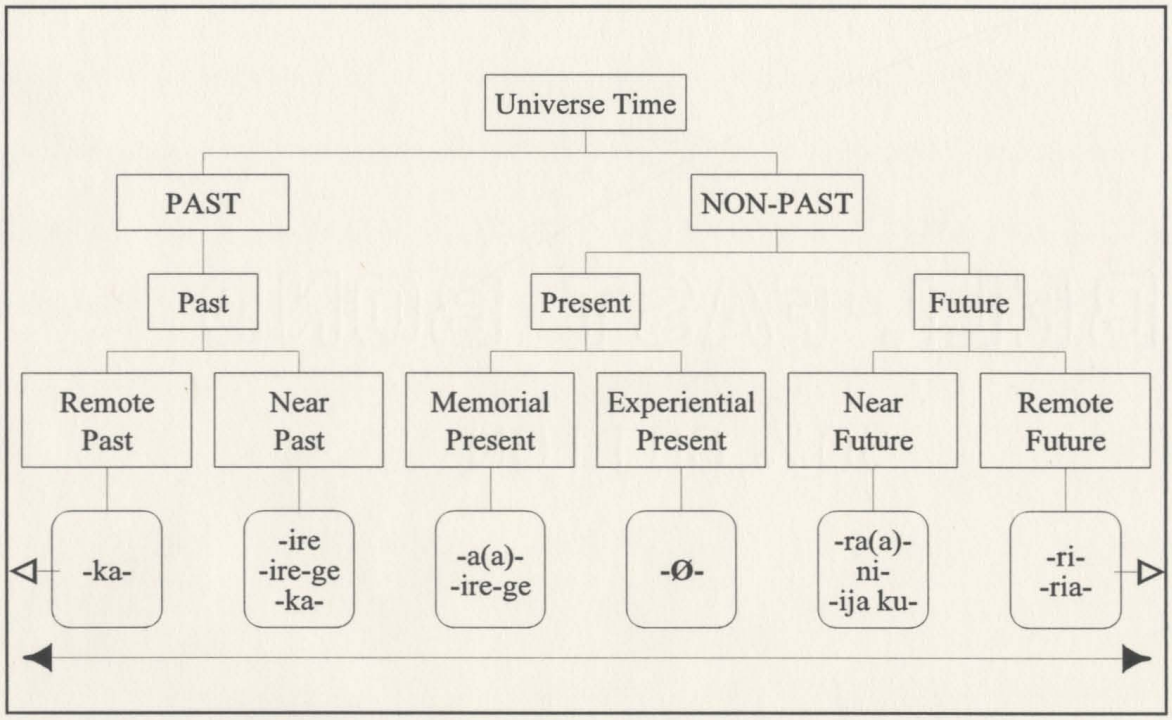

Figure 4: The functional classification of affirmative tense markers in Rutara

This continuum of real time in the universe, extending from indefinite past to indefinite future, which either travels across the human mind, or along which the human mind travels in the form of experience, recorded memories, or projections is what we will refer to as

[8] We are not going to engage in the philosophical debate of whether or not time is unidirectional, bidirectional, or multidirectional (*cf.* Polakow 1981).

Universe Time (UT).[9] Consequently, the mind either currently experiences the event (*i.e.* present events), recalls it from memory (*i.e.* past events), or projects it to take place later (*i.e.* future events). UT may be a universal cognitive feature, but the nature and number of categories expressing UT (which are mostly linguistically marked as tenses or temporal references) are language specific. On the other hand, the representation of time within the event taking place in relation to "here-and-now" or "then-and-there" from the point of view of the time of speech event, is referred to as *Event Time* (ET) (Valin 1975).[10] The totality of these representations of time is what Guillaume calls *chronogenesis*, that is, a *spatialisation of time*. As observed by Guillaume, time is not "representable by itself" and, therefore, it has to base its representation on spatial characteristics (Guillaume 1984). From a linguistic point of view, it is the T/A system which represents time morphologically.

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[9] For the history and further discussion on the terms UT, ET, and experience of time, see Hirtle (1975), Hewson and Bubenik (1997), and Vassiliev (1997).

[10] The term "event time" is, in fact, ambiguous, with two senses. The first sense refers to the internal time of an event, when the event is perceived by the mind as a process without direct reference to UT. This kind of time is presented in the text by initial caps, as *Event Time* (see §1.8.3). The second sense of "event time" is an external view of time (in the material world) as to when the event takes place along UT. It is thus perceived from the *here-and-now*, which we call *speech event time* (tS) or from *there-and-then*, which we call *reference time* (tR). As opposed to the former, this kind of time is presented as *event time* (tE) (see §4.2).

1.8.4. Defining tense and aspect

Tense, aspect and modality are semantic domains which are cognitively contrasted in the speakers' mind and usually, but not always, morphologically marked in the verbal unit (VU). One of the typical properties of tense categories given by Dahl (1985) (and slightly modified here) is that they have semantic dependence on the relation between the time that *is talked of* in an utterance or sentence and the time of the speech event (*i.e.* the moment of speech), which is often referred to as *the deictic centre*. This property of tenses has led linguistic scholars to provide a distinction between tense and aspect, such that tenses are typically deictic categories and aspects are non-deictic categories, as established by Jakobson (1957) and reiterated by others like Comrie (1976) and Dahl (1985). Comrie (1985:9) defines tense as "grammaticalised expression of location in time", and aspect as the "different ways of viewing the internal temporal constituency of a situation" Comrie (1976:3). A more or less similar distinction of tense and aspect is also given by Robertson (1992:64): "aspectual markers define the character of verbal predication itself, while tense markers place such predication in time with respect to the here-and-now of the speech situation"; while Chatterjee (1988:22) regards the "non-deictic *internal temporal* features" to be the core of aspect.

With these definitions in mind, together with reference to Figure 4 above, the following table presents the morphosyntactic distribution of the most common T/A markers (in a verbal unit) in Rutara. Table 1.2 is meant to establish the background for the working definition of tense and aspect from a cognitive perspective. Solid lines in the table group

together formatives with relatively similar distribution in affirmative and negative constructions, while dashed lines indicate formatives that appear to deviate from other members of the groups in view of other semantic considerations. Independent main verb means a single verbal unit of the main verb as in (3a) and (3b), auxiliary verb (AV) refers to the first verb in a compound verbal unit such as {tu-ka-ba} and {tu-ba-ire} in (3c) and (3d), respectively, and subordinate main verb refers to the second verb of a compound verbal unit such as in {tu-gur-a} and {ni-tu-gur-a} in (3c) and (3d), respectively.

(3) **Simple and compound VUs**

a.	Ruhaya	tú-ka-gur-a	'we bought'
b.	Runyambo	tu-čáá-gur-a	'we are still buying'
c.	Ruzinza	tu-ka-ba tu-gúr-a	'we used to buy'
d.	Rutooro	tu-ba-ire ni-tu-gûr-a	'we were buying'

Table 1.2: The morphosyntactic distribution of T/A formatives in Rutara

	T/A Marker	Affirmative				Negative
		Independent	Compound VU		Both	
		Main Verb	Auxiliary	Main Verb	AV + MV	
a.	-ire	+	+	+	+	+
	-ire-ge	+	-	-	-	+
	-a(a)-	+	+	+	+	+
b.	-ria-	+	+	-	-	+
	-ri-	+	+	-	-	+
	-ka-	+	+	-	-	+
	-ra(a)-	+	+	-	-	-
	-e	+	+	-	-	+
c.	-Ø-	+	+	+	-	+
	-aga	+	+	+	?	+
d.	-kiaa-	+	-	+	-	+
	-ra-...-ire	+	-	+	-	+
	-a(a)-...-ire	+	-	+	-	-
	-kiaa-...-ire	+	-	+	-	-

	T/A Marker	Affirmative				Negative
		Independent	Compound VU		Both	
		Main Verb	Auxiliary	Main Verb	AV + MV	
e.	ni-	+	+	+	+	-
	ti-	-	-	-	-	+
	-ta-	-	-	-	-	+
f.	-ki-	-	-	-	-	+
	-a-...-ire	-	-	-	-	+
	-ka-...-ire	-	-	-	-	+

Table 1.2 (above) gives us at least six groups of apparently related formatives in terms of distribution. Both {-ire} and {-a(a)-} have the same distribution and are, therefore, expected to perform related functions in terms of categories; both can function as tense as well as aspect. However, it should be pointed out that compound forms like {-aa-...-ire} and {-kiaa-...-ire} cannot be used in the auxiliary of a compound verbal unit. This suggests that in those cases, {-ire} only marks aspects of complete events, rather than marking tense. On the other hand, {-a(a)-} mainly marks a "past" event. The events it marks are much related to the *Present* and, therefore, processed in the immediate memory. It is for this reason that we will refer to it as the Memorial Present (see §5.2.3). Further morphosemantic behaviour of {-ire} which suggests its typical reference in the T/A system is presented later in §3–4.

The second group, {-ria-, -ri-, -ka-, -ra(a)-, -e} are not used in the main verb of a compound verbal unit, and this suggests that they can be easily associated with tense. However, {-e} has more semantic attributes than others, which makes it less typical of a tense

marker. It is normally described as a subjunctive marker, which thus makes it consonant with Future tenses.[11]

The rest of the formatives in the table, groups (c-f), can be classified into two categories: those which can be used in the main verb of a compound verbal unit (especially group (d)), and can, therefore, be associated with aspects, and those which are mainly restricted to negative constructions. The table also shows that {ni-}, which is restricted to affirmative constructions only, contrasts with {ti-} and {-ta-}. The result of these distributions (with regard to their locations in a compound verbal unit) can be represented in a tree diagram as in Figure 5, where only affirmative formatives are considered (in order to avoid complication at this stage), and the numbers refer to the three positions in a verbal unit (VU): initial, medial, and final.

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[11] The term *subjunctive* is used here and elsewhere is a relatively general term with a broad range of semantic functions (in terms of T/A and mood), such as *Prohibitive* (expressing negative commands or discouragement), *Admonitive* (expressing warning or caution), *Optative* (expressing hope, wishes, or suppositions), *Hortative* (expressing encouragement or suggesting a course of action), *Tentative* (expressing a temporary course of action or uncertain decision), *Permissive* (granting permission or excuse), and the like. Since the subjunctive can be used to express events that are yet to take place, it becomes possible for its formative to function as a Future tense marker (see §6.3).

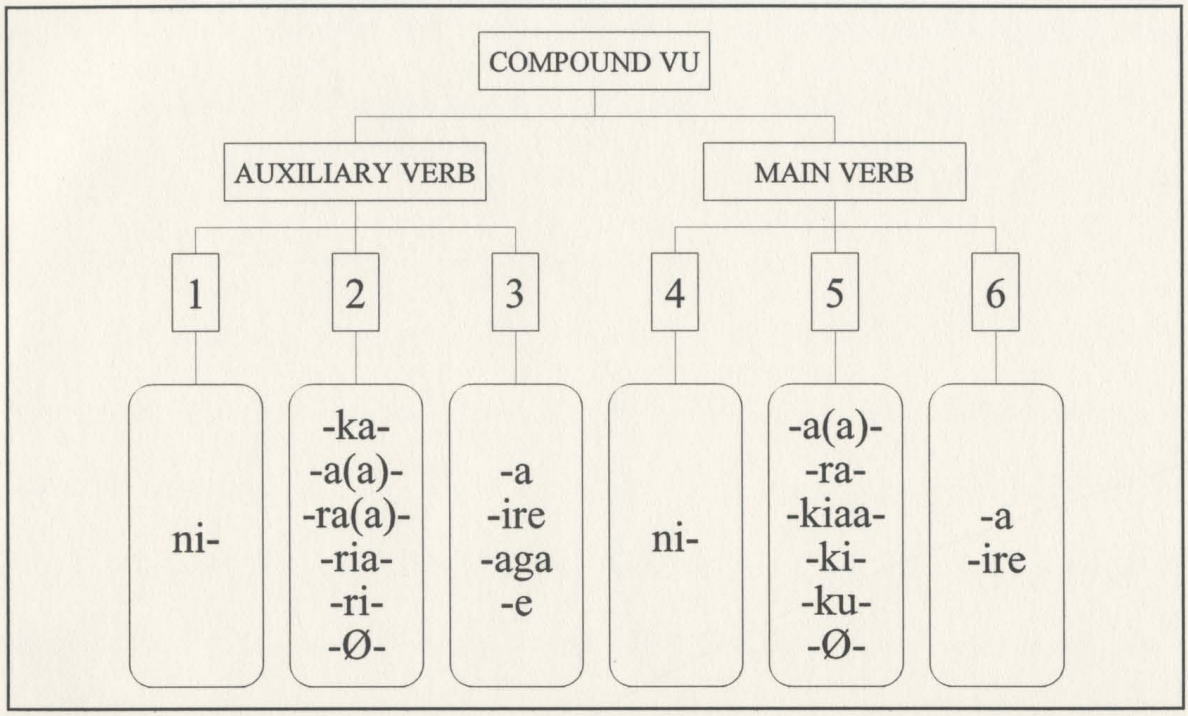

Figure 5 : The morphosyntactic distribution of T/A formatives in a compound VU in Rutara

Given the principle that, normally, in a compound verb the morphological element that carries tense will be in the auxiliary and aspect in the main verb, it follows that only the elements found in positions (1–2) in Figure 5 are likely to mark tense and those in positions (4–6) aspect.[12] If we disregard {ni-} in position (1), for reasons that will be provided later, then the markers in position (2) which are leftmost in the compound VU, can be regarded as the potential *typical tense* markers. The rest of the markers in positions (3-6) are, therefore, potential aspectual markers. The formatives in position (3) could thus be regarded as

[12] This is a long established principle which appears to be applicable to many languages, Indo-European as well as Bantu languages. In order for this principle to be applied effectively, one should be able to distinguish in the language system between tense, aspect and mood on the one hand, and between form and function on the other, which are the major sources of confusion in the analysis of T/A/MD systems (*cf.* Comrie 1985, Hewson and Bubenik 1997).

potential secondary tense markers in that they are found in the auxiliary (AV) and, therefore, they can possibly be used to mark tense in the absence of a true tense marker in position (2). Nevertheless, we will see in the following chapters, {-aga} can rarely mark tense, since it is almost always preceded by {-a(a)-} in position (2).

After considering the cognitive, semantic, and morphosyntactic factors in Rutara T/A formatives, as given above, we can now formulate a working definition of tense and aspect. Tense is a representation of successive time slots (*i.e.* temporal references) on the continuum of UT, whose markers are in a paradigmatic relationship. Aspect, on the other hand, is the realization of time contained in the event, whose morphological markers enter into a syntagmatic relationship with tense. Thus, tenses are temporal references while aspects are event references. It should be noted, however, that the representation of UT (or temporal frames) in a language is relative, not absolute. For instance, in some Bantu languages, Near Past (traditionally "Mid(dle) Past") could be defined as *Yester-X* and Remote Past as *Remote-X* (or *Before Yester-X*), where X could be in terms of day, month, season, or year. Thus, the same form used to mark some 'Yesterday's Past' could be used to mark the Past tense for 'last month' or 'last season'. In other words, the Near Past and Remote Past are not necessarily restricted to the so called 'yesterday' and 'before yesterday', respectively. The same principle applies to future tenses. If the analysis is based on temporal adverbials, there is a danger of confusing either the T/A categories or the functions of the formatives. The best example is found in Runyoro and Rutooro for the Remote Past, Near Past and Memorial Present, as discussed in §6.3.1–6.3.2.

1.8.5. Chronogenetic stages of tense/aspect

Hewson and Nurse (forthcoming) propose two chronogenetic stages for the Swahili verbal system. The proposed model is presented as follows, using the verb *ku-kimbia* 'to run':

(4) The chronogenetic staging of the Swahili verbal system

Level I:	tu-**na**-kimbia	'We are running'
	tu-**a**-kimbia	'We are running'
	tu-**me**-kimbia	'We have run'
	tu-**ki**-kimbia	'As we run; while running'

Level II:	tu-**li**-kimbia	tu-**ta**-kimbia
	'We ran'	'We will run'

As we can see in (4), Level I presents the four aspectual forms of what has been termed the *unlimited present.* These forms are not marked for tense; they are marked for aspects only, as indicated by the markers {-na-, -a-, -me-, -ki-}. This level does not create any tense contrasts. Level II presents the two contrastive tenses: Past and Future, marked by {-li-} and {-ta-}, respectively. In another recent study, Vassiliev (1997) proposed the existence of six successive *pre-chronogenetic levels* in the Russian aspectual subsystems. These stages are mainly concerned with lexical aspects, commonly known as *Aktionsart*, which determine the aspectual behaviour of a verb in the T/A system. For instance, there is a considerable difference in the morphosyntactic and morphosemantic behaviour of verbs, depending on whether they are dynamic, stative, process, change of state, or cognitive verbs, and whether they refer to concrete or abstract events, and so on.

From these factors, and taking into consideration suggestions from those studies, we tentatively propose the following chronogenetic model for the Rutara verbal system (italics indicate forms recycled from one level to another, or the verb 'be').

(5) The chronogenetic staging of the Rutara languages verbal system

i. **Pre-chronogenetic Level**: {R-a} > {ku-R-a}

ii. **Level I**:
{-Ø-...-a}
{-a(a)-...-a}
{-Ø-...-ire}
{-aa-...-ire}
{-kiaa-...-a}

iii. **Level II**: {-ka-...-a} *{-a(a)-...-a}* {-raa-...-a} {-ri(a)-...-a}
←——————————————————————→

This is a generalised model proposed for the entire group. It is based on the basic functions of the formatives {-aa-, -ire, -ka-, -kiaa-, -raa-, -ri-/-ria-} across the group, as introduced in Figure 5 and as demonstrated elsewhere in the following chapters. The T/A differences exhibited by individual language systems develop mainly through extension of the formatives and functions, plus other language specific morphosemantic and morphosyntactic constraints. For instance, both Runyoro and Rutooro maintain the form {-Ø-...-ire} for aspect, but modify it to {-Ø-...-ire-ge} when it represents a tense category. These changes and differences are the result of both synchronic processes and diachronic development.

The pre-chronogenetic level involves the formation of the concept of the verb. It gives the verb its lexical meaning.[13] Verbs at this level are basically realised as stems, as in {-gur-a} 'buy', expressing the abstract mental image of the action or event 'to buy'. Verbs of this form are mainly found in child language.[14] In adult language they are found in imperative forms, which do not take subject markers. Thus, for instance, a young child will use the form [lya] 'eat' to represent all concepts related to the action or event of eating. At a higher stage of this level, verbal forms can enter a *quasi-nominal* category which, in this case, is introduced by the infinitival marker {ku-}. This marker {ku-} also nominalises verbs, but in some languages, the PI nominal marker {o-} can also be added to nominalised verbs, thus {o-ku-}, which creates a functional difference between {ku-gur-a} and {o-ku-gur-a} 'to buy, buying' in syntactic operations. These forms compare with three English forms, the infinitive *(to) buy*, the present participle *buying*, and the past participle *bought*, but differ significantly in their verbal operations. These are the basic forms of the verb class on which the verb system is built (Hewson 1994). It should be emphasised that this level (pre-chronogenetic) does not locate events in time; rather, it focuses on the event itself. In this case, therefore, this level is not expected to express tense, because tense is a representation of UT; nor does it express grammatical aspect because aspect is a representation of ET in the linguistic temporal structure. Nevertheless, it is at this level that we are able to formulate

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[13] Compare Hirtle's (1975) concept of "the genesis of the word". He proposes that it has two stages: *ideogenesis*, the operation producing the lexical idea, and *morphogenesis*, the operation producing the grammatical form.

[14] This is from the current researcher's personal observation and also from personal communication with others, *e.g.* S.R. Kamazima, Consolatha P. Muzale, B.F.Y.P. Masele.

locative constructions, which, in many languages, have come to develop into aspects or tenses, as in (6) below.

(6) Ruhaya[15]

a. Musá a-rí o-mu ku-gur-a → [musáályómukugura]
Musa 3S-be PI-LOC to-buy-FV
'Musa is in the midst of buying'

b. Musá a-rí ku-gur-a → [musáálíkugura]
Musa 3S-be to-buy-FV
'Musa is (somewhere) buying'

Although the two structures in (6) appear to have the same meaning, (6a) is more specific in time and space than (6b). As it will be demonstrated later, the construction in (6b) has developed into the Progressive aspect in the Rutara languages (see §4.3.4). The basic difference between Ruhaya (or Rutara in general) and English with regard to these forms is that whereas English has three forms, *(to buy)*, *buying* and *bought*, all of which can express aspect (in what Hewson (1997:6) calls "the three contrastive aspects of the quasi-nominal mood"), Ruhaya has one primary functional form *ku-gur-a* (an extension of the base or stem *-gur-a*, which can also form a further extended deverbal noun {o-ku-gur-a}), which does not express aspect by itself. That is why we assign the verb forms {(ku-)gur-a} to the Pre-chronogenetic level, since it does not express time image.

Level I is the first stage of the representation of UT; it comprises simple aspectual forms. These are: the unmarked form {-Ø-...-a}, as in (7a), {-a(a)-...-a}, as in (7b), {-Ø-...-ire}, as in (7c), {-ki-(aa)-...-a}, as in (7d-f), {-aa-...-ire}, as in (7g).

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[15] The final vowel (FV) is analysed here and elsewhere as FV in the infinitive and as aspect (A) or A/MD in other constructions. However, modality is not discussed in this thesis.

(7)

a. All eight languages
tu-**Ø**-gur-a
1P-T-buy-A 'we buy'

b. All eight languages
tu-**a(a)**-gur-a
1P-A-buy-A 'we have just bought'

c. Runyoro/Rutooro/Runyankore/Rukiga
tu-Ø-guz-**ire**
1P-T-buy-A 'we have bought'

d. Runyankore/Rukerebe
tu-**ki**-gur-a
1P-A-buy-A 'we are still buying'

e. Ruhaya/Rutooro
tu-**kiaa**-gur-a
1P-A-buy-A 'we are still buying'

f. Runyambo/Rukiga
tu-**čaa**-gur-a
1P-A-buy-A 'we are still buying'

g. Runyankore/Rukiga/Runyambo/Ruhaya/Ruzinza/Rukerebe
tu-**aa**-guz-**ire**
1P-A-buy-A 'we have already bought',

Morphologically, these are simple forms, ordered from the simplest {-Ø-...-a}: {tu-gur-a} 'we buy' to compound forms like {-aa-...-ire}: {tu-**aa**-guz-**ire**} 'we have already bought'. These forms are used in the main verb to mark aspect(s) in the Present. That is, there is no tense distinction at this level. Evidence for this function is found in their morphosyntactic behaviour in that they can be used in the main verb of a compound verbal unit, of the form "AV–MV", as in (9) (*cf.* Table 1.2 and Figure 5 above), which leads us to the second level, as explained below.

The second level marks the representation of UT as distinctive time spheres, clearly indicating the three macro-tenses, Past, Present, and Future; each of the macro-tenses has two

categories as illustrated in Figure 4. In various IE languages, the corresponding level marks the so-called indicative mood forms (Hewson 1994, Hewson and Nurse (forthcoming)). Forms at this level are still kept simple in that they involve single forms, as indicated in (8):

(8)

a. All eight languages
   tu-**ka**-gur-a
   1P-T-buy-A 'we bought'

b. Runyankore/Rukiga/Runyambo/Ruhaya/Ruzinza/Rukerebe
   tu-**a(a)**-gur-a
   1P-T-buy-A 'we bought (*today*)'

c. Runyoro/Rutooro
   tu-guz-**ire*ge***
   1P-buy-NPt 'we bought'

d. Runyankore/Rukiga
   tu-**ria**-gur-a
   1P-RF-buy-A 'we will buy (*after tomorrow*)'

e. Runyoro/Rutooro/Runyambo/Ruhaya/Ruzinza/Rukerebe
   tu-**ri**-gur-a
   1P-RF-buy-A 'we will buy (*after tomorrow*)'

f. Runyoro/Rutooro/Runyambo/Ruhaya/Ruzinza/Rukerebe
   tu-**raa**-gur-a
   1P-NF-buy-A 'we will buy'

It is these tense markers which are used in the auxiliary in compound verbal units, as illustrated below. These forms are, therefore, used to mark real tenses which are represented along the indefinite continuum of Universe Time. The occurrence of an auxiliary and main verb to mark one tense leads us to a higher stage of Level II. At this stage, compound verbal units are introduced, making the system more complex. They involve a tense marker in the auxiliary and an aspectual marker (or several aspectual markers) in the main verb, or in both the auxiliary and main verb, as in (9).

(9)

a. Runyoro/Rutooro
tu-**ka**-ba tu-**ta-ru-ku**-gur-a
1P-T-be 1P-NEG-A-A-buy-A 'we were not buying'

b. Rukerebe
tu-**a**-li-**ga** **n(i)**-tu-gur-a
1P-T-be-A A-1P-buy-A 'we were buying'

c. Runyoro/Rutooro/Runyankore/Rukiga/Runyambo/Ruhaya/Ruzinza
tu-**ka**-ba tu-**ta-ka**-gur-**aga**
1P-T-be 1P-NEG-A-buy-A 'we had never bought'

d. Ruhaya
tu-**a-ku**-ba-**ire** tu-**aa**-guz-**ire** tu-**a-ku**-ba-**ire** tu-**ta-ka**-guz-**ire**
1P-T-MD-be-A 1P-A-buy-A 1P-T-MD-be-A 1P-NEG-A-buy-A
'we would have already bought' 'we would not have bought yet'

It is at this stage that complex compound forms are represented to express all notions, from concrete to abstract thinking, as indicated in (9d) which expresses a hypothetical event. In these cases, the first part of the structure, such as {tu-**ka**-ba ...} in (9a), and {tu-**a**-li-ga ...} in (9b), marks tense, while the second part, such as {... tu-ta-**ru-ku**-gur-a} in (9a), and {... tu-ta-**ka**-gur-**aga**} in (9c), marks aspect (*cf.* Table 1.2 and Figure 5 above).

There are two exceptions, however, on the two Levels, I and II, with regard to this model, that is, the formatives {-ire} and {-a(a)-}, as indicated earlier from Table 1.2 and (5) above. These two formatives appear to be applicable to both levels without causing any functional, semantic, or structural conflicts. That is, both can be used as tense markers as well as aspectual markers. This brings back the question of morphological problems raised in §1.8.2 above. Although detailed arguments for this deviation are presented in later chapters, we tentatively place both markers at Level I, thus suggesting that they are more of aspect than

tense markers, but which later function as tense markers. There are three major reasons for this, with regard to {-ire}: (1) a morphosemantic reason: the dominant meaning of {-ire} is used to mark the completion of an event, rather than marking a specific temporal reference; (2) a morphosyntactic reason: it normally occurs on the right after another formative in a compound marker or verbal unit; this location normally marks aspect, while the left element normally marking tense; and (3) a cognitive reason: forms with the simple {-ire} represent the working memory which deals mainly with current events. The marker {-a(a)-}, on the other hand, marks tense in six languages only (other than Runyoro and Rutooro). It is one of the markers that is used most, particularly in the Present. As an aspect marker, however, it has limitations in non-Present tenses. Morphosyntactically, it can be preceded by {-ki-}, as in {tu-ki-aa-gur-a} 'we are still buying', and when this happens, it loses its ability to mark tense. In language acquisition {-a(a)-} is mastered early by children, at Level I.[16] This is possible for two main reasons. First, {-a(a)-} is the most versatile marker, with both tense and aspectual function. Thus, it is also needed for the construction of other forms like {tu-aa-guz-ire} 'we have already bought'. As studies in language acquisition have shown, children will adopt previously available linguistic devices as a vehicle for the expression of new contrasts in tense and aspect (Rice and Kemper 1984). Second, {-a(a)-} not only marks the Perfective aspect (with meaning closely related to that of {-ire}), but is also the most immediate marked tense that children can easily apply (*i.e.* it represents the Memorial Present

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[16] Children learning Ruhaya, for instance, use forms like [a(a)lya], [a(a)maa], and [a(a)gwa] for the forms [n-áà-lya] 'I have eaten', [n-áà-mara] 'I have finished', and [n-áà-gwa] 'I have fallen down', respectively; (personal experience/communication: see *p.* 36).

in six languages), because it represents the immediate memory which is the predominant cognitive sphere in the child's mind, at this level.

These levels of chronogenetic staging of the T/A system also mirror the direction of diachronic development of tense and aspect, which is normally from quasi-nominal forms or aspectual forms to tenses, as illustrated in the following section. This hierarchical ordering of aspect and tense has been supported by other studies. Thelin (1978:65f), for instance, proposes four supporting reasons for a similar argument. First, with respect to the degree of abstraction from the time axis, aspects are [-time] (as opposed to tenses which are [+time]), hence having a lower degree of abstraction. The second is the possibility of simplicity, whereby, as Thelin (1978:66) puts it, "in a system proceeding from the aspect meanings [as opposed to proceeding from tense meanings] we attain the greatest possible simplicity". Third, it is easier and more likely for tenses to develop from aspects than vice versa. Fourth, there is some psycholinguistic evidence that aspectual distinctions precede temporal ones in the cognitive process of language acquisition (Bronckart and Sinclair 1973). Indeed, these are the most basic principles that underlie both the development and analysis of T/A.

1.8.6. Changes and development of T/A

There is a general understanding that certain types of lexical verbs tend to become auxiliaries which in turn change into T/A markers, but not the other way round. Heine (1993) explains this linguistic phenomenon under what he calls the *Overlap Model* of morphosyntactic shift. That is, a lexical main verb gradually loses its morphosyntactic

properties (such as its ability to passivise, to be nominalised, to form imperatives, to be inflected for person and tense, to be negated, and to be governed by auxiliaries). It thus acquires the properties of a grammatical marker, hence the term *grammaticalisation*, in the sense that it can now be used as an auxiliary, as a marker of T/A, or to indicate modality (see examples below; and see Hopper and Traugott (1993) and McMahon (1994) for the history of grammaticalisation). Once the verb has acquired the function of an auxiliary or T/A marker, it can also undergo further phonological changes, regarded as *phonetic erosion* (Heine, 1993) or *auxiliary reduction* (Zwicky 1970; Pullum and Wilson 1977). Examples of similar historical changes that have been reported in Bantu languages include the following: Mkhatshwa (1991) presents the case of the verbs *-za* 'come' and *-ya* 'go' in Zulu which, he argues, were grammaticalised to become the tense markers for the "Immediate Future" and "Remote Future", respectively (Heine 1993:29). Similarly, the Kiswahili T/A markers {-ta-}and {-me-}can be traced back to the verbs **ku-taka* 'to want' and **ku-mala* 'to finish', respectively (Givón 1971, Voeltz 1980, Mould 1981, Heine 1993). The following stages depicted in (10) and (11) illustrate the diachronic development of these T/A markers, using *ku-soma* 'to read', and *ku-la* 'to eat' as examples:[17]

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[17] The loss of a liquid sound indicated above is a common phenomenon in Bantu languages. The result of this process shows up, in many languages in the form of irregular Perfect or Retrospective verbal constructions and in the verb 'to have' which is derived from 'to be with'; hence, in Kiswahili: [tu-na] < *{tu-li + na}, Ruhaya: {tu-i-na} → [twina] < *{tu-li + na} both meaning 'we have' (*cf.* Guthrie 1971, Kahigi 1989). Similarly, the coalescence of the vowels [a+i] into [ee] is still productive in Kiswahili such that /ma-ino/ is pronounced as [me(e)no] 'teeth', as in Ruzinza and Rukerebe where /tu-ba-ire/ → [tubeere] 'we were'.

(10)

stages	**polysyllabic stem**	**monosyllabic stem**
Proto-form (Perfect)	*tu-mal-ile ku-soma	*tu-mal-ile ku-la
	1P-finish-A to-read	1P-finish-A to-eat
	'we have finished reading'	*'we have finished eating'*
loss of [l]: *l > Ø/__i	tu-ma-'ile ku-'soma	tu-ma-'ile 'ku-la
vowel coalescence: ai > e(e)	tu-me-'(e)le ku-'soma	tu-me-'(e)le 'ku-la
loss of [l] (after stress)	tu-me-e ku-soma	tu-me-e ku-la
vowel shortening/reduction: ee > e/__#	'tu-me ku-'soma	'tu-me 'ku-la
auxiliary grammaticalisation	tu-me-ku'soma	tu-me-'ku-la
deletion of infinitival [-ku-]	tu-me-'soma	--------
current surface form	[tu**me**'soma]	[tu**me**'kula]
	'we have read'	'we have eaten'

(11)

stages	**polysyllabic stem**	**monosyllabic stem**
Proto-form	*tu-a-taka ku-soma	*tu-a-taka ku-la
	1P-T-want to-read	1P-T-want to-eat
	'we want to read'	*'we want to eat'*
loss of syntactic properties: {T > Ø}	tu-'taka ku-'soma	tu-'taka 'ku-la
auxiliary grammaticalisation	tu-taka-ku'soma	tu-taka-'kula
phonetic reduction/erosion: {CV > Ø}	tu-ta-ku-'soma	tu-ta-'ku-la
deletion of unstressed infinitival [-ku-]	tu-ta-'soma	--------
current surface form	[tu**ta**'soma]	[tu**ta**'kula]
	'we will read'	'we will eat'

Evidence for the relics of the grammatical form [-taka-] is found in relative constructions such as [wa-**taka**-o-soma] 'those who will read', and [ni-taka-po-kula] 'when I will eat'. The T/A marker *{-a-} still exists in some dialects of Kiswahili. Another case for the development of {-me-} is cited by Hagège (1993:129) from Kituba, a Kikongo-derived pidgin, as documented by Fehderau (1966). Fehderau reports that the "perfective" auxiliary

imene appears in its complete form in the oldest generation, appears as a monosyllable in the speech of middle-aged generation, and as a proclitic in the youngest generation:

(12) Kituba

-i-	-ii-	-iii-
oldest generation	**middle-aged generation**	**youngest generation**
munu imene ku-enda	munu me ku-enda	mu-me-ku-enda
I PERF INF-go	I PERF INF-go	I-PERF-INF-go
'I have gone'	'I have gone'	'I have gone'

There is also another stage of T/A development, involving conceptual development, that is said to take place after a lexical verb has changed into a grammatical element. This stage, which is considered to be predictable and unidirectional, involves different processes, of which those illustrated in (13) are most relevant to this thesis, where ">" indicates the direction of grammaticalisation. These processes are summarised by Heine (1993:68) from arguments by Anderson (1973), Comrie (1976), Fleischman (1982), Harris (1982), Bybee (1985), Marchese (1986), Bybee and Dahl (1989), Claudi (1990), and Bybee, Perkins, and Pagliuca (1992).

(13)

i. Completive/Resultative > Perfect > Perfective > Past > Irrealis
ii. Progressive > Continuous > Imperfective > Present
iii. Agent-oriented modality > Prospective > Future > Epistemic/speaker-oriented modality.

The three processes above indicate the most common tendencies in the development of tense from aspect, that is Resultative ⇒ Past, Progressive ⇒ Present, and Prospective ⇒ Future rather than the opposite. Similarly, Bybee *et al.* (1994:25) argue that locatives tend to

grammaticalise as tense or aspect, especially the Progressive aspect which, in this case, originates from the construction they call "'the subject is AT verbing', where the element 'AT' actually has locative meaning". This as well is a common linguistic phenomenon, as shown in the following examples:

(14) German (colloquial)
ich bin am Schreiben
I am at writing = 'I am writing'

Taking these observations and other related principles into consideration, the current study will trace the origins of various T/A formatives and their current distribution in the Rutara languages. For illustration, let us consider the following examples from Runyambo, which show (in 15a) how the verb *kw-ija / kw-iza / kw-iža* 'to come' is in the process of being grammaticalised as an auxiliary verb in a compound verbal unit with the meaning Near Future, and (in 15b) how the form *ku-gur-a* 'to buy' (from the pre-chronogenetic level) is involved in the development of new forms of T/A:

(15)

a. ku-iǰa > ku-iza > ni-tu-**iza** ku-gur-a
'to come' PROG-1P-come to-buy-A
'We are coming to buy' > 'We will buy'

b. ti-tu-ri ku-gur-a > ti-tu-ri-ku-gur-a > ti-tu-ku-gur-a
NEG-1P-be to-buy-A NEG-1P-be-A-buy-A NEG-1P-A-buy-A
'We are not buying' 'We are not buying'

In (15b) the two lexical verbs 'to be' and 'to buy' merge to form one verb, which means 'to be at buying', as explained in the previous section. The two verbs then undergo further

grammaticalisation, eliminating the verb 'be'. Evidence for the intermediate stage is found in Ruhaya where the construction [ti-tú-li-ku-gur-a] 'we are not buying' (16b) still exists and has started to undergo further changes by virtue of the loss of the liquid consonant of the verb 'be' [-li-] and is thus being pronounced as [ti-twí-ku-gur-a], as in (16c), while other speakers even delete the vowel [-i-] which renders the structure into [ti-túù-ku-gur-a], as in (16d), or [ti-túú-ku-gur-a], as in (16e), which is very close to the Runyambo form (see §6.5.2).

(16) Ruhaya

(a) / ti-tu-ri-ku-gur-a/
NEG-1P-A-buy-A 'we are not buying'

(b) (c) (d) (e)
→[ti-tú-li-ku-gur-a] → [ti-twí-ku-gur-a] → [ti-túù-ku-gur-a] / [ti-túú-ku-gur-a]

These cases and examples lead us to agree with Bybee *et al's.* (1994:24) observation regarding the nature and mechanisms of change in T/A systems with regard to the form and meaning of lexical and grammatical elements that:

> ...there is no one simple mechanism of change that produces grammatical meaning, but rather that there are several mechanisms or types of change. These different mechanisms that lead to semantic change and eventually grammatical meaning may be associated with different points along grammaticalization paths and thus with different semantic substance.

Nevertheless, it is working on these different mechanisms and the different grammatical and semantic changes in related languages, that helps to reconstruct the earlier forms of a group such as Rutara.

CHAPTER TWO

2. FROM PROTO-BANTU TO RUTARA

2.1. Introduction

It has been proposed in this and other studies that Rutara is a genetic subgroup of Lacustrine. For a better understanding of this group, however, we need to trace the diachronic changes that have taken place, in this case from Proto-Bantu to the current languages under study. This chapter deals with lexical and phonological aspects only; neither lexicon nor phonology be analysed intensively because they are not the main focus of the study, and also because they are so broad that they need a separate study. Morphological changes, which are specifically relevant to T/A, are discussed in Chapters 3–5. There are two reasons that call for the lexical and phonological analyses. First, we will establish a solid background for analysing the T/A systems which inherently involve both lexical and phonological changes, through particular attention to diachronic changes. Second, systematic similarities found in all three components (lexicon, morphology and phonology) help to strengthen evidence that Rutara languages truly form a coherent genetic group rather than share chance resemblances. This helps to avoid the pitfall of relying solely on lexicostatistical figures which might reflect a transfer of features resulting from geographical proximity. To use McKaughan's (1964) comment as quoted by Embleton (1986:167), if "the phonostatistical results compare favourably with lexicostatistical findings", then they increase "the likelihood of the validity of the results". In taking a multidimensional approach, this study is able to establish a more

systematic diachronic link between relevant genetic groups; from Proto-Bantu ➛ (Proto-Lacustrine) ➛ Proto-Rutara ➛ contemporary Rutara languages.

One of the problems that we are likely to face is defining Lacustrine as a genetically valid linguistic group. The fundamental question is: what is Lacustrine, linguistically? In other words, can we define Lacustrine in terms of lexical, phonological, morphological, or syntactic characteristics? Attempting to answer these questions constitutes another in depth study which goes beyond the scope of this study. We will, therefore, deal specifically with the Rutara group only. For further discussion on how different studies view and classify Lacustrine, the reader might consider the following which have focussed on the entire Lacustrine group, or at least on a representative number of its languages: Heine (1973), Ehret *et al.* (1973), Mould (1976), Nurse (1979b), Nurse and Philippson (1980), Bastin *et al.* (1983) and Schoenbrun (1990). Of these, as far as this thesis is concerned, two are more interesting in that, firstly, they cover virtually the same area of Lacustrine (including Rutara); and, secondly, they present statistics of their findings (*cf.* Nurse 1979b, Bastin *et al.* 1983). These are Nurse and Philippson (1980) and Schoenbrun (1990).

2.2. Defining Rutara lexically

Let us start by looking at previous lexicostatistical studies on Rutara, mainly Nurse (1979b) and Schoenbrun (1990). Both studies indicate that Rutara languages have a high level of lexical similarity, as indicated by Tables 2.1 and 2.2, respectively. The figures,

which range between 77–88% for the former and 73–95% for the latter, suggest a high level of mutual intelligibility between these languages.

Table 2.1: Rutara lexicostatistical data by Nurse (1979b)

	Rukerebe	Ruzinza	Ruhaya	Rutooro	Runyankore
Rukerebe	-	85	77	79	81
Ruzinza	85	-	79	80	88
Ruhaya	77	79	-	79	76
Rutooro	79	80	79	-	83
Runyankore	81	88	76	83	-

Table 2.2: Rutara lexicostatistical data by Schoenbrun (1990)

	Runyoro	Runyankore	Rukiga	Runyambo	Ruhaya	Rukerebe	Ruzinza
Runyoro	--	86	83	74	80	76	73
Runyankore	86	--	95	81	81	80	83
Rukiga	83	95	--	73	78	76	75
Runyambo	74	81	73	--	85	76	75
Ruhaya	80	81	78	85	--	78	80
Rukerebe	76	80	76	76	78	--	81
Ruzinza	73	83	75	75	80	81	--

In both original tables (Nurse (1979b) and Schoenbrun (1990), respectively), there is no other language that shares lexical similarity with Rutara languages at the rate of 70%. Even for languages from the genetically closest group, N/Nyanza, their figures of lexical relationships with Rutara languages do not exceed 67% in both studies. This suggests a lexical condition for Rutara languages such that, for a language to be a member of the Rutara group, it should share its lexical retention with any other member of the group at a rate of

70% or greater. Although this rate is not supported by the figures given by Nurse and Philippson (1980) (*i.e.* Rutara languages go as low as 62.25% between Runyoro–Rukerebe, and as high as 83.75% between Ruhaya–Runyambo and Runyankore–Rukiga) it has already been pointed out that it is the methodology used by N&P (1980) which necessarily lowered the figures. Thus, in their study, Rukerebe consistently shows low rates with other languages. Therefore, we maintain that the minimum rate of 70% lexical cognation forms one element of the lexical definition of Rutara.

This study goes further to show how the above conclusion can be justified using real lexemes from the languages under study. The list of lexemes in (17) was checked across the group. The lexical items listed were found in all languages, with minor phonetic or phonological differences; segments which vary across languages are indicated by italics.

(17) **Common lexemes in Rutara languages (124 items)**[18]

(a)-ma-*hi*ra (n)	'pus'	-*bu*ra (v)	'get lost'
a-ma-t*a* (n)	'milk'	-*b*yaa*r*a (v)	'plant'
-*b*a (v)	'be'	(e)-(*k*)i-*ha*ha (n)	'lung'
-*b*i (a)	'bad'	(e)-i-*b*aa*r*e (n)	'stone'
-*b*umba (v)	'mould'	(e)-i-*bee*re (n)	'breast'

[18] The sound [β] occurs in all Rutara languages. In Ruzinza and Rukerebe it has a relatively clear phonemic status. In Runyankore and Rukiga, Taylor (1985) defines it as an allophone of /b/ intervocalically. In all other languages, it is heard in certain environments, but is also affected by the rapidness of speech, tone or stress, idiosyncratic differences, and aspects of phonological transfer from other languages. In this case, its respective phonetic status and exact phonological environment(s) could not be worked out here, due to lack of sufficient data and equipment, within the scope of this study. Thus, for convenience in examples, "b" is used as the generic representative sound, unless referring specifically to a language and environment where [β] is attested. (*cf.* Nurse 1979a, Mould 1981). Nevertheless, */β/ is reconstructed for Proto-Rutara in §2.5.2.

(e)-i-*b*ega (n) 'shoulder'
(e)-i-*bi*ri (n) 'two'
(e)-i-čumu (n) 'spear'
(e)-i-hembe (n) 'horn'
(e)-i-h*i*ga (n) 'cooking stone'
(e)-i-hu*r*i (n) 'egg'
(e)-i-hwa (n) 'thorn'
(e)-i-ka*r*a (n) 'charcoal'
(e)-i-kumi (n) 'ten'
(e)-i-n*ai* (n) 'four'
(e)-*i-r*iho (n) 'thirst'
(e)-i-*š*atu (n) 'three'
(e)-i-*š*o*k*ye (n) 'hair'
(e)-i-taan*u* (n) 'five'
(e)-i-taka (n) 'soil'
(e)-i-tama (n) 'cheek'
(e)-i-*z*ooba (n) 'sun'
(e)-*k*i-be*r*o (n) 'thigh'
(e)-*ki*-oma (n) 'iron, metal'
(e)-*k*i-*re*ǰu (n) 'chin'
(e)-*k*i-*r*o (n) 'night'
(e)-*k*i-too*k*ye (n) 'banana'
e-mo*š*o (adv) 'left'
e-bi-*k*ya (n) 'neck'
e-bi-*re*ǰu (n) 'beards'
e-N-da (n) 'louse'
e-N-ka*r*i (n) 'urine'
e-N-koko (n) 'chicken'
e-N-ǰoka (n) 'snake'
e-N-ǰoǰo (n) 'elephant'
e-N-punu (n) 'pig'
e-N-si (n) 'earth, world'
e-N-*š*oni (n) 'shame'
e-N-te (n) 'cow, cattle'
e-N-ǰu (n) 'house'
e-N-ǰubu (n) 'hippo'
e-N-ǰu*r*a (n) 'rain'
e-N-ǰw*i* (n) 'gray hair'
e-*r*i-ino (n) 'tooth'
e-*r*i-i*š*o (n) 'eye'
e-ñanǰa (n) 'lake'
e-ñ*a*na (n) 'calf'

e-ñindo (n) 'nose'
e-ñ*u*ma (adv) 'behind'
-ga*b*a (v) 'divide'
-gona (v) 'snore'
-go*ro*ra (v) 'straighten out'
-gu*r*a (v) 'buy'
-gwa (v) 'fall'
-ha (v) 'give'
-hanika (v) 'hang'
-ha*r*a (a) 'far'
-hinduka (v) 'turn, change'
-hu*ri*ra (v) 'hear'
-*hy*a (v) 'burn'
-iǰa (v) 'come'
-ii*b*a (v) 'steal'
-ii*r*uka (v) 'run'
-iita (v) 'kill'
i*mw*e (pron) 'you (pl)'
-ionka (v) 'suckle'
i*tw*e (pron) 'we'
-iǰuka (v) 'remember'
iwe (pron) 'you (sing)'
-ǰwaa*r*a (v) 'put on, wear'
-ku*r*a (v) 'grow'
-manya (v) 'know'
-mi*r*a (v) 'nine'
-ñya (v) 'defecate'
o-bu-*sy*o (n) 'forehead, face'
o-bw-oo*k*i (n) 'honey'
o-ku-gu*r*u (n) 'leg'
o-mu-*bi*ri (n) 'body'
o-mu-b*wi* (n) 'mosquito'
o-mu-*hy*o (n) 'swallow'
(o)-mu-kaaga (n) 'six'
(o)-mu-naan*a* (n) 'eight'
(o)-mu-šanǰu (n) 'seven'
-mw-end*a* (n) 'knife'
o-mu-kazi (n) 'woman'
o-mu-*ki*ra (n) 'tail'
o-mu-kono (n) 'arm'
o-mu-ntu (n) 'person'
o-mu-nwa (n) 'mouth'

o-mu-*r*imo (n)	'work'	-*r*uma (v)	'bite'
o-mu-*rir*o (n)	'fire'	-*r*waa*r*a (v)	'fall sick'
o-mu-*šeñe* (n)	'sand'	-*r*ya (v)	'eat'
o-mu-twe (n)	'head'	-*š*akaa*r*a (v)	'roof'
o-mu-yaga (n)	'wind'	-*š*eka (v)	'laugh'
o-mu-*zair*e (n)	'parent'	-*še*reka (v)	'hide'
o-mu-*ñwañi* (n)	'friend, companion'	-*š*una (v)	'pinch'
o-mw-ana (n)	'child'	-*sy*a (v)	'grind'
o-mw-ika (n)	'smoke'	-taha (v)	'draw (water)'
o-*r*u-ba*ǰ*u (n)	'side'	-tanaka (v)	'vomit'
o-*r*u-go (n)	'fence, hedge'	-tee*r*a (v)	'beat, hit'
o-*r*u-hu (n)	'skin'	-*ʦ*indika (v)	'push'
o-*r*u-*r*imi (n)	'tongue'	-zaana (v)	'play'
-*rir*a (v)	'cry'	-zaa*r*a (v)	'give birth'
-*r*oota (v)	'dream'	-ziha (v)	'swim'

These lexemes were found to be semantically virtually identical across the group. They only differ in terms of surface tone (which is beyond the scope of this study but introduced briefly in §2.5.3 and §3.5.2), and in terms of phonological or phonetic alterations, such as: [č~k], [ǰ~g], [ky~k], [ǰ~ž~z], [š~s~ʦ], [ñ~n], [mw~nw~ñw], [tw~čw], [hy~sy-s], [r~ɾ~ɹ~ɻ~l], [b~β], [wi~u], [ai~ei~ee~ii], [i~e], [u~o], [a~e], and [V~Ø] (see Appendix II–III). Just to use one example to illustrate the point, the lexeme which means 'beards' is pronounced in different ways as follows: [e-βi-reǰu] (Ruhaya, Runyoro, Rutooro, Runyambo), [e-βi-režu] (Runyankore, Rukiga), [e-βi-rezu] (Runyambo, Ruzinza), or [e-βi-lezu] (Rukerebe). It is true that these items are not specific to Rutara; some of them are also found in other Lacustrine languages, and Bantu languages in general. Nevertheless, the list shows that there is a high rate of lexical similarity among these languages, greater than if we were to compare this list

to any other Bantu language or group.[19] Those lexical items found in other languages do not carry the same rate of similarity at either level, semantic or phonological. These items reflect group affiliation at the lexical level. Even in cases of those lexemes which appear to be different across the group, some of them do appear in various languages (though not shown in the lists) with some semantic shift. This is, presumably, a result of lexical specialization which appears to be controlled by language usage, in terms of lexical items, lexical collocation (*i.e.* which lexeme collocates with which other lexeme(s)), and connotations of different lexemes. To cite a few examples, the following pairs of synonymous lexemes are found in different languages: 'neck': *e-bikya/e-ngoto*, 'finger': *e-kyaara/o-rukumu*, and 'to tie': *ku-koma/ku-boha* (but *ku-koma* means 'to pick up' in Runyoro and Rutooro). Some lexemes also have phonological/ morphological variants even within the same language, such as *o-mwéèzi vs o-kwéèzi* for 'moon' in Ruhaya, or *ku-tánaka vs ku-tábika* for 'to vomit' in both Runyambo and Ruhaya. Some of these might be a result of lexical transfer from one language to another. For instance, Taylor (1959) suggests that the form *omwêzi* 'moon' was transferred to Runyankore/Rukiga from Luganda, and now the former has both forms *okwêzi* and *omwêzi*. Such lexemes have varying distribution across the group and relatively diverse but related senses. This creates a lexically complex semantic network in the group, but at the same time raises the rate of mutual intelligibility among speakers.

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[19] The comparison was indeed made between the Rutara group and W/Highlands (Kinyarwanda, Kirundi, Kishubi, Kihangaza, and Kiha), Suguti (Kijita, Chiruri, and Kikwaya), N/Nyanza (Luganda and Rubumbiro), and E/Nyanza (Kikuria) using the same lexical list, as in Appendix II. However, the lexical lists for non-Rutara languages are not included in the appendix because of their little significance.

From what has been presented in this section, the following conclusion can be made: Rutara languages have a high level of mutual intelligibility, at least at the lexical level. Thus, it is possible to set up a list of the common vocabulary for the group, as the list in (17) suggests. This will lead to a high rate of lexical intelligibility among Rutara languages. That rate will no doubt be much higher than the internal group average given by the three studies discussed above. There are salient linguistic reasons why some of the lexicostatistical scores were as low as 73%–76%. We will use Schoenbrun's (1990:284–287) data for illustration. First, the choice of a representative lexeme in translation varies from one informant to another. For instance (as indicated above), while in Ruhaya, 'neck' could be represented by either *ebíkya* or *engoto*, and 'seeds' by either *embîbo* or *empambo*, Schoenbrun only used the first lexeme in each pair. This means that those are the only lexical items he got from his informant(s) which, consequently, affects the data and calculations when comparing Ruhaya with other languages in which he got only the second lexeme of the pair. Second, there is too much inconsistency in the morphological representation of lexemes in the data. This has several levels. One, an item which is underlyingly similar across two or more languages is represented by a different nominal class in each language. For instance, whereas 'good' is {-rungi} in both Ruhaya and Runyambo, this item is represented as this unprefixed root in Ruhaya, but as a member of the {N-} class in Runyambo, hence, {n-dungi}. Thus, comparing {-rungi} and {n-dungi} is a case of misguided morphological representation. Two, verbs which are underlyingly similar are represented by different T/A forms. For instance, the forms {ku-hya} (or {ku-sya}) and {-hiire} (or {-šiire}) are infinitival and

Perfect forms of the same verb {-hya} (or {-sya}) in Ruhaya (or Runyambo, respectively). Therefore, comparing {ku-hya} and {-hiire} in the data, as Schoenbrun does, is totally misleading. Third, there are cases of misinformation. For instance, 'see' and 'swim' are {-bona} and {-ziha}, respectively, in Ruhaya. The forms *-leeba* and *okwiibira*, which he reports, mean 'look (at)' (bare stem) and 'to dive'/'to sink' (nominal), respectively, although the former can also be used to mean 'see' in an expression like 'come and see'. These are just a few examples of several that are identified in the data. This necessarily results in his regarding similar items as different and, therefore, necessarily contributed in lowering the scores between languages. As illustrated in the lexical list above, this study avoids as much as possible morphological inconsistency in representing lexemes. This high rate of lexical intelligibility corresponds to the findings by Ladefoged, *et al.* (1971) which show that relative intercomprehension between Runyankore and Rukiga was 87%, and 82% between Runyankore and Rutooro, bearing in mind that their study went beyond the lexical level (*i.e.* they used stories to test mutual intelligibility). It also corresponds to their other findings regarding the rate of common lexemes among these languages, as indicated in the table below (which only shows Rutara languages):

Table 2.3: Percent of words in common among Ugandan Rutara languages

	Runyoro	Rutooro	Ruhororo	Rutagwenda	Runyankore	Rukiga
Rutooro	93	-	84	91	86	85
Ruhororo	86	84	-	91	96	96
Rutagwenda	90	91	91	-	93	90
Runyankore	86	86	96	93	-	94
Rukiga	87	85	96	90	94	-

Ruhororo and Rutagwenda are included in the table because the rates of their lexical relationships with other Rutara languages (according to this table) show that they are part of the group. They do not carry the same weight as other languages in the discussion because they were not included in collecting data for this thesis. Nevertheless, the two Tables (2.4 above and 2.5 below) show that they belong to the group both phonologically and lexically.

2.3. Defining Rutara phonologically

Phonological studies that have dealt with Rutara include Ladefoged *et al.* (1971), Nurse (1979a), and Mould (1981). Ladefoged *et al.* deal with Northern Rutara languages, that is, those found in Uganda. Their study gives a statistical value to phonetic relationships between some Rutara languages, with the rate ranging between 86–93% as shown in Table 2.4 below.

Table 2.4: The degree of phonetic similarity between Ugandan Rutara languages (Ladefoged, *et al.* 1971)

	Runyoro	Rutooro	Ruhororo	Runyankore	Rukiga
Runyoro	-	93	87	88	86
Rutooro	93	-	88	90	88
Ruhororo	87	88	-	90	87
Runyankore	88	90	90	-	86
Rukiga	86	88	87	86	-

However, we need to illustrate how sounds correspond among current Rutara languages and then trace their historical changes from Proto-Bantu, in order to provide further support for the close relationship.

2.3.1. Phonological inventories

This section presents the general overview of the different phonemic systems of the Rutara languages. Using the lexical lists (see Appendix II), the following inventories can be assigned to the languages under study.

Table 2.5: Phonemic inventories

Language	consonants																					
	p	t	d	ʦ	č	ǰ	k	g	β	f	v	s	z	š	ž	h	m	n	ň	r	l	w	y
Runyoro	+	+	+	-	+	+	+	+	+	+	-	+	+	-	-	+	+	+	+	+	-	+	+
Rutooro	+	+	+	-	+	+	+	+	+	+	-	+	+	-	-	+	+	+	+	+	-	+	+
Runyankore	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+
Rukiga	+	+	+	-	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+
Ruhaya	+	+	+	-	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	-	+	+
Runyambo	+	+	+	-	+	+	+	+	+	+	+	+	+	-	-	+	+	+	+	+	-	+	+
Ruzinza	+	+	+	-	+	-	+	+	+	+	?	+	+	-	-	+	+	+	+	+	-	+	+
Rukerebe	+	+	+	-	+	-	+	+	+	+	?	+	+	-	-	+	+	+	+	-	+	+	+

Language	vowels									
	i	iː	e	eː	a	aː	o	oː	u	uː
Runyoro	+	+	+	+	+	+	+	+	+	+
Rutooro	+	+	+	+	+	+	+	+	+	+
Runyankore	+	+	+	+	+	+	+	+	+	+
Rukiga	+	+	+	+	+	+	+	+	+	+
Ruhaya	+	+	+	+	+	+	+	+	+	+
Runyambo	+	+	+	+	+	+	+	+	+	+
Ruzinza	+	+	+	+	+	+	+	+	+	+
Rukerebe	+	+	+	+	+	+	+	+	+	+

Most of the sounds appear to have a very high rate of distribution across the group, except for /ʦ/, /š/, /v/ and /ž/. That is, /ʦ/ is found in Runyankore only, /ž/ in Runyankore and Rukiga only, and /š/ in Runyankore, Rukiga, Ruhaya and part of Runyambo only. /v/ is very rare, and, in most languages, is a recent innovation. Many informants could not retrieve any lexeme with a [v] sound. We consider both /d/ and /v/ as relatively recent phonemes in most of the Rutara languages (except Runyankore/Rukiga in which Taylor (1985) states that /v/ is native). Thus, /d/ and /v/ have apparently been incorporated through transfer of new lexemes from other languages like Luganda and Kiswahili where these sounds are common phonemes.

Based on these inventories together with the lexical lists, we identify various phonological rules which determine the surface representations of different sounds. Some of these rules are found in all eight languages, others apply only to a few of them, while others are restricted to only one language or dialect. The velar sounds /k, g/, for instance, are the most affected by the front high vowel.

(18)

	verb (infinitive)		**noun (group A)**		**noun (group B)**	**gloss**
a.	/ku-ruk-a/	→	o-mu-ru**k-i**	→	o-mu-ruč-**i**	'to weave; weaver'
b.	/ku-íruk-a/	→	o-mu-iru**k-i**	→	o-mu-iruč-**i**	'to run; runner'
c.	/ku-híig-a/	→	o-mu-hii**g-i**	→	o-mu-hiij-**i**	'to look for; hunter'
d.	/ku-híig-a/	→	o-mu-hii**g-i**	→	o-mu-hiiž-**i**	'to look for; hunter'

The four examples in (18) above, indicate how the nominal suffix /-i/ changes the final consonant of the stem in group (B) (*i.e.* Rukiga, Ruzinza, Runyambo and part of H4) and not

group (A) (Runyoro, Rutooro, Runyankore, part of Runyambo, and the other dialects of Ruhaya), as in (18a) and (18b). In Rukiga, Ruzinza, Runyambo and part of Runyaihangiro (H4), the sound [č] appears before [i] in positions where we would expect to find [k]. That is, in these languages, we do not find the sound [k] appearing before [i]. In some part of Runyambo and Rukiga, this is also extended to the other front vowel [e]. Thus, /k/ is pronounced as [č] before /i/ in most languages except Runyankore and three dialects of Ruhaya (Ruziba (H1), Ruhyoza (H2), Ruhamba (H3)), while the liquid sounds are pronounced as [d] after /n/ in all languages.[20] Therefore, whereas Ruzinza and Ruhaya (H4) apply the rule k → č/__i, Runyambo and Rukiga extend it further to k → č/__V[-back].

The same principle applies also to /g/ which is pronounced as [ǰ] in Runyambo (18c) and [ž] in Rukiga (18d) . The latter shows that Rukiga has gone one step further by adding the feature [+continuant] to the sound [ǰ]. This rule has been extended to the entire system so that there is no [ǰ] sound in either Rukiga or Runyankore, but only [ž] which has now been phonemicised. Runyankore, on the other hand, tends to palatalise velar sounds before front vowels, thus k → ky/__$V_{[-back]}$ as found in applicative forms like /ku-tég-a/ → [ku-tégy-er-a] 'to trap' and 'to trap for', respectively. There is also a dialect of Ruzinza, mainly spoken on

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[20] The representation for the liquid sounds is taken to be /r/ mainly for convenience purposes. The true quality of the sound in all dialects would be difficult to represent here without recourse to experimental phonetics, which is beyond the scope of this study. Nevertheless, the underlying phonemes are more rhotic than lateral in all languages except Rukerebe in which the latter dominates. To be precise, dominant rhotic sounds heard in Rutara languages range between the *voiced (alveolar) frictionless continuant* [ɹ] and *voiced (alveolar) lateral flap* [ɺ] (*cf.* Ladefoged 1971, Taylor 1985, Pullum & Ladusaw 1986). A trill sound is very rare except in Northern Rutara languages where it is heard after deleting a vowel between two liquid sounds as in /ku-ɹiɹa/→[kurra]. In this study, however, the generic rhotic symbol [r] is maintained throughout.

the islands and along the lake shore, whose speakers are referred to as *Abanyaisanga* and *Abanyaizinga*, respectively, as opposed to *Abarongo*) which also apply the feature [+continuant] to /g/ before [i, e], hence g → z/__V[-back]. Thus, /ku-genda/ → [ku-zenda] 'to go'.

There are other common rules, regarding the sounds /r, β, h/ in relation to the nasals [n, m], which apply to all Rutara languages. See the following examples and their subsequent rules for illustration.

(19)

	infinitive	**1S habitual**	**1P habitual**	**imperative**	**gloss**
a1.	ku-rya / ku-lya	n-dya	tu-rya / tu-lya	rya / lya	eat
a2.	ku-rira	n-dira	tu-rira	rira	cry
a3.	ku-ruma	n-duma	tu-ruma	ruma	bite
b1.	ku-ha	m-pa	tu-ha	(m-pa)	give
b2.	ku-hanika	m-panika	tu-hanika	hanika	hang/put up
c1.	ku-βa	m-ba	tu-βa	βa / ba	be(come)
c2.	ku-βara	m-bara	tu-βara	βara / bara	count
c3.	ku-βona	m-bona	tu-βona	βona / bora	see

There are a few things to note first, regarding (19). One, we have indicated two alternative forms for the verb 'to eat' because in most languages the liquid sound sounds more like a lateral than a rhotic between [+back]——[-back]. Two, the imperative form of the verb 'to give' has an OM[BENEFACTIVE] {1S: m-, 3S: mu-, 1P: tu-,3P: ba-} because of its transitivity; it cannot exist alone like other verbs. Three, in some languages/dialects, Ruhaya for instance, the initial high tone produces more [b] sounds than [β], that is, [bára] rather than [βára] 'count', as in (19c). Thus, (19) is the result of three sets of rules operating in the three groups

(a, b, c), respectively. The first rule in which the liquid sound(s) /r, l/ surface(s) as [d] after the nasal [n] could be expressed simply as r → d/n__, or as l → d/n__ in Rukerebe. Each of the other two rules in (b, c) has two sub-rules that are in operation before producing the surface representations. These derivations are summarized in (20).

(20)	'I give'	'I hang/put up'	'hang!'	'I count'	'I see'
a. underlying	/n-ha/	/n-hanika/	/hanika/	/n-βara/	/n-βona/
b. structure preservation	m-ha	m-hanika	---	---	---
c. [+labial] assimilation	m-pa	m-panika	---	m-βara	m-βona
d. [-continuant] assimilation			---	m-bara	m-bona
e. surface	[mpa]	[mpanika]	[(h)anika]	[mbara]	[mbona]

In both cases, it is the nasal sound /N/ that is affected by the following sound, [h] and [β], respectively, thus realized as [m]. Then, this [m] changes the following consonant into a non-continuant bilabial. The structure preservation rule in (b) is based on the fact that there exists no form that has a nasal sound other than [m] before [h]: *[nh], *[ñh], *[ŋh]. Stages (c) and (d), on the other hand, appear to work simultaneously on [m-ha]. With this analysis, we realize that the two rules which are normally expressed as h → p/N___ and β → b/m__ are inadequate because they do not depict the intermediate stages of the process, that is, the process that warrants [h] to surface as [p] in the first place. The two rules should therefore be modified as follows, where (21a) and (21b) are ordered rules:

(21)

a. $N \rightarrow m / \_\_ \left\{ \begin{matrix} \beta \\ b \\ h \end{matrix} \right\}$ b. $\begin{bmatrix} \beta \\ h \end{bmatrix} \rightarrow \begin{bmatrix} b \\ p \end{bmatrix} / m\_\_$

Other phonetic changes concern vowels. There are three major types of vocalic phonetic changes, namely, deletion of a vowel, gliding, and vowel harmony. This results in different languages having different forms of the same lexical item, as illustrated by "singular I" *versus* "singular II":

(22)	**singular I**	**singular II**	**plural**	**gloss**
a.	e-i-huri	i-huri	a-ma-huri	egg(s)
b.	e-i-bara, e-i-zina	i-bara, i-zina	a-ma-bara, a-ma-zina	name(s)
c.	e-i-bega	i-bega	a-ma-bega	shoulder(s)
d.	e-i-baare	i-baare	a-ma-baare	stone(s)

Given the fact that unmarked noun stems are normally preceded by two morphemes, a PI vowel and a nominal marker in all other nominal classes, it follows that the initial (PI) vowel {e-} has been deleted in singular type II (22) when followed by the nominal marker {-i-} (in those languages which have the form {Ø-**i**-huri} instead of {**e-i**-huri}). Further supporting evidence in found in Runyoro:

(23)	**singular**		**plural**	**gloss**
	Ruhaya	**Runyoro**	**Ruhaya/Runyoro**	
a.	e-i-he	ii-he	a-ma-he	army ~ armies
b.	e-i-bara	ii-bara	a-ma-bara	name ~ names
c.	e-i-huri	ii-huri	a-ma-huri	egg ~ eggs
d.	e-i-higa	ii-higa	a-ma-higa	cooking stone(s)

It is the lengthening of the initial vowel {-i-} → [iː] that indicates the loss of a sound. The best explanation is that {e-i-} underwent total assimilation to [i-i-] > [ii-], which is still extant in languages like Runyoro, but shortened in other languages which, presumably, do not allow long vowels initially. This process of eliminating the PI {e-} is also common in other

Interlacustrine languages, whereas in many other Eastern Bantu languages all PI vowels have been deleted (diachronically).

Another relatively common process for the vowels involves /ai/ which changes to [ei] in some languages and [ee] to others. As a result, the group has three phonetically different ways of realising the plural form for the same underlying singular noun. This appears in both environments, on morpheme boundaries and morpheme internal as indicated below:

(24)	**singular**	**plural I**	**plural II**	**plural III**	**gloss**
a.	e-ri-ino	a-ma-ino	a-me-ino	a-me-eno	tooth, teeth
b.	e-ri-išo, e-ri-iso	a-ma-išo, a-ma-iso	a-me-išo, a-me-iso	a-me-eso	eye, eyes
c.	ku-ba	tu-ba-ire	tu-be-ire	tu-be-ere	
	to-be	1P-be-T/A	1P-be-T/A	1P-be-T/A	
	'to be'	'we were'	'we were'	'we were'	

Although (24a) and (24b) show that there is only one form of singular common to all languages (*i.e.* {e-ri-} or {e-li-} class), it indicates that there are three types of plural forms. Plural I (which applies to Runyoro, Ruhaya (H1, H2, H3), Runyankore, and Rutooro) appears normal in that it contains the normal plural nominal marker {a-ma-}. In plural II (which applies to Ruhaya (H4), and Runyambo) the formative {-ma-} appears as [-me-]. This is the result of partial vowel harmony in which the vowel [a] acquires partially features from the following vowel [i], and thus surfaces as [e], but the following vowel [i] remains unaffected (see also §3.3.1). Plural III (which applies to Ruzinza and Rukerebe) is the result of total vowel harmony, hence both [a] and [i] surface as [e]. These processes are also extended to morpheme internal environments. Thus, following the same principle as in (24), the lexeme

/o-mu-zaire/ is heard as [o-mu-zaire], [o-muzeire] and [o-mu-zeere], respectively. Furthermore, there are also a few cases found in southern Runyaihangiro (Ruhaya-H4) where /a+i/ is heard as [i-i], which is another form of total assimilation.

2.3.2. Phonetic changes and phonological innovations[21]

By using the set of Proto-Bantu sounds that we know and the sounds attested in the current Rutara languages, we can establish the lines of sound change that these languages followed in their phonological history. In so doing, we should be able to reconstruct the sound system for Proto-Rutara. Most of the sound correspondences (especially those which were not followed by the high vowels *i, *u) show clearly the direction of sound changes from Proto-Bantu to present. Those which were followed by *u changed systematically to [f, č] and [ǰ, ž, z], while those before *i changed to [h, f, s, z] with one exception, which will be explained in details here below.

Table 2.6 illustrates the eight sets of sound correspondences among Rutara languages as compared to Proto-Bantu sounds and then, attempts a reconstruction of Proto-Rutara sounds based on these correspondences (*cf.* Mould 1981 and Nurse 1979a).

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[21] The vowels *i, *u, *ɪ, *ʊ stand for what is traditionally represented as *į, *ų, *i, *u (in Proto-Bantu), respectively.

Table 2.6: Phonetic comparison of sounds among Rutara languages

P-Bantu	Ruhaya	Runyambo	Runyoro	Rutooro	Runyankore	Rukiga	Ruzinza	Rukerebe	**P-Rutara**	**Lexical Examples**		
										P-Bantu	P-Rutara	Gloss
*p	h/Ø	h	h	h	h	h	h	h	***h**	*-**p**embe	*e-i-**h**embe	horn (n)
*p/_i	h/Ø	h	h	h	h	h	h	h	***h**	*-**p**ida	*a-ma-**h**ira	pus (n)
*p/_u	f	f	f	f	f	f	f	f	***f**	*-**p**udo	*e-i-**f**uro	foam (n)
*b	β	β	β	β	β	β	β	β	*β	*-N-**b**eba	*e-N-β**e**β**a**	rat, mouse (n)
*b/_i	z	z	z	z	z	z	z	z	***z**	*-**b**in-	*ku-**z**in-a	to dance/sing (v)
*b/_u	ǰ	ǰ	ǰ	ǰ	ž	ž	z	z	*ǰ	*-N-**b**uda	*e-N-ǰura	rain (n)
*t	t	t	t	t	t	t	t	t	***t**	*-doo**t**-	*ku-roo**t**-a	to dream (v)
*t/_i	s	s	s	s	ʦ	s	s	s	*ʦ	*-**t**igad-	*-ʦigar-a	to remain (v)
*t/_u	č	č	č	č	č	č	č	č	*č	*-**t**umʊ	*e-i-čumu	spear (n)
*d	r	r	r	r	r	r	r	l	***r**	*-**d**a**d**uk-	*ku-**r**a**r**uk-a	to become mad (v)
*d/_i	z	z	z	z	z	z	z	z	***z**	*-**d**iba	*e-i-**z**iβa	pond, pool (n)
*d/_u	ǰ	ǰ	ǰ	ǰ	ž	ž	z	z	*ǰ	*-**d**ub-	*ku-ǰuβ-a	to fish (v)
*c	š	š/s	s	s	š	š	s	s	*š	*-čatʊ	*(e)-i-šatu	three (n)
*c/_i	s	s	s	s	s	s	s	s	***s**	*-čia	*ku-se-a	to grind (v)
*c/_u	f	f	f	f	f	f	f	f	***f**	*-N-čuka	*e-N-**f**uka	hoe (n)
*ɟ	ǰ	ǰ	ǰ	ǰ	ž	ž	z	z	*ǰ	*-N-ǰada	*e-N-ǰara	hunger (n)
*ɟ/_i	z	z	z	z	z	z	z	z	***z**	*-ǰi	*a-ma-**i**zi	water (n)
*ɟ/_u	ǰ	ǰ	ǰ	ǰ	ž	ž	z	z	*ǰ	*-N-ǰu	*e-N-ǰu	house (n)
*k	k	k	k	k	k	k	k	k	***k**	*-N-**k**o**k**o	*e-N-**k**o**k**o	chicken (n)
*k/_i	s	s	s	s	ʦ	s	s	s	ʦ<*č	*-**k**ige	*e-ki-čige	eyebrow (n)
*k/_u	f	f	f	f	f	f	f	f	***f**	*-**k**uba	*e-ki-**f**uβa	chest (n)
*g	g	g	g	g	g	g	g	g	***g**	*-**g**endo	*o-ru-**g**endo	journey (n)
*g/_i	z	z	z	z	z	z	z	z	***z**	*-**g**ido	*o-mu-**z**iro	taboo (n)
*g/_u	ǰ	ǰ	ǰ	ǰ	ž	ž	z	z	*ǰ	*-**g**uta	*a-ma-ǰuta	oil (n)

The sound that needs some explanation is [ʦ] which is only found in Runyankore, as a reflex of *k/__i and *t/__i. The first case of this sound, that is *t > ʦ/__i, can be explained

as a regular diachronic change of affrication forming part of the process commonly known as Bantu *Spirantisation*. It appears plausible to propose that *ʦ was the common phoneme for Proto-Rutara, which then split into [ʦ] for Runyankore and [s] for other languages. This assumption is supported by current phonological processes that are taking place in Rutara languages. Let us use the Perfective formative {-ire} for illustration. This formative is reconstructed from the Proto-Bantu *-ide, and functions as Perfect (§3.4.1, 4.5.2), Resultative (§4.5.4), and Past tense (§5.2.2) in many Bantu languages (Kahigi 1989, Hyman 1995).

Table 2.7: The effect of {-ire} on stems ending with [t]

	gloss	**infinitive**	**Near Past = {-R- + -ire}**	
			Runyankore	**Rutooro, Rukiga, Ruhaya**
a.	to kill	ku-ita	-its-ire	-is-ire
b.	to bring	ku-reeta	-reets-ire	-rees-ire
c.	to dream	ku-roota	-roots-ire	-roos-ire

It is clear that the roots in Table 2.7 are reflexes of *-yít- (2095), *-déét- (546), and *-róót- (672), respectively, and that *-ide had the same super-high vowel which triggered Bantu Spirantisation. In this case, it is apparent that it is the same process we see in Table 2.7 which changed all the *t/__i sounds to [ʦ] in Runyankore. All other languages behave mainly like Rutooro, Rukiga and Ruhaya in that they have [s] where Runyankore has [ʦ]. It is for this reason that *ʦ is proposed as the reflex of PB *t/__i in Proto-Rutara, and which changed to [ʦ] in Runyankore but to [s] in other Rutara languages: *t > *ʦ > [ʦ, s]. We note that the other [i] which originates from *ɪ does not change the sound [t] in any Rutara

languages, as seen in applicative constructions (*i.e.* benefactive and locative), {-it-a} → {-it-ir-a} 'kill for/at', and not {-its-ira}.

The second occurrence of [ʦ] is more interesting in that it is also found outside Rutara, in W/Highlands languages (see Appendix III). This is a reflex of PB *k before *i. Given the fact it is a systematic reflex of *k/__i, together with the supporting evidence given in the preceding paragraph regarding *t/__i, it appears that the second [ʦ] is an internal innovation of Runyankore, which developed through *k > *č > ʦ. This would imply that both *ʦ__/i and *č__/i merged as [ʦ] in Runyankore, through the process of č →ʦ/__i. It is possible, however, that there was an intermediate stage at which all the Rutara languages shared the sound ʦ (< *č < *k) before it split into [ʦ] in Runyankore and [s] in the other languages, thus *k > *č > ʦ > [ʦ, s]. If this was the case, then we will assume that the intermediate stage took place in the late stages of Proto-Rutara. Finally, [ʦ] was also phonemicised and merged with the other /ʦ/ from *t. It should be pointed out that this process of *č > ʦ did not apply to PB *c/__i because all PB *c sounds had already undergone spirantisation before this stage. Therefore, *č is proposed as the Proto-Rutara sound that developed through an intermediate *ʦ into [ʦ] in Runyankore and [s] in others.

Both Nurse (1979a) and Mould (1981) report that Runyoro and Rutooro have the sound [t], as a reflex of *t/__i, where others have [s] and Runyankore has [ʦ]. This suggests that *t/__i did not change to *ʦ or [s] in Runyoro/Rutooro. Those two studies do not provide lexical or phonological data to justify the claim, and this study did not find any evidence for such cases.

Given the data provided in this chapter (above), together with the phonetic inventories provided above in Table 2.5 and the reflexes in Table 2.6, as well as the rest of the data in the appendix, Table 2.8 (below) appears to be the most probable phonological inventory of Proto-Rutara.

Table 2.8: The Phonological inventory of Proto-Rutara

*p			*t					(*c	*ɟ)	*k	*g		*i	*iː			*u *uː
			ʦ			*č	*ǰ										
	*β	*f		*s	*z			*š				*h	*e	*eː			*o *oː
	*m				*n				*ñ								
					*r										*a	*aː	
									*y		*w						

However, it is not very clear whether the sounds that resulted from merging *b, d, j, g/__u on the one hand, and [t/__u, k/__i] on the other, in Proto-Rutara, were *ǰ and *č or *ɟ and *c, respectively. Nevertheless, affricate sounds are more probable than stops as an intermediate stage of Bantu Spirantisation, which changes stops into fricatives. That is why the table shows both sets of sounds, with the less probable in brackets.

The maximum sequence of consonant clusters is of the form $C_1C_2C_3$, where C_1 must be a nasal, C_2 any consonant, and C_3 a semi-vowel. Since this structure is common to all Rutara languages, it will be assumed that it was retained from Proto-Rutara. There is one extra phonetic process taking place in the Northern Rutara languages, which involves deleting a vowel between two liquid sounds, thus /ku-húrira/ →[ku-húrra].

Based on the sounds established for both Proto-Bantu and Proto-Rutara, we can establish the nature of sound split and merger that Rutara languages have undergone as expressed below. There are eight major sets of phonetic changes, that is, from eight Proto-Bantu sounds *p, *b, *t, *d, *c, *ɟ, *k, *g which could, in fact, be classified into four sets depending on their respective places of articulation: p/b, t/d, č/ǰ, and k/g.

From *p and *b we get two sets of reflexes, [p, h, Ø, f] and [b, β, z, ž, ǰ], respectively. It is important to note, however, that [p] is mainly found in the environment of a nasal sound, in which case it is pronounced as [mp] (see 20–22), with but a few exceptions.

(25)	**Proto-Bantu**	**meaning**	**Rutara**	**meaning**
a.	*-pidi	'puff-adder'	e-m-piri	'puff-adder'
b.	*-piti	'hyena'	e-m-pi(t)si	'hyena/leopard'
c.	*-papa	'wing'	e-i-papa	'wing'

The two lexemes (25a) and (25b) have the nasal sound [m] before [p], which suggests that probably the underlying sound for all the languages is /h/ →[p] as in other cases of *p. However, there is evidence for a more serious deviation of the sound /p/ *vis-à-vis* /h/ as found in the diminutive forms of (25), thus {a-ka-piri}, {a-ka-pitsi, a-ka-pisi} and {a-ka-papa}, respectively. This deviation is more common in Ruhaya than it is in the other languages. That is, we find [p] without a nasal that is supposed to trigger it. Regarding diminutives as secondary formations, these cases of intervocalic [p] could be a result of paradigmatic levelling, in which these stems now retain their initial surface [p] across all paradigms. Consequently, removing the nasal sound in order to form the diminutive class (*i.e.* {a-ka-}) does not change [p] into [h]. Yet there are exceptions that appear to have a [p] without the

triggering nasal sound, as indicated in (25).[22] The only explanation that can be given for this deviation would be that it is a post /*p > *h/ innovation, which now accepts other lexemes to occur with a [p] without changing it into [h], such as {e-i-p(a)apaari} 'pawpaw' (Runyankore, Rukiga, and Ruhaya) rather than *{e-i-h(a)ahaari}. Thus, like /d/ and /v/, /p/ is also a phoneme, which now allows non-native lexemes to be accepted in these languages without being changed to [h].

The sound [h], on the other hand, is still undergoing lenition, as in Ruhaya (especially H1, H2, H3) where it is changing steadily to Ø. As a result, in some cases, the remaining vowel of the syllable that has lost [h] forms a glide with the preceding vowel. Examples would be: /e-i-hêmbe/ → e-i-Øêmbe → [eiyêmbe], and /e-i-huri/ → e-i-Øuri → [(e)iyuli]. Evidence shows, however, that the sound [h] still exists at the underlying level because it shows up as a [p] after a nasal sound, as in (19b), (20), and (50h).

Splits: The following table summarizes all the processes of phonetic change from Proto-Bantu to Proto-Rutara and then to the contemporary languages, thus indicating the phonological splits that took place (*cf.* Guthrie 1971, Nurse 1979a, Mould 1981, Hinnebusch 1989, Schadeberg 1995). The table considers the PB stops only and leaves out the nasals and semi-vowels which did not undergo significant changes.

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[22] Rukerebe has the form [i-βáβa] 'wing', and/or [e-m-báβa] 'wing(s)'.

Table 2.9: Phonological developments from PB to current Rutara languages

Proto-Bantu	***p**			***b**			***t**			***d**			***c**			***ɟ**			***k**			***g**		
Environment	m_	_i_	_u	V_	_i_	_u	V_	_i_	_u	V_	_i_	_u	V_	_i_	_u	V_	_i_	_u	V_	_i_	_u	V_	_i_	_u
Proto-Rutara	*p	*h	*f	*β	*z	*ǰ	*t	*ʦ	*č	*r	*z	*ǰ	*š	*s	*f	*ǰ	*z	*ǰ	*k	*č	*f	*g	*z	*ǰ
Contemporary languages	p	h Ø	f	β b	z	ǰ ž z	t	ʦ s	č	r l	z	ǰ ž z	š s	s	f	ǰ ž z	z	ǰ ž z	k	ʦ s	f	g	z	ǰ ž z

Mergers: The sounds *b, *d, *ɟ and *g have virtually the same reflexes, ǰ, z, ž, while, in addition to that, *d also changed to liquid sounds. Similarly, the reflexes [t, ʦ, č, s, š, f, k] appear to have developed from *p, *t and *k under more or less the same processes of spirantisation and lenition as did their voiced counterparts.

Table 2.10: Phonological mergers of PB sounds to Proto-Rutara

Proto-Bantu	Phonological Environment	Proto-Rutara
p, c, k	__u	f
t k	__u __i	č
b, d, ɟ, g	__i	z
b, d, ɟ, g	__u	ǰ

Table 2.11: Phonological mergers of PR sounds to current Rutara languages

Proto-Rutara	Phonological Environment	Results in current languages	
z ǰ	__i __u	z	Ruzinza, Rukerebe
ʦ, č	__i	ʦ	Runyankore
ʦ, č, š	__i	s	Runyoro, Rutooro, Runyambo, Ruzinza, Rukerebe

The number of vowels underwent reduction. Proto-Rutara reduced the 14 Proto-Bantu vowels to only 10 by merging two sets. Thus *i, ɪ > *i, *u, ʊ > *u, *e, a, o > *e, a, o, with the same principle applying to the long vowels as well, thus *ii, ɪɪ > *ii and so on, respectively (*cf.* Mould 1981, Schadeberg 1995).

2.3.3. Verbal lexical tone

It has already been mentioned that tone is not a major focus of this study because of its minor significance in T/A in Rutara languages. Nevertheless, it is important to point out some basic rules operating in the verbal system, given the fact a T/A system normally cannot exist without verbs (*cf.* §3.5.2). The following table compares six languages of the group, using various verbs (*to*-infinitives) of different syllables and different surface tonal melodies.

Table 2.12: A comparison of tonal melodies in Rutara languages

	Runyank.	Rukiga	Runyam.	Ruhaya	Ruzinza	Rukerebe	PR & gloss
a.	ku-sa	ku-sa	ku-sa	ku-sa	ku-sa	ku-sa	*-sea 'grind'
	ku-gwa	ku-gwa	ku-gwa	ku-gwa	ku-gwa	ku-gwa	*-goa 'fall'
b.	ku-βara	ku-βara	ku-βara	ku-βara	ku-βara	ku-βara	*-βara 'count'
	ku-rira	ku-rira	ku-rira	ku-lira	ku-lira	ku-lila	*-rira 'cry'
	ku-ziika	ku-ziika	ku-ziika	ku-ziika	ku-ziika	ku-ziika	*-ziika 'bury'
	ku-zaana	ku-zaana	ku-zaana	ku-zaana	ku-zaana	ku-zaana	*-zaana 'play'
c.	ku-hanika	ku-hanika	ku-hanika	ku-hanika	ku-hanika	ku-hanika	*-hanika 'hang up'
	ku-šereka	ku-šereka	ku-sereka	ku-šereka	ku-sereka	ku-sereka	*-šereka 'hide'
d.	kw-ikiriza	kw-ičiriza	kw-ičiriza	kw-ikiriza	kw-ičiriza	kw-ikiriza	*-ikiriza 'agree'
e.	kú-βa	kú-βa	kú-βa	kú-βa	kú-βa	ku-βá	*-βáa 'be(come)'
	kú-ha	kú-ha	kú-ha	kú-ha	kú-ha	ku-há	*-háa 'give'
	kú-nywa	kú-nywa	kú-nywa	kú-nywa	kú-nywa	ku-nwá	*-nyóa 'drink'

	Runyank.	Rukiga	Runyam.	Ruhaya	Ruzinza	Rukerebe	PR & gloss
f.	kw-óòma	kw-óòma	kw-óòma	kw-óòma	kw-óòma	kw-òóma	*-óoma 'dry up'
	ku-tíìna	ku-tíìna	ku-tíìna	ku-tíìna	ku-tíìna	ku-tìína	*-tíina 'be afraid'
g.	ku-rúma	ku-rúma	ku-rúma	ku-rûma	ku-rúma	ku-rúma	*-rúma 'bite'
	ku-βúra	ku-βúra	ku-βúra	ku-βûra	ku-βúra	ku-βúra	*-βúra 'get lost'
h.	ku-kórora	ku-kórora	ku-kórora	ku-kórora	ku-kórora	ku-koróra	*-kórora 'cough'
	kwí-íĵura	kwí-íĵura	kwí-íĵura	kwí-íĵura	kwí-íĵura	kwi-izúra	*-íĵura 'be full'
	ku-tsíndika	ku-síndika	ku-síndika	ku-síndika	ku-síndika	ku-sindíka	*-ʦíndika 'push'

The number of stem syllables ranges from one to four, as presented in rows in Table 2.12 as: (a) L-L, (b) L-LL, (c) L-LLL, (d) L-LLLL, (e) L-H, (f-g) L-HL, (h) L-HLL. (Note the shading in (e-h) for the discussion that follows below).

In all the languages, word-final long vowels (from PR) become short, Cμμ# → Cμ, as in (e). The claim that these monosyllabic lexemes have underlying long final vowels is based on how these languages form the Near Past and applicative as in (28) below. The argument here is, the T/A marker {-ire} is attached to the stem after removing the final vowel which is always {-a} in all verbs across the group.

(26)	infinitive		pronunciation variants across the group	derived from
a.	ku-ba	→	tu-ba-ire ~ tu-be-ire ~ tu-be-ere	/ku-ba-a/
	'to be'		1P-be-T/A ~ 1P-be-T/A 'we were'	INF-be-FV
b.	ku-ha	→	tu-ha-ire ~ tu-he-ire ~ tu-he-ere	/ku-ha-a/
	'to give'		1P-give-T/A ~ 1P-give-T/A 'we gave'	INF-give-FV
c.	ku-ñwa	→	tu-ño-ire ~ tu-ñwe-ire ~ tu-ñwe-ere	/ku-ño-a/
	'to drink'		1P-drink-T/A ~ 1P-give-T/A 'we drank'	INF-drink-FV
d.	ku-sa	→	tu-se-ire ~ tu-se-ire ~ tu-si-ire	/ku-se/-si-a /
	'to grind'		1P-grind-T/A ~ 1P-grind-T/A 'we ground'	INF-grind-FV

Given that the high toned lexemes in Table 2.12 (e) have surface monosyllabic stems, we would expect such lexemes to appear with final high tones. However, this is true in Rukerebe only, where we find surface [H] on the final tone bearing unit (TBU) of the verbs.[23] In the other languages [H] is not allowed finally; it therefore shifts to the infinitival marker {ku-}, thus creating a kind of *high tone back hopping* rule, as L-H → H-L/__#.

(27)

a.	/ku-báa/	→	ku-bá	→	[kú-ba]	'to be(come)'
b.	/ku-háa/	→	ku-há	→	[kú-ha]	'to give'
c.	/ku-ñóa/	→	ku-ñwá	→	[kú-ñwa]	'to drink'

The data in Table 2.12 (f-h) also show that the high tone is assigned to the initial vowel of the verb stem, as L-HL(L), except in Rukerebe (and also in Runyoro and Rutooro, which are not included in the table) where we can generalise that it falls on the penultimate syllable. This leads us to reconstruct tone for PR, where these lexemes had [H] on the stem-initial TBU. But then, we are faced with what look like exceptions, as indicated by the shaded items in Table 2.12 (f-h), regarding Ruhaya and Rukerebe. That is, whereas all other languages retain the [H] on the stem-initial syllable, Ruhaya behaves differently in that /H/ surfaces as a falling tone [HL]. In Ruhaya this can be expressed as a penultimate syllable rule, which changes any penultimate high tone of the infinitive verb to a falling tone, /+H+L/ → [+F+L] or [+HL+L], clarified in the examples below.

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[23] There are two types of TBUs, vowels and nasals. An example of a tone bearing nasal would be as in [ǹ-dya] 'I eat', comparable to [tú-lya] 'we eat' (Runyambo, Ruhaya and Ruzinza).

(28)

a.	/ku-rúma/	→	[ku-rûma] / [o-ku-rûma]	'to bite'
b.	/ku-búra/	→	[ku-bûra] / [o-ku-bûra]	'to get lost'
c.	/ku-óma/	→	[kw-óòma] / [o-kw-óòma]	'to dry up'

However, the rule in (28) does not apply if the same penultimate syllable is word-initial as in (27) above. Thus {ku-bá} → [kúba], but not *[kûba] or *[kubá] 'to be'.

Rukerebe also shows different behaviour on stem-initial long vowels, as indicated in Table 2.12 (f). That is, whereas all other languages retain the [H] on the first mora of the long vowel and therefore create a falling tone (μ́μ̀), Rukerebe shifts it to the second mora, thus creating a rising tone (μ̀μ́). In other words, it is only ultimate and penultimate morae of a verb that can bear surface H tone in Rukerebe, as (e-h) show. Rutooro and Runyoro seem to be different from all other languages, in that tone appears predominantly on the penultimate syllable, except in monosyllabic stems. Given the data we have (including T/A forms) it is tempting to identify Rutooro as a stress-accent language. That is, in most cases, the placement of prominence in lexemes (both lexically and structurally) appears to be relatively consistent on the penultimate syllable, realised by a falling pitch, with a few exceptions. Runyoro, on the other hand, appears to be ranging from a pitch-accent to a tone language. In some cases, there appears to be a paradigmatic variation between the [H] and [F] "tones" in both languages. If this is the case, then the process could be regarded as an innovation of the languages as a mechanism of simplification from a tone language to a pitch-accent language, and then to a further simplified system of a stress-accent language. It is evident that the two languages, Runyoro and Rutooro, have sub-dialects which differ in this

regard. It is also possible that tone is being recycled. That is, after a language has lost tone, it could be re-influenced by the neighbours which are tone languages/dialects.

Given that these observations prove to be very systematic in the languages studied, it follows that all Rutara languages inherited the same tone melodies in their verbal systems from Proto-Rutara and, therefore, had the same underlying tonal structure. Thus, from the table above, we can reconstruct the following underlying tonal melodies of Proto-Rutara (including the infinitival marker {ku-}): *L-L(LLL), *L-H(LLL). Only the high tone would be assigned to the underlying stem-initial syllable, and then [L] would be assigned by default to all other TBUs after applying any other relevant rule(s). We can therefore conclude that any apparent exception to these forms and rules should be regarded as post Proto-Rutara language specific innovations. In fact, the deviations found in Ruhaya and Rukerebe (as explained above) are innovations. The latter shows a very high rate of correlation with the neighbouring languages of the Suguti subgroup. The following table compares surface tones of Rukerebe to those of two non-Rutara neighbours, using a few lexical verbs that are underlyingly high toned.

Table 2.13: The tonal influence of Suguti to Rukerebe

	Kijita	**Kikwaya**	**Rukerebe**	**Gloss**
a.	ku-βá	ku-βá	ku-βá	to be(come)
	ku-lyá	ku-lyá	ku-lyá	to eat
b.	ku-úma	ku-úma	kw-oóma	to dry up
	ku-uβáya	ku-uβáya	ku-tiína	to be afraid
	ku-lúma	ku-lúma	ku-lúma	to bite
	ku-βúla	ku-βúla	ku-βúla	to get lost
	ku-kolóla	ku-kolóla	ku-kolóla	to cough
	kw-iǰúla	kw-iǰúla	kw-iizúla	to be full
	ku-sindíka	ku-sindíka	ku-sindíka	to push

This table provides strong evidence that Rukerebe acquired its surface verbal tone melody from Suguti languages (*e.g.* Kikwaya, Kijita, Chiruri, and Kiregi) which are its immediate neighbours geographically. This must have been facilitated by a lack of contact between Rukerebe (in the islands and eastern shore of Lake Victoria) and its mother group Rutara, which remained on the western part of the lake. Therefore, Rukerebe was affected not only lexically (as pointed out by N&P 1980) but also phonologically. With regard to the tonal innovation identified in Ruhaya (*i.e.* the falling tone on penultimate mono-moraic vowels), it is not clear from this study how it might have originated.

There are both lexical and grammatical tones. Of the two, the most common and productive is lexical tone, which distinguishes between two or more lexemes that are otherwise morphologically similar. The following are but a few examples of grammatical and lexical tone contrasts:

(29) Grammatical tone in Ruhaya

a.	a-ba-kom-íre	*vs*	a-bá-kom-ire
	SM[3S]-OM[2P/3P]-tie-T/A		REL-SM/OM[3P]-tie-T/A
	'S/he tied them up'		'those who (are) tied up'
b.	o-mutí gu-oom-íre	*vs*	o-muti gu-óóm-ire
	PI-tree SM[2S]-dry up-T/A		PI-tree SM-dry up-T/A
	'The tree dried up'		'a dry tree'
c.	bu-ké-íre	*vs*	bú-ke-ire
	SM-be morning-T/A		SM-be morning-T/A
	'It is morning'		'on the following day'

(30) Lexical tone

a. Runyankore/Rukiga

i)	ekikoro 'root, source'	*vs*	ekikóro 'bad deed'
ii)	ekihimbo 'a poem'	*vs*	ekihîmbo 'crutch'
iii)	kw-eera 'to winnow'	*vs*	kwéèra 'to be white/clear'
iv)	kuranga 'to announce'	*vs*	kurânga 'to serve in the palace'

b. Ruhaya

i)	kweera	'to winnow'	*vs*	kwéèra	'to be white/clear'
ii)	kusinga	'to rub'	*vs*	kusînga	'to win'
iii)	eibanga	'hill, mountain'	*vs*	eibânga	'time, centre of sitting room'
iv)	eitunda	'business'	*vs*	eitúnda	'fruit'

2.3.4. Other phonological factors

There are other common and less common parameters for the Rutara languages, some which can possibly be assigned to Proto-Rutara. The Ganda Law, for instance, (which refers to total assimilation of homorganic [-N+CV-] clusters, if followed by another [-N-]; also referred to as Meinhof's Law or nasal harmony) is currently not productive. There are traces, however, in some languages in a few lexemes as in the following examples (31a), compared to Luganda in (31b).

(31)

a. Ruhaya, Runyankore, Rukiga, etc.

	singular		**normal plural**		**Ganda Law**	**gloss**
i.	o-ru-beŋgo	→	e-m-beŋgo	~	e-meŋgo	'grinding stone(s)'
ii.	o-ru-biŋgo	→	e-m-biŋgo	~	e-miŋgo	'elephant-grass'
iii.	o-ru-limi	→	e-n-dimi	~	*e-nimi	'tongue(s)'
iv.	o-ru-gendo	→	e-ŋ-gendo	~	*e-ŋendo	'journey(s)'

b. Luganda

	singular		**normal plural**		**Ganda Law**	**gloss**
i.	lu-béngó	→	m-bengo	→	mméngó	'grinding stone(s)'
ii.	lu-límí	→	n-dimi	→	nnímí	'tongue(s)'
iii.	lu-géndó	→	ŋ-gendo	→	ŋŋéndó	'journey(s)'
iv.	lu-gámbó	→	ŋ-gambo	→	ŋŋámbó	'rumour(s)'

At first sight, it is not clear whether the cases of Ganda Law in Rutara originated from Proto-Rutara or were transferred from Luganda. Thus, further investigation is needed to determine their exact rate of distribution across the group, and then reconstruct their origin. Nevertheless, it appears that, in the Rutara languages, it only affects noun stems that begin with a labial sound, as in (31a i-ii). This could be our provisional answer for the puzzle that the class marker {-m-} assimilated the following sound if and only if it was [+labial].

Dahl's Law is also not productive.[24] There are very limited traces of what looks like Dahl's Law, from at least two proto-forms *káta 'head-pad' (Guthrie: 1016) and *kʊ́pi 'short' (Guthrie: 1237). Given the nature of sound change we established in Tables 2.10–2.12, we would expect these two lexemes to have the forms {-N-kata} and {-kufi}, respectively, in Rutara languages. On the contrary, they now appear as {e-N-gata} and {-gufi, -gufu}, respectively. These two examples are, therefore, not sufficient to suggest that Dahl's Law ever affected these languages. The two lexemes found could have been transferred into the group from other sources, bearing in mind that the law itself is common in other Lacustrine subgroups and beyond.

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[24] Dahl's Law refers to the phonological rule that dissimilates two voiceless consonants. Thus, a voiceless consonant sound is voiced if it is followed by another voiceless consonant. However, this is a simplified statement of the rule. The rule itself has further language specific phonological constraints which determine the processing of the rule. These constraints include lexical *versus* morphemic boundary, vowel length, and nature of consonant clusters. For further details, see Kenstowicz and Kisseberth (1977), Kimenyi (1979).

Another common feature is the partial vowel harmony between PI vowels and noun class markers (*i.e.* {o-mu-} and {e-bi-}, rather than the total vowel harmony as {u-mu-} and {i-bi-}, respectively, which is found in the W/Highlands group).

2.4. Conclusion

We have seen that it is possible to set the basic parameters for the Rutara group both lexically and phonologically. The lexical list provided in §2.2 (*cf.* Appendix II) can help us to set the common vocabulary of the group, either as retentions or innovations. This has a positive linguistic effect in that it raises the lexical intelligibility rate above 70% for the common lexicon across Rutara languages, whose differences are mainly phonological and slightly semantic. Thus, sound changes from Proto-Bantu to Rutara exhibit a high rate of similarity. There are two categories of absolute similarities, *p > h, *t/__u > c, *c/__i > s, and *b, d, ɟ, g/__i > z, *p, c, k/__u > f; and a variably common category of mergers, *t, k/__i > s, ʦ, and *b, d, ɟ, g/__u > j, ž, z, as illustrated in the Tables 2.9–2.11. However, there are also significant differences among the languages of the group. For instance, Rukerebe and Ruhaya differ from others in terms of surface verbal tone (see §2.3.3); and Runyankore has the sound [ʦ] which is not found elsewhere in the group. For further discussion on Bantu Spirantisation, Ganda Law, and Dahl's Law, see Meeussen (1962), Myers (1972), Hinnebusch (1989), Davy and Nurse (1982), and Nurse (forthcoming). In summary, the following characterised Proto-Rutara.

A. Ten phonemic vowels, five short and five long.

B. Lexical and grammatical tone.

C. Partial vowel harmony between PI vowels and noun class markers.

D. Two underlying tonal melodies for verbs: L-L(LLL) and L-H(LLL).

E. The operation of Bantu Spirantisation.

F. Lenition of the Proto-Bantu stops (see Table 2.7).

G. Limited operation of the Ganda Law; that is, it operated only on noun stems that began with a labial sound.

The following chapter provides the morphological analysis of Rutara, which is equally important before embarking on the analysis and reconstruction of the T/A system(s).[25]

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[25] Readers might be curious about the time-depth of the reconstructed Proto-Rutara verbal system. Schoenbrun (1990) attempted to do this by using the glottochronology method for the entire Lacustrine group. His calculations were based on a 100-word list (*i.e.* the model we simplified in Figure 3 by removing the time frame). His formula assumes a shared retention rate of 73–74% per thousand years. Consequently, his model places Proto-Lacustrine at *c.*2500 years and Proto-Rutara *c.*1000 years ago.

CHAPTER THREE

3. BASIC MORPHOLOGY

3.1. Introduction

The aim of this chapter is to provide the necessary morphological background for the coming chapters. It surveys the morphological composition of the verbal unit (VU) in the Rutara languages, thus analysing all possible paradigmatic elements of every syntagmatic slot in a VU that are relevant to T/A. It, therefore, prepares the tools of analysis that will be used in analysing the T/A systems. Note that every class of marker or formative has a predetermined and defined slot in the VU, in relation to the verb root (radical), for its semantic and morphosyntactic functions, and for syntagmatic relations as well. This brings up a fundamental question: can one class of VU syntagmas such as T/A formatives have a double allocation of slots? This question is based on the analysis of T/A in the Rutara languages, in which both {-ka-, -a(a)-, -raa-} and {-ire} are regarded as tense markers even though the two sets occupy two different slots in the VU, that is, pre-radical and post-radical respectively. This chapter and subsequent chapters seek answers to that question and a few others which are raised later in this chapter.

3.2. The verb

3.2.1. The verb 'be'

Of all lexical verbs, the verb 'to be' plays a very crucial role in T/A systems. In all the Rutara languages, the basic and regular form of the verb is {-bá}, but it has a suppletive form, {-ri}. The two forms differ functionally and morphosyntactically, as well as semantically. The {-ri} form is used mainly in the Present tense, and mostly in the Progressive aspect and stative constructions. Its frequency of use in the T/A system, however, is less in Runyambo and Ruzinza than it is in other languages, and also relatively different in Rutooro and Rukerebe, as explained below (see also the T/A Tables in Appendix I). The following examples show the most common use of the two forms. (Note that the PI vowel (a-) in brackets in (32a) and (32b) is obligatory in Runyankore/Rukiga, optional in Ruzinza and Rukerebe (but obligatory in Ruzinza for singular nouns), and omitted in Ruhaya, Rutooro and Runyambo (but optional in Runyambo for singular nouns)):

(32)	a.	tu-**ri** (a)bantu	
		1P-be people	'We are people'
	b.	mu-**ri** (a)babi	
		2P-be bad	'You (pl.) are bad'
	c.	Musa a-ri Kampala	
		Musa 3S-be Kampala	'Musa is in Kampala'
	d.	Juma a-ba Kampala	
		Juma 3S-be Kampala	'Juma is in Kampala' (Not in Rutooro)
	e.	tu-ka-**ba** tu-**ri** Kampala	
		1P-T-be 1P-be Kampala	'We were in Kampala'

As the examples in (32) show, the form {-ri} is mainly used for attributive and locative constructions. Consequently, it functions as a pseudo-copula verb, in which case it is not

accompanied by any tense marker. It can, however, be preceded by the aspectual marker {-ki(aa)-} (or its phonetic variants: [čya(a), čaa], as in {ba-kiaa-ri Kampala} 'they are still in Kampala'). Indeed, in many other Bantu languages it can be preceded by {-a-, -aa-} which appears to be a very dynamic T/A marker. Within Rutara, this combination of {-a-ri} is found in Remote Past in some dialects of Rutooro, as in [tw-**a-ri** n(i)-tu-gûra] 'we were buying', and in Rukerebe, as in [tw-**a-li-ga** n(i)-tú-gulá] 'we were buying'. On the other hand, as indicated in (32e), the form {-ba} behaves virtually like any other verb in that it takes all T/A markers, {-ka-} in this case, which is not possible for {-ri}. It should be pointed out that the Experiential Present tense is not marked in the Rutara languages (see §5.2.4). This makes {-ba} and {-ri} look like they were T/A markers in these forms, as in (32). The fact is, neither of the two is a T/A marker. This is not restricted to Rutara languages, it applies also to other Eastern Bantu languages, as surveyed by Botne (1986).

With regard to semantic differences, {-ba} carries a sense of "habit" or "tendency" whereas {-ri} refers to "now" or "then". Therefore, {-ba} can be easily used in forms that mark the Habitual aspect, while {-ri} can be used in those which express a state of affairs (32a-c) (*cf.* §4.5.1) This is illustrated by (32c-d). Although both Musa and Juma are in Kampala at the moment of speech, the two persons differ in how long they have been there. That is, (32c) implies that 'Musa, who presumably went to Kampala today, is expected back soon, today or tomorrow'. On the contrary, (32d) implies that 'Juma has been living there for a while, and he is not expected back'. When used in negative constructions, {-ri} marks events that took place relatively more recently than those marked by {-ba}, as shown in (33).

(33) Ruhaya

a. ti-ba-ki-**ri** Buganda
NEG-3P-A-be Uganda
'They are no longer in Uganda' = 'they left recently'.

b. ti-ba-ki-**ba** Buganda
NEG-3P-A-be Uganda
'They are no longer in Uganda' = 'they left long ago'.

Thus, the two apparently identical translations differ in that (33a) means 'they left recently' while (33b) means 'they left long ago'. As a general rule, the verb 'be' is used in compound forms of T/A constructions, in which case we get more than one verbal unit (auxiliary and main verb) or a verbal unit plus its complement. Thus, when the two forms of 'be' are used in one clause, {-ri} functions as the main verb and {-ba} (or {-li} in Rukerebe) as the auxiliary (hence bearing the T/A marker, if necessary), as in (32e) above.

3.2.2. Verbal Unit

The nucleus of the verbal unit (VU) is the root of the verb that takes inflectional morphemes to form a complete grammatical word, which in many cases is complex enough to constitute a word which could be translated by a complete clause. The inflectional elements fall into two categories: pre-radical and post-radical formatives. Hyman and Byarushengo (1984) suggest the following formula for the basic structure of the Ruhaya VU (34): subject marker (SM), negation (N), tense/aspect (T/A), object marker (OM), the verb radical (R), extension(s) (X), and a final vowel (FV). The VU can be preceded by a pre-initial (PI) and followed by a post-final (PF) marker which Hyman and Byarushengo argue are separated by an internal word boundary (#), as opposed to the ordinary morpheme

boundary (+) that separates morphemes within the VU. This argument can be supported in various ways.

(34)	(PI)	#	SM	+	N	+	T/A	+	OM	+	R	+	X	+	FV	#	(PF)
	V		V		CV		V		N				V		V		CV
	CV		N				VV		CV				VC				
			CV				CV		CVV								
							CVV										

First, the vowels of the pre-initial Progressive marker {ni-} and the negative marker {ti-} do not glide when followed by another vowel as we would expect them to (and which does happen with children learning these languages). Compare the following two sets of examples for illustration:

(35) Gliding vowels

a.	bi-ana	→	[byaana]	'bad children'
b.	e-mi-aka	→	[emyaaka]	'years'
c.	ki-oma	→	[kyooma/čyooma/čooma]	'iron, metal'

(36) No gliding, but deletion of [i] before another vowel
(note variations in the length of the SM vowel after {ni-} *vs* {ti-})

a.	ni-a-gur-a PROG-3S-buy	→	[naagura]	'she is buying'
b.	ni-o-gur-a PROG-2S-buy	→	[noogura]	'you (sing.) are buying'
c.	ti-o-gur-a NEG-2S-buy	→	[togura]	'you (sing.) do not buy'
d.	ti-a-ka-guz-ire NEG-3S-RET$_i$-buy-RET$_i$	→	[takaguzire]	'she has not (yet) bought'

It is, therefore, clear that the boundary between the morphemes {bi-, -mi-, ki-} and the stems to which they are attached in (35) is different from the one between {ni-, ti-} and the stems in (36), because the two sets behave differently in terms of gliding. This shows that {ni-} and {ti-} maintain an original lexical boundary even after the grammaticalisation process which rendered them clitics.

There are also morphosyntactic arguments supporting this analysis. First, the PI markers {a-, e-, ka-} function as nominalisers which change a verbal unit from a simple main clause into a relative clause as in (37a). Other forms of PI elements function as adverbial markers cliticised to the verbal unit as in (37b).

(37)

a. Runyankore, Rukiga, Ruhaya, Runyambo, Ruzinza

ba-gúra	'they buy'	→	**a**-bá-gur-a	'those who buy'
3P-buy			REL-3P-buy	

b. Ruhaya

ba-gúra	'they buy'	→	**ká**-ba-gúra	'when(ever) they buy'
3P-buy			ADV-3P-buy	

In fact, /ka-/ in (37b) can be replaced by a completely independent lexeme, in Ruhaya for instance, thus producing *orwo bagura* which has the same meaning. As can be seen, the two cases of (37a) and (37b) result in a relative clause and adverbial clause respectively. The only PI formatives that are functionally part of the verbal unit, and are thus directly related to the T/A system, are the Progressive marker {ni-} and the negative marker {ti-}, which occupy the initial position. Both morphemes are common to all of the Rutara languages. Similarly, the post-final marker also functions as an adverbial or nominal clitic. It could be locative,

as in (38a), temporal, as in (38b), adverb of manner, as in (38c), or nominal, as in (38d), and so on. All these are clitics from lexemes like {a-ho} 'there' for (38a), and {mari, ryarii, iri} 'when' for (38b), and {e-ki-ki} 'what' for (38d); their current distribution in the group varies from one language to another, as indicated in brackets after each form.

(38)

a.	ba-gura-**ho**	(all but Runyambo and Runyankore/Rukiga)
	3P-buy-LOC	'they buy (from) there'
b.	ba-gura-**ri**?	(Ruzinza, Ruhaya, and Runyoro/Rutooro = [**-di**])
	3P-buy-ADV	when do they buy?
c.	ba-gura-**g(y)e**	(all but Rukerebe, and Runyoro/Rutooro)
	3P-buy-ADV	'they buy well'
d.	ba-gura-**ki?**	(all, but [**-kii**] in Runyankore/Rukiga)
	3P-buy-NOM	'what do they buy?'

Thus, these adverbial elements which occur in the pre-initial and post-final slots will be excluded from this study, mainly because they are neither part of the basic verbal unit nor T/A, but act as nominal and adverbial clitics.

Although the rest of the verbal unit elements appear to have a clear and straight-forward location in the matrix in (34) above, practically it is not so simple. The verbal unit is rather more complex than that presented in the model, particularly with regard to the location of tense, aspect, mood, and negation markers on the one hand, and the role of the final vowel (FV) on the other. This leads us to two interrelated questions. One: what are the basic slots for tense and aspectual markers, respectively? Two: can we make a clear distinction between tense and aspectual markers? The problem with regard to these questions is based on the form and functions of the T/A formatives. Compare, for instance, the

following structures (fairly common in Rutara) which suggest the existence of more than one slot for the tense and aspectual markers in the verbal unit (that is, one before and another after the root). They also indicate that some formatives have either several meanings or several functions.

(39)	a.	tu-**a(a)**-gur-a	'we bought today, we have just bought'
	b.	tu-**aa**-guz-**ire**	'we have already bought' (Not in Runyoro/Rutooro)
	c.	tu-**ra**-guz-**ire**	'we once bought, we had bought long ago'
	d.	tu-**a**-gur-**aga**	'we used to buy'

These examples also show that what is described as a final vowel (FV) in (34) is now realized as part of the post-radical T/A, thus [-e] in {-ire} in (39b) and (39c), which is different from the {-e} in (40c) and (40e) below. Others like Mould (1981) call this a "modified base" in that the stem {-gur-a} has changed to {-guz-ire}, while Botne (1987) treats both {-a-} and {-ire} equally as tense markers and thus calls them prefix(es) and suffix(es) respectively. Botne's analysis also regards the final {-a} as a suffix that marks tense. Indeed, it is observed that the so called FV or suffix assumes one of the two forms, {-a} and {-e}, depending on its semantic function as illustrated in the following examples (found in all eight languages, except for (40d) which has different functions across the group):

(40)	**form**	**meaning**	**tense/aspect/mood**
a.	ku-gur-**a** to-buy-FV	'to buy'	Infinitive/nominal verb
b.	tu-gur-**a** 1P-buy-A	'we buy'	Habitual
c.	tu-gur-**e** 1P-buy-MD	'we should buy'	Subjunctive

d.	tu-guz-ir**e** 1P-buy-A	'we (have) bought'	Near Past/Perfect
e.	tu-ba-gur-ir-**e** $1P_{[SM]}$-$3P_{[OM]}$-buy-APPL-MD	'we should buy for them/ let us buy for them'	Applicative subjunctive
f.	tu-ba-gur-ir-**a** $1P_{[SM]}$-$3P_{[OM]}$-buy-APPL-A	'we buy for them'	Applicative Habitual

If we compare all six cases in (40) above, we realize that the final vowels {-a} and {-e} are not just FVs in the sense of occupying the final position, but they also contribute to the meaning of the construction. It is only in (40a) that {-a} can really be referred to as semantically neutral FV, since the infinitive form {ku-gur-a} is not a tensed construction (*cf.* §1.8.5). In the other cases, the two vowels distinguish semantically between (40b) and (40c), on the one hand, and (40e) and (40f), on the other. In this case, it is more plausible to regard finite {-a} and {-e} (but not the neutral {-a} found in (40a)) as T/A/modal markers rather than as FVs.

Considering the formula in (34) together with the examples given above, a more elaborate construction is introduced in (41) below to identify the various elements of the verbal unit. This structure represents one of the most complex verbal constructions in Ruhaya (bearing in mind that the difference(s) between Ruhaya and the other Rutara languages in this regard would mainly be tonal, and phonological (*i.e.* with regard to [g, š, z]; see §2.4.2, 2.5)).

(41) ti-ba-ka-gi-mu-kom-eš-ez-a-ga = [tibákagimukómešezaaga]

1	2	**3**	4a	4b	**5**	6a	6b	**7a**	**7b**
ti-	-ba-	**-ka-**	-gi-	-mu-	**-kom-**	-eš-	-ez-	**-a-**	**-ga**
NEG	SM	**T**	OM	OM	**R**	CAUS	APPL	**MD**	**A**
not	they	**past**	it	him/her	**tie**	make	at/to	**ind**	**ever**

'they have never caused it to be tied up for him/her'

This functional verbal unit in (41) is a simple negative verbal clause. It has 7 major slots, as marked by the numbers 1–7. The main verb (MV), which describes central events, can be realized either in simple independent VUs such as (42a) to (42d), or in the second verbal element after the auxiliary verb in compound VUs as in (42e) to (42h).

(42) Simple and compound VUs

a. Runyambo
ti-ba-gi-mu-kom-er-**a** → [tibajimukómera]
NEG-3P-OM1-OM2-tie-APPL-A 'They don't tie it up for her'

b. Ruhaya
ti-ba-**ri-ku**-kom-**a** → [tibálikukôma]/[tibáliukôma]/
NEG-3P-be-to-tie-A [tibáikukôma]/[tibáìkukôma]
'They are not tying up'

c. Rukiga
tu-**aa**-kom-**ire** → [twáákómire]
1P-T-tie-A 'We have already tied up'

d. All
ba-**ta**-gur-**a** → [batagura]
3P-NEG-buy-A 'They should not buy, let them not buy'

e. Rukerebe
tu-a-li-ga **ni**-tu-gul-**a** → [twaliga n(i)túgulá]
1P-T-be-A PROG-1P-buy-A 'We were buying'

f. Rutooro

tu-ba-**ire** **ni**-tu-**ki**-**aa**-gur-**a**	→	[tubaire nitukyaagûra]/
1P-be-T/A PROG-1P-PERS-buy-A		[tubaire nitučyaagûra]
		'We were still buying'

g. Ruzinza (Insular)

tu-**ka**-βa tu-**ta**-**ki**-gur-**a**	→	[tukaβa tutáčigura]
1P-T/A-be 1P-NEG-PERS-buy-A		'We were not buying any more'

h. Ruzinza (Mainland)

tu-**ka**-βa **ti**-tu-**ki**-gur-**a**	→	[tukaβa titúčigura]
1P-T/A-be NEG-1P-PERS-buy-A		'We were not buying any more'

In the case of a compound verbal unit, however, many languages tend to have the negative marker {-ta-} appearing in the second slot, as in (42g). The negative marker {-ta-} can also appear in the simple verbal unit of imperative constructions, as in (42d). Ruzinza, however, appears to have a negative form which is common in some dialects but not common in the other languages, in which the negative marker {ti-} can occupy the initial position of the main verb in a compound verbal unit like (42h).

Constructions such as those in (42) lead us to propose a basic matrix for the verbal unit in Rutara, as presented in (43) below. This model includes the initial negative marker {ti-} and Progressive marker {ni-} (based on their semantic and morphosyntactic roles in the verbal unit (VU), with regard to the T/A system). Consequently, the VU has eight slots whose characteristics are as follows:

(43)

1x	2	3x	4a	4b	5a	5b	6	7	8a	8b	8c
							-R-				
ACT	SM	NEG	**T/A**		OM_1	OM_2	**R**	EXT	**A/MD**	**PASS**	**A/MD**

Slot (1) is occupied by either of two prefixes, {ni-}, which marks events in progress, or the initial negative marker {ti-}.[26] Both markers are found elsewhere in the languages as copula verbs for affirmative and negative clauses respectively, as shown in (44a–b).

(44)

a.	ogu **ni** Harry this is Harry	this is Harry
b.	ogu **ti** Harry this is-not Harry	this is not Harry
c.	tu-Ø-gur-a 1P-T/A-buy-A	'we buy'
d.	**ni**-tu-Ø-gur-a ACT-1P-T/A-buy-A	'we are buying'
e.	**ti**-tu-ri-ku-gur-a **ti**-tu-ru-ku-gur-a NEG-1P-T/A-buy-A	(R3–R7) (R1–R2) 'we are not buying'

Given the morphosyntactic position of {ni-} and {ti-} in (44), it follows that the two markers (prefixes) in slot (1) were derived from the lexical copulas {ni} and {ti}. That is why they can only function as pro-clitics, as opposed to all the other tense/aspect markers in the VU. Thus, {ni-} is attached to the unmarked VU {-Ø-...-a}, as in (44d), to *actualise* either (a) the Event Time *vis-á-vis* the time of the speech event, or (b) a co-occurrence of any other (two

[26] There are other elements which can also occupy this initial slot, such as {ka-}, which, however will not be dealt with in this study. Examples from Ruhaya would be: (i) Hortative: {**ká**-tu-gúr-e} / {**ká**-tu-gur-é ...} 'let us buy', and (ii) Adverbial of time: {**ká**-tu-guz-îre} / {**ká**-tu-guz-iré ...} 'when we bought'. It seems the second type of {ka-} (adverbial) can also occupy slot (4) as in {orwó tu-**ka**-guz-iré ...} 'when/just as we bought ...'.

or more) events; {ti-} negates them. That is, the simple unmarked form without {ni-}, as in (44c), represents an event that is "unlimited" in time and, therefore, has no specific temporal reference, as in {tu-gur-a} 'we buy". By adding {ni-} this semantic representation changes into the representation of an actual event, anchored to a particular temporal reference: "now" or "then". In other words, {ni-} makes a potential event or habit to be realised by the actual event. Therefore, slot (1) will be termed "actualiser" (ACT in (43)) for morphosemantic reasons. The two formatives are thus mutually exclusive in this slot. In some languages, this slot can also be occupied by {ka-} which has diverse functions, different from those of the medial {-ka-} (which is indisputably the affirmative Remote Past marker). The former functions mainly as an adverbial rather than a T/A marker and is, therefore, less relevant to this study.

Slot (2) takes subject markers (SM); (see §3.3.1, 3.3.2). In the absence of an element in slot (1), the SM appears as the initial formative of the VU, as in (42c) to (42h) above. Slot (3) is for the medial negative marker {-ta-}, which is immediately followed by the tense marker(s) slot (4). This double allocation of slots for the negative marker enables a language to have two possible options for negative constructions, especially in compound forms, as in (45) below (where -ri- > -ru- in Runyoro/Rutooro).

(45) a. Ruhaya and Rutooro:

i) tu-ba-ire tu-**ta**-ri-ku-gur-a
1P-be-T/A 1P-NEG-be-to-buy-A 'We were not buying'

ii) **ti**-tu-ba-ire n(i)-tu-gur-a
NEG-1P-be-T/A PROG-1P-buy-A 'We were not buying'

b. Ruzinza and Rukerebe:

i) tu-be-ere tu-**ta**-ri-ku-gur-a
1P-be-T/A 1P-NEG-be-to-buy-A 'We were not buying'

ii) **ti**-tu-be-ere n(i)-tu-gur-a
NEG-1P-be-T/A PROG-1P-buy-A 'We were not buying'

There is one generalisation regarding (45): whereas {-ta-} appears to negate the event (in the main verb), {ti-} negates the time of the event (in the auxiliary). However, these morphosyntactic options are not always possible in all eight languages for all the T/A forms. The data available is not enough for us to draw any further conclusions.

Slot (1) and (3) are also mutually exclusive within one category of a T/A construction. This constraint is based on the morphosemantic reason that you can neither actualise what is negated nor negate the negative within the same VU. Thus, constructions like *{ni-...-ta-...-a}, *{ni-ti-...-a}, and *{ti-...-ta-...-a} are semantically ill-formed and therefore ungrammatical. Tense markers (slot 4) are discussed in detail later in Chapters 4–5. However, it is proposed here that there is one typical slot for tense (T) markers, slot (4). We do not find a typical tense marker in slot (8); the formatives {-a}, {-e}, {-ire}, and {-aga} found in the final slot are typically aspectual or modal, markers. They tend to represent tense as an extended function of their basic roles. On the other hand, there cannot be more than one tense in one VU for the same subject and the same event; Hewson (1997:22) uses the term "tense forms are mutually exclusive, whereas aspectual forms are not". Slot (4) fits best for this typical tense slot, and all other slots, and slot (8) in particular, are potentially aspectual slots. This, of course, raises the question of why and how does {-ire}, which occupies slot (8) in forms like {tu-guz-ire} express a Past tense? The answer to this question

was introduced in §1.8.4, especially by Figure 5, and is elaborated further in the following chapters of this thesis. As indicated in (43), slot (4) has subslots (4a) and (4b). This analysis takes care of the markers like {-ki-aa-} (pronounced: [kyaa/čyaa/čaa] with variation in the length of [a] from one language to another). It is proposed in this study that {-kiaa-} has two underlying formatives: {-ki-} and {-aa-}. Other double markers which occupy this slot include {-ri-ku-} (or {-ru-ku-} in Runyoro/Rutooro), as in {ti-tu-**ri-ku**-gur-a}/{ti-tu-**ru-ku**-gur-a} 'we are not buying', and {tu-**a-ku**-guz-ire} 'we could have bought'.

Slot (5) takes object markers (OM), including reflexives. The direct object (*i.e.* theme) precedes the indirect object (*i.e.* goal, beneficiary, patient, etc.). For the various forms of OMs see §3.3.1 and 3.3.2 below. The verb radical (R) in slot (6) is in some cases reduplicated, for example: {-tema}'cut' > {-temaatema}> 'cut to pieces'. The root is followed by verbal extensions such as applicatives (which include benefactive, malefactive, and locative), causatives (which include causation, instrumental, and assistance), reversive, and reciprocal. Slot (8) also is complex. It takes aspectual, modal, and passive markers. Unmarked forms of aspect, mood and active voice appear as one morpheme {-a}. It is only when they are morphologically marked that they are realized as different morphemes. In this case, {-ire}, which is sometimes presented as a single morpheme, can be morphosyntactically reanalysed as two segments {-ir-e}, using evidence from the passive. Note that the passive morpheme is inserted between the two morphemes, thus {-gur-a} 'buy' → {-guz-**ir-e**} 'bought' → {-guz-**ir**-u-**e**} → [guz**irwe**] 'was/has been bought'. Thus, Johnson (1977:27), regards {-ir-} as the tense marker for what she calls "Completive", hence the morpheme,

which she claims "changes the final vowel a of a verb stem to e"; but fails to pursue further arguments to justify her claim. The same suggestion appears in Hyman and Byarushengo (1984), and as Hyman (1995) points out, it is a generally accepted position by various Bantu scholars (*cf.* Voeltz 1980, Rugero and Mukala 1987, Rugemalira 1994). This, of course, could be regarded as a morphosyntactic analysis of {-ire}, but for further arguments regarding the morphosemantic status of {-ire}) see §4.4.2. There are two reasons why aspectual, passive and modal morphemes should form a slot independent from slot (7), based on the following data (see §3.4 for the analysis of {-aga}).

(46) Ruhaya

a. tu-kom-ír-e é-m-bwa
1P-tie-T/A dog 'We chained/tied up a dog'

b. embwá e-kom-ír-e
dog SM-tie-A 'The dog is chained/tied up'

c. embwá e-kom-ír-u-e
dog SM-tie-A-PASS-A 'The dog was/is chained/tied up'

d. ba-gur-ê-ga / ba-gur-â-ge
3P-buy-MD-A / 3P-buy-A-A/MD 'They should buy regularly/keep buying'

e. Runyoro
ba-gur-e-ge
3P-buy-MD-A 'They should buy regularly / keep buying'

First, some {-ire} constructions which basically mark the Perfect aspect tend to bear some passive meaning, in expressing the resultant state. This, however, depends on the type of the verb used. That is, with {-ire} some verbs which are inherently accusative function as if they were unaccusative. This makes a structure to behave like a passive without utilizing the passive morpheme, as shown by the contrast between (46a), (46b) and (46c) above (see also §4.5.4). It should be pointed out, however, that verbs do not have the same behaviour across

the group in this regard; some of the languages do not allow the construction in (46b), while others restrict it to only a few verbs.

Second, depending on the language, aspectual and modal markers like {-e} and {-a-ga} can occupy different positions when they co-occur, as in (46d) and (46e). These characteristics of slot (8) are not shared by slot (7) as far as T/A is concerned. Thus, we see that there are two slots for aspectual markers, that is, slots (4) and (8), and three if we also count slot (1) for the actualiser {ni-}. Consequently, one verbal unit may have more than one aspectual marker, for example: {ba-**kiaa**-fi-**ir-e**} 'they are still dead' (Ruhaya, Runyambo, Rukiga), or {**ni**-ba-**kiaa**-gur-a} 'they are still buying' (Rutooro). Given that all the other slots in the verbal unit (VU) are not directly relevant to the analysis of T/A, we will now reduce our reference to only those slots which have relevance to this study. These are the five T/A slots, as indicated in (47).

(47)

morphosyntactic slots	**1x**	2	**3x**	**4a**	**4b**	5a	5b	6	7	**8a**	8b	**8c**
								-R-				
	ACT	SM	**NEG**	**T/A**		OM_1	OM_2	**R**	EXT	**A/MD**	PASS	**A/MD**
T/A Slots	**1a**		**1b**	**2**						**3a**		**3b**

Following the arguments put forward in this section regarding the morphosyntactic slots (1) and (3) on the one hand and between slots (8a) and (8b), we will, from now on, represent the former set as one slot and call it slot (1), the morphosyntactic slots (4a–4b) as T/A slot (2), and (8a–8c) as slot (3).

3.3. Nominal markers

3.3.1. Nominal class markers

There are 18 nominal class markers in Rutara as presented in Table 3.1 below. The examples show those lexemes which are common to all of the languages studied. The traditional numbers for the classes have been retained to make reference easy; they bear no more significance than that.

Table 3.1: Nominal class markers[27]

class	PI-prefix	subject	object	variant	examples	gloss
1	o-mu-	a-	-mu-	-m-	o-mu-ntu, o-mu-ana	person, child
2	a-ba-	ba-	-ba-	-βa-	a-ba-ntu, a-ba-ana	people, children
3	o-mu-	gu-	-gu-	-	o-mu-kono, o-mu-kira	arm, tail
4	e-mi-	e-	-gi-	-ji-	e-mi-kono, e-mi-kira	arms, tails
5	(e-)(r)i-	ri-	-ri-	-li-	e-ri-ino, (e-)i-huri	tooth, egg
6	a-ma-	ga-	-ga-	-	a-ma-ino/a-me-ino, a-ma-huri	teeth, eggs
7	e-ki-	ki-	-ki-	-či-	e-ki-bero, e-ki-ro	thigh, night
8	e-bi-	bi-	-bi-	-βi-	e-bi-bero, e-bi-took(y)e	thighs, bananas
9	e-(N-)	e-	-gi-	-ǰi-	e-m-buzi, e-n-koko	goat, chicken
10	e-(N-)	zi-	-zi-	-i-	e-m-buzi, e-n-da	goats, lice
11	o-ru-	ru-	-ru-	-lu-	o-ru-fu, o-ru-mi	death, hare
12	a-ka-	ka-	-ka-	-	a-ka-ntu, a-ka-handa	small thing, path
13	o-tu-	tu-	-tu-	-	o-tu-bwa	small dogs
14	o-bu-	bu-	-bu-	-βu-	o-bu-s(y)o, o-bu-ta / o-bu-koma	forehead/face, bow
15	o-ku-	ku-	-ku-	-	o-ku-tu(i), o-ku-guru	ear, leg
16	a-ha-	ha-	-ha-	-a-	a-ha, a-ha(ih)i / he(ih)i	here, near
17	(o-)ku-	ha-	-ha-	-a-	kuri(ya)	there
18	(o-)mu-	ha-	-ha-	-a-	o-mu-nda	inside

[27] The variants given are either phonetic such as /-gi-/ → [ji], or allomorphic as in /-zi-/ ~ /-i-/ where the sound [z] is deleted; all of which is dependent on the language/dialect. In Ruhaya, for instance, two forms are heard: [ente zijúga] *vs* [ente ijúga] 'cows moo'.

All languages in the group use only three PI vowels, {e, a, o}; none of the high vowels {i, u} (which are used in other Lacustrine languages such as the W/Highlands and Mara groups) are used. The PI vowels and the following class marker prefixes are affected by the vowel harmony principle: both vowels are either front, /e, i/, back, /o, u/, or low, /a/; thus forming the following sets of permutation: /e-(C)i-/, /e-N-/, /a-Ca-/, and /o-Cu-/. It is worth mentioning that the {o-ku-} class (#15) applies also to nominal verbs (which correspond to both English gerunds and verbal nouns such as {o-ku-gur-a} 'to buy' or 'buying'; this was introduced in §1.8.5, and it is discussed further under §6.5.2). The last three class markers, {a-ha}, {(o-)ku-}, and {(o-)mu-} (#16-18), are used for locatives. As a result, they appear to be different from others in that they tend to add an extra marker to a noun. That is, nouns formed with these markers could have more than one nominal marker. The following examples will illustrate the point:[28]

(48)

a.	(a-)ha- + -N-si	→	(a)hansi / (a)ansi
	(PI-)LOC + NOM-land		'down, on the ground'
b.	o-mu- + -mu-ti	→	omumuti / ommuti
	PI-LOC + -NOM-tree		'in a tree'
c.	Ruhaya		
	[kû-nu] / [kú-núnju] / [kú-núúna]		'here; this way'
	[kû-li] / [kú-lííña]		'here; over there'

[28] However, no example could be found that uses {(o-)ku-} with a noun in these languages, other than locative adverbials in (47c)

There is one class marker, however, which is specific to Rukerebe and does not appear elsewhere in the Rutara group, that is, {li-na- / gaa-} as in (49) below (where N = nasal). Other varieties were also found, as *nalububi / zinalububi* for (49a).

(49)		**singular**	**plural**	**gloss**	
	a.	(lii-)na-walububi	gaa-na-walububi	spider(s)	(also in Kijita)
	b.	(lii-)na-wakami	gaa-na-wakami	rabbit(s)	
	c.	(lii-)na-waatelela	gaa-na-watelela	slug/snail	(also in Chiruri)

Similar class markers are found in the Suguti group, which suggests either morphological or lexical influence. It could be morphological in the sense that only the nominal class markers {li-/na-/gaa-} were transferred, or lexical in that lexemes in this/these class(es) were transferred as complete lexical items to replace older forms. It is most probable that Rukerebe was the recipient rather than the donor in this transfer. This conclusion is based on two reasons: (1) it was mentioned in §2.2 that Rukerebe has been influenced lexically by Suguti (Nurse and Philippson 1980); therefore, this is most likely another case of the influence it has undergone in its new location. (2) these class markers are non-Rutara features. Therefore, they must have come from somewhere else, namely from Suguti.

3.3.2. Pronominal markers (+human)

The following table summarizes the forms and use of (human or personified) pronominal markers on verbs; these markers can be considered an extension of the {-mu-/ -ba-} class.

Table 3.2: [+]Human pronominal markers

	subject	object	Examples			
			subject	gloss	object	gloss
1S	n-	-n-	n-gur-a	I buy	ba-n-bara	they count me
2S	o-	-ku-	o-gur-a	you buy	ba-ku-bara	they count you
3S	a-	-mu-	a-gur-a	he/she buys	ba-mu-bara	they count him/her
1P	tu-	-tu-	tu-gur-a	we buy	ba-tu-bara	they count us
2P	mu-	-ba-	mu-gur-a	you buy	ba-ba-bara	they count you
3P	ba-	-ba-	ba-gur-a	they buy	ba-ba-bara	they count them

The following cases of morphological syncretism are noted: {-ba-} represents 2P-OM, 3P-SM and 3P-OM; {-mu-} represents 3S-OM and 2P-SM; while {-tu-} represents 1P-SM, 1P-OM and a nominal class (see Table 3.1: #13). This results in morphological ambiguity. Thus, {**ba-ba**-bara} and {**tu-tu**-gur-a} could mean either 'they count them' and 'we buy them', or 'they count you (plural)' and 'they [diminutive] buy us' respectively. Such ambiguities can be resolved by the context(s) of the utterance or the situation.

The pronunciation of the first person singular marker {-n-} is affected by its phonetic environment; that is, its surface representation depends on the consonant that follows it, as exemplified in (50) (see §2.4.1).[29]

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[29] There are indications that the 1S marker could be {-ni-} or even {ñ} rather than {-n-}. Some evidence is found in the conjugation of verb stems that begin with a vowel, such as *ku-era* 'to be clean/white', *ku-oga* 'to clean oneself', *ku-ombeka* 'to build', and *ku-eta* 'to call'. Thus, in most languages, {ni + éta}→ {ny-eta} → [ñéta] 'I call' and {ni + ombéka}→ {ny-ombeka} → [ñombéka] 'I build'. However, these verbs are optionally pronounced with a semivowel in Rukerebe: *ku-yera, ku-yoga, ku-yombeka* and *ku-yeta*, respectively (and by young children in some of these languages). In this case, there is a need for more research in order to determine whether the 1S is really {-n-}, {-ni-}, or {ñ}, if there is an underlying [y] sound, or an epenthetic [y] in the verbal system of either individual languages or the entire group. We did not get enough data from all languages in order to pursue the issue further.

(50)

a.	n+ba-bona	→	m-ba-bona	→	[mbaβona]	'I see them'
b.	n+gu-bona	→	ŋ-gu-bona	→	[ŋguβona]	'I see it'
c.	n+ri-bona	→	n-di-bona	→	[ndiβona]	'I see it'
d.	n+ki-bona	→	ŋ-ki-bona	→	[ŋkiβona]	'I see it'
e.	n+zi-bona	→	n-zi-bona	→	[nziβona]	'I see them'
f.	n+tu-bona	→	n-tu-bona	→	[ntuβona]	'I see it/them'
g.	n+mu-bona	→	m-mu-bona	→	[muβona]/[mbona]	'I see him/her'
h.	n+ha-bona	→	m-ha-bona	→	[mpaβona]	'I see there'

The form {n-ki-bona} is heard as [ñčiβona] in other languages (see §2.3.1). Although some of these features are also found in other Bantu languages and are, therefore, not exclusively specific to Rutara, they do contribute to the linguistic coherence of the group.

3.4. T/A markers

The allocation of the T/A markers in the three slots (1, 2, and 3) (as established in (47)) across Rutara are allocated and distributed as follows: slot (1): ni-; slot (2): -ka-, -a(a)-, -raa-, -ria-, -ra-, -ri-, -kiaa-/-č(i)aa-, -ki-/-či-; and slot (3): -a, -a-ga, -ire, -ire-ge, -e (*cf.* Table 1.2, and Figure 5). The marker {-aga} is regarded as containing two elements: the final vowel {-a}, which can be replaced by the subjunctive {-e} in languages like Ruhaya and Rutooro, plus the aspectual marker {-ga}, based on the examples given in (46). In other languages where this form {-aga} occurs, we will propose that the subjunctive is simply added to the final position, thus {-a-ga + -e} → {-a-ge}, as in some dialects of Ruhaya (46d). However, we will continue to present this post-radical form as {-aga} except where it involves other T/A or modal markers.

The lexeme *-ija* or *-iza/-iža* 'come' is also used to mark some T/A, which might indicate an early stage of developing a new aspect or tense formative. The following table summarizes the distribution of these markers in the group and their generalised meaning(s) or functions in different languages (where "+" stands for "yes", "-" for "no"). Each language thus selects its own set of formatives from the list for its T/A system.

Table 3.3: The distribution of T/A markers in Rutara languages

formative	Runyankore	Rukiga	Runyoro	Rutooro	Ruhaya	Runyambo	Ruzinza	Rukerebe	meaning, function
-ka-	+	+	+	+	+	+	+	+	Remote Past, Retrospective
-a(a)-	+	+	+	+	+	+	+	+	Memorial Present, Remote Past, Perfective, Retrospective, Prospective, Consecutive
-ra(a)-	+	+	+	+	+	+	+	+	Near Future
-ria-	+	+	-	-	-	-	-	-	Remote Future
-ra-	+	+	+	+	+	+	+	+	Remote Retrospective, Remote Past
-ri-	+	+	+	+	+	+	+	+	Remote Future
-ri-	+	+	+	+	+	+	+	+	'be'
-kiaa-/-č(i)aa-	-	+	+	+	+	+	+	+	Persistive
-ki/či-	+	+	+	+	+	+	+	+	Persistive
ni-	+	+	+	+	+	+	+	+	Progressive, Continuous
ni-	-	-	-	-	-	-	-	+	Conditional
-aga	+	+	+	+	+	+	+	+	Habitual, Durative
-ire	+	+	+	+	+	+	+	+	Near Past, Perfect, Resultative, Retrospective, Remote Past
-ire-ge	-	-	+	+	-	-	-	-	Near Past
-e	+	+	+	+	+	+	+	+	Subjunctive
-e	-	-	+	+	-	-	-	-	Remote Past
-ija/iža/iza	+	+	+	+	+	+	+	+	'Come', Near Future, Prospective
-a	+	+	+	+	+	+	+	+	Default neutral FV (unless {-ire}, {-e}, {-i}).

The existence of three slots which mark T/A in a verbal unit allows us to predict the co-occurrence of two or three T/A markers in a construction. However, these T/A markers have constraints that govern their compatibility' as illustrated in Table 3.4 (where the number of "+" marks the degree of distribution within the group. That is, "+++" indicates the highest distribution for formatives which are found in almost all languages, those marked by "++" are found in about half of the group, while "+" indicates those which are only found in one or two languages).

Table 3.4: Compatibility of affirmative formatives in a single verbal unit

T/A markers		Aspectual markers					
		-a	-ire	-aga	-e	-ki(aa)-/-č(i)aa-	ni-
typical/primary tense markers	-ka-	+++	-	-	-	-	-
	-ra(a)-	+++	-	++	+	-	-
	-ri-	+++	-	?	-	-	-
	-ria-	+	-	+	-	-	-
secondary/quasi-tense markers	-a(a)-	+++	+++	++	-	-	-
	-ra-	-	++	-	-	-	-
	ni-	+++	+	-	+	+	-
	-ire	-	-	-	-	+++	+
	-ire-ge	-	-	-	-	-	-
	-e	-	-	++	-	-	-

The major aim of the table above is to indicate which formative(s) can cooccur with which other formative(s); this provides more clues to the puzzle of determining the basic meaning(s) of the formatives and establishing which are real or typical tense markers, which ones are secondary, recycled, or quasi-tenses, and which ones are typical aspects. This table

is based on the discussion presented in §1.8.3 and 1.8.4 as well as on inferences drawn from Table 3.3 (above). All formatives under "typical/primary tense" can at least appear in a simple verbal unit without necessarily being accompanied by another T/A element in other slot(s), functioning like tense markers. The table above shows that formatives do not just combine with each other or, in other words, not every T/A marker can cooccur with every other marker in the same verbal unit. It is this picture of compatibility and its constraints that guide us in analysing the T/A categories semantically or cognitively in the following chapters.

3.4.1. The Perfect {-ire}

Although we generally present the Perfect marker as {-ire}, its surface realisation varies significantly from one language to another depending on the verb. As a result, there are several allomorphs for this formative, as indicated in Table 3.5.

Table 3.5: Allomorphic variations of {-ire}

	Infinitive →	**group I →**	**group II →**	**group III**	**gloss**
a.	ku-gona	gon**ire**	-------	gon**ere**	snore; dream
b.	ku-sona/-šona	son**ire**/šon**ire**	-------	-------	sew
c.	ku-bona	bo**ine**	bwe**ine**	bwe**ene**	see
d.	ku-zaana	za**ine**	ze**ine**	ze**ene**	play
e.	ku-gura	guz**ire**	-------	-------	buy
f.	ku-bara	baz**ire**	-------	-------	count
g.	ku-rwaara	rwa**ire**	rwe**ire**	rwe**ere**	get sick
h.	ku-gorora	goro**ire**	gorwe**ire**	gorwe**ere**	straighten
i.	ku-sa /-sea/-sia	se**ire**/si**ire**	------	se**ere**	grind

	Infinitive →	group I →	group II →	group III	gloss
j.	ku-ba	ba**ire**	be**ire**	be**ere**	be; become
k.	ku-henda	henz**ire**	-------	-------	break
l.	ku-baza	bar**ize**	-------	-------	ask

The three groups in Table 3.5 represent how different languages pronounce such verbs in the {-ire} form. Group II illustrates partial assimilation and group III total assimilation of the vowels {-a+i-}. Note also how [o+i] glides to [wei] in (c) and (h). For a discussion on how the stem final consonants change or have changed historically, see Kahigi (1989). Runyoro and Rutooro have an extension on the form {-ire} in the Past tense. The marker is extended by adding the suffix {-ge}, as shown in (51a). This re-modified formative, however, is restricted to tense functions only; it does not apply to aspectual functions (see Tables 3.3, 3.4, and §5.2.3).

(51)

a.	Runyoro and Rutooro	{tu-guz-ire-**ge**}	'We bought'
b.	Runyambo and Ruhaya	{tu-guz-ire-**ge**}	'We bought well'
c.	Runyankore	{tu-guz-ire-**gye**}	'We bought well'
d.	Ruzinza	{tu-gur-a-**ze**}	'We buy well'

The final suffix {-ge} has the same form as an adverbial clitic meaning 'well', as seen in the examples (51b) to (51d). Maddox (1902:27) reports that the tense marker {-ire-ge} in Runyoro is only "used with certain verbs whose action is definite and not prolonged". That is why we have included this form under Performative (see §4.5.3). We are not able to tell, at this point, whether or not this {-ge} in Runyoro and Rutooro and the adverbial morphemes {-ge, -gye, -ze} in (51b) to (51d) derive from the same form historically (see §6.3.1).

3.5. Theoretical problems

With regard to the theoretical framework proposed in the previous chapters, the analysis of T/A systems in Rutara languages poses some problems that in turn raise questions which need to be answered. The following are the major problems that we encounter in our analysis and which this study will try to address in the following chapters.

3.5.1. Morphology

Firstly, there is an apparently high morphological flexibility in the verbal systems, with regard to the forms, functions, and meanings of T/A formatives. That is, not all formatives have a one-to-one correspondence between form and meaning/function. In some cases, depending on the verb, this results in what looks like morphological syncretism, thus, for instance, the formative {-a(a)-} which is traditionally regarded as Near or Today's Past (*i.e.* Memorial Present), is also used in constructions which mean 'have just...' and 'just about to...' in different languages (see (64)–(65)). According to Comrie (1985) this would, probably, be regarded as idiomatic rather than grammatical, as it virtually resembles his Russian example *ja pošel* 'I'm off', literally, 'I left' (Comrie 1985:95). The same applies to the {-ire} form which, in some languages, can also be used in that sense of Resultative, as in Ruhaya: {ku-genda} 'to go' becomes {n-genz-ire} 'I went (yesterday)' or '(watch out) I might leave!'. The second function in both examples is close to the English Resultative form 'I'm gone'. The issue is, therefore, to clarify the role(s) of {-a(a)-} and {-ire}, in relation to other formatives, in the T/A system(s).

Secondly, the interaction between morphology and function is so high that, in some cases, it becomes difficult to clearly distinguish tense markers from aspectual and modal markers in order to determine their basic morphosyntactic functions. Compare, for instance, the Remote Past negative {ti-tu-**(r)a**-guz-**ire**} 'we did not buy' *versus* the Retrospective affirmative {tu-**aa**-guz-**ire**} 'we have already bought' on one hand, and their respective opposites, {tu-**ka**-gur-a} 'we bought' *versus* {ti-tu-**ka**-guz-**ire**} 'we haven't bought yet'. In other words, given how other T/A structures correspond between affirmative and negative constructions in the systems, one would expect the following correspondences, which are, in fact, rejected by all systems (where {-(r)a-} indicates that some languages have the marker {-ra-} and others {-a-}):

(52)

a.	tu-**ka**-gur-a 'we bought'	→ *ti-tu-**ka**-gur-a	→ ti-tu-**(r)a**-guz-**ire** 'we did not buy'
b.	tu-**aa**-guz-**ire** 'we have already bought'	→ *ti-tu-**aa**-guz-**ire**	→ ti-tu-**ka**-guz-**ire** 'we have not yet bought'
c.	tu-**ra**-guz-**ire** 'we have bought before'	→ *ti-tu-**ra**-guz-**ire**	→ ti-tu-**ka**-gur-**aga** 'we have never bought'

Furthermore, some T/A formatives only show up in one type of construction, that is either in the affirmative or the negative but not both. For instance, the Remote Past {-ka-} is found in affirmatives only while in negatives {-ra-} or {-a-} occurs, as shown in (52a) above. When {-ka-} appears in negative constructions it does not mean Remote Past, but rather 'not yet' and 'never', as in (52b) and (52c) respectively.

Addressing the case "affirmative-negative correspondences" in Kiswahili, Contini-Morava (1989:30) proposes two ways of explaining what she calls the *essentially random relationship* between the affirmatives and negatives that "either a) the negative markers, unlike the affirmatives, are not distinct from each other in meaning; or b) the negatives do not refer to the same semantic domain(s) as the affirmatives and would therefore not be expected to show a fixed correspondence with them". We will not discuss the first explanation because either the comparison made in (a) between "the negative markers" and "the affirmatives" is not clear or does not constitute discussion as far as the Rutara languages are concerned; there are only two negative markers in Rutara, {ti-} and {-ta-}. The second explanation, on the other hand, raises an interesting point which might apply to other Bantu languages. However, Kiswahili is quite different from Rutara languages in terms of its type of asymmetry. For instance, whereas Kiswahili contains very few real symmetrical forms (*i.e.* in constructions marked by {-ta-, -nge-, -ngeli-, -ngali-}), Ruhaya has twenty symmetrical forms out of thirty main clause constructions including relatives (see Hyman and Byarushengo (1984) for a few examples). Besides, both the negative and affirmative forms which are asymmetrical in the Rutara group, as in (52), use formatives which function elsewhere in affirmative constructions; these are {-ka-}, {-ra-}, {-a(a)-}, {-ire}, {-aga}, and {-e}. Thus, these formatives are not restricted to negative contractions only, compared to {-i} and {-ja-} in Kiswahili.

3.5.2. Tone

There are several rules that govern tone with regard to the basic tone patterns as well as the placement (underlying *versus* surface representation) and movement of tones. There are also both semantic and grammatical tones which result in forms which would look alike if they were not marked for tone (*cf.* §2.5.3). In Ruhaya for instance, the (plural) Past relative form [a-bá-guz-**ire**] 'those who bought' contrasts with the (singular) Past non-relative [a-ba-guz-**îre**] 's/he bought them'. However, the contribution and effect of tone on the semantic and cognitive analysis and reconstruction of T/A systems in Rutara languages is minimal. Therefore, tone has been given little consideration in this study, though tonally contrastive forms are noted in various examples and T/A matrices (Appendix I), and a brief analysis of verbal lexical tone was provided in §2.5.3, as well as some extra insights under §4.5.1; (for a detailed analysis of tone in Ruhaya, see Hyman and Byarushengo 1984). These languages can be classified into two tonal groups: those which are strictly tonal, such as Runyankore, Rukiga, Runyambo, Ruhaya, Ruzinza, and Rukerebe, and accent or pitch-accent languages like Rutooro and Runyoro respectively. There are also interdialectal differences in terms of tone in these languages. In Runyankore and Rukiga, for instance, there is a significant difference between the groups which Taylor (1959:xv) calls "High Speakers" *versus* "Low Speakers" (see 53 below). The same factor is found in Ruhaya between H1, on the one hand, *versus* H2 & H3, and H4. Similar differences occur in Ruzinza between "Abarongo" and

"Abanyaisanga" (or Geita and Sengerema speakers), and in Rukerebe between Insular and Mainlanders.[30]

(53)

a. Runyankore/Rukiga

i)	ngura	*vs*	ngúra	'I buy'
ii)	ningura	*vs*	ningúra	'I am buying'
iii)	ikumi	*vs*	ikúmi	'ten'

b. Ruhaya

i)	obugoro	*vs*	obugóro	'snuff'
ii)	bakyáákôma	*vs*	bakyáàkôma	'They are still tying up'

c. Ruzinza

	tindíkoma	*vs*	tíndíkoma	'I will not tie up'

3.6. Conclusion

We have seen in this chapter that there is only one tense per simple verbal unit (VU). Therefore, in cases where a VU seems to contain more than one tense marker, we assume that the real tense marker will occur in slot (2) and all other markers should be regarded as aspectual or modal markers. It follows that, morphologically and historically, {-ire} is not a tense marker, for two major reasons. One: since there is only one real tense slot in the VU (slot 2), and since {-ire} occupies slot (3), it cannot be considered one of the typical tense markers. Two: {-ire} permits co-occurrence with another tense marker, specifically {-aa-}, in the same VU; this does not violate the principle that limits a VU to one tense only. That

[30] There are also segmental and/or morphological differences, as in [n-ki-gúra] *versus* [ni-n-ki-gúra] 'I am still buying' in Runyankore (Taylor 1959:xvii) (see §4.5.7).

is, if {-ire} was a morphological tense, then the common retrospective construction {-aa-...-ire} and the negative Remote Past {-(r)a-...-ire} would be ungrammatical. Nevertheless, Rutara languages allow this formative {-ire} to assume tense functions, in which case it used for a Past tense. The same arguments could, in fact, apply to {-a(a-}, with one major difference that the two markers occupy different slots, (2) and (3) respectively. Thus, as we will illustrate in the following chapters, how the systems assign different roles to various formatives. It is not uncommon, however, for a Perfect, Perfective, or Retrospective aspect to either assume the role of, or develop into, a Past tense; it has been observed in other studies (Robertson 1992, Bybee, Perkins, and Pagliuca 1994, Hewson and Bubenik 1997). Similarly, {ni-} is morphologically and historically not an aspectual marker in that it occupies a slot which was not originally meant for aspects. It is only probably an innovation resulting from employing the copula verb to perform aspectual functions. Related to this could be **nɪ* which Guthrie (1971:145) reconstructs as a *stabiliser affix*.

CHAPTER FOUR

4. ASPECTS

4.1. Introduction

In the previous chapters, the basic distinction between tense and aspect was drawn in terms of their respective cognitive references, their morphosyntactic locations in the verbal unit, and their morphosemantic functions in the system. That analysis, however, was more theoretical and also general, in that it mainly treated all the sample languages of the study as a group. In this and subsequent chapters, the analysis is narrowed down. This chapter concentrates on aspect only, drawing specific examples from individual languages, and comparing their morphosyntactic shapes and semantic functions. The differences, which are salient for the reconstruction and some of which are pointed out in this and Chapter Five, are omitted here but analysed in detail in Chapter Six. The definition of aspect established in Chapter One and the various aspects which were introduced then, are now re-examined and analysed with specific reference to the eight sample languages. The major aim is to establish the morphosemantic functions of T/A markers and their interrelationships in the system, based on the cognitive theory of time image and T/A development. This will help to draw a clear picture of the system both diachronically and synchronically, thus avoiding the pitfalls of previous studies. Botne (1981), for instance, criticises studies like that of Kimenyi (1973) which attempts a morphosemantic analysis of Kinyarwanda, but fails to show the relationship

between the different functions of the syncretised marker {-ra-} (which Botne himself goes on to establish).

The parameters of analysis are set in terms of the form, morphosyntactic position, function, and meaning of formatives as used in various verbal constructions in different languages of Rutara. In some cases, a few examples are also drawn from other Bantu languages whenever it is deemed necessary to do so in support of the argument(s) presented. Now, before starting the analysis and comparison of the various aspects found in Rutara languages, let us revisit the temporal structure of the T/A system.

4.2. The temporal structure of T/A

Reichenbach's model (1947) has been one of the most influential studies in the analysis of the temporal structure of T/A systems, in Bantu and other languages. His view and analysis of the complex structure of T/A in terms of three points, the *point of speech* (S), the *point of the event* (E), and the *point of reference* (R), has drawn considerable attention ever since, some of it negative, and some proposing modifications, such as Johnson (1977), Comrie (1981, 1985), Besha (1989), and Mreta (1997). Among the studies most critical of this approach, and also of others, is Botne (1981). Botne surveys a good number of studies on T/A, including, and with particular attention to, Jespersen (1931), Reichenbach (1947), Bull (1960), McCawley (1971, 1981), Givón (1972), Hornstein (1977), Johnson (1977), and Comrie (1981). In summary, these studies criticise Reichenbach's model and some of its modifications, raising four major points:

i) Reference point (Reichenbach's "point of reference") and event time (Reichenbach's "point of the event") are intervals rather than points (see Johnson 1977, McCawley 1981, Botne 1981).

ii) Some tenses do not need a reference point for their representation. For instance, only event time and point of speech are sufficient for the so-called simple tenses like "Simple Past" (see Comrie 1981, Botne 1981).

iii) There are potentially an infinite number of reference points (see Comrie 1981, Dahl 1985).

iv) The details of the model are language specific, English in particular. Thus, it takes for granted its applicability to other languages, while its scheme includes other grammatical forms which fall under mood and aspect (rather than under tense) (Besha 1989).

In the light of these and other problems, which are regarded as weaknesses in Reichenbach's model, Botne (1981) suggests rigorous modifications, and replaces Reichenbach's points (E, R, S) with *situation frames*, *reference frames*, and *axis of orientation* (which bears the *point of orientation*), respectively (not necessarily with same meaning). He discusses the nature of boundedness of the ET frame and presents a detailed analysis of these complex temporal, semantic and situational contexts.

While this thesis admits that Reichenbach's scheme has considerable weaknesses on the one hand, and commends the criticisms and the changes proposed at a higher level, on the other hand, there are three issues we should bear in mind with reference to the analysis of these temporal and reference frameworks at the basic level. First, a "point" in time is hardly attainable, whether for R, E, or S. Even a micro-second is an interval in time rather than a point. Therefore, representing any of the three T/A temporal relations (R, E, S) as a point is a matter of convention, rather than reality, as cities and towns are represented by dots on a map. In fact, even the so-called point itself is an "interval" in strictly mathematical terms.

The second is that, what we commonly call "Present tense" does not have clear or steady temporal boundaries other than boundaries of convenience. It is always and progressively changing into "Past". That is, when we speak, the first "word" uttered will be already in the "Past" by the time we finish the utterance. In fact, in strictly cognitive terms, all three aspects of time (past, present and future) are in most cases naturally connected together in a complex single event. Hewson (1997:3) explains this phenomenon better under the elements of consciousness (memory, sensory experience, and imagination): "In order for us to act appropriately in relation to our environment, our consciousness has to be broad enough in time to encompass both immediate memory and imagination". Using an example of a person catching a ball, Hewson (1997:3) presents the three elements working together as follows:

> Memory is required so that we can accomplish what we set out to do without losing track of it, so that we remember that we are catching a ball. Imagination is required to place ourselves and our hands, before the ball arrives, in the right position to catch the ball.

In this kind of event, the act of throwing the ball, which begins as expectation (hence "future"), is already a "past" event by the time the recipient catches the ball.

Third, R, E and S are just the basic elements of the T/A temporal structure, from a logic point of view: which led Dahl (1985) to call that system Boolean. They are basic and elementary; although they are necessary for the configuration of the basic structure, they are not sufficient to constitute a model that can and/or should universally capture all forms of T/A constructions in all languages of the world. For instance, the structure given by Botne (1981:53) to illustrate the significant problem of determining explicitly "the nature of reference-times", with regard to the construction "would have V-en",

> "John left for the front; by the time he returned, the field
> would have been burnt to stubble."

raises both syntactic and cognitive issues. This kind of structure in itself has two major problems. First, syntactically, it goes beyond a simple clause; in fact, it is a paragraph and could still be extended further and further. Second, and more important, the event expressed in the last part of the structure, and which is the core of the problem, "the field would have been burnt..." is not necessarily a real event in real time because of the modal verb "would". Therefore, attempting to anchor an unreal event or ambiguous clause, which could be only hypothetical along in UT, to reference time, would generate problems which, presumably,

Reichenbach's model was not meant to handle. A similar criticism is presented by Dahl (1985:30) using the sentence "When I arrived, Peter had tried to phone me twice during the preceding week", and arguing that "there is nothing in Reichenbach's scheme that corresponds to the time referred to by *during the preceding week*". The major problem here regards the fact that the phrase "during the preceding week" is not marked by, nor does it mark T/A, which even Dahl himself admits is a far-fetched complex case which is rather less common. It is therefore irrelevant in the light of this study. It is for this reason, therefore, that this study is focussed on main clause verbal constructions, particularly VUs that constitute one and only one tense, and which, mainly, express real events in real time.

Other studies have also modified Reichenbach's model and terms. McGilvray (1991:13), for instance, presents tense as "a relationship between the time of speech (iS) and the reference point (iR)", which he calls "the R-view." In this view, three temporal intervals are realized, that is, "time of speech", "reference point", and "time of situation", and different T/A categories require a different number of "relationships" to deal with their temporal structures. Similarly, Moshi (1994:128) modifies Reichenbach's terms (S, E, and R) to "speech time", "event time", and "reference point" respectively. For semantic reasons, we will use the terms *speech event time* (tS), *reference time* (tR), and *event time* (tE) (in UT), based on the fact that all three designate time, while trying to simplify the model (*cf.* Botne 1981). We deliberately avoid the term "point" because it does not necessarily refer to time. These terms, therefore, are treated as basic temporal elements in the mind, rather than regarding them as labels of convenience as Moshi (1994) does.

The aim of applying some concepts from Reichenbach's model to this study is to be able to relate the complex mental representation of time and event to the real world where most events take place. In other words, we cannot neglect the role of our perception of time and space, because it is the consciousness of time outside the mind and the material world around us that builds the base for cognitive mechanisms *vis-à-vis* the three elements of consciousness (memory, perception and imagination). It is, therefore, this time and space outside the mind which make events happen the way they do, and be recorded thus in the mind, whether as serial, simultaneous, frequent, potential, or persistent events, based on the principle we explained before that cognition has a close relationship with consciousness, while the mental system of tense and aspect is realised by the linguistic representation of the spatialisation of time. All these characteristics are morphologically represented by the way different formatives are morphosyntactically organised in a verbal unit, and can, therefore, explain the relationship between multiple T/A markers in one verbal unit or clause, and the relationship between markers of the same form found in semantically different clauses.

Consequently, this set of three elementary temporal references leads us to the temporal expression of T/A as, T/A = tS(tR—tE). The definition implies that it is the location of the speech event in time, the here-and-now, hence (tS), which establishes the base for the expression of both the event and its reference in time, and therefore, either the inception of recording the event in memory or the retrieval of the recorded event from memory. It also implies that (tE) is expressed with reference to (tR), if the two do not coexist in UT. When the two (tR—tE) coexist simultaneously in time (not just overlapping, if that is possible) (tR)

becomes unmarked and thus linguistically redundant. Normally, (tS) is morphologically unmarked because its reference is clear to the interlocutors from the context of the situation. In other words, it is absolutely superfluous for the speaker to tell the hearer that the speech event is taking place. In some languages or contexts, it could be marked by temporal adverbials like 'now' in English, especially in a marked situation or the marked use of a tense. In a simple verbal unit construction of the morphologically unmarked Present, both (tS) and (tR) co-occur simultaneously, or at least overlap, and the construction would only be marked aspectually if necessary.

(54) Ruhaya

a. tú-**ka**-bá tú-byaam-**ire**
1P-RP-be 1P-sleep-RESLTV 'We were sleeping/asleep'

b. Therefore, T/A = tS[Ø](tR[-ka-]—tE[-ire]) → {tR[-ka-]—tE[-ire]}

In the case of a compound verbal unit where both (tR) and (tE) are marked, the former represents tense and the latter aspect, as indicated in (54a) and reformulated in (54b). It follows therefore, that (tR) which marks tense appears on the auxiliary as compared to (tE) which marks aspect and appears on the main verb. It should be pointed out that there is not a one-to-one ratio between the temporal reference and the number of T/A formatives in a verbal structure. One temporal reference could be represented by a number of formatives depending on the nature and typology of a language. However, simple clauses are restricted to the maximum of one tense marker only, because a single verbal unit, simple or compound, cannot have more than one tense, although multiple aspects are allowed. For instance, (54)

could be reformulated to represent such multiple formatives, and hence multiple aspects, as in (55).

(55) Ruhaya (H2/H3)

tú-**ka**-bá tu-**kiáá**-byáám-**ire**
1P-RP-be 1P-PERS-sleep-RESLTV

∴ T/A = tS[Ø] tR tE2 tE1 → tS[Ø](tR[-ka-]—tE[-kiaa-...-ire])
→ {tR[-ka-]—tE[-kiaa-...-ire]} 'We were still sleeping/asleep'

In example (55) above, the leftmost element, {-ka-} marks (tR), and therefore tense, while both {-kiaa-} and {-ire} mark (tE) and hence a compound aspect with two primary formatives {-kiaa-...-ire} (or complex aspect as Botne (1981) calls them).

4.3. The formulation of T/A systems

One of the best ways of illustrating the interrelationships among the various components of a T/A system is by using a table. In this tabular matrix, aspects are arranged in columns and tenses in rows (see Appendix I). This arrangement is based on two principles. One: normally tense markers appear on the left and aspectual markers on the right in a verbal construction; two: tenses are in paradigmatic relationship with each other, while aspects are in a syntagmatic relationship among themselves and also with tenses. This form of representation is different from the one used in the chronogenetic staging of the T/A system in Rutara (see §1.8.5) where Level II forms (tenses) are lined up from left to right. While the presentation of forms in the chronogenetic model is based on the spatialisation of time in the mind, with reference to the continuum nature of UT (see §1.8.3), the tabular

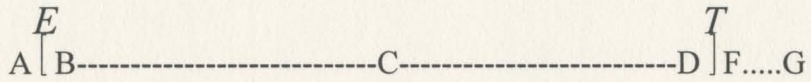
matrix is based on the morphosyntactic arrangement of T/A categories in a linguistic structure. The formatives entered in the tables are morphosyntactic elements as well, whose meanings are determined by their contrasts in the T/A system of a language. Once we have the forms inserted into the table(s), it becomes easy to sort out the formatives, identify their organization, their relationships and their semantic representations, all of which form the system. It also enables us to distinguish a *kitchen knife* from *screwdrivers* as introduced under §1.8.2. What follows below are, therefore, the basic components for building up paradigms of the matrices, by drawing specific examples from individual languages. It is after this comparative analysis that we will be able to reconstruct the Proto-Rutara T/A system in Chapter Six. The relevant formatives identified in the analysis are in boldface, and the tones, whenever indicated, are phonetic (rather than phonological).

4.4. Types of aspectual formatives

Before analysing the various aspectual categories and formatives in the sample languages, let us first look at how these aspects are related to one another in the verbal system. The following model summarizes the aspects discussed in this chapter; it was adopted from Hewson and Bubenik (1997: 14) and modified slightly to fit into this analysis. The model represents the Event Time (ET) which is expressed by aspects in a language system. In the diagram in (56), "ET" means Event Time (ET). The ET, however, is not necessarily bound at "E" or at "T", from a cognitive point of view. Some events, and consequently their respective ET, are bound on either side of the ET frame, but some are not.

The nature of such boundedness depends on the semantic composition of the verb involved as well as the context of situation.

(56) The temporal relationship between aspects (based on Hewson and Bubenik (1997:14), *mutatis mutandis*).



"A" indicates the Prospective aspect, that is, before the event takes place. "B" marks the Inceptive aspect, indicating that the event is beginning to take place. "C" signifies all forms of incompletive (or imperfective) aspects, as outlined below. "D" marks the completion of the event, hence Perfective. "F" and "G" mark events that have (already) been completed in the present time and are, therefore, viewed retrospectively. The two aspects at "F" and "G" only differ in that the event is relatively more recent in the former than in the latter, which gives us the names Retrospective (or Perfect), and Remote Retrospective respectively. The term incompletive covers all aspects which mark incomplete events such as Progressive, Persistive, Habitual and the like, including the Imperfective aspect found in IE languages, as discussed in §4.5.2 below. Similarly, completive at "D" includes such aspects as the Perfective (as used in the sense of Greek, as in (64), and the aspectual {-a(a)-} in Rutara languages, as in (65) and (66) below), while the Resultative would be represented by "F...G".

By studying the T/A systems of the Rutara languages, two types of aspectual markers have been identified, that is: simple markers and compound markers. A simple marker is a form that has a single formative in only one slot of the verbal unit (plus the neutral final

vowel {-a}, if applicable, and a zero marker in any other slots). Consider the following examples:

(57) simple markers

a.	ni-...-Ø-...-a	Progressive (see §4.5.6)
b.	-a(a)-...-a	Perfective (see §4.5.2)
c.	-Ø-...-ire	Completive: Resultative (see §4.5.4) and Retrospective (see §4.5.5.)
d.	-Ø-...-aga	Habitual (see §4.5.8)

In §3.2.2 we argued that {-ire} could be analysed as containing two segments, thus {-ir-e}. That was based on the morphosyntactic reason that it can split for the insertion of a passive marker (as an infix); and Dalgish (1976:237) argues that it can also be split by what he calls the "habitual/continuous suffix /-ng-/" in Lutsotso. From a semantic point of view, however, the two elements, {-ir-} and {-e}, represent one meaning synchronically. That is, neither of the two elements carries meaning independent of the other, apart from the phonological fading and *imbrication* (Bastin 1983, Hyman 1995) that in many languages have reduced the form {-ire} to various forms like {-ie} or {-e} as in, for instance, {-bon-a} > {-boin-**e**}/{-bwein-**e**}/{-bween-**e**} (*-bonire) 'see' *versus* 'saw' in Rutara languages, {-gur-a} 'buy' > {tu-ra-guz-**e**} (*turagurire) 'we have bought' in W/Highlands languages, and [n-á-gúz-**ê**] (*nagulile) 'I bought' in Luganda, all of which are the results of historical changes. Other than these diachronic results of phonological fading there is no evidence so far for the synchronic occurrence of either {-ir-} or {-e} as a separate morpheme that has the same semantic representation. The only cases available are the applicative morpheme {-ir-/-il-}

and the subjunctive {-e}, neither of which, despite shape resemblance, is related to the formative under discussion. A similar conclusion was reached by Rugero and Mukala (1987) and Dalgish (1976) that {-ire/-ile} is a single *discontinuous* morpheme.

(58)

a.	tu-guz-**ir-e**	
	1P-buy-NP	'We bought'
b.	tu-guz-**ir**-w-**e**	
	1P-buy-NP_i-PASS-NP_i	'We were bought'

(58) reveals that the insertion of an infix passive morpheme, [-w-] ← {-u-}, does not change the functional meaning of {-ire} as one entity. Therefore, it is the entire morpheme {-ire} which bears the morphological meaning of the formative (rather than individual elements [-ir-] and [-e]), and that same meaning is maintained in both cases, when it is intact (as in 57a) as well as when it is split as in (58b). In this case, {-ire} is a single morpheme which, unlike other formatives, can be split by another formative, the passive in particular. Thus, regarding {-ir-} and {-e} as two distinct morphemes necessarily calls for a morphosemantic or functional definition for each of the morphemes. Nevertheless, this does not prevent the morpheme from undergoing phonological changes which result in various shapes in different Bantu languages. For this reason, we do not need to present it in its split form as {-ir-e}, because such a representation does not have a strong functional or semantic base. Where {-ire} appears split as in {-guz-**ir**-w-**e**} 'bought' it should be analysed as a single split morpheme by virtue of its occurrence in that context. For arguments regarding the final vowel (FV) {-a}, see §3.2.2.

There are two types of compound markers, those which have two or more formatives located in different slots of the verbal unit (59a) to (59d), and those which apparently occupy a single slot but can be analysed as two distinct semantic morphemes (59e-h).

(59) compound markers

a.	-a(a)-...-ire	Retrospective (see §4.5.5)
b.	-ra-...-ire	Remote Retrospective (see §4.5.5)
c.	-a(a)-...-ire	(Remote) Past (Neg. Only) (see §5.2.1)
d.	-ka-...-ire	Retrospective (Neg. only) (see §4.5.5)
e.	-ki-aa-...-a	Persistive (see §4.5.7)
f.	ni-...-ki-aa-...-a	Persistive (see §4.5.7)
g.	-ki-a(a)-...-ire	Persistive Resultative (see §4.5.7)
h.	-ka-...-aga	Remote Retrospective (Neg. only) (see §4.5.5)

The reason for including the marker {-kia(a)-} under this group is that most languages have the form {-ki-/-či-} in the Negative Persistive, while others like Ruhaya and Rukiga can have both forms, [-kyaa-] and [-ki-], in the negative construction. The length of the vowel {-aa-} varies insignificantly from one language to another, hence the representation {-kia(a)-}. Thus, the same marker is realised in different forms as: [-kyaa-] / [-kya-] / [-čyaa-] / [-čaa-] in different languages. Given this distribution of {-kiaa-/-č(i)aa-} *versus* {-ki-/-či-}, we have no doubt about the argument that the affirmative markers are underlyingly {-ki-aa-} and {-či-aa-} respectively, derived from one common form /-ki-aa-/. That is why we are using one form {-ki-aa-} to represent the Persistive aspect in the group.

4.5. Aspectual categories

4.5.1. The basic unmarked form

All the Rutara languages share one common feature: that there is a basic T/A synthetic form which is not marked in any of the T/A slots of the verbal unit. The structure is formed by attaching the SM to the verb stem as follows:

(60)

	Language	Affirmative	Negative
a.	Ruhaya	tu-Ø-gúr-a	ti-tu-Ø-gúr-a
b.	Runyambo	tu-Ø-gúr-a	ti-tu-Ø-gúr-a
c.	Rutooro	tu-Ø-gûr-a	ti-tu-Ø-gûr-a
d.	Runyoro	tu-Ø-gúr-a	ti-tu-Ø-gúr-a
e.	Ruzinza	tu-Ø-gúr-a	ti-tu-Ø-gúr-a
f.	Rukerebe	tu-Ø-gur-á	ti-tu-Ø-gúr-a
g.	Runyankore	tu-Ø-gúr-a	ti-tu-Ø-gúr-a
h.	Rukiga	tu-Ø-gúr-a	ti-tu-Ø-gúr-a
		1P-T/A-buy-A	NEG-1P-T/A-buy-A
		'we buy'	'we don't buy'

The base structure in (60) is, therefore, {(NEG)-SM-Ø-...-a}. The marking of tone in (60) raises one fundamental question with reference to assignment of tone to T/A forms and, particularly, the distribution of underlying tones. The question is, where the H tone here comes from, since the root {-gur-} has no underlying H tone, and there are no H tone-bearing T/A markers. In their analysis of Ruhaya, Hyman and Byarushengo (1984) attribute H tones to particular morphemes. In the case of (60) that would only mean assigning the H tone to {tu-} or {-a}, which would then mean that such tones are not underlying, but belong to an intermediate morphological stage from which they are connected to surface TBUs. The results can be seen in the following table, which summarises their suggestions for the

apparently underlying forms of two tonally contrastive verb roots /-gur-/ and /-kóm-/, where brackets "<>" indicate that the FV will only be H if the radical is not high toned:

Table 4.1: Some tonal conjugation in Ruhaya (Hyman and Byarushengo 1984:101)

Radical	Main AFF.	Main NEG.	Sub. Rel. AFF.	Obj. Rel. NEG.
-R-	ba-R-a H	ti-ba-R-a H <H>	a-ba-R-a H H	a-ba-ta-R-a H H <H>
-gur- 'buy'	[bagúra] 'they buy'	[tibagúra] 'they don't buy'	[abágura] 'those who buy'	[abatagúra] 'those who don't buy'
-kóm- 'tie up'	[bakóma] 'they tie up'	[tibákoma] 'they don't tie up'	[abákoma] 'those who tie up'	[abatákoma] 'those who don't tie up'

In other words, if we treat this analysis as representing purely underlying forms, then it creates one major phonological problem: the FV {-a} and the personal markers {-ba-, -tu-} have different underlying forms, that is, high toned in one instance and low toned in the other, which sounds strange. Thus, given that even Hyman and Byarushengo accept the fact that some of these tones are assigned morphologically, it follows that such tones are not, therefore, part of the underlying morphemes to which they are assigned in the table above. It would be better, therefore, to suggest that T/A tones are assigned at a relatively later stage, at the morphosyntactic stage, rather than being purely underlying. In that way, we can account for the H tones that appear in structures like (60), as assigned by a grammatical rule of the relevant T/A category. A similar approach was suggested by Botne (1981). He reacts against Givón's (1972) analysis of {-ká-, -kà-} in Chibemba which regards tone as an integral part of individual morphemes. Botne suggests that it is when tone is considered separately

from the morpheme {-ka-} that a quite regular pattern of temporal intervals emerges in that language. Consequently, this study will not attempt to assign any underlying tones to T/A markers though various relevant suggestions will be made at different stages depending on our findings, and tone specific studies may further pursue this phenomenon. The simple unmarked forms given above, however, are not specific to Rutara languages only; they are also found in some other Bantu languages as indicated (61) and are also commonly used in imperative constructions where the SM is dropped as in (62).

(61) Luganda

tú-**Ø**-gulá	te-tú-**Ø**-gúlâ
1P-T-buy-A	NEG-1P-T-buy
'we buy'	'we don't buy'

(62) Imperative (Rutara)

a.	gura!	'buy!'
b.	koma! / boha!	'tie up!'

What is semantically more interesting with the form in (60) and (61) is that it covers a larger span of Present time than any other form. It is used to state current facts or describe states of affairs which were also true in the past. Consequently, in most languages, it could also imply Near Past, Memorial Present, and Near Future. That is, the form {tu-gur-a} 'we buy', for instance, implies that the tendency, habit or business of buying did not begin on the day of the speech event, but rather, that it has been going on for a while and it is, therefore, an established fact. It is, probably, this range of temporal coverage which made Taylor (1985) call this category "Universal tense". Since it is used mainly to state facts rather than

real events, it does not overlap with Performative (see §4.5.3), but rather with Habitual (see §4.5.8). As explained in §1.8.5, this is the basic form for aspectual constructions for the first chronothesis. That is, from this form we can build up other aspects (as well as tenses), by adding T/A markers, as presented in the following subsections. The relative forms for this aspect are also formed in the same way, thus {a-ba-gur-a} 'those who buy' and {a-ba-ta-gur-a} 'those who do not buy', for the whole group.

4.5.2. Perfect, Perfective and Imperfective

Although the terms *Perfective* and *Imperfective* are mostly used synonymously with *completive* and *incompletive* respectively in other studies, we will use the latter set to distinguish between the following two classes of event, as exemplified in the following English translations of abstract aspects in Bantu languages. We will also distinguish between *Perfect* and *Perfective* as two different aspects in the Rutara group (*cf.* Binnick 1991, Bybee *et al.* 1994, Hewson and Bubenik 1997).

(63)

	non-complete events *(imperfective)*	**complete events** *(perfective)*	**tense**
a.	We are buying	We have bought	Present
b.	We were buying	We had bought	Past
c.	We are still buying	We have already bought	Present
d.	We used to buy	We (just) bought	Past
e.	We buy	We bought	Extended Present; Past

Thus, in order to avoid confusion, we will use the terms completive and incompletive for the general sense of aspectual categorisation that expresses complete *versus* incomplete events respectively, as illustrated in (63) above, and reserve the terms Perfective and Imperfective (note the change in capitalisation) for specific aspectual categories, such as those found in Indo-European languages. In Greek, for example, the two are contrasting aspectual categories, whereby the Imperfective represents an event in progress and the Perfective (*i.e.* Aorist) represents its point of completion (Hewson and Bubenik 1997:28):

(64) Greek aspecto-temporal forms in the indicative mood

	Aspect	**Past**	**Non-Past**
a.	Imperfective	élūe	lűei
		'was loosening'	'is loosening'
b.	Perfective	élūse	lűsei
		'loosened'	'will loosen'
c.	Retrospective	elelúkei	léluke
		'had loosened'	'has loosened'

In the examples above (64), the Imperfective aspect, which is represented by relatively simple forms, is unmarked for aspect while Perfective is marked by [-s-]. The Non-Past Imperfective represents the here-and-now, because what is ongoing at the moment of speech (tS) is always incomplete. Non-Past Perfective, on the other hand, represents the Future part of the Non-Past. That is, what is complete at the moment of speech is necessarily in the past, while what is represented as complete only in the mind in the Non-Past (*i.e.* imagination), must necessarily be in the Future, bearing in mind that Non-Past includes the Future (see §1.8.3). How does this relate to the Rutara languages then?

At first sight, these contrasts might look quite different from those in Rutara languages in which aspectually unmarked simple forms like {tu-ka-gur-a} 'we bought (*e.g.* before yesterday)' and {tu-a(a)-gur-a} 'we bought (*e.g.* earlier today)' represent complete events. It is for this morphosemantic difference that we have labelled this category of completive but aspectually unmarked simple forms in Rutara as Performative rather than Perfective, which maintains that typological difference. Nevertheless, as indicated in the Ruhaya examples below, it is also possible to use forms that normally mark Non-Past complete events to represent Future. For example, the form {tu-a(a)-gur-a} has two basic translations in most of the Rutara languages. First, it means 'we have just bought' which falls clearly under what we termed completives. It represents the completion of the event; that is why it can be used in the sense of 'I am just finishing', or 'I have finished' while the speaker is completing the event. It also translates generally as 'we have bought' (in all other languages except Runyoro and Rutooro which have the Perfect form {tu-guz-ire} instead). This signifies an aspectual flexibility of the marker. In fact, its temporal flexibility across the group is so extensive that it includes a tense function that we call Memorial Present, as presented in §3.6 (see §5.3.2.1) as well as an aspectual function. It is the aspectual function that we refer here as Perfective. On the one hand, it is common for the Perfective aspect to function as Past tense or Memorial Present. On the other hand, it is also cognitively possible to extend the marker for the Memorial Present to function as Perfective aspect. It is this mutual relationship between the two which complicates the analysis os {-aa-} in Rutara languages. Consider the following examples which illustrate what {-a(a)-} can represent:

(65) Ruhaya: **tu-á(á)-gur-a**

a. 'we have just bought'	↔	real event complete in real time
b. 'we have bought'	↔	real event complete in real time
c. 'we bought (earlier today)'	↔	real event complete in real time
d. 'we are just about to buy'	↔	prospective event complete in mind
e. 'and (then) (we) bought'	↔	real event after a past complete event

f. {tu-**a**-ba tu-**aa**-gur-a} 'we had just bought' (could also be used for "we were just about to buy')

(66) Runyoro: **tu-a-gur-a**

a. 'we have just bought'	↔	real event complete in real time
b. 'we are just about to buy'	↔	prospective event complete in mind
c. 'and (then) (we) bought'	↔	real event after a past complete event
d. 'we have been buying'	↔	complete event in a continuous process

First, the semantic relationship that we get from the two languages in (65) and (66) indicates that the markers {-a(a)-} in Ruhaya and {-a-} in Runyoro are related. This supports the representation suggested and used in this study of treating both forms {-a-} and {-aa-} as one form {-a(a)-}. Second, the examples given above show a high temporal flexibility of the formative {-a(a)-}. The contrast between 'we have just bought' and 'we have bought' is morphologically marked in Runyoro and Rutooro, thus {tu-a-gur-a} *versus* {tu-guz-ire} respectively. The constructions in (65c) and (65f) are regarded as tense marked and are therefore discussed under §5.2.3. Both (65d) and (66b) indicate that, apart from marking complete events, {-a(a)-} can also be used to mark an event which is neither materially nor temporally complete but, inevitably, will be very soon and, therefore, is already set and completed in the mind (*cf.* (64)). The function of {-a(a)-} in (65e) and (66c) is similar to the function of {-ka-} in Kiswahili, and {-ʊ-} in Kisukuma, but slightly different from {ne} in

Luganda which is used with both Past and Future tenses (*i.e.* with the same base structure) as indicated by Chesswas (1963).

(67) Past

	Language	V1	V2,	V3,	...
a.	Ruhaya	tu-**ka**-gur-a ebitabo	tu-**aa**-bi-guza,	.....	
b.	Kiswahili	tu-**li**-nunu-a vitabu	tu-**ka**-vi-uza,	.....	
c.	Kisukuma	dʊ-**áá**-gʊl-a jítáβo	dʊ́-ʊ́-ji-jiinja,	.....	

1P-RP-buy books 1P-T/A[CONSTV]-OM-sell
'We bought books **and sold** them'

(68) Future

a.	Ruhaya	tu-**raa**-gur-a ebitabo	tu-bi-guz-**e**
b.	Kiswahili	tu-**ta**-nunua vitabu	tu-vi-uz-**e**
c.	Kisukuma	dʊ-**gʊ**-gʊla jitaβo	dʊ-ji-jiinj-**e**

1P-NF-buy books 1P-OM-sell-T/A[CONSTV]
'We will buy books **and sell** them'

This marker is commonly referred to as *Narrative* tense, but the term *Consecutive*, used by Maganga and Schadeberg (1992) is preferable. It is better because the marker does not appear in the first verb (V1) despite the fact that all verbs in the sentence are a part of narration. But it is called narrative because it is not applicable to Future tenses as indicated in (68) above.[31] Maganga and Schadeberg (1992) use the term Narrative to refer to V1 which initiates narration. Again, the problem is that in the example given above, the tense in V1 is the same normal tense which is neither affected by nor does it signal narration. In this case, we would propose the term *Past Consecutive versus Future Consecutive*. One

[31] It is possible to use the Consecutive {-a(a)-} with Future tenses in some of the Rutara languages if the first verb (V1) is modified with an adverbial or other morphosyntactic element(s), in which case the base structure(s) will not be the same as those in (65–66) .

interesting feature of all three languages, shown in (67), is that replacing the primary T/A marker in V1 with another Past tense does not affect the secondary T/A marker in V2. It should be pointed out, however, that the issue of marking consecutive events is more complex in the Rutara languages (and probably in others too) than what we have seen in the example above; but we will not pursue that issue any further.

This enormous coverage of Event Time and the morphosemantic shades of {-a(a)-} appear to overlap with the definition of Perfective aspect, at least as outlined in the Greek example in (64) above. It is for this reason that we also assign the label Perfective to the formative {-a(a)-} to signify an event that has (just) taken place and is, therefore, complete. At the same time we recognise its role as the Memorial Present marker. A more or less similar contrast can be established between {-a(a)-} and {-kiaa-} (see §4.5.7). Based on what we have seen so far, our study proposes to classify aspects in the Rutara group as follows (with phonological differences, as discussed in §2.4):

(69)	**completive**	**marker(s)**	**example(s)**	
	a. Perfective	-a(a)-...-a	tu-**a(a)**-gur-a	(see §4.5.2)
	b. Perfect	-Ø-...-ire	tu-guz-**ire**	(see §4.5.4)
	c. Resultative	-Ø-...-ire	ba-f(w)i-**ire**	(see §4.5.4)
	d. Retrospective	(-aa-)...-ire	tu-**(aa-)**guz-**ire**	(see §4.5.5)
	e. Remote Retrospective	-ra-...-ire	tu-**ra**-guz-**ire**	(see §4.5.5)

(70)	**incompletive**	**marker(s)**	**example(s)**	
	a. Progressive	ni-...-Ø-...-a	**ni**-tugura	(see §4.5.6)
	b. Habitual	-Ø-...-a(-ga)	tu-(**a**-)gur-a(-ga)	(see §4.5.6)
	c. Persistive	(ni-)...-ki-aa-...-a	(**ni**-)tu-**ki-aa**-gur-a	(see §4.5.7)
	d. Persistive Resultative	(ni-)...-ki-aa-...-ire	(**ni**-)ba-**ki-aa**-naji-**ire**	(see §4.5.7)

Considering the functions of the markers presented above, it can be concluded that in Rutara, as a group, there is aspectual contrast between Perfect (marked by {-Ø-...-ire}, and therefore exhibiting morphological syncretism with Resultative), Perfective which also exhibits morphological syncretism with Memorial Present (marked by {-a(a)-...-a}, and Retrospective (marked by {-a(a)-...-ire} which shares {-ire} with the Perfect. These three forms are also used for Past tenses, although some of them are merged in some languages, as will be illustrated in Chapter Six.

4.5.3. Performative

From a cognitive point of view, the term *Performative*, as used here (adopted from Hewson and Bubenik 1997), refers to a morphologically simple aspect which expresses an event that is performed (or which occurs) *once*, thus becoming complete, either as recorded/remembered in the mind, or as imagined. Thus, it represents a total performance. The traditional term *Simple* as T/A category is dropped in favour of Performative because it is not clear whether the former refers to the semantic composition of the T/A or to its morphological structure. It raises the question as to what exactly is "simple", the tense, aspect, event, the verb, or the category. Neither are we told the degree of "simplicity" that warrants a form to be classified under this category.

(71)		**Form**	**Function**	
	a.	tu-**ka**-gur-a	Remote Past	(see §5.2.1)
	b.	tu-guz-**ire**(-**ge**)	Near Past	(see §5.2.2)
	c.	tu-**raa**-gur-a	Near Future	(see §5.2.5)
	d.	tu-**ria**-gur-a / tu-**ri**-gur-a	Remote Future	(see §5.2.6)

If these forms are categorised as "simple", then the term refers to the structural composition of the verbal unit rather than to their semantic or cognitive attributes. Given the fact there are other morphosyntactically simple forms which do not belong to this category in the same paradigm, as in {tu-kiaa-gur-a} 'we are still buying', and also the fact that the negative counterparts of these forms are not simple, as in {ti-tu-a-guz-ire, ti-tu-ra-guz-ire} 'we did not buy', it follows that we need to use the label that describes the semantic or cognitive functions of the paradigm; this term is Performative. Nevertheless, the term "simple" is still used in this thesis to refer to the morphological composition of the verbal unit, as explained in §4.4.

Since both aspect and tense markers occupy the same slot (except for Memorial Present), and because Performative forms are tense marked, it becomes difficult to show that the category is really not marked outside the T/A matrix. As a result, we cannot present or discuss the Performative aspect without recourse to tense. The only form which is not marked for tense in slot (2) in this category (except in Rutooro) is the Near Past (see §5.2.2). The following data sets, (72) and (73), compare Performative forms of two tenses: Near Past and Memorial Present, where {-ire}, {-ire-ge}, and {-a(a)-} are used to mark tense.

(72) Near Past (see §5.2.2)

	Language	**Affirmative**	**Negative**
a.	Ruhaya	tu-**Ø**-guz-**îre**	ti-tu-**Ø**-guz-**íre**
b.	Runyambo	tu-**Ø**-guz-**íre**	ti-tu-**Ø**-guz-**íre**
c.	Runyoro	tu-**Ø**-guz-**iré-ge**	ti-tu-**Ø**-guz-**iré-ge**
d.	Ruzinza	tu-**Ø**-guz-**íre**	ti-tu-**Ø**-guz-**íre**
e.	Rukerebe	tu-**Ø**-guz-**iré**	ti-tu-**Ø**-guz-**iré**
f.	Runyankore	tu-**Ø**-guz-**íre**	ti-tu-**Ø**-guz-**íre**

g.	Rukiga	tu-**Ø**-guz-**íre**	ti-tu-**Ø**-guz-**íre**
		1P-T/A-buy-T/A	NEG-1P-T/A-buy-T/A
		'we bought (*yesterday*)'	'we did not buy (*yesterday*)'

(73) Memorial Present (see §5.2.3)

	Language	**Affirmative**	**Negative**
a.	Ruhaya	tu-**áá**-gur-a	ti-tu-**á**-gur-a
b.	Runyambo	tu-**áá**-gur-a	tí-tu-**a**-gur-a
c.	Ruzinza	tu-**áá**-gur-a	ti-tu-**áá**-gur-a
d.	Rukerebe	tu-**a**-gur-á	ti-tu-**a**-gúr-a
e.	Runyankore	tu-**áá**-gur-a	tí-tu-**aa**-gur-a
f.	Rukiga	tu-**áá**-gur-a	tí-tu-**aa**-gur-a
		1P-T-buy-A	NEG-1P-T-buy-A
		'we bought (today)'	'we did not buy (today)'

Given the definition of Performative above, (*i.e.* that it represents complete events either in time or in mind), it follows that Present Performative should also be inherently completive. But we would expect, on the other hand, that an unmarked form in any Experiential Present (see §5.2.4) aspectual category would be incompletive because Experiential Present expresses events that are currently being recorded in the mind, and are, therefore, not complete. For instance, according to Bybee *et al.* (1994:317), an imperfective situation, which we call incompletive, "is viewed as unbounded in the sense that it is habitual, continuous, progressive, or iterative". Therefore, having an unmarked form in the Experiential Present Performative, which is incompletive, creates a morphosemantic clash in the system between completive and incompletive representations, because the two aspectual categorisations (completive *versus* incompletive or perfective *versus* imperfective) are in semantic opposition to each other. Consequently, the T/A systems in the Rutara languages have resolved this potential clash by having no form for the category; that is, there is no form for such a contradictory "Experiential Present Performative", because the same

form cannot be both semantically completive and also incompletive at the same time in the same system. Neither can the same event involving the same agent or theme be both completive and incompletive at the same moment of speech event. The analysis adapted here corrects the error normally made by formalists who classify the forms like {tu-gur-a} 'we buy' under the same category as forms such as {tu-ka-gur-a, tu-guz-ire} 'we bought' just because they all fall under the same group of "simple" T/A structures. We, therefore, conclude that Experiential Present Performative is an empty category due to purely semantic constraints.

4.5.4. Resultative

The term *Resultative* refers to a state of completion of an event, as a result of an earlier event or action. Because of the semantic connection between the event and the resulting state, Bybee *et al.* (1994) classify this kind of "aspect" under what they call "relational tenses". Consider the following examples which express the current state, as a result of the 'dying', as in (74a), 'cutting', as in (74b), and 'buying', as in (74c) (of which (74a) cuts across the group, whereas some of the languages do not allow (74b) and/or (74c): (a) 'they died', (b) 'someone cut the tree', (c) 'someone bought the table' and, consequently, 'they are dead', 'the tree is cut' and 'the table is bought (*i.e.* it is already paid for)', respectively (see (46) and (76)).

(74)

	Affirmative	**Negative**
a.	ba-**Ø**-f(w)i-**ire** 3P-T-die-A 'they are dead'	ti-ba-**Ø**-f(w)i-**ire** NEG-3P-T-die-A 'they are not dead'
b.	o-mu-ti gu-tem-**ire** tree 3S[SM]-cut-RESLTV 'the tree is cut'	o-mu-ti ti-gu-tem-**ire** tree NEG-3S[SM]-cut-RESLTV 'the tree is not cut'
c.	e-meeza e-guz-**ire** table 3S[SM]-buy-RESLTV 'the table is bought'	e-meeza ti-e-guz-**ire** table NEG-3S[SM]-buy-RESLTV 'the table is not bought'

Morphologically, this resultative state is formed by attaching {-ire} to the verb root. However, not all verbs can form Resultative with {-ire}. The Resultative is more productive with verbs of state, change of state or change posture such as 'sit', 'stand', 'sleep', 'be awake', 'be ill', and 'die'.[32] The rates of selection of verbs and coverage of meanings, however, differ from one language to another. Some languages use Resultative where other languages use Progressive or even passive. That is, each of the languages has its own constraints; (74b), for instance, is attested in Ruhaya and Runyambo, while (74c) is very productive in Ruhaya and can be used with almost any verb (with a few exceptions). In some languages, the Resultative is also used with the verbs 'ride', 'climb', 'hold', 'carry', 'dress', 'undress', and so on.

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[32] It should be pointed out that classifying a verb as "verb of state" or "change of state", in Bantu languages (and possibly in other languages as well), does not necessarily exclude its transitivity. Verbs which are exclusively unaccusative in English could be accusative in Bantu languages, and Rutara in particular. However, this is a very constrained type of transitivity in that these verbs may only occur with a "cognate accusative" as object. For instance, the following constructions are grammatically correct, as found in Ruhaya and applicable to other Rutara languages: *ku-f(w)a o-rufu* 'to die a/the death', *ku-nagira o-turo* 'to sleep some sleep', *ku-genda o-rugendo* 'to go a/the journey'.

The semantic and thematic implication of Resultative is that the syntactic subject of the clause acts as the theme or patient in relation to the verb. With some verbs that are inherently accusative, the formative {-ire} is added to the verb which has already acquired an unaccusative morpheme {-ek- /-ik-}. The following derivations are very common in the Rutara languages (especially Ruhaya, Runyambo, Runyankore and Rukiga), although the phonetic forms differ slightly from one language to another.

(75)	**Accusative**	**Unaccusative**	**Resultative**
a.	-hend-a 'break'	-hend-**ek**-a 'break'	-hend-ek-**ire** / -hend-ek-**ere** (Runyoro) 'broken' (used for, arm, stick, etc.)
b.	-at-a 'break'	-at-**ik**-a 'break'	-at-ik-**ire** 'broken' (used for glass, bottles, etc.)
c.	-sindur-a 'uproot'	-sindu-**k**-a 'become uprooted'	-sindu-ik-**ire** 'uprooted' (used for plants, etc.)

With reference to the examples above, the term Resultative distinguishes between the forms {-hend-ek-a} *versus* {-hend-ek-ire}, both of which could be regarded as derived morphosyntactic constructions from the accusative form (hence transitive verb) {-hend-a} 'break'. In languages like Ruhaya, Runyambo, Rukiga, Runyankore and Ruzinza, this factor of changing accusative verbs into Resultative, and thus making them unaccusative, is also extended to other verbs without recourse to the application of {-ek-, -ik-}. This transmutation is achieved by changing the thematic structure of the clause.

(76)	**Accusative**	**Resultative**
a.	-gur-a 'buy'	-guz-**ire** 'be bought'
b.	tem-a 'cut'	-tem-**ire** / -tem-**ere** 'be cut'

c.	-šona/-sona 'sew'	-šon-**ire** / -son-**ire** / son-**ere** 'be sewn'
d.	tu-a(a)-tema o-mu-ti 1P-PFOTV-cut tree	'We have just cut a tree'
e.	o-mu-ti gu-tem-ire tree 3S[SM]-cut-RESLTV	'The tree is cut'

The forms above show how changing the thematic roles of arguments in a clause employs {-ire} to create Resultative: in (76d), the subject of the clause (*tu-* 'we') is the agent and the syntactic object (*omuti* 'tree') is the theme. In (76e) (where we have a Resultative verb, marked by {-ire}), the syntactic subject (*omuti* 'tree') is the theme of the predicate, and the only argument in the clause. This construction, more or less, resembles what is called *middle voice* in other languages, simply represented by an English example like 'the glass broke' as opposed to 'someone broke the glass'. Resultative relative forms are also formed in the same way, {a-ba-f(w)i-ire} 'those who are dead' and {a-ba-ta-f(w)i-ire} 'those who are not dead'.

4.5.5. Retrospective

The term *Retrospective* is used to refer to an aspect which in some literature is called *Perfect*. Hewson and Bubenik (1997:13) state that they used the term Retrospective instead of Perfect in order to eliminate the confusions that normally arise between the terms Perfect *versus* Perfective. They insist that the two terms, Perfect (which they replace with Retrospective) and Perfective, represent two different aspects, and should therefore, be clearly distinguished. In Rutara languages, this distinction obtains in at least six languages while in Runyoro and Rutooro Retrospective has merged with some other aspects.

(77)		Language	Affirmative	Negative
	a.	All others	tu-**a(a)**-guz-**ire**	ti-tu-**ka**-guz-**ire**
	b.	Rutooro	tu-**Ø**-guz-**îre**	ti-tu-**ka**-guz-**îre**
	c.	Runyoro	tu-**Ø**-guz-**íre**	ti-tu-**ka**-guz-**íre**
			1P-T/A-buy-A	NEG-1P-T/A-buy-A
			'we have already bought'	'we haven't bought yet'

The Retrospective represents complete events, completed before the moment of speech, but still relevant to the present situation. In this case, events expressed by Retrospective are "past" in time, but do not express time (tE), nor UT and, therefore, do not mark tense. The term Retrospective fits best this aspect with regard to six of the Rutara languages in that it morphologically and cognitively combines two basic aspects, the Perfective aspect, marked by {-a(a)-}, and the most common Bantu completive aspect, which we have called the Perfect aspect and which is (underlyingly) marked by {-ire}, (see §4.5.2). As a result, the Retrospective is marked by both formatives as {-a(a)-...-ire} (in six languages), which can thus be interpreted as looking back at a complete event. In fact, it is this temporal orientation of "looking back at a complete event" which enables the Retrospective aspect to perform a past tense function. This can be illustrated by the examples in (79) which, however, show that Runyoro and Rutooro are morphologically different from the rest. Therefore, while it is true (as pointed out by Hewson and Bubenik (1997)) that it is possible for the same verbal system to have both Retrospective and Perfective forms as contrastive aspects, this study has shown that it is also possible to have all three aspectual functions, Perfect, Perfective, and Retrospective (see §6.3). On the one hand, Retrospective differs from Perfect in that the latter does not necessarily have direct relevance to the present situation. Thus, both Perfect

and Retrospective may have similar temporal orientations and, subsequently, similar extended functions, such as past tenses; and this could be the source of confusion which was pointed out by Hewson and Bubenik. On the other hand, Retrospective differs from Perfective in that the latter is normally completed in the mind even before the event itself is materially complete in time. It is this characteristic underlying the Perfective that allows it to transcend into Future to express prospective events.

Further more, Retrospective differs from Past tenses in that the latter express temporal references in UT which the former does not. Anderson's (1982) caution, however, is crucial to note here: a grammatical category like "Perfect" will not have exactly the same range of uses in one language as it does in another. The major difference here is between Perfect and Perfective on the one hand *versus* Retrospective on the other. This can be captured by the temporal representation of aspect in a linear model, as used by Hewson and Bubenik (1997), with slight modification.

(78) -------[A----------B]C-------

Let us say **A----B** represents the event which begins at "**[**" and ends at "**]**". In this case, the speaker at **B** looks back at an event which has just been completed or is in the process of being completed, but which could still have some impact on the moment of speech. Thus, "**B**" represents Perfective. With Retrospective, on the other hand, the speaker at **C** looks back at an event relatively detached from the moment of speech, but which also has relevance to the present. Consider the following examples from the Rutara languages:

(79)

a.	n-a(a)-ku-gur-ir-a	e-bi-tabo	(all languages)
	$1S_{[SM]}$-PEFTV-$2S_{[OM]}$-buy-APPL	books	
	'I have (just) bought you books'		⇒Perfective
b.	n-a(a)-ku-gur-i-ire	e-bi-tabo	
	$1S_{[SM]}$-PERFV-$2S_{[OM]}$-buy-APPL-PERF	books	(all but Runyoro/Rutooro)
	'I have already bought you books'		⇒Retrospective
c.	n-ku-gur-re	e-bi-tabu	(Runyoro/Rutooro)
	$1S_{[SM]}$-$2S_{[OM]}$-buy-APPL//PERFV	books	
	'I have already bought you books'		⇒Retrospective
d.	n-ka-ba n-guz-ire	e-bi-tabo	(all languages)
	$1S_{[SM]}$-RP-be 1S-buy-PERF	books	
	'I had bought books, (but...)'		⇒Past Perfect

With reference to the context of situation, it is possible that in (79a) the speaker is coming from the bookstore at that moment and, probably, has the books in her/his hands. On the contrary, in (79b) or (79c) the speaker may simply be informing the addressee that s/he has already bought him/her some books. In cases where the contrast between Perfective and Perfect is also maintained, the former would express the final stage of the completion of the event, while the latter focusses on that event as a complete whole. As this difference is so subtle, languages often tend to eliminate the difference between the two, or even level all three of them into one aspect, as is the case in English. That is, in English, for instance, it is only by using adverbials that we can express the distinction between 'I have eaten', 'I have *just* eaten', and 'I have *already* eaten'. Retrospective relative forms have the same base morphology: {a-ba-guz-ire} (Runyoro/Rutooro) and {a-ba-aa-guz-ire} (all the others) 'those

who have already bought' *versus* {a-ba-ta-ka-guz-ire} 'those who have not yet bought' (for the all group).

There is also another form of Retrospective found in Rutara languages. This is also represented by a compound marker, but with {-ra-} in place of {-a(a)-}, as in the following example:

(80) tu-**ra**-guz-**ire**
$1P_{[SM]}$-R/RETV-buy-PERF 'We have bought (before)'

This construction appears to have two meanings. The first one is 'we have bought', but the buying took place relatively earlier than the event that would be expressed by the form {tu-a(a)-guz-ire} (in languages where it applies). In this case, it is appropriate to regard both of the forms {-a(a)-...-ire} and {-ra-...-ire} as Retrospective. They only differ in the way the speaker looks at the event, or how it is recalled from memory. We will use the following examples from Ruhaya (H2–H3) for further illustration (where RETV1 and RETV2 indicate the two formatives that constitute the Retrospective aspect):

(81) Ruhaya (H1–H3)

a. tú-ka-šanga a-áá-fí-**ire** [túkašanga yááfíire]
$1P_{[SM]}$-RP-find-3S-RETV1-die-RETV2 'S/he had already died when we got there'

b. tú-ka-šanga a-rá-fí-**ire** [túkašanga aráfiire]
$1P_{[SM]}$-RP-find-3S-RETV1-die-RETV2 'S/he had already died long before we got there'

As indicated by the difference between (81a) and (81b), the event expressed by {-ra-...-ire} is more remote than the one expressed by {-a(a)-...-ire}. In the examples above, it is possible that the speaker in (81a) saw the corpse and participated in the funeral ceremony, whereas

in (81b) everything might have been over when the speaker arrived. We, therefore, call the former *Remote Retrospective*. It should be pointed out that both sets of formatives constitute aspectual rather than tense markers, because they cannot be used to express specific Reference time (tR) within UT:

(82)

a. tu-**ka**-gur-a + NP[OM]
b. tu-**ka**-gur-a + NP[OM] + Adv[TEMPORAL]

c. tu-**ra**-guz-**ire** + NP[OM]
d. tu-**ra**-guz-**ire** + NP[OM] + *Adv[TEMPORAL]

With reference to the examples above, where Adv[TEMPORAL] refers to adverbials like 'yesterday', 'last week' or 'last year', (82a), (82b) and (82c) are possible constructions while (82d) is not (of course (82b) is restricted to Remote Past temporal adverbials only). This is because {-ka-} marks tense while {-ra-} marks aspect. Thus, for (82d) we cannot have something like 'we have bought books *yesterday/*last Sunday'. Nevertheless, it is possible for this form to function as a past tense, because it is Retrospective, based on the same reason that was given above for Perfect, Perfective and Retrospective that function as past tenses (*cf.* §5.2.1, 6.3.8).

The second meaning of the form {-ra-...-ire} is 'we have done that before', which others erroneously call the *Ever "tense"*, or *Inceptive* as Hyman and Byarushengo (1984) did.[33] Both terms are misleading because, first (and as shown above), this form {-ra-...-ire} is not a tense but an aspect and, second, Inceptive refers to the initiation of an event, in which

[33] Hyman and Watters (1984) use the term "experiential", which is more appropriate for this T/A category than "inceptive".

case that event itself becomes incompletive. On the contrary, {-ra-...-ire} marks a complete event as given in example (80) above (see also §4.6). This form is not found in Rutooro or Runyoro. However, in all other languages where it occurs, its negative form has a morphological similarity to the negative form of the first type of Retrospective {-a(a)-...-ire} in that they both have {-ka-} in slot (2), but differ in slot (3) where the former has {-aga} and the latter {-ire}:

(83)		**Aspect**	**Affirmative**	**Negative**
	a.	Retrospective	tu-**a(a)**-guz-**ire**	ti-tu-**ka**-guz-**ire**
	b.	Remote Retrospective	tu-**ra**-guz-**ire**	ti-tu-**ka**-gur-**aga**
			1P-A-buy-A	NEG-1P-T/A-buy-A

What is interesting is that although Rutooro and Runyoro do not have the form {-ra-...-ire}, they do have the negative form {ti-tu-**ka**-gur-**aga**} 'we have never bought', with the same meaning as in (83b), which again Maddox (1902: 20ff) mis-labelled as "the 'never' tense". We would like to suggest the term *Experiential Retrospective*. This implies that the speaker looks back at a complete event which marks one's past experience without specifying time (see §6.3.7 for negative Retrospectives). It is this lack of anchoring the event to a particular temporal reference that makes the category an aspect rather than tense. This characteristic of building up various Retrospective aspects and temporally remote categories towards the past suggests a strong possibility for a language to ultimately reanalyse its past tense(s) either semantically or morphosyntactically, or both. This might be a clue to the question we raised in previous chapters as to why the Remote Past is so notoriously asymmetrical between

affirmative and negative constructions, while the markers in negative constructions are found elsewhere in the same system.

4.5.6. Progressive

Progressive refers to an event or action in progress, usually either simultaneous or overlapping with the reference time (tR). Not all verbs can be used with this aspect morphologically; it depends on how a language characterizes the semantic properties of different verbs, especially cognitive verbs which in English, for instance, normally do not take the Progressive marker {-ing}. The sense of Progressive can also be extended from the here-and-now to a broader perspective of the Present tense, in which case the event is not necessarily taking place at that particular moment, but rather is in progress as a general process. For instance, the English sentence *Harris is writing a book* does not necessarily mean that Harris is doing the action of writing at that particular time. Rather, it refers to the entire process of writing a book as a whole.

In the Rutara languages, the Progressive is marked quite differently from all other aspects in that the formative that identifies it occupies the initial slot in the verbal unit (see §3.1.2). It is thus marked by {ni-} in seven languages and, exceptionally, by {-ku-} in Rukerebe. Consider the following examples, where {n(i)-} indicates that the vowel sound can optionally be deleted, and also note that Progressive relative forms (both negative and affirmative) are formed in that same way as the negative forms in the following list. That is, {ni-} is not used in relative forms.

(84)		Language	Affirmative	Negative
	a.	Ruhaya	**n(i)**-tu-**Ø**-gúr-a	ti-tú-**(r)i-ku**-gur-a
	b.	Runyankore	**n(i)**-tu-**Ø**-gúr-a	ti-tu-**rí-ku**-gur-a
	c.	Rukiga	**n(i)**-tu-**Ø**-gúr-a	ti-tu-**rí-ku**-gur-a
	d.	Rutooro	**n(i)**-tu-**Ø**-gûr-a	ti-tu-**(ru)-ku**-gûr-a
	e.	Runyoro	**n(i)**-tu-**Ø**-gúr-a PROG-1P-T/A-buy-A	ti-tú-**(r)u-ku**-gur-a NEG-1P-be-T/A-buy-A
	f.	Runyambo	**n(i)**-tu-**Ø**-gúr-a	ti-tú-**ku**-gur-a
	g.	Ruzinza	**n(i)**-tu-**Ø**-gúr-a PROG-1P-T/A-buy-A	ti-tú-**ku**-gur-a NEG-1P-PROG-buy-A
	h.	Rukerebe	tu-**ku**-gúr-a 1P-PROG-buy-A 'we are buying'	ti-tu-**kú**-gur-a NEG-1P-PROG-buy-A 'we are not buying'
	i.	Rukerebe	tu-**raa**-ba **ni**-tú-gur-á 1P-NF-be PROG-1P-buy-A 'we will be buying'	tu-**raa**-ba tu-ta-**kú**-gur-a 1P-NF-be 1P-NEG-PROG-buy-A 'we will not be buying'

As argued in §3.1.1, this formative originates from the copula {ni} and thus functions as an actualiser of progressive events, hence marking aspect. Secondly, this formative does not appear in negative constructions because it is in complementary distribution with the negative markers {ti-, -ta-}. Therefore, slot (2) in affirmative constructions is not marked except in Rukerebe which has {-ku-} in that slot. In the negatives, however, we get three groups. In one group, Progressive is marked by {-ri-}, the suppletive form of the verb {-ba} 'be', followed by the infinitival marker {-ku-} (84a-c). In the second group {-ri-} is replaced by {-ru-} as in Runyoro and Rutooro (84d-e). The third group consists of languages that are only marked by the infinitival marker {-ku-}, as in (84f) to (84h). In Rukerebe, however, the Progressive marker {ni-} appears in compound forms as used in (84i), and is also used for other functions like Habitual and conditional structures.

There are at least two extended functions of Progressive forms. First, it is used to mark a future or prospective event, a use common to many languages including English. When used in this sense, it normally means that the decision has already been made, and the action will be effected or implemented at the appropriate time. In other words, a Future constructed with Progressive markers is relatively more definite than the normal Future marked by Future formatives like {-raa-} and {-ri-, -ria-}. Second, the Progressive form can also be used to mark events or states which would otherwise fall under the basic unmarked constructions expressed under §4.5.1. This function is not specific to Rutara alone, it is also found in many other Bantu languages, where it is used with verbs which in English, for instance, do not take the Progressive marker, such as to 'hear', 'see', 'know', 'remember', and the like, as in the following examples:

(85)

a.	a-Ø-manya (+COMP) 3S-T/A-know	[amaña] 's/he knows'		
b.	**ni**-a-manya (+COMP) PROG-3S-know	[**ni**amaña] 's/he is knowing'	→ →	[**n**aamaña] 's/he knows'

The most common distinction between the unmarked aspect (Habitual) in (85a) and the Progressive aspect in (85b), with regard to 'knowing', is that the former expresses a relatively long established fact, while the latter signifies a relatively recent realisation on the part of the speaker. Suppose the theme for the complement in (85) is mathematics. The difference between the two structures would be that, in (85a) the speaker is asserting the common knowledge that X is good in mathematics; while in (85b) s/he is reporting what s/he has just

found out, that X is good in mathematics. This analysis corresponds to what we said in §4.5.1, that the former tends to extend its temporal coverage of ET from Past to Non-Past, hence expressing facts or habits (*cf.* §4.5.8). In this case, we can argue that there is a semantic overlap between the two structures, but the extent of the overlap depends on the nature of the verb used (see §6.3.3 for further discussion).

Given the fact that {ni-} does not appear in negative or in relative constructions, we start to suspect that the use of {ni-} to mark Progressive is a relatively recent innovation of the Rutara languages, particularly when {ni-} is compared to other formatives, including its negative counterpart {ti-...-ri-ku-...-a}/{ti-...-ru-ku-...-a} which is probably the older shape. Nevertheless, the formative {ni} is not restricted to the Rutara group alone. It is also found in other Lacustrine languages, such as Kihangaza, Kishubi, Lusaamya, Kegusii, and Kikuria (Nurse and Muzale, forthcoming), where it functions in conditional clauses with the meaning of "if...", and also in Kiregi, where its function is related to Progressive. The question is whether all these types of {ni-} in Rutara and other languages originate from the same source.

The Progressive marker {ni-} can be phonetically reduced to {n-}, especially when followed by a non-nasal consonant, for example, {ni-tu-gur-a} 'we are buying' is pronounced as [ntugura], whereas {ni-ba-gur-a} 'they are buying' is heard as [mbagura] (a result of labial assimilation) in most languages. That is why it is sometimes presented as {n(i)-} in this study.

4.5.7. Persistive

The term Persistive, which has been in use for a long time, refers to an aspect in which an event persists from a non-present time to the Present, and it is also likely to extend to the Future (if not interrupted just after the speech event). It thus signifies that the speaker had already observed or witnessed that event before, and the same event is still going on. The term is sometimes used interchangeably with other terms like *Perstitive* and *Still*, as well as with what Bybee *et al.* (1994) call *Continuative*.

(86)		**Language**	**Affirmative**	**Negative**
	a.	Ruhaya	tu-**kiáá**-gur-a	ti-tú-**kiáá**-gur-a / ti-tú-**ki**-gur-a
	b.	Runyankore	tu-**kí-(áá-**)gur-a	ti-tú-**ki**-gur-a / tí-tu-**ki**-gur-a
	c.	Runyambo	tu-**čáá**-gur-a	ti-tú-**či**-gur-a
	d.	Ruzinza	tu-**č(i)áá**-gur-a	ti-tú-**či**-gur-a
	e.	Rukerebe	tu-**čaa**-gúl-a	ti-tu-kí-gul-a
	f.	Rukiga	tu-**čáá**-gur-a	tí-tu-**či**-gur-a / ti-tú-**čáá**-gur-a
			1P-PERS-buy-A	NEG-1P-PERS-buy-A
	g.	Runyoro	**n(i)**tu-**kiáá**-gúr-a	ti-tu-**ki**-gúr-a
	h.	Rutooro	**n(i)**-tu-**kiaa**-gûr-a	ti-tu-**kiaa**-gûr-a
			PROG-1P-PERS-buy-A	NEG-1P-PERS-buy-A
			'we are still buying'	'we are not buying any more'

As indicated in (86) above, this aspect is commonly marked by {-ki-aa-} or {-č(i)aa-} in the affirmatives, and {-ki-} or {-či-} in negatives. As we pointed out in §2.5.1, some languages pronounce /k/ as [č] when followed by [i]. We also note several other factors. The negative forms are {-ki-/-či-} in most languages, with optional marking between {-kiaa-/-čaa-} and {-ki-/-či-} in languages like Ruhaya and Rukiga: {ti-tu-kiaa-gur-a} or {ti-tu-ki-gur-a} 'we are no longer buying'/ 'we are not buying any more/again'. On the other hand, in Rukerebe, [-čaa-] occurs with independent forms, but changes to {-ki-} in compound VUs. Runyankore

also optionally (or in dialectal variations) uses either {-kiaa-} or {-ki-} in the affirmative. In Runyoro/Rutooro and in some dialects of Runyankore, however, the marker {ni-} is also attached to Persistive constructions, hence the structure {ni-...-ki-aa-...-a} and {ni-...-ki-...-a} respectively. Relative forms have exactly the same markers as the forms in (86a–f), for instance, {a-ba-ki-aa-gur-a}/{a-ba-č(i)-aa-gur-a} 'those who are still buying' *versus* {a-ba-ta-ki-gur-a}/{a-ba-ta-či-gur-a} 'those who are no longer buying'.

With regard to the functional distribution of {-ki-aa-}, Persistives can be classified into two groups as follows. In the first group, the formative {-kiaa-/-čaa-}, which marks this aspect, is assigned to simple verb forms, hence the base structure {-ki-aa-...-a}/{-či-aa-...-a}. In the second group, it is the Resultative structure {-Ø-...-ire} (see §4.5.5) which carries the Persistive marker {-ki-aa-}, resulting in a compound marker {-ki-aa-...-ire}/{-či-aa-...-ire}. The new aspect thus formed signifies the persistence of the Resultative quasi-aspect or state. That is, there are two aspectual categories working together as one compound aspect we have called *Persistive Resultative*:

(87)

a.	Rutooro	ba-**kiaa**-gwijagí-**ìre**	
b.	Ruhaya	ba-**kiáá**-nági-**ire**	
c.	Runyambo	ba-**čáá**-náji-**ire**	
d.	Rukerebe	ba-**ča**-nágí-**íre**	
e.	Ruzinza	ba-**či**-hun-**ire**	
		3P-PERS-sleep-PERF	'They are still sleeping/asleep'
f.	Runyankore	ba-**ki**-shútam-**i**	'They are still sitting/seated'
g.	Rukiga	ba-**cáá**-ɲáàm-**i**	'They are still sleeping/asleep'

Note that Runyankore and Rukiga have another form of ending: {-i} instead of {-ire}. This ending is mainly found in verbs of posture, while others have the normal {-ire} found elsewhere in the group (see §6.6: (122)). This apparent anomaly must be a result of deleting the last two segments of the formative {-ire}, leaving the vowel {-i}.

The distinction between the two (Persistive *versus* Persistive Resultative) is, therefore, both morphological and semantic. It is morphological in that one is an extension of the other: {-Ø-...-ire + ...-ki-aa-...} → {-ki-aa-...-ire}. Semantically, it is the resulting event or state that extends persistently in time. Consequently, in the Persistive Resultative aspect, it is the totality of the event, state, result, or situation which persists rather than the event itself, as opposed to Persistive in which it is the event that is still in progress.[34] Let us use the following examples for illustration, where the semantic and morphological interconnections between these forms are indicated by the arrows:

(88) Ruhaya (H2 & H3)

a. a-a-ba a-**áá**-nágir-a [yaba y**áá**nágira] = PERFECTIVE
3S-MP-be 3S-PERFV-sleep-A 'S/he had just fallen asleep'

b. a-Ø-nagí-**íre** = RESULTATIVE
3S-T/A-sleep-RESLTV 'S/he is sleeping/asleep'
⇓

c. a-**ki-áá**-nági-**ire** = PERSISTIVE RESULTATIVE
3S-PERS-sleep-RESLTV 'S/he is still sleeping/asleep'
⇑

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[34] The terms state, stative, and resultative are used here as labels of convenience only. The Resultative aspect includes also dynamic verbs, as in {ba-iruk-ire}: {3P-run-RESLTV} 'they are running; they are on a run' (Ruhaya). Note that such forms could be segmentally ambiguous; in Ruhaya, for instance, tone will distinguish [bairukíre] 'they ran (yesterday)'/ 'they are on the run' *versus* /ba-áá-iruk-ire/ → [báírukire] 'they have already run'.

d.	tu-**á(á)**-gur-a	⇒	tu-**ki-áá**-gur-a
	1P-PERFV-buy-A		1P-PERS-buy-A
	'We have (just) bought'		'We are still buying'
	=PERFECTIVE		PERSISTIVE
	⇓		⇓
e.	ba-**áá**-nági-**ire**	⇒	ba-**ki-áá**-nági-**ire**
	3S-PFETV-sleep-PERF		3S-PERS-sleep-PERF
	'They have already fallen asleep'		'They are still sleeping/asleep'
	=RETROSPECTIVE		PERSISTIVE RESULTATIVE

All five constructions in (88) indicate complete events with regard to 'sleeping', in the sense that the person referred to has already fallen asleep. However, they differ in that while (88a) refers to the event that has (just) taken place or been completed, (88b) refers to the state of 'being asleep'. (88c) refers to the continuation of the state expressed in (88b), which means that the event is already complete but its result or state is still in progress or has not yet been interrupted by any other event.

With reference to what we have already proposed regarding {-ki-aa-} and {-a(a)-} and by observing closely the semantic relationships from (88a) to (88c), as well as the semantic changes in (88d) and (88e) above, we can now confidently suggest that it is the same formative {-a(a)-} which we have been dealing with, the Perfective marker, that we also find in the marker {-ki-a(a)-} as in (88). The function of {-ki-}, therefore, is to transform what would otherwise be completive into incompletive aspects. When the same form with {-ki-}, such as {-ki-aa-} or {-ki-aa-...-ire}, loses the completive marker(s) {-a(a)-} or {-a(a)-...-ire} in negative constructions, then the negative marker together with {-ki-} negate the occurrence of the entire event, as in {ti-tu-ki-gur-a} or {ti-tu-či-gur-a} 'we are no longer buying' or 'we won't buy again/any more'. In this case, it follows that Runyankore, and some dialects of

Rukiga and Rukerebe have neutralised the contrast between {-ki-aa-} and {-ki-} to {-ki-} for both affirmative and negative forms.

4.5.8. Habitual

As we saw in various sections above (*esp.* §1.8.5, 4.5.1, 4.5.6) the simple unmarked form as in {tu-Ø-gur-a} 'we buy' is classified as the basic form in the description and development of T/A, based on its form and function in the Present, or Extended Present, to be precise. We thus noted that it is used to express states of affairs and long established facts, as opposed to the Progressive aspect which marks ongoing events or facts pertaining to recent realisation. Consequently, simple unmarked forms are used to mark events that happen regularly or frequently (hence *Frequentative*), repeatedly (hence *Iterative*), as an attribute of the subject (hence *Attributive*), continuously (hence *Continuous*), and several others. All these shades of meaning which create such sub-aspects and the like are thus covered under the traditional term *Habitual* (despite the fact that this expression appears to be limited in some cases). We will use this cover term (Habitual) rather than the specific aspectual labels we have listed above, because the data we have could not provide enough information for a clear morphosemantic distinction between such nuances, and also to limit the number of new terms introduced in this study; (*cf.* "Occam's Razor" that "entities are not to be multiplied beyond necessity", Hock 1991:538).

Looking at the entire paradigm, we notice that of all aspects, the Habitual is the least systematic and it does not cooccur with all tenses. For instance, whereas the form {tu-Ø-gur-

a} is marked neither for tense nor for aspect, other forms in the paradigm are marked for either tense, aspect or both. Consider the following examples which are all in the Remote Past:

(89)		Language	Affirmative	Negative
	a.	Runyambo	tu-**ka**-bá tu-**Ø**-gúr-a	tu-**ka**-bá tu-tá-**Ø**-gur-a
	b.	Ruzinza	tu-**ká**-ba tu-**Ø**-gúr-a	tu-**ka**-ba tu-ta-**Ø**-gúr-a
			1P-T-be 1P-A-buy-A	1P-T-be 1P-NEG-T-buy-A
	c.	Ruhaya	tu-**a**-gur-**âga**	ti-tu-**á**-gur-**aga**
	d.	Rutooro	tu-**a**-gur-**âga**	ti-tu-**a**-gur-**âga**
	e.	Rukerebe	tu-**a**-gur-**ága**	ti-tu-**a**-gúr-**aga**
			1P-T-buy-A/A	NEG-1P-T-buy-A
	f.	Runyoro	tu-**a**-gur-**ága**	tu-**kâ**-ba tu-ta-**Ø**-gûr-a
			1P-T-buy-A	1P-T-be 1P-NEG-T-buy-A
			'we used to buy'	'we did not use to buy'

In these examples, the formative {-aga} appears in four languages, Ruhaya, Rutooro, Rukerebe, and Runyoro. One striking feature is that in all four languages where {-aga} occurs, the tense slot is occupied by {-a-}. Given that this marker {-a-} only occurs with the Past (not with Future) and that all the forms of {-a(a)-} that we have seen so far are related to either past or complete events, it is most likely that this {-a-} is morphosemantically related to the same marker {-a(a)-} that we have been dealing with. This relationship most likely developed from the Memorial Present which has the potential of functioning as a Past tense. Therefore, the following analysis is proposed. In the form {-a-...-aga}, the first element {-a-} marks a complete event, and the second element {-aga} marks the state of being incompletive. We do not consider it problematic in the sense that we expressed earlier that the same form cannot be both completive and incompletive at the same time in the same paradigm, but rather, {-aga} represents a series, continuation, or repetition of similar

complete events. It is thus this seriality, continuation or repetition that is represented by the incompletive marker part; and it is this inherent semantic composition that decharacterises its deictic attributes. Thus, {-a-...-aga} does not mark tense in the same way as the Remote Past {-ka-} does. That is, {-a-...-aga} does not anchor the event to a particular single temporal reference. Nevertheless, the potential deictic attribute of {-a(a)-} in {-a(a)-...-aga} appears to be only partially suspended; it shows up in constructions which mean: 'we used to buy every *Saturday*', where the use of a temporal adverbial like 'Saturday' is indicative of the marker's temporal reference. Compound forms, on the other hand, bear the tense marker {-ka-} in the auxiliary, and do not have this element {-aga}, as in (89a–b).

We also note that this formative appears in different forms. For instance, among some speakers of Ruhaya (especially H1) the subjunctive appears as {tu-gur-ega} 'we should buy (regularly/frequently) (in the days to come)' or 'we should keep buying' rather than {tu-gur-age} which is found in other dialects. A more or less similar construction appears also in Chiruri. In Runyoro, however, it appears to be double marked in that there are two {e} sounds.

(90) Habitual subjunctive

a.	Ruhaya (H1)	tu-Ø-gur-**age**		
b.	Ruhaya (H2&H3)	tu-Ø-gur-**ega**		
c.	Runyoro	tu-Ø-gur-**ege**		
d.	Chiruri	ci-a-ka-gur-**ega**	→	[caakaguruega]
		1P-T/A-buy-T/A		'we should keep buying'

In (90a) the subjunctive marker {-e} appears as final vowel (FV) of the VU. In (90b) and (90d) the subjunctive marker {-e-} appears between the verb root and {-ga}. This implies that

{-e-} is affixed to the verb stem {-gur- + -e} before the marker {-ga} is attached. In (90c) the only explanation we can give is the vowel harmony of the two vowels, but it is difficult to tell with certainty the underlying form, given the diversified morphology observed in (90a–b). Variation in attaching final markers like {-aga, -ega, -age, -ege} to the verb root, is also observed in the following examples:

(91) Experiential Retrospective

a.	Ruhaya (H2)	ti-n-ka-gyaa-ga-yo NEG-1S-RP-go-HAB-LOC 'I have never gone there'
b.	Runyankore	ti-n-ka-rwaara-ho-ga NEG-1S-RP-be ill-LOC-HAB 'I have never been ill'
c.	Runyoro	ti-n-ka-genda-yo-ga NEG-1S-RP-go-LOC-HAB 'I have never gone there'

The examples in (91) above indicate that the marker {-aga} can also be split. This is possible because the first element {-a-} is the neutral FV of the verb stem; and, therefore, {-ga} is attached to stems rather than to roots: {-gur-a-+[ho]+-ga} 'ever buy (from) there'; this allows the interposition of the locative marker {-ho-} in Runyankore and Runyoro, as well as the passive marker {-u-} which splits {-ir-e}: {-gur-ir-+[-u-]e} 'was/were bought'.

The other problem with this aspect is that different languages have different ways of expressing Future Habitual. Ruzinza, for instance, uses the form which is segmentally similar to the Near Future Progressive (with tonal differences) as in {tu-**ráa**-βa **ni**-tu-gúr-a} 'we will buy regularly' (see Appendix I B7). In Rukiga the form {tu-raa-gur-aga}, which is found in Ruhaya and appears to balance with the Past, is becoming rare, while Runyambo

does not appear to have a clearly established grammatical form for such category. This poses a significant challenge in the reconstruction of the proto-form for the Habitual aspect. It also appears from the data available that there is a semantic overlap in some languages between Progressive and Habitual, especially in expressing events that are currently taking place (which in English would translate as 'nowadays we buy' *versus* 'nowadays we are buying').

4.6. Multiple aspects

So far, we have looked at the two types of aspectual construction, those which contain simple markers and those with complex markers. Most of the examples provided were simple forms except the Past Habitual. The study indicates that almost all aspects (other than Performative, and for all tenses other than Experiential Present), are compound. The Habitual, of course, is marked in two different ways, with both simple and compound forms. There are even more complex constructions which involve more than one aspectual marker, as in the following examples (found in all of the languages but Rukerebe):

(92) Negative Remote Past Retrospective
tu-**ka**-ba tu-ta-**ka**-guz-**ire**
1P-T-be 1P-NEG-A-buy-A 'We had not yet bought'

In this example (92), we have a tense marker {-ka-} in the auxiliary verb, marking the Remote Past tense, and {-ka-...-ire}, in the main verb, which marks aspect. There are two ways of explaining this kind of compound marking. One is that the main verb carries two aspectual markers, {-ka-} and {-ire}. The other explanation is to regard the two aspectual

elements of the main verb as just one compound marker presented as {-ka-...-ire}. We prefer the second option because it provides the total meaning of the verbal aspect. We know that this aspect consists of two aspectual elements ({-ka-} marking 'yet', and {-ire} marking 'completive' or Perfect), which combine together with the negative marker {-ta-} to produce a larger aspectual constituent {-ta-ka-...-ire} which we have called Negative Retrospective.

With regard to the meaning and function of individual formatives, if there is a new total meaning attained when two or more formatives are combined in one VU, it is more appropriate to regard the aspectual elements in that VU as one compound (or complex) marker rather than regarding them as separate entities. This is to be done at two levels, first within one VU, and then by combining simple VUs into a compound VU, as introduced in (54–55). Consequently, we would present the T/A constructions in (92) as compound markers using the following framework:

(93) T/A in compound VUs

a. Remote Past Retrospective (R1–R7)

Negative: {{-ka-}—{-*ta*-ka-...-ire}}

RP——NEG-RET_i.....RET_i

b. Remote Future Retrospective (R5–R8)

Affirmative: {{-ri-}—{-aa-...-ire}}

RF——RET_i.....RET_i

One point should be reiterated here: in each of these constructions there is one and only one tense maker, located in the auxiliary, {-ka-} and {-ri}, respectively (see §5). All other T/A elements are thus analysed as aspects from the functional point of view, despite the fact that some of the markers in the auxiliary and those in the main verb might look morphologically similar. In that case, we need to separate the form and semantic functions of the T/A

formatives in the system. For, instance, we should be able to identify when the formatives {-ire}, {-a(a)-} and {-ra-} function as aspectual markers and when they perform tense functions in the same language, as explained in §4.5.

4.7. Conclusion

We have seen in this chapter the various aspects and their definitions as found in the Rutara languages. Their forms as well as their functions were presented, and also the relationships between some of these aspects. The form of relationships detailed in (56), together with the morphological composition of the aspectual markers discussed in this chapter, lead us to the conclusion that aspectual markers in the Rutara languages are highly interconnected morphosemantically. A comparison of aspectual markers in pairs reveals a systematic pattern of both the form and meaning of aspectual categories. Most of these aspectual categories can, therefore, be classified into two groups, namely, primary and extended aspects, based on their morphosemantic structures. Primary aspects create basic forms which then get extended semantically, morphologically, or both to form extended aspects. Some aspects are more tractable than others. The following table illustrates the point.

Table 4.2: The morphosemantic relationships between affirmative aspects

Primary aspect	Extended aspect(s)	Extension		Distribution
		seman.	morph.	
Unmarked Present {-Ø-...-a} ⇓ Progressive {ni-...-Ø-...-a} (all but R8)	Progressive {ni-...-Ø-...-a}	+	+	All: R1–R7
	Persistive {**ni**-...-kiaa-...-a}	+	+	Runyoro (R1), Rutooro (R2)
	Persistive {(**ni**-)...-ki-...-a}	+	+	Runyankore (R4)
	Persistive {-kiaa-/-č(i)aa-...-a}	+	-	others: R3, R5-R8
Perfect {-Ø-...**-ire**}	Retrospective {-a(a)-...**-ire**}	+	+	others: R3-R8
	Retrospective {-Ø-...**-ire**}	+	+	Runyoro (R1), Rutooro (R2)
Resultative {-Ø-...**-ire**}	Persistive Resultative {-kiaa-/-č(i)aa-...**-ire**}	+	+	others: R3-R8
	Persistive Resultative {ni-...-kiaa-/-čaa-...**-ire**}	+	+	Runyoro (R1), Rutooro (R2)
Retrospective {(-a(a)-)...**-ire**}	Remote Retrospective {-ra-...**-ire**}	+	+	others: R3-R8
Retrospective {-Ø-...**-ire**}	Remote Retrospective ??	-	-	Runyoro (R1), Rutooro (R2)

It was pointed out in Chapter One that the markers {-a(a)-} and {-ire} pose a problem in the analysis because of their functions in the T/A system. It was later argued that the two forms are basically aspectual markers, developed at the first level of chronogenesis, which later develop into tense markers, based on their cognitive attributes in the system(s). The problem detected in this chapter with regard to {-a(a)-} is that it changes in both form (that is, length and tone) and function (that is, between aspect and tense), as summarised below (where (d) and (e) present dialectal differences):

(94) Ruhaya

	Affirmative	**Negative**	**Tone & length of -a(a)-**
a.	n-**áá**-gur-a	ti-n-**á**-gur-a	long H *vs* short H
	1S-T/A-buy-A	NEG-1S-NP-buy-A	
	'I (have) bought'	'I did not buy'	
b.	n-**a**-gur-a-ge	ti-n-**á**-gur-a-ge	short L *vs* short H
	1S-T/A-buy-A-well	NEG-1S-NP-buy-A-well	
	'I (have) bought well'	'I did not buy well'	
c.	n-**a**-gur-á e-bi-tabo	ti-n-**á**-gur-a bi-tabo	short L *vs* short H
	1S-T/A-buy-A books	NEG-1S-NP-buy-A books	
	'I (have) bought books'	'I did not buy books'	
d.	n-**áá**-bí-gur-a	ti-n-**á**-bí-gur-a	long H *vs* short H
e.	n-**áà**-bí-gur-a	ti-n-**á**-bí-gur-a	long HL *vs* short H
	1S-T/A-OM-buy-A	NEG-1S-NP-OM-buy-A	
	'I (have) bought them'	'I did not buy them'	

The cases cited above (and more or less similar cases in other Rutara languages), together with the examples presented under §4.5.2, especially (64) and (65), illustrate the fact that the marker {-a(a)-} changes its form in various contexts. It is realised as long in one case and short in another, as high toned in one construction and low toned in another, and without tone at all in Rutooro. (94d) and (94e) indicate further dialectal differences between the northern dialect (H1: (94e)) and the other dialects of Ruhaya (H2–H4: (94d)). Of course, this is the major reason why this study represents this marker as {-a(a)-}. These variations make one wonder whether all these forms are underlyingly or historically a single marker, or if there are several distinct markers which happen to have similar surface shapes in some cases. In fact, in some cases, as in Rukiga, this marker is half long, [aˑ] as opposed to [a] and [aː]. This question will continue to be addressed in the following chapters in search of a plausible

answer. Nevertheless, one common feature has been established so far regarding the two controversial markers {-a(a)-} and {-ire}. Both markers can function as tense if they are used independently, or as leftmost T/A element, in a VU. They cannot mark tense in a complex or compound VU if they are preceded by any other formative.

(95) All except Runyoro/Rutooro

	tense	**aspect**
a.	tu-Ø-guz-**ire**	tu-**a(a)**-guz-**ire**
	1P-T-buy-A	1P-T/A-buy-A
	'We bought (yesterday)'	'We have already bought'
b.	tu-**a(a)**-gur-a	tu-**ki-aa**-gur-a
	1P-T-buy-A	1P-T/A-buy-A
	'We bought earlier today'	'We are still buying'

From what we have seen so far, we can also conclude that there are at least four perspectives from which aspect in Rutara languages can be defined, that is, a morphosyntactic perspective, a cognitive perspective, a semantic perspective, and a syntactic perspective. From a morphosyntactic point of view, aspect can be expressed as those elements which can either be used in the main verb of a compound verbal structure, or can occupy the rightmost slot in the VU (excluding the initial slot which can only be occupied by either the Progressive marker {ni-} or the initial negative marker {ti-}). Thus, should there be both aspectual and tense markers, then aspectual markers will normally be all the rest after the leftmost marker which marks tense. From the cognitive point of view (or chronogenetic, to be precise), aspects express ET and (in Rutara languages) they belong to the first chronogenetic level. From the semantic point of view, aspect is the expression of event time (tE) in relation to

reference time (tR). Lastly, from a syntactic point of view, aspects are in syntagmatic relationship with each other, and in paradigmatic relationship with tense.

We have also seen that despite all these definitions, the languages under study have developed a way of assigning new semantic functions to formatives which already have certain functions in a system. It is this feature, which we will call *T/A recycling*, which creates the apparent asymmetry across paradigms and categories, and which appears to provide clues to the original state of affairs in Proto-Rutara.

CHAPTER FIVE

5. TENSES

5.1. Introduction

This chapter focuses on tense, so as to complete the T/A system analysis of the Rutara group. As indicated in the previous chapters, there are at least five functional tenses, which we named Remote Past (RP), Near Past (NPt), Memorial Present (MP), Near Future (NF), and Remote Future (RF). The sixth tense category, Experiential Present (EP), is marked by marker {-Ø-}. Below is a summary of the most common affirmative tense markers that we have identified so far. Markers in negative constructions, however, are not included in this table.

Table 5.1: A summary of affirmative tense markers in Rutara languages

	Form	Tense function	Major distribution	Reference
a.	-ka-...-a	Remote Past	all	§5.2.1
b.	-Ø-...-ire	Near Past	others but Runyoro, Rutooro	§5.2.2
c.	-Ø-...-ire-ge	Near Past	Runyoro, Rutooro	§5.2.2
d.	-a(a)-...-a	Memorial Present	all	§5.2.3
f.	-raa-...-a	Near Future	all	§5.2.5
g.	-ri-...-a	Remote Future	all but Runyankore, Rukiga	§5.2.6
h.	-ria-...-a	Remote Future	Runyankore, Rukiga	§5.2.6

They are, nevertheless, presented under their respective sections for each tense. Although this lack of symmetry between affirmative and negative forms in itself poses a challenge for both the analysis and reconstruction, it is likely to provide clues for plausible answers

regarding linguistic changes that took place across the group, as we pointed out in Chapter Four.

As Table 5.1 indicates, the tense markers are not equally distributed in the group. In the following sections, therefore, we will analyse the distribution and morphosemantic functions of these formatives, for both affirmative and negative structures, leaving the discussion regarding their major differences for Chapter Six.

Tense constructions for aspects other than Performative all have compound forms – auxiliary + main verb – in both affirmative and negative, except in the Experiential Present. The simplest, though not always accurate, way of testing a tense is to use temporal adverbials which mark an abstract segmentation of UT. In tenses related to past, for instance, we could use the equivalent of 'long ago', 'last year', 'last month', 'ten days ago', 'yesterday', or 'last night'; while for those related to non-past tenses we could use adverbials like 'now', 'this evening', 'tonight', 'tomorrow', 'next week', 'sometime later' and the like. The best way, of course, is to set up the matrix of a language T/A system indicating all paradigms and categories as explained under §4.3. Then we can use such temporal adverbials to test forms identified as T/A representatives and their markers. This is the method we have used in this study and the forms thus selected to represent tenses are categorised in the following sections, as they were introduced in previous chapters, especially in §1.8.3 and Table 5.1 above.

5.2. Tense categories

5.2.1. Remote Past

The Remote Past tense (also commonly called Far Past) refers to events that took place before yesterday, (see §5.2.2). The term Remote is preferred to Far because it captures the concept of time better than the latter, bearing in mind that, in Rutara languages, Remote tenses tend to include indefinite time. The term Remote is also easily applicable to aspects like Retrospective which, as will be argued later, appear to have had a historical connection with the Remote Past tense. The following are examples of the Remote Past tense across the group.

(96)		**Language**	**Affirmative**	**Negative**
	a.	Runyambo	tu-**ka**-gur-a	ti-tu-**rá**-guz-**ire**
	b.	Ruzinza	tú-**ka**-gur-a	ti-tú-**ra**-guz-**ire**
	c.	Runyankore	tu-**ka**-gur-a	ti-tu-**rá**-guz-**ire**
	d.	Rukiga	tu-**ka**-gur-a	ti-tu-**rá**-guz-**ire**
	e.	Ruhaya	tú-**ka**-gur-a	ti-tu-**á**-guz-**ire**
	f.	Rukerebe	tu-**ka**-gur-a	ti-tu-**a**-gúz-**ire**
			1P-T-buy-A	NEG-1P-T-buy-A
	g.	Rutooro	tu-**ka**-gûr-a	tu-ta-gûr-**e**
	h.	Runyoro	tu-**ka**-gúr-a	tu-ta-gúr-**e**
			1P-T-buy-A	1P-NEG-buy-A/MD
			'we bought'	'we did not buy'

As (96) shows, affirmative Remote Past is marked by {-ka-} in all languages. The negative forms, however, can be classified into three groups: those languages marked by {NEG-...-ra-...-ire} like Runyambo, those marked by {NEG-...-a-...-ire} like Ruhaya, and those by {NEG-...-Ø-...-e} like Rutooro. We then note that the form {NEG-...-ra-...-ire} in

(96a—96d) resembles the aspectual form we described as Remote Retrospective (see §4.5.5). Similarly, the form {NEG-...-a-...-ire} found in Ruhaya and Rukerebe (96e–f) is more or less like the aspectual marker {-a(a)-...-ire} which is the most common form of Retrospective in the southern six languages. They only differ in two respects: first, the former has a shorter vowel than the latter; and second, one is negative and the other affirmative. It should be recalled that the corresponding negative forms for Remote Retrospective and Retrospective (as presented in §4.5.5) are {NEG-...-ka-...-aga} and {NEG-...-ka-...-ire} respectively. Let us compare these forms in the following table (where Remote Retrospective includes what we defined as Experiential Retrospective, and the shade indicates forms which are not common in Runyoro or Rutooro):

Table 5.2: Compound tense and aspectual forms with {-ka-}, {-ra-}, and {-ire}

Polarity	Retrospective	Remote Retrospective	Remote Past
Affirmative	tu-**a(a)**-guz-**ire** 1P-A-buy-A 'We have already bought'	tu-**ra**-guz-**ire** 1P-A-buy-A 'We have bought, long ago/before'	tu-**ka**-gur-a 1P-T-buy 'We bought'
Negative	ti-tu-**ka**-guz-**ire** NEG-1P-A-buy-A 'We have not yet bought'	ti-tu-**ka**-gur-**aga** NEG-1P-A-buy-A 'We have never bought'	ti-tu-**(r)a**-guz-**ire** NEG-1P-T-buy-A 'We did not buy'

This set of corresponding markers, {-ka-}, {-a(a)-}, and {-ire}, between tense and aspect, therefore, suggests some historical relationship between the Negative Remote Past tense and Retrospective aspects. This is one of our major concerns in the analysis and investigation leading to the reconstruction of the proto-Remote Past tense, as pursued in the

following chapter. The form {-NEG-...-Ø-...-e} found in Runyoro and Rutooro looks like an affirmative subjunctive construction, as in {tu-Ø-gur-e} 'we should buy' or 'let us buy'. This appears to complicate the issue because subjunctive constructions mark events which have not yet taken place and are, therefore, not real, contrary to past events which are real and complete, especially in the Performative aspect. This issue is discussed in details in §6.3.4 and §6.3.8. Therefore, what we need to do here is to establish the linguistic relationship between all of these forms across history (see §6.3).

5.2.2. Near Past

The term Near Past is very common although it is not necessarily used in the same way in different studies. It is mainly used in contrast with "Far Past" and "Immediate Past". In traditional Bantu linguistics it is defined as a tense referring to "before today" (*cf.* Botne 1981), thus calling for terms like *hodiernal versus pre-hodiernal versus post-hodiernal* (from Latin *hodie* 'today'), or with reference to 'yesterday', hence the term *hesternal* as coined by Dahl (1985:126) from the Latin adjective *hesternus* meaning 'related to yesterday'. However, defining tense based on temporal adverbials like 'yesterday' and 'today', has its problems, as pointed out by Dahl (1985) himself. Such definitions are not entirely accurate as explained below. First, in some cases, these terms referring to past tenses are confusing the way they are used. Let us compare and consider the following definitions of past tenses. According to Johnson's (1977) analysis, "Immediate Past" refers to events of earlier today,

"Near Past" to yesterday's events, and "Far Past" to events that took place before yesterday. Angogo (1980:105), on the other hand, defines Luhya Past tenses as quoted below:

> The past tense has three interpretations. The Near Past (NP) incorporates action which has occurred within the past few hours within the same nocturnal or diurnal time span. If the action referred to took place before the night or day adjacent to the present, even if it were only a few hours past, the Immediate tense (IT) is used; this can extend over a period of three or four weeks, before which the Far Past (FP) construction is then employed.

The two studies indicate lack of agreement on how they use the terms "Near" *vs* "Immediate". Second, the reference of a tense like Near Past, at least in the Rutara languages, depends on the nature of time segmentation. That is, if the action referred to occurs annually, for instance, then Near Past could be used to refer to 'last year', with Remote Past marking the 'year before last', and 'this year' being marked by Present. In fact, even the term 'earlier today', used to define what we call Memorial Present in this study, is also misleading because the interpretation of 'today' in Rutara languages, or Bantu languages in general, is significantly different from its representation in English and similar languages. Comrie (1985) warns against this practice of using the terms 'today, yesterday, tomorrow' and the like in defining tense; he summarises the point we have raised here, which was also quoted in §1.8.2. It is, therefore, better to define Near Past as a tense that refers to events which took place before Memorial Present (§5.2.3) which is in turn closer to Experiential Present or

speech event time, and of course with other factors contributing to the choice and meaning of the tense and time used. Here are the forms of the Near Past tense in Rutara (97a–h):

(97)		**Language**	**Affirmative**	**Negative**
	a.	Ruhaya	tu-**Ø**-guz-**îre**	ti-tu-**Ø**-guz-**íre**
	b.	Runyambo	tu-**Ø**-guz-**íre**	ti-tu-**Ø**-guz-**íre**
	c.	Runyoro	tu-**Ø**-guz-**iré-ge**	ti-tu-**Ø**-guz-**iré-ge**
	d.	Runyoro	tu-**Ø**-guz-**irê-ge**	ti-tu-**Ø**-guz-**irê-ge**
	e.	Ruzinza	tu-**Ø**-guz-**íre**	ti-tu-**Ø**-guz-**íre**
	f.	Rukerebe	tu-**Ø**-guz-**iré**	ti-tu-**Ø**-guz-**íré**
	g.	Runyankore	tu-**Ø**-guz-**íre**	ti-tu-**Ø**-guz-**íre**
	h.	Rukiga	tu-**Ø**-guz-**íre**	ti-tu-**Ø**-guz-**íre**
			1P-T-buy-A	NEG-1P-T-buy-A
	i.	Rutooro	tu-**ka**-gûr-a	tu-ta-gúr-**e**
			1P-T-buy-A	1P-NEG-buy-A
			'we bought (yesterday)'	'we did not buy (yesterday)'

The best example would be from Ruhaya and Rukerebe in which the speaker can optionally use either Near Past (NPt) or Memorial Present (MP) (§5.2.3) to express the same event that took place 'last night' or 'earlier today'. Suppose a person is reporting that Anne came last night; they could use either of the following, where {-ija} *versus* {-izire} means 'come' *versus* 'came':

(98) a. Ruhaya: 'She came last night'

i) Ana a-iz-ire e-kiro → ...[aiziréékíro]/[aiziréèkíro]
Anne 3S-come-NPt night 'Anne came at night'

ii) Ana a-iz-ire o-mu-kiro → ...[aizirómukíro]
Anne 3S-come-NPt in-night 'Anne came in the night'

iii) Ana a-a-ija e-kiro → ...[yaijéékíro]/[yaijéèkíro]
Ana 3S-MP-come night 'Anne came at night'

iv) Ana a-a-ija o-mu-kiro → ...[yaijómukíro]
Ana 3S-MP-come in-night 'Anne came in the night'

b. Rukerebe:

i) a-a-goba bwanencha → [yagoba bwaanéénča]
3S-MP-land morning 'He landed (early) this morning'

ii) a-gob-ire bwanencha (Botne, 1987:34)
3S-land-NPt morning 'He landed (early) this morning'

If the speaker wants to imply that in coming at night Anne was late, then (98a iii–iv) would be used, which pulls the event time nearer to the speaker in time, as opposed to (98a i–ii) and (98b ii) which push it back towards 'yesterday'. Thus, the contrast between the two does not necessarily depend on the real occurrence of the event in time, but rather on the pragmatic function(s) of the forms as well, which includes the speaker's implication.

Six languages in the group use the form {-Ø-...-ire} for the Near Past, including relative forms. Runyoro and Rutooro modify this form by adding the marker {-ge}, as in (97c–d) (see also §5.2.3 below). Rutooro is different from the rest in that the Remote Past formative {-ka-} also collocates with 'yesterday', as in (97i). This is not a real Near Past; it is an extension of the marker to cover a larger scope in terms of its temporal reference. The formation of negative constructions is simple and corresponds well with the affirmative constructions. That is, they are formed by simply adding the negative marker initially as shown in (97a–97g) above.

There is another use of the form {-ire}, whose meaning refers to an event that is yet to take place. In Runyambo and Ruhaya, for instance, it could be used to issue a warning,

as in the following example (where the verbs *ku-tema* and *ku-teera* mean 'to cut' and 'to beat/hit' respectively):

(99) Mismatch between form and function:

a. Runyambo
n-ku-tem-íre!
1S-2S[OM]-cut-A — Literal meaning: 'I have cut you'
'Watch out! I might cut you!'

b. Ruhaya
n-ku-té-íre!
1S-2S[OM]-beat-A — Literal meaning: 'I have beaten you'
'Watch out! I might beat you!'

This usage should not be a surprise to us because there is an almost identical construction in English, which represents a Non-Past event by using a Perfect marker, as in the construction 'I am gone'. This is a result of marking an incomplete event with Perfect (or Perfective), which makes the form to function as Prospective or Future (*cf* §4.5.2). It should also be noted that {-Ø-...-ire} is the aspectual marker for Resultative (and Retrospective in Runyoro and Rutooro).

When the formative {-Ø-...-ire} is used in both auxiliary and main verb in one compound verbal unit, which sounds like a "doubly completive" aspect, the total meaning of the clause changes slightly. In this case, it means that the event did take place in the Past, and it is over, and therefore, that fact no longer holds.

(100)

a. m-ba-**ire** n-guz-**ire** ... (Ruhaya, Rutooro)
b. m-be-**ire** n-guz-**ire** ... (Runyambo, Rukiga)
c. m-be-**ere** n-guz-**ire** ... (Ruzinza, Rukerebe)
1S-be-T 1S-buy-A 'I had bought ...'

The statement given in (100) above simply means that the speaker had bought something but that s/he, probably, no longer has that thing. Of course, in this case, it is the first {-ire} in the auxiliary that represents tense and can be replaced by any other tense marker such as {-ka-} (*i.e.* functionally, not morphosyntactically because {-ka-} and {-ire} occupy different T/A slots in the verbal unit). The second {-ire} in the main verb marks aspect.

5.2.3. Memorial Present

The Memorial Present refers to an event that has occurred in a very recent past. Its time frame can extend from a few seconds to several hours back of the same day or night. Events represented by this tense are, therefore, recorded in immediate memory, and their results might still be vivid, or have consequences for the current situation. In fact, it looks like an extended aspect that has a temporal reference. This is a cognitive factor which warrants the use of the same marker {-a(a)-} for both Memorial Present and Perfective. As pointed out earlier, Johnson's (1977) analysis for the Kikuyu T/A system calls the tense which behaves more or less like the one we are describing here "Immediate Past", marked by {-kʊ-} in Kikuyu, which is rather confusing. In Rutara this tense is marked by {-a(a)-...-a}, as in (101a–f).

(101)	**Language**	**Affirmative**	**Negative**
a.	Ruhaya	tu-**á(á)**-gur-a	ti-tu-**á**-gur-a
b.	Runyambo	tu-**áá**-gur-a	tí-tu-**aa**-gur-a
c.	Ruzinza	tu-**áá**-gur-a	ti-tu-**áá**-gur-a
d.	Runyankore	tu-**áá**-gur-a	tí-tu-**aa**-gur-a
e.	Rukiga	tu-**áá**-gur-a	tí-tu-**aa**-gur-a

f.	Rukerebe	tu-**a**-gul-á	ti-tu-**a**-gúl-a
		1P-T-buy-A	NEG-1P-T-buy-A
g.	Rutooro	tu-Ø-guz-**irê-ge**	ti-tu-Ø-guz-**irê-ge**
h.	Runyoro	tu-Ø-guz-**iré-ge**	ti-tu-Ø-guz-**iré-ge**
		1P-T-buy-A	NEG-1P-T-buy-A
		'we bought (today)'	'we did not buy (today)'

We have thus decided to call this tense Memorial Present rather than Near Past (as it is commonly called in various Bantu grammars) for two reasons. First, there is a strong semantic connection between what we call Present in general and this tense in most of the languages under study. One of the supporting arguments for the above claim is that the same formative which represents this tense {-a(a)-} appears to have a close relationship with the completive aspects, which translate as 'we have (just) bought'.

The second reason is a cognitive one. The tense refers to events which, as pointed out above, are recorded in working memory. Thus, the speaker recalls the event from immediate memory which bridges the Experiential Present (see §5.2.4) and the real Pasts, such as Near Past and Remote Past. The equivalent of its semantic reference in English is the expression of an event that could optionally be referred to by two constructions, one marked only aspectually and the other marked by tense. For instance, if Harry leaves, one can refer to the event ten minutes later by either, 'Harry ***has left***' (*i.e.* Present Perfect/Retrospective aspect) or 'Harry ***left*** ten minutes ago' (*i.e.* Past tense).

The form {-Ø-...-ire-ge} in (101g–h) is based on its collocation with the temporal adverbial 'today'. Thus, in Runyoro the form {-Ø-...-ire-ge} collocates with two adverbials, 'yesterday', as in (97c) and 'today', as in (101h). It is proposed here and discussed later in

§6.3.1–6.3.2 that the form {-Ø-...-ire-ge} represents the Near Past, rather than Memorial Present in both Runyoro and Rutooro. It is very interesting to note, however, that the form {-Ø-...-ire-ge} does not appear in compound VUs like those indicated in (100) above. In other words, it occurs with the Performative aspect (including relative), and not with other aspects, as illustrated further below (see also §6.3.1 for further discussion on {-ge}).

(102) Memorial Present in Runyoro and Rutooro

Simple VU	**Compound VU**
tu-Ø-guz-**ire-ge**	tu-Ø-ba-**ire ni**-tu-**kiaa**-gur-a (*tu-ba-ire-**ge** ni-tu-kiaa-gur-a)
'We bought'	'We were still buying'

As indicated above, {-ge} does not occur on the auxiliary {tu-ba-ire} which is supposed to bear the tense marker in the compound verb. It is for this reason that we start to suspect that it is a very recent innovation that was employed for a particular semantic effect or contrast.

5.2.4. Experiential Present

The Experiential Present tense refers to very current time. It expresses the speaker's experience, as one records events in mind. It fuses immediately into the Memorial Present, which in turn fades into the Past. This tense differs morphologically from all the rest in that it is not morphologically marked (for tense). The formatives that we see with this tense in verbal constructions are aspectual markers only. The following list of examples provides forms from the Progressive aspect in Experiential Present.

(103)	Language	Affirmative	Negative
a.	Ruhaya	**n(i)**-tu-**Ø**-gúr-a	ti-tú-**(r)i-ku**-gur-a
b.	Runyankore	**n(i)**-tu-**Ø**-gúr-a	ti-tu-**rí-ku**-gur-a
c.	Rukiga	**n(i)**-tu-**Ø**-gúr-a	ti-tu-**rí-ku**-gur-a
d.	Rutooro	**n(i)**-tu-**Ø**-gûr-a	ti-tu-**ri-ku**-gûr-a
e.	Runyoro	**n(i)**-tu-**Ø**-gúr-a	ti-tú-**(r)u-ku**-gur-a
		PROG-1P-T/A-buy-A	NEG-1P-be-T/A-buy-A
f.	Runyambo	**n(i)**-tu-**Ø**-gúr-a	ti-tú-**ku**-gur-a
g.	Ruzinza	**n(i)**-tu-**Ø**-gúr-a	ti-tú-**ku**-gur-a
		PROG-1P-T/A-buy-A	NEG-1P-T/A-buy-A
h.	Rukerebe	tu-**ku**-gúl-a	ti-tu-**kú**-gul-a
		1P-T/A-buy-A	NEG-1P-T/A-buy-A
		'we are buying'	'we are not buying'

The Experiential Present category is like the Performative forms in that both categories consist of simple forms which do not bear functional tense or aspectual markers respectively (see the table matrices in Appendix I). Lack of a tense marker, however, makes this category unstable with regard to reference time across the aspects with which it is used. In the above examples, for instance, it is the formative {ni-} (or {-ku-} in the case of Rukerebe) which indicates the Progressive aspect; the tense itself is marked by {-Ø-}. In Chapter Six we will show that {-ku-} in Rukerebe derives from {-li-ku-} historically.

5.2.5. Near Future

This tense (NF) refers to an event that will take place later than the moment of speech; it could be within the same day or on the following day. It, therefore, combines what we would strictly call *Immediate* Future (from the moment of speech to a few hours later) and *Extended* Near Future (extending from a few hours later until 'tomorrow'). However, as presented in §5.2.4, the same principle of reference to UT that we attributed to Past tenses

applies also for Future tenses. Thus, if temporal intervals are in terms of weeks, NF could refer to 'next week', or 'next year' if they are in terms of years.

(104)		**Language**	**Affirmative**	**Negative**
	a.	Runyambo	tu-**raa**-gúr-a	ti-tu-**raa**-gúr-**e**
	b.	Rutooro	tu-**raa**-gûr-a	ti-tu-**aa**-gûr-**e**
			1P-T-buy	NEG-1P-T-buy-A
	c.	Ruhaya	tu-**raa**-gúr-a	ti-tu**u**-Ø-gúr-**e**
	d.	Runyoro	tu-**raa**-gúr-a	ti-tu-Ø-gúr-**e**
			1P-T-buy-A	NEG-1P-T-buy-A
	e.	Ruzinza	tu-**raa**-(ba ni-tu)-gúr-a	ti-tú-**ku**-gur-a
			1P-T-(be PROG-1P)-buy-A	NEG-1P-be-buy-A
	f.	Rukerebe	tu-**raa**-gúr-a	ti-tú-Ø-gur-a
			1P-T-buy-A	NEG-1P-T-buy-A
			'we will buy'	'we will not buy'
	h.	Runyankore/Rukiga	**ni**-tu-**ižá** ku-gur-a	
			PROG-1P-come INF-buy-A	
			'we are coming to buy' = 'we will buy'	

Almost all of these languages have three different possible sets of constructions for the Near Future (NF) tense. The first type contains the formative {-raa-}, as in the affirmative examples of (104) above. Runyambo maintains the formative {-raa-} in the negative form as well. Rutooro replaces it with {-aa-}, while Ruhaya deletes it but lengthens the vowel of the personal pronoun, thus {-tu-u-}, and Runyoro deletes the morpheme {-raa-} without any other major modifications (although a more or less similar long vowel is detected in Remote Future Habitual). The features found in Ruhaya resemble those found in Luganda where the Near Future tense is marked as follows:

(105) Luganda

tú-naa-gúl-á	te-tú-***ú***-gúl-ê
1P-NF-buy-A	NEG-1P-*T*-buy-A
'We will buy'	'We will not buy'

Describing this phenomenon in Ruhaya, Hyman and Byarushengo (1984) suggest that the Near Future marker is {-raV-} where [-V-] represents a moraic vowel that only acquires phonetic value depending on the preceding vowel, thus {-raV-} becomes [-raa-] and {-tuV-} becomes [-tuu-], and so on. Most of these languages in (104) share the common feature that their negative forms end in {-e}. Ruzinza and Rukerebe differ from the rest in that their negative forms do not end in {-e}.

The second alternative of the NF constructions is to use the Progressive. It has been observed that using the Progressive to express future events is a common linguistic phenomenon not only in Bantu languages, but also in many other languages of the world. The reason for this is related to that given for using the Perfect and Perfective to represent Future events. In this case, a non-past event which is only complete in the mind is necessarily in the Future. For instance, many speakers of Ruzinza would use the forms {**ni**-tu-gur-a nenča} 'we are buying tomorrow' or {tu-**raa**-ba **ni**-tu-gur-a nenča} 'we will be buying tomorrow' for this tense. The former is also common in other languages like Ruhaya. Ruzinza's NF negative uses {-ku-}, while Rukerebe has a simple unmarked form. In fact, these are negative forms of the seemingly Progressive form, as analysed in §6.5.2.

The third type of NF contains the lexical verb {ku-ija, ku-iza, ku-iža} 'to come', which forms the auxiliary, followed by the main verb (see (104h)). This is a compound form

as opposed to the simple forms found elsewhere in the same aspectual category of Performative. This construction is also found in other languages of the group, for example: {-ija ku-gur-a} or {-iza/-iža ku-gur-a} 'come to buy'. The auxiliary {-ija} or {-iza, -iža} 'come' is a lexical verb which is not totally grammaticalised (as is the verb to 'be', which appears elsewhere in the systems). However, the verb in this context has already undergone some semantic erosion in that it does not mean exactly 'to come', but rather 'being about to'. Taylor (1985:168) distinguishes the two forms of Near Future (NF) in "Runyankore-Rukiga" by using the terms "indicative" *versus* "participial" mood, using the verb {ku-kora} 'to work', as in {**ni**-ba-**ija** ku-kora} 'they will work' *versus* {ba-**raa**-kor-**e**} 'that they will work' respectively. He distinguishes the two in terms of their morphosyntactic behaviour, such that, the participial (or *hypotactic*) "features in almost all subordinate clauses in the language" and is associated with, but not restricted to, relative forms. Therefore, we now know that both {ni-...-ija} and {-raa-} are used to mark NF in Runyankore and Rukiga, and their differences are, by and large, more morphosyntactic than morphosemantic.

There are different ways of expressing the NF, both morphosyntactically and semantically, depending on the temporal focus as well as the determinateness of the event in the mind. In fact, there are at least three different ways of expressing the Near Future tense in Rutara languages. Apart from the two types given above, Present Progressive (§4.5.6) is also used to mark Near Future events. Sometimes the semantic difference between the three types is so subtle that it is difficult to decipher. Of course, this phenomenon of using various

ways to express (Near) Future events is also common in other languages. In English, for instance, the Progressive aspect is used just as in Rutara:

(106) English
a. I will leave tomorrow morning.
b. I am leaving tomorrow morning.
c. I will be leaving tomorrow morning.

There is a T/A marker that appears in the Near Future Imperative, which looks like the Future marker presented above. It differs only in length: thus, it is relatively shorter than the Future marker; that is, {-ra-} Near Future Imperative *versus* {-raa-} Future, as exemplified by (107) from Ruhaya (and also illustrated in Table 5.3 below).

(108) mu-rá-gur-a
2P-T/A-buy 'You should buy'

The difference in tone for {-raa-} *versus* {-rá-}, in Ruhaya, reminds us of the argument presented in the last chapter regarding the problem of assigning tone to a particular morpheme in this T/A analysis. Given that the verb {ku-gur-a} 'to buy' is not marked by a high tone, but marked throughout the Future tense(s), it follows that the H tone should belong to the tense, as suggested earlier under § 4.5.1. This is supported by Hyman and Byarushengo (1984) who, for instance, assign "<H>" to the FV of all Near Future forms. The only problem is that they assign these H tones to particular morphemes in the paradigm which looks deceptively like they were underlying tones.

5.2.6. Remote Future

The last tense that appears in these systems is Remote Future (RF). The same reasons that we put forward for the use of the term Remote with Past also apply here. This (RF) tense marks events that take place any time from tomorrow up to an indefinite future. Its realisation in the eight languages of Rutara has two forms of representation, as indicated below:

(108)		**Language**	**Affirmative**	**Negative**
	a.	Rukiga	tu-**riá**-gur-a	ti-tu-**rí**-gur-a
	b.	Runyankore	tu-**riá**-gur-a	ti-tu-**rí**-gur-a
	c.	Ruzinza	tu-**raa**-gúr-a	ti-tú-**ri**-gur-a
	d.	Ruhaya	tu-**ri**-gúr-a	ti-tú-**ri**-gur-a
	e.	Runyambo	tu-**ri**-gúr-a	ti-tu-**rí**-gur-a
	f.	Rutooro	tu-**ri**-gûr-a	ti-tu-**ri**-gûr-a
	g.	Rukerebe	tu-**ri**-gul-á	ti-tú-**ri**-gúl-a
	h.	Runyoro	tu-**ri**-gúr-a	ti-tu-**ri**-gúr-a
			1P-T-buy-A	NEG-1P-T-buy-A
			'we will buy'	'we will not buy'

There are three major markers, {-ria-} in Runyankore and Rukiga, pronounced [rya:]/[rya'], {-raa-} in Ruzinza, and {-ri-} in all the other languages. In some dialects of Ruhaya (esp. H4) {-raa-} is also used to mark the Remote Future as in Ruzinza. The negative, however, is more uniform than the affirmative: all the languages have the form {-ri-}. Runyankore and Rukiga appear also to have the option of using the marker {-ria-} in negative forms; however, this alternative is limited to some sub-dialects and mainly to non-compound forms. Taylor (1985) analyses the form *turyagura* as indicative and *turigura* as participial. It is this which leads us to the following proposition. Given that affirmative and negative constructions have

proven to be symmetrical in most cases (and reasons for apparent asymmetry will be given in the following chapter), it would not be unreasonable to argue that the affirmative marker {-ria-} and its counterpart negative marker [-ri-] in Runyankore and Rukiga are related. Thus, it would also follow that {-ria-} (commonly represented as *-rya-* orthographically) is morphologically segmentable into two parts, {-ri-a-}, and that, probably, the negative simply deletes (or deleted diachronically) the second element of the morpheme, hence, {-ri-a-} > {-ri-}. This kind of analysis appears to have problems which are addressed later in this chapter. Besides, we cannot determine the quality of the second vowel, whether it is underlyingly long or short. Whether it is short, as in {-ri-a-} or long, as in {-ri-aa-}, the surface form will be the same after the gliding process, thus [-ryaa-]. We will, arbitrarily, select the short one, hence: /-ri-a-/. Once this principle is accepted, it would then be applied to the entire group in order to account for the differences between {-ri-a-} and {-ri-}.

There are also T/A markers that appear in Hortative constructions which look like the Future markers {-ra(a)-, -ri-a-, -ri-} presented above. The following table summarises these markers from Present to Remote Future.

Table 5.3: Hortative markers

Language	Present		Near Future		Remote Future	
	Aff.	**Neg.**	**Aff.**	**Neg.**	**Aff.**	**Neg.**
Runyambo	mu-gúr-e	mu-ta-gúr-a	mu-rá-gur-a	mu-tá-ku-gur-a	mu-riá-gur-a	mu-ta-rí-gur-a
Ruhaya	mu-gúr-e	mu-ta-gúr-a	mu-rá-gur-a	mu-táá-ku-gur-a	mu-rí-gur-a	mu-tá-ri-gur-a
Ruzinza	mu-gúr-e	mu-ta-gúr-a	mu-rá-gur-a	mu-táá-ku-gur-a	mu-rá-gur-a	mu-ta-ri-gur-a
Gloss	2P-buy-A	2P-NEG-buy	2P-A-buy	2P-NEG-INF-buy	2P-A-buy	2P-NEG-INF-buy
	'you should (not) buy' *or* 'let you (not) buy'					

With reference to Table 5.3 above, only the structure {mu-gur-e} (which belongs to the Present tense, or Non-Past in general, and tends to extend its usage into Future) and its negative are the same in the three sample languages. The other two forms show significant differences between their affirmative and negative counterparts on the one hand, and also between one and another.

There are at least four points to be addressed here with regard to Near Future and Remote Future. The first issue concerns the disappearance of the marker {-ra-} which appears in Near Future affirmative but not in negative constructions. Second, and within the same tense, is lengthening of the vowel of the negative marker {-ta-} which is long in Ruhaya and Ruzinza, thus {-taa-}. But, from a different perspective, this could also be regarded as the introduction of another vowel, thus re-analysed as {-ta-a-}, if we can justify that they are really two morphemes rather than one. Alternatively, that extra vowel could be associated with the moraic [-V-] proposed by Hyman and Byarushengo (1984) which we presented above. The third issue is the apparent insertion of the infinitival {-ku-} in the Near Future Negative form. Fourth and last, the Remote Future affirmative is different in the three languages, thus {-ria-, -ra-, -ri- }, all of which have one similar form in negative constructions, {-ri-}. The morpheme {-ria-} in Runyambo resembles the Remote Future marker found in Runyankore and Rukiga in (108) above, which we argued contains two morphemic elements {-ri-a-}, but where, it seems, Runyambo does not lengthen the vowel after gliding in this context. There is no doubt that it is the same morpheme we see here, given the morphosemantic functions of the marker in both cases. With regard to the vowel

length, the above examples suggest that, probably, affirmative imperative and/or Hortative forms do not allow long vowels, hence, {-raa-} > {-ra-}, {-riaa-} > {-ria-}. But it is not quite clear if this is entirely true. We, therefore, need to establish the historical relationships between the Future markers: {-riaa-, -ria-, -raa-, -ra-, -ri-}. Given their morphosemantic functions, we will first propose here that these are, in fact, two formatives to be represented as {-ri-(a-), -ra(a)-}.[35] The issue is pursued further in the following chapter. One interesting feature is that this is the only tense in which the negative Performative ends with {-a} in all languages; all the other tenses end with either {-ire} or {-e}. The Memorial Present negative ends with {-a} in six languages but with {-ire-ge} in Runyoro and Rutooro.

5.3. Conclusion

From what has been presented so far, and by using the same framework that we applied to aspect in the previous chapter, we have been able to demonstrate that tenses in the Rutara group can be defined from four perspectives, that is, morphosyntactically, semantically, cognitively, and syntactically. Morphosyntactically, a tense marker is the leftmost formative in the verbal unit (VU). Consequently, in the case of a compound VU, the tense marker should be in the auxiliary which, in that case, is the first verbal element of the compound VU. In cases where slot (2) is unmarked, then slot (3) can bear the tense marker in that VU, as in the case of {-Ø-...-ire} in, for instance, {tu-guz-**ire**} 'we bought'.

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[35] The presentation {-ra(a)-} indicates that the formative varies in terms of the vowel length. In Near Future Hortative forms, for instance, it appears as {mu-ra-gur-a} 'let you [2P] buy', as opposed to {mu-raa-gur-a} 'you will buy'. Our analysis thus regards the two markers {-ra-} and {-raa-} as allomorphs of the same Near Future tense marker {-raa-}.

Once {-ire} has assumed the role of a tense marker, then no other marker can precede it, unless that other marker is itself a tense marker. An example of a VU in which a formative precedes {-ire} to function as a tense marker is {ti-tu-**ra**-guz-**ire**} 'we did not buy' (Runyankore, Rukiga, Runyambo, Ruzinza). In this case, {-ra-} behaves like a tense marker. When that happens, the VU is said to contain a complex marker: {(ti-)...-ra-...-ire}.

Such complex tenses with {-ire} tend to complicate the constructions in terms of analysis. For instance, we now see {-ra-} (which elsewhere marks aspect) marking tense in {ti-tu-**ra**-guz-**ire**} 'we did not buy', but {-ka-} failing to mark tense in {ti-tu-**ka**-guz-**ire**} 'we have not yet bought'. Negative constructions are thus complicated because their morphosemantic interpretations depend on what exactly is negated: tense, aspect, or both. Generally, there are three categories which can have such compound forms. These are: negative forms, hypothetical events, and relative constructions, as summarised in the table below.

Table 5.4: Tensed and un-tensed compound formatives

Category		Example	Gloss and functional tense	Distribution
a.	Negative	**ti**-tu-**ra**-guz-**ire**	'we did not buy' (Remote Past)	R3–R5, R7
		ti-tu-**ka**-guz-**ire**	'we have not yet bought' (Experiential Pres. Retrospective)	all: R1–R8
b.	Hypothetical	tu-**a(a)**-**ku**-guz-**ire**	'we could have bought' (Past)	R1–R7
		tu-**a**-**ká**-guz-**íre**	'we could have bought' (Past)	Rukerebe (R8)
c.	Relative	a-ba-**aa**-guz-**ire**	'those who have already bought' (Experiential Present)	R3–R8

As pointed out above, not all formatives in slot (2), in Table 5.4, are real tense markers, although all forms can be used in the functional tense as represented by the total meaning of the VU. In the negative constructions, for instance, not all the formatives in slot (2) are tense markers. Some are aspectual markers working in conjunction with {-ire}, to represent complete events (*i.e.* completive aspect(s)), whose completion, however, is denied by the negative element {ti-}. In the hypothetical constructions, for instance, {-a(a)-} is meant to perform a tense function and, together with {-ire}, represents complete events. However, the intervening elements ({-ka-} in Rukerebe and {-ku-} in others), suppress its potential ability to express tense. As a result, the two forms {tu-**a-ká**-guz-**íre**} and {tu-**a(a)-ku**-guz-**ire**} remain complete only in the mind (rather than being real events). The marker {-a(a)-} relates the event to an unspecified temporal reference, the event which did not take place in real time. Nevertheless, time can be expressed for events by using temporal adverbials, as in "*yesterday* we could have bought books". This is what we referred to as partial suspension of a T/A marker's deictic attribute. T/A in relative constructions tends to function in virtually the same way as the normal (indicative) constructions discussed elsewhere in this study. Thus, in Table 5.4, the form {-aa-...-ire} represents the Retrospective aspect as analysed in §4.5.5 and §4.8.

From the cognitive point of view, on the other hand, tenses belong to Level II (chronogenetically). Consequently, this leads us to the semantic explanation that they [tenses] express temporal references of events, along both time in the real world and time in the mind; this causes tenses to be regarded as deictic elements of verbs. We have seen that

temporal adverbials can be used to test tenses for their ability to express time. The problem, as evident from Table 5.4, is that even hypothetical constructions can also pass that test, even though their representation of time is not similar to that of real tenses. Lastly there is the syntactic explanation of tenses, that they are in paradigmatic relationship with each other, but in syntagmatic relationship with aspects. Consequently, there cannot be more than one tense in a VU.

From the analysis and definition(s) of tense presented in this chapter, together with what was presented in previous chapters, we can summarise the conditions under which a formative is to be classified as a tense marker, based on the principles we proposed in our discussion, namely morphosyntactic behaviour, chronogenetic staging, and temporal reference. The following table tests the tense markers we identified using these conditions, in relation to occurrence in the auxiliary (AV), their position in the verbal unit (VU), their expression of temporal reference in Universe Time (UT).

Table 5.5: Necessary and sufficient conditions of tense

	Condition	-ka-	-a(a)-	-raa-	-ra-	-ri-	-ri-a-	-ire	-ire-ge
a.	Used in AV to mark tense	+	+	+	+	+	+	+	-
b.	Occupies the leftmost slot in the VU	+	+	+	+	+	+	+	+
c.	Expresses reference time (tR) in UT	+	+	+	+	+	+	+	+
d.	Belongs to the 2nd Chronothesis	+	±	+	+	+	+	-	+
	Function (tense)	RP	MP	NF		RF		NPt	

What we gather from Table 5.5 is that, although these attributes are necessary for a formative to be a real tense marker, failure to satisfy all of them does not prevent a formative from

marking tense. We can therefore conclude that none of these conditions is in itself sufficient for a formative to function as a real tense marker; nor can one condition alone be sufficient to define T/A. It is the totality of these conditions (plus the syntactic definition or condition which is not included in the table), together with the total meaning of a given VU, that are necessary to distinguish real tense markers from functional ones on the one hand, and to distinguish tense from aspect, on the other. The systems are highly flexible in terms of assigning T/A roles to formatives, as we have seen in the case of {-a(a)-}, {-ire}, {-ra-}, and {-ka-}, when they are used alone *versus* when they are in compound with other markers. It is this flexibility that allows a language to employ the T/A recycling mechanism, in the development of T/A. But this again leads to another problem of what looks like a fuzzy phenomenon, not only in the Rutara languages, but also in other languages of the world. The same issue was raised by Chatterjee (1988:22) for Slavic languages: "aspectual functions shade off into modal and tense functions in Slavic and in other languages, *i.e.*, there are items that could be seen as formally aspectual but functionally modal or deictic in time reference".

CHAPTER SIX

6. RECONSTRUCTION

6.1. Introduction

In this chapter, we compare and contrast formatives and their categories as presented and discussed in the preceding two chapters. It is this comparison which will lead us to the reconstruction of the Proto-Rutara T/A system. In other words, we are trying to answer the following question: what did the Proto-Rutara T/A system look like in its basic categories and formatives? In the previous chapters we mainly dealt with similarities between the T/A systems of the eight sample languages. However, we also pointed out some significant differences which we suggested would be important for reconstruction. We will, therefore, concentrate on these differences together with the similarities, in order to work out the original state of affairs. Our approach for the reconstruction is based on the following premises, which were developed from the previous chapters:

A. All eight sample languages developed from one proto-language system which we have called Proto-Rutara.

B. The Proto-Rutara T/A system was relatively more symmetrical than what we see in its daughter systems today; (*cf.* the Near Past and Memorial Present which are more symmetrical than other T/As).[36]

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[36] Apart from the Retrospectives, Near Future, and Past/Future Progressive, all other relative clauses in Ruhaya are symmetrical between affirmatives and their respective negative counterparts (*cf.* "Appendix I" in Hyman and Byarushengo 1984: 93–99).

C. The current polar asymmetry which we see in these languages (*i.e.* between affirmatives and negatives) should have developed mainly through what we have called the T/A recycling mechanism, as a result of morphosemantic and morphosyntactic flexibility with regard to the form, meaning and functions of the T/A formatives.[37]

D. The changes that have occurred in these languages are a result of various linguistic processes or phenomena, which have either synchronic or diachronic explanation(s), or both. By analysing these processes and their underlying mechanisms, we can establish, or confirm, some principles of reconstruction which are applicable to the Rutara languages (see §6.7).

E. By putting together the two parts, the symmetrical and the asymmetrical, of each language, and then by comparing the eight language systems, we should be able to reconstruct the Proto-Rutara T/A system.

In order to achieve these goals, we will first summarise our findings in terms of the categories and formatives that we established in the previous chapters, and which will be used as the basic tools for the reconstruction. In our analysis of T/A we have proposed that formatives assume morphosemantic functions at three levels.

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[37] The major problem with this premise is to account for those cases of asymmetry which existed before Proto-Rutara. These might have not left traces in the contemporary languages.

At level one, we have the basic VU, which contains single formatives. Each formative can thus be assigned (or expresses) a basic meaning (or meanings in the case of syncretism). Level two basically consists of complex VUs, which contain two or more formatives. These formatives (in a single VU) together perform one temporal or aspectual function and are, therefore, regarded as one marker. The third level consists of compound VUs (*i.e.* AV + MV), in which both temporal and aspectual multiple formatives work together for the total meaning of the clause. We will use the two most versatile formatives {-a(a)-} and {-ire} as illustrations in the following table (where the first column indicates the morphosemantic levels of T/A integration).

Table 6.1: The integration of the morphosemantic functions of {-ire} and {-a(a)-}

	Framework & Function	**Example**	**Gloss & Distribution**
Ø	stem: {-R-a}	-gur-a	buy (R1–R8)
I	{-Ø-...-ire} Perfect	tu-guz-**ire**	we have bought (R1–R2), (R3–R8)
			we bought (R3–R8)
	{-a(a)-...-a} Memorial Present	tu-**a(a)**-gur-**a**	we have just bought (R1–R8)
			we bought (R3–R8)
II	{-a(a)-...-ire} Retrospective	tu-**aa**-guz-**ire**	we have already bought (R3–R8)
III	{{-Ø-...-ire}—{-Ø-...-ire}} Near Past Perfect	tu-ba-**ire** tu-guz-**ire**	we had bought (R1–R4, R6)
		tu-be-**ire** tu-guz-**ire**	we had bought (R5), (R6:H4)
		tu-be-**ere** tu-guz-**ire**	we had bought (R7–R8)
	{{-Ø-...-ire}—{-a(a)-...-ire}} Near Past Retrospective	tu-ba-**ire** tu-**aa**-guz-**ire**	we had already bought (R3–R4, R6)
		tu-be-**ire** tu-**aa**-guz-**ire**	we had already bought (R5), (R6:H4)
		tu-be-**ere** tu-**aa**-guz-**ire**	we had already bought (R7–R8)

Thus, the respective functions of the formatives in Table 6.1 in their levels are: Level I contains the simple markers {-ire} and {-a(a)-} which have various functions as indicated in the table, namely Perfect, Perfective, Resultative, and Memorial Present. At Level II, the markers become complex by incorporating the two formatives, {-aa-} and {-ire}, which together mark Retrospective in six languages (R3–R8). Level III contains compound verbal units (VUs), which are either simple from the first level, as in {tu-ba-**ire** tu-guz-**ire**} 'we had bought', or are a combination of Level I and II, as in {tu-be-**ere** tu-**aa**-guz-**ire**} 'we had already bought'. It is also possible to have both internal VUs of a compound marker in Level III from Level II, as in {tu-**a**-**ku**-ba-**ire** tu-**aa**-guz-**ire**} 'we could have already bought'. Thus, the meaning of a formative depends on the composition of the VU in which it is used; and the meaning of a VU depends on the formatives which constitute it. It appears that this integration of morphosemantic functions is in agreement with the chronogenetic staging of the Rutara verbal system, as illustrated in §1.8.5: (5).

6.2. Categories and formatives

Throughout this study we were able to establish a number of tenses and aspects, some of which are marked and others not. Let us summarise all these tenses and aspects here, in order to clarify the degree of their resemblance and parallelism across the eight languages studied. We will use Tables 6.2–6.3 to summarise the major tenses and aspects of the Rutara group, as introduced in the previous chapters. The representation of the T/A frameworks indicates the two T/A slots (slot 2 and 3), in order to make the comparison and contrast easy.

Consequently, the {-Ø-} marker and the neutral FV {-a} are also included whenever the slots (2 and 3) are not occupied by any other specific T/A marker. Slot (1) is predictable in that it can only be filled by either the Progressive marker {ni-} or the negative markers {ti-/-ta-}. Therefore, it is indicated only when there is a marker occupying the slot. Table 6.2 includes relative forms for the Remote Past only, because all other categories are relatively symmetrical between relatives and their counterpart affirmatives or negatives.

Table 6.2: A summary of the basic tense markers in Rutara languages

	Tense	Affirmative	Negative	Distribution
a1.	Remote Past	{-ka-...-a}	{ti-...-ra-...-ire}	R3–R4, R5, R7
			{ti-...-a-...-ire}	R6, R8
			{-ta-...-Ø-...-e}	R1–R2
a2.	Remote Past Relative	{-a-...-ire}	{-ta-...-ra-...-ire}	R1–R5, R7
		{-a-...-ire}	{-ta-...-a-...-ire}	R6, R8
b.	Near Past	{-Ø-...-ire}	{ti-...-Ø-...-ire}	R3–R8
		{-Ø-...-ire(-ge)}	{ti-...-Ø-...-ire-ge}	R1–R2
c.	Memorial Present	{-a(a)-...-a}	{ti-...-a(a)-...-a}	R1–R8
d.	Experiential Present	{-Ø-...-a}	{ti-...-Ø-...-a}	R1–R8
e.	Near Future	{-ra(a)-...-e}	{ti-...-raa-...-e}	R3–R4
		{-ra(a)-...-a}	{ti-...-raa-...-e}	R3–R5
		{-ra(a)-...-a}	{ti-...-a-...-e}	R2
		{-ra(a)-...-a}	{ti-...-[V]-...-e}	R6, R8
		{-ra-...-a}	{ti-...-Ø-...-e}	R1
		{ni-...-Ø-...-a}	{ti-...(-ri)-ku-...-a}	R1–R8
		{-ija/-iza/-iža ku-...-a}	{ti-...(-ija/-iza/-iža) ku-...-a}	R1–R8
f.	Remote Future	{-ri-a-...-a}	{ti-...-ri-...-a}	R3–R4
		{-ri-...-a}	{ti-...-ri-...-a}	R1–R2, R5–R8

Table 6.3: A summary of the basic aspectual markers in Rutara languages

	Aspect	Affirmative	Negative	Distribution
a.	Progressive	{ni-...-Ø-...-a}	{ti-...-ri-ku-...-a}	R1—R8
		{-ku-...-a}	{ti-...-ku-...-a}	R8
b.	Performative	{-Ø-...-a}	{ti-...-Ø-...-a}	R1–R8
c.	Perfect / Resultative	{-Ø-...-ire}	{ti-...-Ø-...-ire}	R1–R8
d.	Perfective	{-a(a)-...-a}	{ti-...-a(a)-...a}	R1–R8
e.	Retrospective	{-Ø-...-ire}	{ti-...-ka-...-ire}	R1–R2
		{-a(a)-...-ire}	{ti-...-ka-...-ire}	R3–R8
f.	Remote Retrospective	??	{ti-...-ka-...-ire}	R1–R2
		{-ra-...-ire}	{ti-...-ka-...-ire}	R3–R8
g.	Far Remote Retrospective	{-ara-...-ire}	{ti-...-ka-...-ire}	R7
h.	Experiential Retrospective	??	{ti-...-ka-...-aga}	R1–R2
		{-ra-...-ire}	{ti-...-ka-...-aga}	R3–R8
i.	Persistive	{-ki-aa-...-a}	{ti-...-ki-(aa-)...-a}	R2–R4, R6
		{-ki-(aa-)...-a}	{ti-...-ki-...-a}	R3, R8
		{-ki-aa-...-a}	{ti-...-ki-...-a}	R5, R7
		{ni-...-ki-aa-...-a}	{ti-...-ki-...-a}	R1–R5
		{ni-...-ki-...-a}	{ti-...-ki-...-a}	R3
j.	Persistive Resultative	{ni-...-ki-aa-...-ire}	??	R1–R4
		{-ki-aa-...-ire}	??	R2–R8
		{-ki-aa-...-i}	??	R3–R4
k.	Habitual	{-Ø-...-a}	{ti-...-Ø-...-a}	R1–R8
		{-Ø-...-aga}	{ti-...-Ø-...-aga}	R8
		{-T/A-...-aga}	{ti-...-T/A-...-aga}	R1– R4, R6, R8

6.3. From reflexes to proto-forms

In this section we are faced with two major tasks: first, to reconstruct the proto-forms based on the data we have presented in the preceding section; second, to trace and show the historical changes undergone by the Rutara sample languages to develop the T/A forms

documented in this study. Some of the markers, however, are so transparent that they do not require the second stage of analysis, and are, therefore, limited to the first stage only. The organisation of the following sections is based on the complexity of the markers involved, as well as the relationship between one category and another.

6.3.1. Near Past

As we have seen, the Near Past (NPt) is expressed in different ways in the group. Six languages (R3–R8) have the form {-Ø-...-ire} while Runyoro (R1) has the form {-Ø-...-ire-ge}. Rutooro has {-ka-...-a} which deceptively looks like Near Past because it can be used with the temporal adverbial "yesterday". This is exactly the same form for Remote Past. Given that the form {-ka-...-a} marks the Remote Past in all languages, it follows that Rutooro (R2) extended it to cover a larger temporal sphere. We have also seen that the final element {-ge} which is attached to {-Ø-...-ire} in Runyoro and Rutooro (Memorial Present) does not apply to some verbs. Thus, {-Ø-...-ire(-ge)} collocates with "earlier today" in only one language, and its function has a semantic constraint. For instance, it is not used for prolonged events such as 'staying' and 'living'. It is, however, used in relative clauses, as indicated below. These functions and constraints are summarised in the examples below.

(109)

Brief event (indicative)	Relative form	Extended event (indicative)
ba-fi-**irege**	a-ba-guz-**irege**	tu-ika-**ire** Kampala
3P-die-NPt	REL-3P-buy-NPt	1P-stay-NPt LOC
'they died'	'those who bought'	'we stayed in Kampala'

These three functional and distributional limitations, therefore, are good indicators that the attachment of {-ge} is an innovation of this language. As pointed out earlier, {-ge} and its phonetic variants [-ge, -gye, -ǰe] are used in the other languages to mean 'well', but not in R1–R2. Therefore, given the meaning of the clitics {-ge, -gye, -ǰe} in those other languages, and the semantic role and constraints of {-ge} in R1–R2, we consider all these clitic forms to be reflexes of the same morpheme historically. That same clitic assumed the tense role in R1–R2 for the temporal representation of the event, rather than its original representation of manner. It was assigned this new role in order to distinguish between complete events which only need a brief recording moment, and therefore a short working memory, such as 'see', 'fall', 'jump' and 'buy', *versus* complete events which need an extended recording moment and therefore involve an extended working memory, as for 'staying', 'waiting for', and 'travelling'. This mechanism is cognitively based, and is explained as follows, where the diagrams represent the Event Time (ET).

(110)

(A)	(B)	(C)
manner: "how"	**duration**: "how long"	**duration**: "how long"
E T	E T	E T
|---------|	|---|	|----------|
'well'	brief ET	extended ET
*{-ge}	{-Ø-...-ire-ge}	{-Ø-...-ire}

The use of {-ge} in (A) as an adverb of manner for the event was the original function of this marker in Proto-Rutara; and it could be used for all events that ended 'well'. In (B) and (C)

the focus changes from the manner to the duration of the event, which are cognitively related. The two sets of ET differ in that the former takes a brief moment while the latter is extended in time and therefore needs an extended working memory to keep track of the event. When the ET is as brief as in (B), its duration, that is, its internal view, becomes so negligible that the event is only viewed as a *point* of reference in time, and therefore considered from its external view, and is recorded thus in the memory. Consequently, it **can** be represented by a tense marker; and that is what we have in (B). On the contrary, the temporal points E and T in (C) are set so far apart that in some cases they may not even belong to the same memory category nor to the same tense category with regard to the segmentation of UT in the language. That is, the event ends when its inception lies in the Remote Past, and is therefore long recorded in the retentive memory, rather than lying within the same span of Experiential Present and therefore being in the current working memory. In that case, it becomes difficult to express such events with a tense, because they maintain their internal view. It is for this reason that verbs expressing such events could not carry this innovative marker. Thus, the marker {-ge} began as an adverbial clitic, developed into a T/A formative, and then lost its original function in R1–R2. It should be pointed out, however, that the difference in duration of the ET differs from one verb to another, and also from one situation to another. The decision regarding which verbs should or should not take the marker is a matter of discourse.

We, therefore, conclude that the Proto-Rutara Near Past was only marked by *{-Ø-...-ire}, and that its extension by the clitic {-ge} is an innovation of Runyoro/Rutooro for the Near Past.

6.3.2. Memorial Present

This tense, the Memorial Present (MP), is marked by {-a(a)-...-a} in six languages (R3–R8). The form {-Ø-...-ire-ge} appears in Runyoro and Rutooro refers to events that took place earlier on the same day, as in 'I bought earlier today'. The arguments raised for {-ge} with respect to Near Past hold here as well. If we base our analysis of this tense on the temporal adverbials "yesterday" and "earlier today" in relation to the other six languages (R3–R8), then {-Ø-...-ire(-ge)} deceptively marks MP in Runyoro and Rutooro (R1–R2). However, this form {-Ø-...-ire-ge} represents the NPt, as {-Ø-...-ire} represents NPt in R3–R8. Given its distribution in the group, we maintain that the form {-Ø-...-ire(-ge)} in Runyoro and Rutooro is an innovation for the NPt with which the scope of the two categories, NPt and MP, were modified. The Memorial Present in R1–R2 is marked by the same {-a(a)-} as in R3–R8. The morphosemantic implication of this innovation is that R1–R2 have reduced the scope of the tense function of the marker {-a(a)-}, as illustrated in §6.5.1. This modification of the scope and extension between NPt and MP is, in fact, justifiable from a cognitive point of view. Events in the Memorial Present, which is very close to the Experiential Present, are recorded in immediate memory in order to keep track of the situation surrounding the speaker or the agent. Consequently, their recall is so easy that they only need aspectual representation in present time. This is what it looks like in terms of {-Ø-...-a(a)-...-a} in R1–R2. Furthermore, the two languages R1–R2 either eliminated or prohibited the occurrence of {-a(a)-} in other forms where it carries virtually the same meaning or function. The best example is the Retrospective form which in all the other

languages (R3–R8) is marked by {-a(a)-...-ire} 'have already...', but appears as {-Ø-...-ire} in R1–R2. Nevertheless, the markers {-a-...-ire} and {-ra-...-ire} still exist in the Relative Remote Past for affirmative and negative constructions respectively (in both languages). This suggests that either relative and negative forms are relatively more conservative than affirmative ones, or the formative {-a(a)-} in the Remote Past relative has a different origin. The major reason for the relatives and negatives being more conservative than their counterpart affirmatives is, presumably, based on their respective functional roles in language. Hyman and Watters' (1984) generalisations on "auxiliary focus" also suggest this contention. Our reconstruction, therefore, selects the form *{-aa-...-a} for the Proto-Rutara Near Past tense.

6.3.3. Progressive

The Progressive aspect is commonly marked by {n(i)-...Ø-...-a} in the affirmative, and by {ti-...-ri-ku-...-a} in the negative in seven of the languages (R1–R7), but by {-ku-...-a} *versus* {ti-...-ku-...-a} in Rukerebe. In Runyoro and Rutooro (R1–R2), however, the negative appears as {ti-...-ru-ku-...-a}, which we simply regard as a phonological change from {-ri-} > {-ru-}, which is a result of vowel harmony. Across the group, relative forms are marked in the same way as negative forms. Several points can be raised here. One, the co-occurrence of {-ri-} and {-ku-} suggests that the former derives from {-ri} which is the verb 'be', and the latter from the infinitival marker {ku-}, the two working together as in locative constructions. We suggested this in §3.2.1 (3), and also in §5.2.4, and it can be supported by

the examples in (111a) and (111b) below, in which both sentences can be used to answer the question 'where are they?'.

(111) locative

a.	ba-**ri** Kampala	
	3P-be Kampala	'They are in Kampala'
b.	ba-**ri** ku-ry-a	
	3P-be to-eat-FV	'They are eating (somewhere)'
c.	mu-gonza o-ku-gur-a	
	2P-like PI-to-buy-FV	'You like the buying'

In these cases, and as we argued in §1.8.5, {ku-} nominalises the verb to which it is attached, as best expressed in (111c). Indeed, it resembles the nominal marker {o-ku-} we presented under §3.3.1 (see Table 3.1).

The second point we raise is that the marker {-ku-}, which appears in both affirmative and negative forms in Rukerebe, and in negatives and relatives in all these languages, also suggests two things. First, that it is the same {-ku-} throughout and, second, that it derives from the infinitival marker (hence nominaliser) we have seen above in (111). Thus, the fact that both {-ri-} and {-ku-} have been eliminated in most of these languages in the affirmatives, but retained in negatives, relatives, and constructions like those in (111), leads us to support the argument that relative and negative constructions tend to be more conservative than affirmative constructions. This means that the Progressive aspect in Proto-Rutara was marked by *{-ri ku-...-a} *versus* *{ti-...-ri ku-...-a} for affirmatives and negatives, respectively. But we also have to find the historical status of {ni-...-a} which also has a broad distribution within the group. This distribution and similarity in meaning suggest that it was

not independently innovated by individual languages; one should bear in mind that it also appears in Rukerebe where it has more diverse functions, such as Progressive (or Continuous to be more precise), Habitual, and Conditional. The best explanation we find for this is that, at the earliest stage of Proto-Rutara, Progressive was marked by *{-ri ku-...-a}. Later {ni-...-a} was innovated as an actualiser to express the sense of evidence for real events in progress, as actually taking place. In other words, it was meant to express events which the speaker had witnessed (as opposed to events in progress which are not witnessed by the speaker (as in (111a–b) above)) and are, therefore, absolutely definite in the speaker's mind. Therefore, it must have started as an "evidential marker" form the speaker's point of view; it then extended its function to different types of verbs, including those which in languages like English do not take the Progressive form, such as 'know', 'hear', 'remember', and some performative verbs. We will use an example from Ruhaya to show that the development of the two markers, {-ri-ku-} and {ni-...-Ø-...-a}, and distinction between them were cognitively motivated.

(112)

a.	Musa a-ri ku-rya	→	[musááli kúlya]
	Musa 3S-be NOM-eat		'Musa is (somewhere) doing the eating'
b.	Musa ni-a-rya	→	[musá náálya]
	Musa PROG-3S-eat		'Musa is eating'

In (112a) the speaker is reporting that Musa is eating somewhere. In fact, a better interpretation would be that 'Musa is somewhere for the purpose of eating'. In this context, the speaker cannot be sure whether Musa is really eating or not. He (Musa) might have

decided not to eat at all. Thus, the event of eating is not absolutely real in time, but is recorded in the speaker's mind as supposed to be taking place. On the contrary, in (112b) the speaker has seen Musa eating and s/he is thus a witness of the actual event at that particular time. It is this fact of recording the actual event in real time, the evidential role, that justifies the application of {ni-} as an actualiser. As we recall, this {ni-} derives from the copula verb {ni} which is used to state facts or states of affairs, as in {ogu **ni** Musa} 'this is Musa'. Hyman and Watters (1984:261), on the other hand, regard the {ni-} in Ruhaya as "the focus marker [which] derives the Progressive" form.

The question that remains is: why then does {ni-} not apply to negatives? To explain this apparent discrepancy, we first need to accept the fact that negatives do not express events. Rather, they negate the occurrence of an event, which implies that there is no event to record in memory at that time. What the speaker records is the time at which the event expressed by the verb did not take place. Consequently, negatives did not need, nor could they take, {ni-} to form the Negative Progressive marker in Proto-Rutara. Therefore, the innovation of {ni-} was limited to affirmative constructions only. Finally, this innovation of the Progressive {ni-} must have taken place in Proto-Rutara, before the last stages of its dialectalisation which led to the retention of both markers *{ni-...-a} *versus* *{-ri ku-...-a} in all languages. It is also possible that the Progressive {ni-} in the Rutara group and the conditional {ni-} in the other Lacustrine languages have the same origin.

6.3.4. Near Future

Dealing with the primary marker of the Near Future (NF) is sometimes controversial, as there are two different ways of marking this tense in virtually all of the languages. These are {-raa-...-a} in six languages (R1–R2, R5–R8), and the Progressive marker {ni-}. In Runyankore and Rukiga (R3–R4), {-raa-} appears in relative forms, as in {tu-**raa**-gur-**e**} 'that we will buy'. The Progressive marker {ni-} marks the Near Future in two ways. First, it is used in the normal form of marking the Progressive aspect, {ni-...-a}, as in {ni-tu-gur-a} 'we are buying (tomorrow)' (R1–R7). Secondly, it occurs with the lexical verb {ku-iǰa / ku-iza / ku-iža} 'to come'. This verb loses its lexical properties in this context in that it does not refer to the physical coming as an event, but rather to the "coming" of the event in future time. This implies that the verb has already undergone the semantic fading phase. It can, therefore, be used as auxiliary. However, it has not yet undergone a complete grammaticalisation process, becoming a grammatical morpheme like {-me-} and {-ta-} in Kiswahili. Nor does it conjugate like the primary auxiliary *-ba* 'be'. It thus appears in the group as {(ni-)...-iǰa/-iza/-iža ku-...-a} with respective modifications in each language, such as deleting the vowel [i] in both {ni-} and {-iza/-iža}.

(113)

a.	Runyankore/Rukiga	
	ni-tu-**iža** ku-gur-a	'we will buy'
b.	Runyambo	
	n(i)-tu-**iza** ku-gur-a	'we will buy'
c.	Ruhaya	
	n(i)-tu-**iǰa** (k)u-gur-a	
	PROG-1P-come INF-buy-FV	'we will buy'

d. Rukerebe
tu-ku-**iza** ku-gul-a
1P-MD-come INF-buy-FV 'we will buy'

With reference to the current usage of, and the semantic difference between, the NF tense expressed by {-raa-} and that expressed by the Progressive marker {ni-}, we here establish a premise that Progressive constructions were mainly used, as they are in other languages of the world, to express future events which are relatively more definite, as opposed to common or normal prospective events. They would thus be used to mark promises and personal commitments, as opposed to predictions. Consequently, it has been a common tendency for most of these languages to shift away from {-raa-} to {ni-}, because {-raa-} did not express much commitment in the predicate; thus {ni-} has increasingly gained more functional load than {-raa-}.

Relative Near Future constructions mainly contain the marker {-raa-}, while the negatives bear the final vowel (FV) {-e}, which in affirmative forms is only found in some dialects of Runyankore and Rukiga, as exemplified below:

(114)

a.	Runyankore/Rukiga (R3–R4):	tu-**raa**-gur-**e**	*vs*	ti-tu-**raa**-gur-**e**
b.	Runyambo (R5) (NEG):			ti-tu-**raa**-gur-**e**
c.	Rutooro (R2) (NEG):			ti-tu-**aa**-gur-**e**
d.	Ruhaya (R6) (NEG):			ti-tu-**[V]**-gur-**e**
		'(We) who will buy'		'We will not buy'

The FV {-e} in these forms should be regarded as the same vowel we find in subjunctive forms. Note that subjunctive is used to represent potential events which have not yet been realised in real time, that is, non-past events which have not yet been recorded in memory. It is still used in many Bantu languages to make suggestions, as in Ruhaya/Runyambo *tu-gur-e* or Kiswahili *tu-nunu-e* 'let us buy' (*cf.* page 31fn.). That function overlaps with the meaning expressed by the NF tense. We will, therefore, suggest that the occurrence of the form {-raa-...-e} in the negatives of three languages (R3–R5), and especially its occurrence in the affirmatives and relatives of R3–R4, indicates that NF in Proto-Rutara was equally marked by *{-raa-...-e}. This leads us to the second suggestion that the other six languages lost the FV {-e} in affirmatives, rather than claiming that it was innovated in negative forms. The reason for deleting it in affirmatives is the same as that for using Progressive forms to express future events. Specifically, {-e} expresses potentiality, rather than commitment and was, therefore, not suitable for serious performative utterances and perlocutionary effect. However, this mechanism did not apply to all of the languages; that is why the form {-raa-...-e} was retained in R3–R4, particularly in relative forms. Therefore, the Near Future tense was marked by *{-raa-...-e} (in affirmative) *versus* *{ti-...-raa-...-e} (in negative) in Proto-Rutara.

6.3.5. Remote Future

The Remote Future (RF) tense is marked in two different ways, either by {-ri-a-} or by {-ri-}. The former is found in affirmatives in Runyankore, Rukiga and some parts of Runyambo (R3–R5); {-ri-} only occurs in negatives. The form {-ri-a-} is also found among some speakers of Rukiga in negatives, as in {ti-n-ri-a-gur-a} → [tindyáágura] 'I will not buy'. These languages (R3–R5) are contiguous with the W/Highlands group in which RF is marked by {-zaa-} in Kinyarwanda, {-zoo-} in Kirundi/Kihangaza, and {-roo-} in Kiha. Given that {-ri-a-} is restricted to these three languages, and the fact that {-ri-} is also found in Luganda, Lusoga, Chiruri, Kijita, and Kikuria, it is most likely that {-ria-} is an innovation of R3–R5. This could be the result of external influence, probably from W/Highlands, although it might be difficult to justify that both {-ria-} and {-zaa-} are reflexes of *{-ri-a-}.[38] Another assumption would be that only {-a-} was added to the original {-ri-} by diffusion from some source which we are not able to determine in this study. Despite Botne's (1990) conclusion of the "**pila* 'want'" hypothesis for W/Highlands languages, we maintain that RF in Proto-Rutara was marked by *{-ri-...-a} *versus* *{ti-...-ri-...}. This conclusion is mainly based on both the group-internal resemblance and the external similarities on which even Botne's (1990) hypothesis is based.

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[38] This kind of analysis and reconstruction was hypothesised by Botne (1990) to account for the development of the RF marker {-zaa-} < *{-ria-} in Kinyarwanda. We have seen throughout this study that the Perfect form of the verb {ku-gu**r**-a} 'to buy' changes to {-gu**z**-ire} 'bought' (instead of *{-gu**r**-ire}). However, this hypothesis of {-ria-} > {-zaa-} raises one major concern: it is the proto-high vowel *[i] which changed [d, r, l] to [z], as in {-gur- + -ire} > {guz-ire}. But the data given in this study (from the Rutara group) show that this marker {-ria-} had a mid-high vowel: *{-rɪa-}; otherwise, *{-dia-/-ria-} would have changed to {-zia-} in Rutara (see Table 2.11).

6.3.6. Performative, Perfect, Perfective, and Resultative

The Performative is not marked at all segmentally. The Perfect and Resultative, on the other hand, have the same morphological shape, {-Ø-...-ire}, in all the languages, which implies that this forms has not changed from its original shape in Proto-Rutara, thus *{-Ø-...-ire}. As we argued in the previous chapter, it is this {-ire} which combined with the Perfective marker, {-aa-} to form the Retrospective aspect, {-aa-...-ire}. A more or less similar shape is found in other languages like Luganda, as in, {tú-gúz-ê} 'we have bought' *versus* {te-tú-gúz-ê} 'we have not bought' (from the same verb *ku-gur-a* 'to buy' plus the earlier marker *{-ire}). It should be pointed out, however, that the merging of *{-aa-} and *{-ire} to form *{-aa-...-ire} is not necessarily a historical phenomenon within Rutara, but rather, a cognitive explanation based on the morphosemantic composition of the three markers, *{-aa-...-a}, {-Ø-...-ire}, and *{-aa-...-ire}. This suggests the strong probability that both forms were retained from even earlier proto-language to PR.

6.3.7. Retrospectives

Three forms of Retrospective have been identified in the group. The first form is the general Retrospective, commonly marked by {-aa-...-ire} in six languages (R3–R8), but by {-Ø-...-ire} in the other two, (R1–R2), with both markers appearing in the relative forms. Their negative counterparts are all marked by {ti-...-ka-...-ire}, which is found in the relative forms as well. Despite this apparent asymmetry between affirmative and negative forms, it appears very plausible that both forms are descended from Proto-Rutara. We have one

morphological clue for this asymmetry between {-aa-...-ire} and {ti-...-ka-...-ire}. As we have seen, {-ka-} marks the Remote Past in affirmatives. Therefore, the Negative Retrospective negates the completion of an event, meaning the event 'is yet to take place', as far as the speaker can recall. The form was later confined to the Present, and the sense of remoteness was suppressed (but retained in the other Retrospective form {ti-...-ka-...-aga}, which is discussed in the following paragraph). We will, therefore, propose the reconstructions *{-aa-...-ire} for the affirmative and *{ti-...-ka-...-ire} for the negative.

The other kinds of Retrospective are the Remote and Experiential Retrospective, which have the same morphological marking, {-ra-...-ire} but differ in their negatives in that the former becomes {ti-...-ka-...-ire} and the latter {ti-...-ka-...-aga}. In some cases, it seems, {ti-...-ka-...-aga} can be used to negate both types of Retrospective. This, presumably, is based on the fact that if an event 'has never taken place' (Negative Experiential Retrospective), then it 'has not yet taken place' (Negative Remote Retrospective). The reason for using {-ka-} in the negative form {ti-...-ka-...-aga} is the same as given in the previous paragraph for {ti-...-ka-...-ire}. The two forms differ in one respect, the former negates an incompletive aspect, while the latter negates a completive aspect. Thus, {ti-...-ka-...-aga} negates the occurrence of the event from the Remote Past to the Present, hence '...have/has never...', while the {ti-...-ka-...-ire} negates the completion of the event (which implies negating its inception as well), hence, '...have/has not yet...' (see §6.3.8 for further discussion on {-ka-, -ire, -aga}).

Although the affirmative Experiential Retrospective {-ra-...-ire} does not appear in Runyoro or Rutooro, we cannot take the negative form {ti-...-ka-...-aga}, which appears in eight languages, to be an innovation in the two languages. Thus, it is more convincing to reconstruct *{-ra-...-ire} for affirmative forms for both Remote and Experiential Retrospective, and their counterparts as *{ti-...-ka-...-ire} and *{ti-...-ka-...-aga}, respectively, all of which have been retained in most languages to date.

6.3.8. Remote Past

The affirmative part of the Remote Past carries the marker {-ka-} in all languages. In this case, we begin with an assumption that this marker was retained from a common proto-language, with the same tense function. Thus, we could easily propose the same form {-ka-...-a} for the Proto-Rutara Remote Past tense. However, it was established in the preceding sections that relative and negative forms tend to be relatively more conservative than their counterparts the affirmative indicative forms. This argument leads us to a problem with regard to the Remote Past tense in that none of the relative forms in any of the eight languages contain the marker {-ka-}, whereas indicative forms of all other tenses and almost all aspects tend to correspond symmetrically with either relative counterparts.

Table 6.4: Remote Past relatives

Distribution		Indicative		Relative	
		Affirmative	**Negative**	**Affirmative**	**Negative**
a.	R1–R2	tu-**ka**-gur-a	tu-ta-gur-**e**	a-ba-**a**-guz-**ire**	a-ba-ta-**ra**-guz-**ire**
b.	R3–R5, R7	tu-**ka**-gur-a	ti-tu-**ra**-guz-**ire**	a-ba-**a(a)**-guz-**ire**	a-ba-ta-**ra**-guz-**ire**
c.	R6, R8	tu-**ka**-gur-a	ti-tu-**a**-guz-**ire**	a-ba-**a**-guz-**ire**	a-ba-ta-**a**-guz-**ire**

Therefore, if we maintain that the most significant clues for reconstruction are found in negatives and relatives, and if {-ka-} does not appear in such structures, then, a different proto-formative for Remote Past in Proto-Rutara, other than {-ka-}, would have to be reconstructed. That is, we must reconstruct another form which is, at least, related to the relative and negative forms; this in turn would mean that {-ka-} is just an innovation for the whole group. The only plausible explanation for this is to suggest that, if *{-ka-} was not originally the Remote Past marker, then its innovation must have taken place at least in the early stages of Proto-Rutara before its dialectalisation; this will then explain why {-ka-} appears in all the daughter languages. Nevertheless, there are other functions of the marker {-ka-} which seem to be related to the Remote Past {-ka-}, and are found in the following negative constructions common to all the languages (*cf.* §6.3.7):

(115)

a. ti-tu-**ka**-gur-aga
NEG-1P-RP-buy-HAB 'we have never bought'

b. ti-tu-**ka**-guz-ire
NEG-1P-RP-buy-PEFT 'we have not yet bought'

These two forms can be analysed as containing two parts each, that is, {-ka-} in slot (2), hence marking completion, and {-aga, -ire} in the aspectual slot marking the nature of the completion of the event. We know that {-aga} marks incomplete events which we classified under Habitual (such as Iterative, Frequentative, or Habitual), while {-ire} marks complete events, such as Perfect and/or Retrospective. Therefore, with reference to the aspectual meanings of the markers {-aga} and {-ire} viewed in terms of both time and retention to memory, their combination with {-ka-} (which marks a past event), in the negative constructions given in (115) above, can be re-analysed as follows:

Table 6.5: The morphosemantics of negating {-ka-...-aga} and {-ka-...-ire}

Form/Function/Meaning		Morphosyntactic composition			total meaning & example
a.	formative function meaning	**ti-** negative "negate"	**-ka-** complete "completed"	**-aga** Habitual "ever"	ti-tu-**ka**-gur-**aga** 'we have never bought'
b.	formative function meaning	**ti-** negative "negate"	**-ka-** complete "completed"	**-ire** Perfect "already"	ti-tu-**ka**-guz-**ire** 'we have not yet bought'

The analysis provided in Table 6.5 (above) shows that {-ka-} really marks complete events, not only in affirmative forms but also in negatives (which negate that completion). The problem that we are still facing is that these forms do not negate the Remote Past {tu-ka-gur-a}; they rather negate the Retrospectives {tu-ra-guz-ire} and {tu-aa-guz-ire} which were discussed under §6.3.7. Nevertheless, there is an element of morphosemantic correlation between these forms. Although they do not necessarily belong to the same paradigms, they have some common features. For instance, they only alternate (more or less systematically)

between {-ka-}, {-ra-}, and {-a(a)-} in slot (2), and between {-ire}, {-aga}, and {-a} in slot (3). This cannot be merely accidental. There must be a historical reason behind it. Therefore, if we cannot find answers in the languages under study, we can profitably look outside the group, especially in languages which are either contiguous with, or closely related to the Rutara group. These are languages from the following groups: N/Nyanza (Luganda, Lusoga, Rubumbiro), W/Highlands (Kinyarwanda), Suguti (Chiruri), Luhya (Lubukusu) (de Blois 1975:167), and Western Tanzania (Kisukuma).[39] Table 6.6 (below) illustrates these forms, using the verbs *ku-gur-a* 'to buy' and *xu-mala* (*ku-mara*) 'to finish'.

Table 6.6: Remote and Near Past in non-Rutara languages (around Lake Victoria)

	Language	Tense	Affirmative	Negative
a.	Chiruri	Remote Past	ci-**a**-gul-**íle**	ci-ta-gul-**íle**
b.	Rubumbiro	Remote Past	tu-**a**-guz-**e**	si-tú-**a**-guz-**e**
		Near Past	tú-**a**-guz-**e**	si-tú-**a**-guz-**e**
c.	Luganda	Remote Past	tu-**á**-gul-á	te-tu-**á**-gul-á
		Near Past	tu-**á**-guz-**ê**	te-tu-**á**-guz-**ê**
d.	Lusoga	Remote Past	tu-**aa**-gul-a ▣	ti-tu-**aa**-gul-a ▣
		Near Past	tu-**a**-guz-**e** ▣	ti-tu-**a**-guz-**e** ▣
e.	Kinyarwanda	Remote Past	tu-**á**-*(ra)*-guz-**e**	nti-tu-**á**-guz-**e**
		Near Past	tu-**a**-guz-**e**	nti-tu-**a**-guz-**e**
f.	Lubukusu	Middle Past	bá-**áá**-mál-**ile**	si-ba-**aa**-mál-**ilé**
		Memorial Present	ba-**áá**-mal-**ile**	si-ba-**áá**-mal-**ile**
g.	Kisukuma (Kimunasukuma)	RP Non-Determinate	tʊ-**ka**-gʊl-a	tʊ-ta-gʊ̋l-**ile**
		Middle Past	tʊ-**a**-gʊ́l-**ile**	tʊ-ta-gʊ̋l-**ile**

[39] Rubumbiro is a language/dialect located between Ruhaya and Luganda along the Tanzania–Uganda border (Kyaka). The term "Abaganda-Kyaka", which is commonly used by others to refer to this community is consider pejorative by the natives.

We note that, of all these eight languages, only Kisukuma uses the marker {-ka-} for a Past tense, while the rest use mainly the marker {-a(a)-...-ire} for at least one of its Past tenses in affirmatives, negatives or both.

From these findings, together with the clues we got from affirmatives, negatives, and relatives in the Rutara languages, we can develop the following hypotheses. One, the Negative marker of the Proto-Rutara Remote Past must have had the {-ire} ending, which was and still is common to all. Two, both {-ra-} and {-ka-} were used to mark some forms of past events in Proto-Rutara, based on the fact that {-ka-} is still found in all eight languages, while{-ra-} exists in the negatives of at least four languages (R3, R4, R5, R7), and in the relatives of at least four languages (R1–R4). Three, the formative {-ra-} which has to be accompanied by the Perfect marker {-ire} as {-ra-...-ire} was not a tense marker, but part of a compound aspectual marker, the Remote Retrospective, which we discussed in §4.5.5. Its function was to establish a sense of remoteness of the event from the speaker's point of view. Four, {-ka-} was not a tense as well in pre-Proto-Rutara; it was innovated for tense either by Proto-Rutara or by a pre-proto-Rutara language. It must have started as an aspectual marker, the function which it still performs in negative retrospectives, as in Table 6.5. If it had started as a real tense marker, then it would be showing up in the negative and/or relative forms (at least in one language), as all other real tenses in the group do. The data available do not show {-ka-} marking a negative Remote Past even in other Lacustrine languages where it is attested as a T/A marker. In this case, Mould's (1979) reconstruction of "**ka* as a perfect marker

based on comparative evidence" (Hyman and Watters 1984:262) is convincing. It must have started as a "quasi-tense marker" for Remote Past, recycled from a completive aspect.

Therefore, if *{-ra-} marked a remote event in time, with regard to its completion, and *{-ire} marked the Perfect aspect, then {-ra-...-ire} became a doubly marked aspect, and, therefore, a complex Retrospective marker. It would thus be used as a "quasi-tense" to express events pertaining to retentive rather than immediate memory, hence with the sense of 'I have done that before' or 'that has happened before'. Consequently, the negation of this doubly completive aspect (*i.e.* {ti-...-ra-...-ire}), could be interpreted as denying the existence or occurrence of an event that either was, or might have been, planned (for), but 'never' took place. In other words, the 'plan', which was then complete in the mind, for an event which was yet to take place, was abortive in both time and space. In fact, it is this kind of temporal orientation framework in the mind that led to the exceptional Remote Past Negative in Runyoro/Rutooro, {-ta-...-e}, which has a combination of the relative structure (*i.e.* {-ta-} instead of {ti-}) and subjunctive ({-e}) orientation framework. The subjunctive marks events which have not yet taken place and are, therefore, not real in UT, but only potential. That is why subjunctive forms are normally associated with Prospective aspects and/or Future tenses in many Bantu languages. It seems, therefore, that Runyoro and Rutooro employed this form in the same sense that other languages used the negative form of Remote Retrospective or Experiential Retrospective to negate an event which 'would have taken place' or 'was expected to take place' but did not. We also note that the Relative orientation framework

applied in Runyoro and Rutooro for Remote Past is also found in other languages like Chiruri and Kisukuma (see Table 6.6 above).

We can, thus conclude that, from a cognitive point of view, all languages in the group negate the completion of a prospective event in remote past time. We can further claim that both Past tenses (Remote Past and Near Past) exhibit this negation of a complete past event, in that both end with the marker {-ire}, at least in six of the languages (R3–R8).

By using virtually the same arguments presented for {-ra-...-ire}, it is most likely that the marker {-a(a)-...-ire} was also available in Proto-Rutara. The two complex markers were supposedly distinguished in terms of the degree of remoteness, with {-a(a)-...-ire} marking relatively more recent events. This distinction was retained from their original functions as aspectual markers, as delineated in §4.5.2 and §4.5.5. Further evidence for this claim is found in some dialects of Ruzinza where a trio of Retrospectives is attested:

(116)

a.	Retrospective	tu-**ka**-ba tu-**áá**-guz-**ire** 'We had already bought'
b.	Remote Retrospective	tu-**ka**-ba tu-**rá**-guz-**ire** 'We had already bought long before'
c.	Far Remote Retrospective	tu-**ka**-ba tu-**á-rá**-guz-**ire** 'We had already bought a very long time before'

In this, case, therefore, we are entitled to reconstruct all the three forms *{-ka-...-a}, *{-ra-...-ire}, and *{-a(a)-...-ire}. We will maintain that the three forms were used to mark past events at different functional levels in Proto-Rutara, as they still do in the sample

languages. Then, with both *{-ka-} and *{-ra-} in the same T/A system, marking 'past' events and/or 'remoteness', it was easy for the system to re-assign new functions and morphosemantic values to these morphemes, especially in late stages of Proto-Rutara, towards the beginning of dialectalisation and divergence. It would be relatively difficult to make any definite choice, for a single marker, for the Proto-Rutara Negative Remote Past between *{ti-...-ra-...-ire}, and *{ti-...-a(a)-...-ire}, given their current rates of distribution in negative and relative constructions. They might have co-existed. And if they did, then their differences could have been due to temporal reference (as currently attested), stylistic effect, or even other sociolinguistic factors like prestige. And if we assume that one is older than the other in the function of Negative Remote Past, then *{-a(a)-...-ire}, which is commonly found elsewhere around the Lake, would, most likely, be the earlier form.

6.3.9. Persistive

The Persistive aspect is commonly marked by the complex forms we have analysed as {-ki-aa-...-a} in six of the languages (R3–R8), and by {ni-...-ki-aa-...-a} in Runyoro and Rutooro. The occurrence of {ni-} in these two languages reminds us what was proposed under §6.3.3: that the marker *{ni-...-Ø-...-a} appeared later in Proto-Rutara. This would imply that it was after this original copula verb {ni} was used to form the actualised Progressive, that Runyoro, Rutooro and some of the Runyankore dialects also attached it to Persistive forms. The emerging aspectual form indicates that an event which was recorded earlier, whether in immediate or retentive memory, is recalled and re-recorded as still in

progress. Thus, from a cognitive and morphosemantic point of view, this kind of Persistive in R1–R3 could be viewed as a kind of extended Progressive, crossing from a past temporal reference to a non-past time, hence the term *Transprogressive*. This could have been motivated by analogy, by copying the formation of the Progressive marker in the following way (based on the same cognitive reasons that we gave for {ni-} in §4.5.6):

(117)	*if*	tu-Ø-gur-a	:	**ni**+tu-Ø-gur-a
		'We buy'		'We are buying'
	then	tu-**kiaa**-gur-a	:	**ni**+tu-**kiaa**-gur-a
		'We still buy'		'We are still buying'

However, in the other languages, the marker {ni-} was superfluous because the focus was on ET in relation to the moments of recording, recalling, and re-recording, in which case the sense of being "in progress" is automatically implied, and, therefore, does not need a morphological marker. We will, therefore, suggest *{-ki-aa-...-a} for the Persistive marker in Proto-Rutara. Since the element {-aa-} of this marker is associated with the (past) part of the event that has already been recorded in memory (*cf.* Memorial Present), its deletion in negative forms was more semantically or cognitively based than phonologically, hence {ti-tu-ki-gur-a} is interpreted as either 'we are no longer buying'/'we are not buying any more', or 'we will not buy again'. In Runyankore and Rukerebe where the element {-aa-} is also deleted in affirmative forms, the process could have been a result of another case of paradigmatic levelling, so as to have a single marker {-ki-} for both affirmatives and negatives. This was probably initiated by what happened in the Remote Future where the

proto form *{-ri-a-} was levelled to {-ri-} in both affirmatives and negatives in some languages.

6.3.10. Habitual

We have treated the Habitual as a cover term for a number of different aspects. We have seen that there are at least two ways of expressing this category. The first one is not marked, {-Ø-...-a}, as in the form {tu-gur-a} 'we buy'(found in all the languages R1–R8), and the second one is marked by {-aga}, as in {tu-gur-aga} 'we buy' (only found in Rukerebe (R8)) or {tu-a-gur-aga} 'we used to buy' (found in R1–R2, R6, and R8). Given this distribution and the meaning of the marker {-aga} across the group, it appears that it was retained from Proto-Rutara. Similarly, there is no doubt regarding the existence of the form {-Ø-...-a} in Proto-Rutara, given its current distribution in all languages. This would then mean that both forms {-Ø-...-a} and {-Ø-...-aga} were concurrently available in the Proto-Rutara T/A system. The solution for this puzzle is to be found in Rukerebe, where both forms are available in the present tense. Morris and Kirwan (1972:87) also report that "the Bakiga [*i.e.* speakers of Rukiga] use the suffix *-ga* with the present tense to convey the idea of 'always' – *Ndaaragayo*, I always sleep there". In the other languages, the two forms are attested especially in the Remote Past, in that some have the form {tu-a-gur-aga} (R1–R2, R6, R8) while others have {tu-ka-ba tu-gur-a} (R3–R5, R7) 'we used to buy'. In fact, the same kind of distribution is found in the neighbouring groups, as indicated below.

Table 6.7: The distribution of {-Ø-...-a} and {-aga} in some Lacustrine languages

Language(s)	Remote Past	Present	Aspect
Luganda/Lusoga	tu-a-gul-**anga**	tu-gul-a	Habitual
Kijita/Chiruri	ci-a-gul-**aga**	e-ci-gur-**aga**	Habitual
Kinyarwanda	tu-a-*(ra)*-gur-**aga**	tu-*(ra)*-gur-a	Continuous

This table shows that the forms under discussion are not restricted to Rutara alone, but are also found in other languages; in fact, they are found in many other Lacustrine languages. This supports our hypothesis that they were retained from a proto-language which preceded Proto-Rutara.

Our conclusion, therefore, is as follows. First, Proto-Rutara had two forms, *{-Ø-...-a} and *{-Ø-...-aga} under the umbrella term Habitual. The question remains: how did they differ? We maintain, given that {-aga} is consistently associated with events that take place repeatedly, habitually, or on a regular basis, the form *{-Ø-...-aga} was used for Habitual, Frequentative, Iterative, or similar events. The other form, *{-Ø-...-a} was used for attributive functions, such as stating facts or describing the state of affairs.

6.4. The Proto-Rutara tense/aspect system

From the discussion and examples that we have presented above, we will now summarise our reconstruction of the Proto-Rutara functional T/A system. The following tables illustrate first the tenses, and then the aspects.

Table 6.8: Proto-Rutara functional tenses

Tense and morphosyntactic framework	examples	
	affirmative	negative
Remote Past I *{-ka-...-a} ~ {ti-...-a(a)-...-ire}	*tu-**ka**-gur-**a** 'we bought'	***ti**-tu-**a(a)**-guz-**ire** 'we did not buy'
Remote Past II *{-ka-...-a} ~ {ti-...-ra-...-ire}	*tu-**ka**-gur-**a** 'we bought'	***ti**-tu-**ra**-guz-**ire** 'we did not buy'
Near Past *{-Ø-...-ire}	*tu-guz-**ire** 'we bought'	***ti**-tu-guz-**ire** 'we did not buy'
Memorial Present *{-aa-...-a}	*tu-**aa**-gur-**a** 'we bought'	***ti**-tu-**aa**-gur-**a** 'we did not buy'
Experiential Present *{-Ø-...-a}	*tu-gur-**a** 'we buy'	***ti**-tu-gur-**a** 'we do not buy'
Near Future *{-raa-...-e}	*tu-**raa**-gur-**e** 'we will buy'	***ti**-tu-**raa**-gur-**e** 'we will buy'
Remote Future *{-ri-...-a}	*tu-**ri**-gur-**a** 'we will buy'	***ti**-tu-**ri**-gur-**a** 'we will buy'

Table 6.9: Proto-Rutara functional aspects

Aspect and morphosyntactic framework	examples	
	affirmative	negative
Progressive *{{-ri}–{ku-...-a}}	*tu-**ri ku**-gur-**a** 'we are buying'	***ti**-tu-**ri ku**-gur-**a** 'we are not buying'
Perfect *{-Ø-...-ire}	*tu-guz-**ire** 'we have bought'	***ti**-tu-guz-**ire** 'we have not bought'
Perfective *{-aa-...-a}	*tu-**aa**-gur-**a** 'we have just bought'	***ti**-tu-**aa**-gur-**a** 'we have not bought'
Retrospective *{-aa-...-ire}	*tu-**aa**-guz-**ire** 'we have already bought'	***ti**-tu-**ka**-guz-**ire** 'we have not yet bought'
Experiential/Remote Retrospective *{-ra-...-ire}	*tu-**ra**-guz-**ire** 'we once bought'	***ti**-tu-**ka**-gur-**a-ga** 'we have never bought'
Resultative *{-Ø-...-ire}	*ba-fu-**ire** 'they are dead'	***ti**-ba-fu-**ire** 'they are not dead'
Persistive *{-ki-aa-...-a}	*tu-**ki-aa**-gur-**a** 'we are still buying'	***ti**-tu-**ki-aa**-gur-**a** 'we are no longer buying'

Aspect and morphosyntactic framework		examples	
		affirmative	negative
Habitual (Attributive, Factual) ***{-Ø-...-a}**	Present	*tu-gur-**a** 'we do buy'	***ti**-tu-gur-**a** 'we do not buy'
	Past	*tu-**ka**-ba tu-gur-**a** 'we used to buy'	*tu-**ka**-ba tu-**ta**-gur-**a** 'we never bought'
Habitual (Habitual) ***{-Ø-...-a-ga}**	Present	*tu-gur-**a-ga** 'we buy regularly'	***ti**-tu-gur-**a-ga** 'we do not buy regularly'
	Past	*tu-**a(a)**-gur-**a-ga** 'we used to buy regularly'	***ti**-tu-**a(a)**-gur-**a-ga** 'we never bought regularly'

6.5. Retentions, innovations and shifts

In §6.3 we proposed the putative major markers for the Proto-Rutara T/A system, and summarised them in §6.4. That was an upstream approach, that is, moving from the current languages to their ancestral language. We will now present the major changes that took place in the linguistic history of the Rutara group, thus deriving the contemporary forms from the morphemes we have reconstructed in the preceding sections. These diachronic changes will then enable us to reveal the basic and major morphonological changes, retentions and innovations, in the different languages of the sample group.

6.5.1. Diachronic extension of tenses

One of the major historical changes in the T/A systems involved extension of functions between the two Past tenses and Memorial Present in Runyoro and Rutooro. From the three tense markers of the Proto-Rutara T/A system, *{-ka-...-a}, *{-Ø-...-ire}, and *{-aa-...-a}, these two languages simplified their systems as follows.

Table 6.10: Extension of tenses

Temporal Adverbial	Proto-Rutara	Runyoro (R1)	Rutooro (R2)	Others
'Before yesterday'	*{-ka-...-a}	{-ka-...-a}	{-ka-...-a}	{-ka-...-a}
'Yesterday'	*{-Ø-...-ire}	{-Ø-...-ire(-ge)}		{-Ø-...-ire}
'Today'	*{-a(a)-...-a}		{-Ø-...-ire(-ge)}	{-aa-...-a}
'Just'		{-a(a)-}	{-a(a)-}	

As a result, the form {-aa-...-a} is now restricted to events which "have just taken place" in Runyoro or Rutooro. Its function thus appears to be lying on the threshold of the Memorial Present, whereby it represents the very immediate part of the working memory.

As opposed to Runyoro and Rutooro, the other languages have undergone changes with regard to the Perfect aspect and Memorial Present markers *{-Ø-...-ire} *vis-à-vis* *{-aa-...-a} both of which had tense as well as aspectual functions.

Table 6.11: The diachronic distribution of completives

Proto-Rutara T/A marker	Diachronic distribution	
	others (R3–R8)	**Runyoro/Rutooro (R1/R2)**
***{-a(a)-...-a}**	{tu-**a(a)**-gur-**a**} 'we have just bought' 'we have bought' 'we bought'	{tu-**a**-gur-**a**} 'we have just bought'
***{-Ø-...-ire}**	{tu-ka-ba tu-guz-**ire**} 'we had bought'	{tu-guz-**ire-ge**} 'we bought'
***{-aa-...-ire}**	{tu-**a(a)**-guz-**ire**} 'we have already bought'	{tu-guz-**ire**} 'we have bought' 'we have already bought'

As Tables 6.10 and 6.11 show, there have been significant changes in the distribution of completive markers and their functions in the group. The marker *{-a(a)-...-a} reduced its

scope of temporal reference in R1–R2; it no longer refers to 'earlier today', the function which is now performed by {-ire-ge}. In some other languages, it extended its function to include the Perfect aspect, translated as 'we have ...', the meaning which was originally, and still is, expressed by the marker *{-Ø-...-ire}. The Perfect marker *{-Ø-...-ire} retained its original function in R1–R2; it was also retained to some extent in the other languages in compound forms. It is thus mainly found in Perfect constructions as, for instance, in {tu-ka-ba tu-guz-**ire**} 'we had bought (but...)' or {tu-ri-ba tu-guz-**ire**} '(in that case) we will have bought'. It also maintained its extended function for the Near Past in R3–R8. Its function of tense was modified in Runyoro and Rutooro. It changed morphologically to {-ire-ge} in both Runyoro and Rutooro. It was modified semantically in Rutooro such that it no longer refers to *yesterday's* events. Instead, the function of {-ka-} was extended to include *yesterday's* events. This could be interpreted as follows: any event that took place 'before today' is categorised as Remote Past in Rutooro (marked by {-ka-}). The marker *{-aa-...-ire} was eliminated in Runyoro/Rutooro and replaced by the extension of *{-Ø-...-ire}, which now has two aspectual functions.

6.5.2. The Progressive marker {-ri-ku-...-a}

We have seen that the Progressive marker *{-ri-ku-...-a} was retained in negative and relative constructions, but replaced by {ni-...-Ø-...-a} in affirmative forms. However, as indicated earlier, the marker {-ri-ku-...-a} does not necessarily appear in this shape in the sample languages. Several phonological changes have taken place, and further changes are,

in fact, still going on. The significant difference that we pointed out between Rukerebe and the other seven languages is that Rukerebe has {-ku-} in the affirmative forms, which does not show up in others. Based on the marker we reconstructed for the Progressive aspect in Proto-Rutara, we will use the following diachronic development to show that {-ku-} is a relic of the older form *{-ri-ku-...-a}.

(118) The development of the Progressive marker {-ku-} in Rukerebe

Stages and Rules	**Affirmative**	**Negative**
a. Proto-Rutara: analytical forms ('be' + V)	*tu-ri ku-gur-a	*ti-tu-ri ku-gur-a
b. Clause union (AV+MV)	tu-ri-ku-gur-a	ti-tu-ri-ku-gur-a
c. Loss of [-ri-]	tu-ku-gur-a	ti-tu-ku-gur-a
d. Current form	[tu**ku**gula]	[titu**kú**gula]

As shown in (113) above, the Progressive was originally marked by the verb *ri* 'be' plus a main verb. The two verb forms later coalesced along with the grammaticalisation of the auxiliary as in stage (b). Then {-ri-} was deleted, which is a common phonological process, as we shall see in a more detailed example from Ruhaya. The resulting construction {tu-ku-gur-a} in Rukerebe is mainly used in simple synthetic forms, while {n(i)-tu-gur-a} is found in compound VUs; in the case of Experiential Present, it is used in conditional clauses only. In Past and Future tenses the form {**n(i)**-tu-gur-a} in Rukerebe has more of the meaning of a Continuous aspect than simply Progressive; it thus refers mainly to continuous events , as in {tu-a-li-ga n(í)-tú-gul-á} 'we were buying all day long'. The former is also found in Ruzinza, but in negative forms as {ti-tu-ku-gur-a} 'we are not buying', which supports our

contention that such forms, with {-ku-} in slot (2), represent a stage just after the deletion of {-ri-}. The Negative Progressive displays more phonological variation in Ruhaya than in the other languages. The following forms can be heard from different dialects or individuals. (Some of these forms can also be heard in other languages, although with different tone settings.)

(119) The different pronunciations of Negative Progressive in Ruhaya, from /ti-SM[H]-ri-ku-gur-a/ '... am/is/are not buying':

1S: [tíndikugura], [tíndiugura], [tíŋkugura] / [tîŋkugura], [tîŋŋgura]
2S: [tólikugura], [tóíkugura] / [tóìkugura], [tóókugura] / [tóòkugura], [tóúgura]/ [tóùgura]
3S: [tálikugura], [táliugura], [táíkugura] / [táìkugura], [táákugura] / [táàkugura]
1P: [titúlikugura], [titwííkugura] / [titwíìkugura], [titúúkugura] / [titúùkugura]
2P: [timúlikugura], [timwíkugura] / [timwîkugura], [timúúkugura] / [timúùkugura]
3S: [tibálikugura], [tibáíkugura] / [tibáìkugura], [tibáùgura]

From these varying pronunciations, we can establish various paths of development that produced different surface forms. We will select only two examples for illustration.[40]

[40] These four examples (under $1P_1$, $1P_2$, $2P_1$, and $2P_2$) have been especially selected to illustrate how different rules and/or processes operate optionally at different levels or in different dialects, and also to show that some of the rules are necessarily ordered. For instance, the high tone does not spread in $2P_1$ while it does so in the others, and similarly, gliding occurs in $1P_1$ and $2P_1$ but not in $1P_2$ or $2P_2$, and so on. Note also that devocalisation is accompanied by lengthening of a following vowel, while deletion of a segment is accompanied by compensatory lengthening of a preceding vowel. This is not necessarily stated in the derivation, as in processes (v) and (vi); and there is a constraint that allows a maximum of two vocalic morae only in a sequence.

(120) The phonological development of the Negative Progressive in Ruhaya (1P: 'we are not buying', 2P: 'you are not buying')

	Processes	**$1P_1$**	**$1P_2$**	**$2P_1$**	**$2P_2$**
i		ti-tú-**ri-ku**-gur-a	ti-tú-**ri-ku**-gur-a	ti-mú-**ri-ku**-gur-a	ti-mú-**ri-ku**-gur-a
ii	r/l rule	ti-tú-**li**-ku-gur-a	ti-tú-**li**-ku-gur-a	ti-mú-**li**-ku-gur-a	ti-mú-**li-ku**-gur-a
iii	[r/l] deletion	ti-tú-**i**-ku-gur-a	ti-tú-**i**-ku-gur-a	ti-mú-**i**-ku-gur-a	ti-mú-**i-ku**-gur-a
iv	[H] spread	ti-tú-**í**-ku-gur-a	ti-tú-**í**-ku-gur-a	—	ti-mú-**í-ku**-gur-a
v	gliding	ti-twíí-ku-gur-a	—	ti-m**wî**-ku-gur-a	—
vi	[i] deletion	---	ti-tú**ú**-ku-gur-a	—	ti-mú**ú-ku**-gur-a
vii	[ku] deletion	---	---	---	ti-mú**ú**-gur-a
	surface forms	[titwíikugura]	[titúúkugura]	[timwíikugura]	[timúúgura]

The developments shown in (120) are a combination of both synchronic processes and diachronic changes, which accounts for their complexity.[41]

6.5.3. Near Future

The Near Future (NF) tense is one of the tenses that has diverse forms in the group. Here we are referring to the forms which contain the formative {-ra(a)-}, and not the Progressive marker {ni-...-Ø-...-a} which is also commonly used for NF. There are two points of interest with regard to the composition of this tense marker. The first element is found in the FV, which is {-e} in the negatives for all languages, {-a} in the affirmatives of six languages (R1–R2, R5–R8), and {-e} again in the affirmatives of several dialects of Runyankore and Rukiga (R3–R4). But of course, this feature of the final {-e} in negative

[41] On the other hand, vowel harmony took place in Runyoro and Rutooro in that what appears as [...-ri-ku-...] in other languages, is pronounced as [...-ru-ku-...] in these two languages.

Future tenses is not particular to Rutara; it is also found in other Bantu languages which are even less related to the Rutara group. The second element of interest is found in the negatives of Ruhaya, where a floating mora lengthens the vowel of the preceding marker, thus {tu-**raa**-gúra} 'we will buy' *versus* {ti-tu**u**-gúr-e} 'we won't buy'. This also happens among some speakers of Rukerebe, as in {ti-tu**u**-bé n(i)-tú-gulá} 'we won't be buying'. It is also heard in some dialects of other languages as well. We will, therefore, regard these two cases in Ruhaya and Rukerebe as illustrating the same historical development. The fact that Runyoro has a short {-ra-} rather than a long one {-raa-} is not surprising. We have seen that this marker has two allomorphs: /-raa-/, which is mainly found in the Performative, and /-ra-/ which is used in Hortative forms like {ba-ra-gur-a} 'let them buy (later/then)'. That is why we represent this marker as {-ra(a)-}, to indicate that the second mora is deleted in some contexts, which produces the other allomorph with the shorter vowel.

Since we proposed *{-raa-...-e} for the NF marker in Proto-Rutara (see §6.3.4), we will show how all of these contemporary forms were derived historically. The cognitive motive which triggered these changes was discussed in §6.3.4.

(121)

	change(s)	**Affirmative**	**Negative**	**Retention**
i	Proto-Rutara	*tu-**raa**-gur-**e**	*ti-tu-**raa**-gur-**e**	R3–R4
ii	Morphological levelling (AFF)	tu-raa-gur-**a**	ti-tu-**raa**-gur-**e**	R5
iii	[r(a)] deletion (NEG)	tu-raa-gur-a	ti-tu-**a(a)**-gur-**e**	R2
iv	Deletion of [a] (NEG)	tu-raa-gur-a	ti-tu-**[V]**-gur-**e**	R6, R8
v	Deletion of [a], or floating [V] (NEG)	tu-raa-gur-a	ti-tu-gur-**e**	R1

The interpretation of the changes outlined above is that different languages stopped at different stages of their development. For instance, whereas Runyankore and Rukiga (R3–R4) have retained the older forms, mainly in relative constructions, Runyambo has only changed the affirmative FV, Rutooro went further to lose the liquid segment of {-raa-}, while Ruhaya and some forms of Rukerebe lost the entire syllable {-raa-} but allowed compensatory lengthening (which has already been deleted in Runyoro, but shows up in Habitual). There are two further points to note regarding this tense. One is that most languages prefer the Progressive marker, rather than {-raa-...-a}. That is why, in fact, Ruzinza is not included in the derivations above, because the Progressive marker, {ti-tu-ri-ku-gur-a} → [titúkugura], has become increasingly dominant in negating Near Future events such that it has replaced the form {ti-...-raa-...-e}. This tendency also makes the tense system look asymmetrical in many of the languages. The other point is that the deletion of {-raa-} in Ruhaya (R6), Rukerebe (R8), and Runyoro (R1), and of [r(a)] in Rutooro (R2), should not be a surprise; deleting the liquid sound in different environments is a common linguistic phenomenon. We have already seen, for instance, that {-ri-}, that is, /-ri-/ ~ /-li-/, also deletes in many of these languages, especially in negative Progressive forms.

6.6. External influence

From the data we have presented in the preceding sections, we now know that some of the T/A features are specific to particular languages only. When we compare these features and find that they are also found in neighbouring languages, then it becomes apparent that

such features came from non-Rutara languages, under what is known as the horizontal transfer (*i.e.* the transmission from one language to another) of linguistic features. Compare the following examples:

Table 6.12: Horizontal transfer of features from non-Rutara languages

	Remote Past Progressive	Present Retrospective	Present Progressive
Rutara	**All others (R1-R7)** Aff.: tu-ka-ba ni-tu-gur-a 'we were buying' Neg.: tu-ka-ba tu-ta-ri-ku-gur-a 'we were not buying'	**All others (R3-R8)** Aff.: tu-aa-guz-ire 'we have already bought' Neg.: ti-tu-ka-guz-ire 'we have not yet bought'	**R1-R3, R5-R7** Aff.: ni-tu-gur-a 'we are buying' Neg.: ti-tu-ri/ru-ku-gur-a 'we are not buying'
	Rukerebe Aff.: tu-**a-li-ga** ni-tu-gul-a 'we were buying' Neg.: tu-**a-li-ga** tu-ta-ku-gul-a 'we were not buying'	**Runyoro/Rutooro** Aff.: tu-guz-**ire** 'we have (already) bought' Neg.: ti-tu-ka-guz-**ire** 'we have not yet bought'	**Rukiga** Aff.: tu-**ra**-gur-a 'we are buying' Neg.: ti-tu-ri-ku-gur-a 'we are not buying'
Non-Rutara	**Chiruri** Aff.: či-**a-li-ga** či-gul-a 'we were buying' Neg.: či-**a-li-ga** či-ta-ku-gul-a 'we were not buying'	**Luganda** Aff.: tu-guz-**e** 'we have bought Neg.: te-tu-guz-**e** 'we have not bought'	**Kinyarwanda** Aff.: tu-**ra**-gur-a 'we are buying' Neg.: nti-tu-**ra**-gur-a 'we are not buying'

Table 6.12 (above) shows that there has been some external influences from neighbouring languages to Runyoro/Rutooro, Rukiga and Rukerebe. The marker {-a-li-ga} is not found in Rutara languages, with the exception of Rukerebe. The form {-a-li-} is also found in some Rutooro. Therefore, its source in Rukerebe must be in the Suguti group, as exemplified by Chiruri, and its source for Rutooro could be in Luganda. Similarly, the marker {-ra-} has no function related to Progressive in the Rutara group. It has a function of "focus" in the W/Highlands group, as represented by Kinyarwanda in the table. Therefore, it must have been

transferred to Rukiga from the neighbouring language, Kinyarwanda.[42] Runyoro and Rutooro have the form {-Ø-...-ire} marking both the Perfect and Retrospective. Since this form carries a relatively similar function in Luganda (their neighbour in the east), it follows that Runyoro and Rutooro were, probably, influenced by Luganda. However, the case of {-ire} is more complicated than what we are proposing here. This formative {-ire} has various functions, as aspect as well as tense marker, in Lacustrine languages and beyond. Therefore, it is possible for it to have been recycled in a language in a way that deceptively resembles its functions in other languages, with regard to Perfect, Perfective, Retrospective, Memorial Present, and Past tenses.

Other forms which look alike between Rutara languages and other Lacustrine languages are:

(122)

a.	Ruhaya	ti-tu-u-gúr-e	→	[tituugúle]
		NEG-1P-NF-buy		'We shall not buy'
b.	Luganda	te-tú-ú-gúl-ê	→	[tetúúgúlê]
		NEG-1P-NF-buy		'We shall not buy'
c.	Runyankore/Rukiga	tu-shutam-i	→	[tušutámi][43]
		1P--sit-RESLTV		'We are seated'
d.	Luganda	tu-many-i	→	[tumaɲî]
		1P--know-RESLTV		'We know'

[42] In fact, there is a dialect of Kinyarwanda in southern Kigezi, and also a dialect of Rukiga in northern Rwanda (referred to as Gikiga in Rwanda). This must be the source of {-ra-} in Rukiga. Note that this marker {-ra-} is only an alternative in Rukiga (Morris and Kirwan 1972: 82).

[43] The final vowel {-i} is a common feature in the Rutara group for a function different from this one. It is used together with {o-NOM-} to form nouns from verbs, as in {ku-gur-a} 'to buy' → {o-bu-guz-**i**} 'the buying, bargain', and {ku-hiig-a} 'to hunt/look for' → {o-mu-hiigi}/{o-mu-hiiǰ-**i**} 'hunter'.

Whereas Cole (1967:127) reports that the suffix {-i} occurs with only one radical, the verb *ku-mány-á* in Luganda, Taylor (1959:xviii) comments that "most verbs ending in *-ama* have meanings connected with posture or position, and have special particular forms in *-ami* whose tones vary according to their use, whether predicative or attributive" in Runyankore/Rukiga. This form appears to be more productive in Runyankore and Rukiga than in the other languages. It also applies to verbs ending with *-ta*, as in {ku-humbata} 'to cover' → {e-humbáts-i, e-húmbats-i}/{e-humbás-i, e-húmbas-i} 'it is covered', for Runyankore and Rukiga, respectively (Taylor 1959:xix). This could, therefore, be an innovation for Runyankore and Rukiga.

6.7. A summary of principles and mechanisms of reconstruction

Throughout the last three chapters, we have been able to apply, confirm, or establish a number of principles (not necessarily explicitly stated) related to reconstruction. These principles (including methods and mechanisms as well) have proved to work for the sample languages, as summarised below.

I. Internal reconstruction and comparative method: these methods help to reconstruct older forms. The former was mainly used to investigate the source of asymmetry between affirmative and negative forms, as found, for instance, in the Progressive aspect in each language. Then, all eight languages were compared following the three major steps of the comparative method: setting up correspondences, establishing the

proto-forms, and assigning phonemic and semantic values to the reconstructed forms (*cf.* Bynon 1983, Hock 1991, Lass 1993, Beekes 1995, Fox 1995).

II. The majority rule principle: this principle gives more weight in reconstruction to features that appear in the majority of contemporary languages or categories. Thus, a feature or formative that has a comparatively high distribution in many languages (*i.e.* in a linguistic/dialect map) is the most likely to represent retained features, rather than innovation, in the group (*cf.* Anttila 1989).

III. Conservative forms: relative and negative forms are relatively more conservative than their affirmative counterparts. This principle was used to unravel the puzzle underlying the polar asymmetry found, for instance, in the Remote Past and Progressive (*cf.* Hyman and Watters 1984).

IV. Grammaticalisation changes the morphosyntactic behaviour of verbal elements in a language: this principle states that lexical verbs can become grammatical elements in a verbal system (*cf.* Givón 1971, Lewandowska-Tomaszczyk 1992, Hopper and Traugott 1993, Bybee *et al.* 1994, McMahon 1994). It has had the following impact in the Rutara languages. First, the marker {-ri-}, found in the Negative Progressive, developed from the suppletive form *ri* of the verb '*be*'. It now marks T/A apart from its original function as a locative copula. Second, the Progressive marker {ni-} and the negative marker {ti-} developed from the copulas *ni* and *ti* respectively. The marker {ni-} has also started to undergo further phonological changes, as it only surfaces as [n-] before consonants in most of the languages. Third, the verb *ku-iǰa,*

ku-iza, ku-iža 'to come' has started to undergo both semantic and phonological erosion such that in some dialects it has been reduced to {-ǰa-, -za-, -ža-}, respectively. These forms no longer mean 'come' in the sense of physical movement, but mark a future event.

V. T/A recycling: this mechanism enables formatives to perform a new or different function in language. For instance, the FV {-e}, found in the negative Near Future tense, is derived from the subjunctive marker {-e}. Similarly, {-ire} is now a tense marker, apart from its original morphosemantic function of marking aspect, which has also been retained.

VI. Vertical transfer: a language retains certain linguistic features from successive ancestral languages to contemporary daughter languages/dialects. Related languages, however, differ in the degree of retained features *vis-à-vis* innovations. For instance, the most common retained features found in the Rutara group are the Remote Past {-ka-}, the Perfective {-a(a)-}, and the negative forms for Retrospective and Persistive.

VII. Horizontal transfer allows the transmission of linguistic features from one language or linguistic group to another. This phenomenon tends to complicate the linguistic picture of a group, sometimes resulting in false cognates or mixed languages (*cf.* Bakker and Mous 1994, Nurse 1995, Thomason 1997). The best examples are found along the borders between different linguistic communities; for instance, some Runyambo dialects which are more like Ruhaya, or Rukiga dialects which are more like Runyambo.

VIII. The principle of the linguistic complexity of language development: The development of language can be cumulative, directional, gradual, or abrupt (Hock 1991). Under this principle, a language is a result of the combination of various complex features and processes: retained (vertically transferred) features + internal innovations + horizontally transferred features, where "internal innovations" includes semantically/cognitively motivated changes + phonologically motivated changes + analogically motivated changes + internal innovations motivated/caused by external forces + unmotivated changes (*cf.* Sterelny 1985, Anttila 1989, Nerlich 1990, Nurse 1995). These features plus other non-linguistic factors, such as the nature of the geographical environment, language contiguity, time-depth, socio-cultural, socio-economic, as well as socio-political ones, together make the history of a language. It is this complexity which determines the transparency of the linguistic history of a language (*cf.* Lightfoot 1979, Lewandowska-Tomaszczyk 1992, McMahon 1994, Nurse 1995). We can, therefore, conclude that the Rutara group is less complex than Lacustrine, based on this thesis and other related studies.

6.8. Conclusion

What we have seen in this chapter indicates that the Proto-Rutara (PR) T/A system was relatively more symmetrical than its contemporary daughter languages. However, this was not the case for the Remote Past which had already been marked differently, the affirmative being *{-ka-...-a} and the negative either *{ti-...-ra-...-ire} or *{ti-...-a(a)-...-ire};

the latter was the earlier form, and was probably inherited from Proto-Lacustrine. This was mainly the result of reassigning new functions to the formatives *{-ka-} and *{-ra-} which originally marked completive and remoteness respectively, together with *{-aa-} which also marked a past but a relatively more recent past than the other two.

Given the forms that we have reconstructed for PR, it is clear that all of the Proto-Rutara forms have been retained somewhere in the group, although several have either acquired new meanings or extended functions, or have changed their phonological shape. Of these, the most affected were the compound markers, which consisted of more than one formative either in the same slot or within the same VU, such as Persistive *{-ki-aa-...-a}, Remote Future *{-ri-a-...-a}, and Retrospective *{-aa-...-ire}. In terms of categories, Progressive and Near Future have undergone more radical change than the others.

One issue which is also worth pointing out is the impact of contiguity among these languages. At least seven languages still share borders, so that it is possible for some linguistic features to be transferred from one language to another (*i.e.* horizontal transfer). Thus, features which were not directly inherited from PR could easily be transmitted across the area, given that speakers of these languages also share a more or less similar socio-cultural heritage, and since mutual intelligibility is relatively high. For instance, the NF marker {-ri-a-...-a} found in some dialects of Runyambo, especially in the northern ones, could have been transferred from Runyankore which lies just north of Runyambo. The same could have happened with other features, for instance, between Runyoro and Rutooro (which are sometimes regarded as one language), Runyoro/Rutooro and Luganda, Runyambo and

Ruhaya, Rukerebe and Suguti, or Ruzinza and south eastern W/Highlands languages (*e.g.* Kishubi and Kihangaza), and so on (see §6.6).

CHAPTER SEVEN

7. SUMMARY AND CONCLUSION

7.1. Overview

In this study, we have presented a synchronic description of the T/A systems for eight languages of the Rutara group: Runyoro (R1), Rutooro (R2), Runyankore (R3), Rukiga (R4), Runyambo (R5), Ruhaya (R6), Ruzinza (R7), and Rukerebe (R8). This has enabled us to analyse the basic meanings of various formatives from simple forms to compound VUs which contain the various T/A markers in these languages. We have also surveyed what we called the extended functions of these formatives from morphosemantic, morphosyntactic, and cognitive points of view. We were thus able to establish the relationships between one marker and another, first in the same VU, and then across the system in different categories, and also between formatives of the same shape found in different markers, categories, or paradigms. We were also able to distinguish tense from aspect markers, based on their morphosyntactic composition and behaviour, as well as their temporal reference frameworks with regard to Event Time (ET) *vis-à-vis* Universe Time (UT). Consequently, our analysis compared and contrasted these formatives across the group, which in turn helped us to reconstruct the Proto-Rutara T/A forms. We applied the comparative method and analysis to three domains: individual categories, whole language systems, and groups of languages. In some cases, we also went beyond the Rutara group in order to get either extra clues for the puzzle, or to get

supporting evidence for an argument. Lastly, we showed the historical development and changes of various markers from Proto-Rutara to the contemporary languages.

7.2. Answering the questions we posed

This study raised several questions, some of which were answered instantly and some of which were deferred for later discussion. Of the latter, seven were relatively more important in the analysis of T/A. We will now, briefly, recapitulate how those questions were dealt with.

One, why should a language have the same form, for instance, {-Ø-...-ire} for both the Near Past Performative and Present Perfect or Resultative? The answer to this question was found in the mechanism we called T/A recycling. Formatives are reassigned new or extended T/A functions, provided the new role of the formative is in agreement with its own basic meaning and/or the semantic parameters of its category *vis-à-vis* its cognitive representation in the speaker's mind.

Two, what is the relationship between the formative {-a(a)-} found in {tu-**a(a)**-gur-a}, {tu-ki-**aa**-gur-a} and {tu-**aa**-guz-ire}, the {-a-} found in forms like {tu-**a**-gur-aga} and {ti-tu-**a**-guz-ire}, and the {-ire} found in {tu-guz-**ire**} and {tu-aa-guz-**ire**}? The answer to this question is virtually the same as the one given for the first question. It was established in this study that the first type of {-a(a)-}, with its length and tonal variants, derive from what we described as the marker for both Memorial Present and Perfective aspect. Wherever it occurs, it represents either a past related event, or the completed part of an incomplete event. The

second type of {-a(a)-} derives from the old formative that marked Remote Past (not only in Rutara, but also in other Lacustrine languages and even beyond). This means there have been at least two kinds of *{-a(a)-} which have been changing their roles through history. However, the morphological problem we face is that both types of {-a(a)-} are related to complete events (and, therefore, carry reference to a past time). In this case, they were easily recycled in the system to the extent that it is now very difficult to draw a clear cut distinction between them in the Rutara languages. We saw that even recourse to tone could not easily solve the puzzle. The whole issue calls for a more intensive tonological comparative study of the phenomenon in the entire group.

Three, why should elements performing the same macro-function of either tense or aspect occupy different slots in the verbal unit? The answer to this question lies in the historical origin of the marker itself. For instance, we saw that the Progressive marker {ni-} and the negative marker {ti-} occupy slot (1) because of their original morphosyntactic position as copulas {ni, ti}, hence they are pre-verbal. The same applies for {-ri-} and {-ku-} which derive from an auxiliary and an infinitive/nominaliser, respectively, and therefore appear between the SM and verb. Similarly, markers like {-ire} and {-aga} occupy the final slot because they derive from post-main verb forms. It should be pointed out, however, that the recycling mechanism of T/A formatives and their reassignment to new functions and/or categories does not affect their morphosyntactic position in a VU. Thus, {-ire} and {-aga} have remained in post-radical position (slot 3) and the rest of the markers in pre-radical positions (slots 1–2).

The next two questions are interrelated and will, therefore, be considered together. Can one class of VU syntagmas like T/A formatives have a double allocation of slots within the same VU? What are the basic slots for tense and aspectual markers? We found the answer to these questions in the chronogenesis and recycling of T/A. That is, aspectual markers (Level I) develop before tense markers (Level II), progressing from simple to compound and complex forms at each level. This helps to analyse the primary formatives in terms of ET and UT, which in turn helps to further distinguish tenses from aspects. Thus, slot (2) was described as a typical slot for tense, and slot (3) for aspect, with additional morphosyntactic constraints. Furthermore, temporal adverbials can also be used to test for and distinguish tenses from aspects; but care is needed in using such temporal adverbials to define tense. The recycling mechanism allows a formative to perform some additional T/A functions within the same semantic or cognitive parameters. Consequently, elements like {-a(a)-} and {-ire} which are introduced at Level I as aspectual markers, are readily available for Level II, to be reused as tense markers. On the other hand, we have noted that, although these T/A markers have undergone various changes, there still exist some forms which are very similar across the group, as summarised below.

Table 7.1: Markers currently shared by all languages in the group

	Marker/Framework & Function	Examples	
i	{(ti-)...-Ø-...-a} Present Habitual	{tu-gur-a} 'we buy'	{ti-tu-gur-a} 'we do not buy'
ii	{-ka-...-a} Affirmative Remote Past	{tu-ka-gur-a} 'we bought'	
iii	{(ti-)...-Ø-...-ire} Resultative	{ba-fi-ire}/{ba-fu-ire} 'they are dead'	{ti-ba-fi-ire}/{ti-ba-fu-ire} 'they are not dead'
iv	{-a(a)-...-a} Memorial Present	{tu-a(a)-gur-a} 'we have just bought'	{ti-tu-a(a)-gur-a} 'we have not bought'
v	{n(i)-...-Ø-...-a} Affirmative Progressive	{tu-ka-ba n(i)-tu-gur-a} 'we were buying'	
vi	{ti-...-ri-...-a} Negative Remote Future	{ti-tu-ri-gur-a} 'we will not buy'	
vii	{ti-...-ka-...-ire} Negative Present Retrospective	{ti-tu-ka-guz-ire} 'we have not yet bought'	
viii	{ti-...-ka-...-aga} Negative Experiential Retrospective	{ti-tu-ka-gur-aga} 'we have never bought'	

The last question, central to the study, was what the Proto-Rutara T/A system looked like in terms of its basic categories and formatives. The answer to this question was provided in Chapter Six, in which the Proto-Rutara T/A system was presented.

7.3. A summary of the findings and achievements of this study

We will now summarise the major findings and achievements of this study. First of all, this study covered eight languages of the Rutara group, rather than drawing conclusions from a single language, as other studies have done (*cf.* Mould 1981). We have provided strong evidence to support the claim that Rutara constitutes a coherent genetic group. Our

conclusions accommodate easily and necessarily any other small languages/dialects that belong to this group, but were left out for various reasons.

Second, the study surveyed the verbal systems of the Rutara languages, rather than presenting isolated linguistic elements. We have thus set up the basic components and categories of the T/A systems for the eight languages. It is from these basic components that the entire verbal systems of the languages are built.

Third, we were able to use and demonstrate the connection between the languages' synchronic properties and their diachronic developments in order to establish the mutual relationship between the two. We used the present to learn about the past.

Fourth, we were able to bring together and apply some principles of lexicostatistics, phonology, morphology, syntax, semantics, historical and comparative linguistics, as well as language acquisition to support the cognitive approach, for better and more reliable results and conclusions. This was necessary for two reasons: (a) dealing with T/A is dealing with various subsystems of language, and (b) both language development and change involve and affect the phonological, morphological, lexical, syntactic, and semantic systems of the language. Therefore, a serious and reliable reconstruction of a system should consider these components.

Fifth, we were able to analyse the various forms in a systematic way: from simple to compound/complex forms, from basic to extended forms, from aspect to tense, and from single formatives to complex T/A systems.

As a result of all the above, the following were also attained. We were able to present the role of the verbal unit (VU) and its slots in the T/A system. This helped us to posit predictions for tense *versus* aspect and the morphosyntactic behaviour of T/A markers. Consequently, we were able to explain the meanings or functions of the T/A markers, including those which posed apparent morphological problems. For instance, we were able to explain the relationship between {-a(a)-} and {-ire}, on the one hand, and between the two formatives within {-a(a)-...-ire}, on the other. This again led us to propose the T/A recycling mechanism, which allows a formative to perform other functions in the system, morphosemantically or pragmatically.

Furthermore, we were able to use a cognitive point of view to explain the mechanism(s) behind some of the polar asymmetry in different Rutara languages, such as the Near Future markers {-raa-...-a} *versus* {-raa-...-e}, the Persistive markers {-ki-aa-...-a} *versus* {-ki-...-a}, and the Progressive markers {ni-...-Ø-...-a} *versus* {ti-...-ri-ku-...-a}. Not only that, but we also presented cognitive motivations for the innovation of the tense markers {-Ø-...-ire-ge} in R1–R2, as well as the justification for combining the formatives {-ka-, -ra-} with {-ire} or {-aga} to form the three complex markers {tu-**ra**-guz-**ire**}, {ti-tu-**ka**-guz-**ire**}, and {ti-tu-**ka**-gur-**aga**}. Then, we were able to identify typical tense/aspect markers *versus* quasi-tense/quasi-aspect markers.

Another problem that was solved was to clarify the place of the marker {-Ø-...-a} (as in the form {tu-gur-a} 'we buy') in the system. Zero forms like this in Rutara languages are

often erroneously called the Present Simple, an analysis which wrongly classifies such forms under the Performative instead of its proper category, Habitual, as suggested in this thesis.

The other major task that was performed was to establish the relationships between the different aspects, such as Perfect⇄Resultative, Perfect⇄Perfective⇄Retrospective, Perfect⇄Retrospective⇄Remote Retrospective, Progressive⇄Persistive, Resultative⇄Persistive Resultative, and a few others, as well as between aspects and tenses, such as Perfect⇄Near Past, Perfective⇄Memorial Present, Remote/Experiential Retrospective⇄Remote Past, Progressive⇄Near Future, and so on. It is these interrelationships between markers and also between categories which create the complex system(s) of T/A in the contemporary languages and also throughout their linguistic history.

We were also able to redefine tense and aspect from a cognitive, semantic-temporal, syntactic, and morphosyntactic perspective.

Finally, we set up the Proto-Rutara T/A system. The reliability of the proposed system lies in the methodology that was applied to reach our conclusions in reconstructing the markers. Although our approach was primarily cognitive, we did employ a multidimensional approach, as mentioned above, which is essential in the reconstruction of older forms. Our reconstruction was thus supported by both internal and external evidence through internal reconstruction and comparative method.

7.4. Suggestions and recommendations

Although we have examined extensively the T/A systems in the Rutara group, we do not want to claim to have provided all the answers, nor solved all of the puzzles pertaining to the study of tense and aspect. There are issues which we did not deal with because they were either beyond the scope of this study, or just because we could not provide definite answers given the time and data available.

Among issues that might merit further analysis are: (i) the various types and diverse roles of the markers {-ka-}, {-ra-}, and {-a(a)-} across the group and beyond, (ii) an extension of the present analysis to other Lacustrine languages, (iii) further studies on the variants of {-a(a)-}, {-ire}, and other T/A markers in other Bantu languages, and (iv) further studies on Rutara tonology. These, and others, would help to shed more light on yet unanswered questions.

7.5. Concluding remarks

We know that language is not static; it changes over time. Therefore, the state of affairs presented in this thesis for these languages might not be entirely valid after some years. We have seen, for instance, how Progressive constructions are still undergoing various phonological changes, as well as the impact of the Progressive aspect on the Near Future tense. Thus, current phonological processes and horizontal transfer of linguistic features, either from the neighbouring contiguous languages or from Kiswahili (which has a

comparatively simplified T/A system), are likely to lead to further changes over time. Such changes might alter the current T/A system slightly or drastically.

These changes affect not only the linguistic properties of these languages, but also their names. Rukerebe, for instance, is now commonly referred to as *Kikerebe*, after the original name *Rukerebe* succumbed to the geographical influence of the Suguti group. Similarly, the name Ruzinza appears to be dying out gradually, in favour of *Kizinza* among the new generation(s). Likewise, the other southern Rutara languages have also acquired the initial {Ki-}, used interchangeably with {Ru-}, hence the names *Ruhaya ~ Kihaya*, and *Runyambo ~ Kinyambo*. Besides, the recent introduction of *Runyakitara*, as the common variety/language for the northern languages (Runyoro, Rutooro, Runyankore, Rukiga, and others), might also contribute significantly to further changes among these languages.

Nevertheless, we hope that this thesis will remain a reference study for a part of the history of these languages, in its analysis of a set of linguistic changes, which have been and still are taking place. Therefore, this thesis is meant to be just one of the stepping stones in our endeavour to document, analyse, and reconstruct Bantu languages and their history.

H**R**T**M

REFERENCES

Anderson, John M. 1973. *An Essay Concerning Aspect: Some Considerations of a General Character Arising from the Abbé Darrigol's Analysis of the Basque Verb.* The Hague: Mouton.

Anderson, John R. 1983. *The Architecture of Cognition.* Cambridge, Mass.: Harvard University Press.

Anderson, Lloyd B. 1982. The "Perfect" as a universal and as a language-specific category. *Tense and Aspect: Between Semantics & Pragmatics.* (Typological Studies in Language (TSL) vol. 1), ed. by Paul J. Hopper, 227–264. Amsterdam: John Benjamins.

Angogo, Rachel Msimbi. 1980. Linguistic and attitudinal factors in the maintenance of Luyia group identity. (Unpublished) PhD Dissertation. The University of Texas at Austin.

Anttila, Raimo. 1989. *Historical and Comparative Linguistics.* (Current Issues in Linguistic Theory, 6). Amsterdam: John Benjamins.

Bakker, Peter and Maarten Mous, (eds). 1994. *Mixed Languages: 15 Case Studies in Language Intertwining.* (Studies in Language and Language Use, 13). Amsterdam: Institute for Functional Research into Language and Language Use.

Bastin, Yvonne. 1983. *La finale -IDE et l'imbrication en bantou.* (Annales, 114). Tervuren: Musée Royale de l'Afrique Centrale.

Bastin, Yvonne, André Coupez, and B. de Halleux. 1983. Classification lexicostatistique des langues bantoues (214 relevés). *Bulletin des Séances de l'Académie royale du sciences d'outre-mer*, 27, 2: 173-99.

Batibo, Herman M. 1982. A review of Nurse, Derek 1979b. *Kiswahili (Journal of the Institute of Kiswahili Research)*, 49, 1: 99–104. University of Dar es Salaam.

Beekes, Robert S. P. 1995. *Comparative Indo-European Linguistics: An Introduction.* Amsterdam: John Benjamins.

Besha, Ruth Mfumbwa. 1989. *A Study of Tense and Aspect in Shambala.* (PhD Dissertation: University of Dar es Salaam, 1985). (Language and Dialect Studies in East Africa, 10, ed. by Bernd Heine and Wilhelm J. G. Möhlig). Berlin: Dietrich Reimer Verlag.

Binnick, Robert I. 1991. *Time and the Verb: A Guide to Tense and Aspect.* New York: Oxford University Press.

Blois, de K. F. 1975. *Bukusu Generative Phonology and Aspects of Bantu Structure.* Musée Royal de l'Afrique Centrale – Tervuren, Belgique Annales – Série in-8 – Sciences Humaines – No. 85.

Bloomfield, Leonard. 1926. A set of postulates for the science of language. *Readings in Linguistics I*, 4th ed., ed. by Martin Joos, (1957): 26–31. Chicago: University of Chicago Press.

Bona-Baisi, Ignace J. 1960. *Ikani-Ngambo: Ruhaya* (Dictionary). Limburg (Germany): Printing Press of Pallotine-Fathers.

Botne, Robert D. O. 1981. On the nature of tense and aspect: Studies in semantics and temporal reference in English and Kinyarwanda. (Unpublished) PhD Dissertation. Evanston: Northwestern University.

Botne, Robert 1986. The temporal role of Eastern Bantu **-ba** and **-li**. *Studies in African Linguistics*, 17, 3: 303–318.

Botne, Robert D. 1987. Semantics and pragmatics of tense in Kikerebe and Kinyarwanda. *Journal of African Languages and Linguistics*, 9, 1: 29–44.

Botne, Robert D. 1990. The origin of the Remote Future formatives in Kinyarwanda, Kirundi and Giha (J61). *Studies in African Linguistics*, 21, 2: 189–210.

Bronckart, J. P. and H. Sinclair. 1973. Time, tense and aspect. *Cognition*, 2, 1: 107–130.

Bull, William C. 1960. *Time, Tense and the Verb.* Berkeley: University of California Press.

Bryan, Margaret A. 1959. *The Bantu Languages of Africa.* London: Oxford University Press.

Bybee, Joan L. 1985. *Morphology: A Study of the Relation between Meaning and Form.* Amsterdam: John Benjamins.

Bybee Joan L. and Östen Dahl. 1989. The creation of tense and aspect systems in the languages of the world. *Studies in Language* 13, 1: 51–103.

Bybee Joan L., Revere D. Perkins, and William Pagliuca. 1992. *The Grammaticalization of Tense, Aspect and Modality in the languages of the World.* Typescript. Albuquerque, University of Mexico.

Bybee, Joan, Revere Perkins, and William Pagliuca. 1994. *The Evolution of Grammar: Tense, Aspect, and Modality in the Languages of the World.* Chicago: University of Chicago.

Bynon, Theodora. 1983. *Historical Linguistics.* Cambridge: Cambridge University Press.

Chatterjee, Ranjit. 1988. *Aspect and Meaning in Slavic and Indic.* (Current Issues in Linguistic Theory, 51). Amsterdam: John Benjamins.

Chesswas, J. D. 1963. *The Essentials of Luganda.* London: Oxford University Press.

Claudi, Ulrike. 1990. Word Order Change as Category Change: The Mande Case. *Proceedings of the Symposium on Explanation Historical Linguistics.* Milwaukee, April 20–22, 1990.

Comrie, Bernard. 1976. *Aspect: An Introduction to the Study of Verbal Aspect and Related Problems.* Cambridge: Cambridge University Press.

Comrie, Bernard. 1981. On Reichenbach's approach to tense. *Papers from the Seventeenth Regional Meeting, Chicago Linguistic Society*, ed. by Roberta A. Hendrick, Carrie S. Masek, and Mary Frances Miller, 24–30. Chicago: Chicago Linguistic Society.

Comrie, Bernard. 1985. *Tense.* Cambridge: Cambridge University Press.

Contini-Morava, Ellen. 1989. *Discourse Pragmatics and Semantic Categorization: The Case of Negation and Tense-Aspect with Special Reference to Swahili.* Berlin: Mouton de Gruyter.

Dahl, Östen. 1985. *Tense and Aspect Systems.* Oxford: Basil Blackwell.

Dalgish, Gerald Matthew. 1976. The morphophonemics of the Olutsotso dialect of (Olu)Luyia: Issues and implications. (Unpublished) PhD Thesis. Urbana: University of Illinois.

Davy, Jim I. M. and Derek Nurse 1982. Synchronic versions of Dahl's law: The multiple application of a phonological dissimilation rule. *Journal of African Languages and Linguistics,* 4: 157–95.

Deane, Paul D. (ed.). 1992. *Grammar in Mind and Brain: Explorations in Cognitive Syntax.* (Cognitive Linguistics Research, 2). Berlin: Mouton de Gruyter.

Dunbar, George. 1992. Language processing and subjectification. *Diachrony within Synchrony: Language History and Cognition*, ed. by Günter Kellermann and Michael D. Morrissey, 160–181. Frankfurt am Main: Peter Lang.

Ehret, Christopher, G. Ikihiro, T. Stamps, B. Turner, and S. Young. 1973. Lacustrine history and linguistic evidence: Preliminary considerations. Seminar Paper. UCLA.

Ehret, Christopher. 1974. *Ethiopians and East Africans.* Nairobi: East African Publishing House.

Embleton, Sheila. 1986. *Statistics in Historical Linguistics.* Bochum: Studienverlag Dr N. Brockmeyer.

Fehderau, Harold Werner. 1966. *The Origin and Development of Kituba.* Ann Arbor, Michigan University Microfilms.

Fleischman, Suzanne. 1982. *The Future in Thought and Language: Diachronic Evidence from Romance.* (Cambridge Studies in Linguistics, 36). Cambridge: Cambridge University Press.

Fox, Anthony. 1995. *Linguistic Reconstruction: An Introduction to Theory and Method.* Oxford: Oxford University Press.

Givón, Talmy. 1971. On the verbal origin of the Bantu verb suffixes. *Studies in African Linguistics*, 2: 145–164.

Givón, Talmy. 1972. Studies in Chibemba and Bantu Grammar. *Studies in African Linguistics*, Supplement 3.

Guillaume, Gustave. 1984. *Foundations for a Science of Language.* (Amsterdam Studies in the Theory and History of Linguistic Science, IV: Current Issues in Linguistic Theory, 31). Excerpts from the manuscripts, translated by Walter Hirtle and John Hewson. Amsterdam: John Benjamins.

Guthrie, Malcolm. 1948. *The Classification of the Bantu Languages.* London: Dawsons of Pallmall.

Guthrie, Malcolm. 1967/71. *Comparative Bantu*, vols. 1–4. Farnborough: Gregg International Publishers Ltd.

Hagège, Claude. 1993. *The Language Builder.* (Current Issues in Linguistic Theory, 94). Amsterdam: John Benjamins.

Hamp, Eric P. 1976. Why syntax needs phonology. *Papers from the Parasession on Diachronic Syntax*, ed. by Sanford B. Steever, Carol A. Walker, and Salikoko Mufwene, 348–364. Chicago Linguistics Society. Chicago: Goodspeed Hall.

Harris, Martin. 1982. "The Simple Past" and the "Present Perfect" in Romance. *Studies in the Romance Verb*, ed. by Nigel Vincent and Martin Harris, 42–72. London: Croom Helm.

Heine, Bernd. 1973. Zur genetischen Gliederung der Bantusprachen. *Afrika und Übersee* 56: 164–185.

Heine, Bernd. 1974. Historical linguistics and lexicostatistics in Africa. *Journal of African Languages,* 11, 3: 7–20.

Heine, Bernd. 1976. *A Typology of African Languages Based on Meaningful Elements.* Kölner Beiträge zur Afrikanistik, 4. Berlin: Dietrich Reimer Verlag.

Heine, Bernd. 1993. *Auxiliaries: Cognitive Forces and Grammaticalization.* New York: Oxford University Press.

Hewson, John. 1972. An introduction to linguistic content systems. Memorial University of Newfoundland: Department of Linguistics.

Hewson, John. 1980. Saussure's game of Chess. *Papers from the Fourth Annual Meeting of the Atlantic Provinces Linguistic Association*, ed. by A. M. Kinloch and A. B. House, 108–116. Fredericton: University of New Brunswick.

Hewson, John. 1993. Tense and aspect in Indo-European languages: Theory, typology, and diachrony. Memorial University of Newfoundland: Department of Linguistics.

Hewson, John. 1994. Guillaumean Linguistics. *The Encyclopedia of Language and Linguistics*, ed. by R. E. Asher, Vol. 3:1508–1511. Oxford: Pergamon Press.

Hewson, John. 1997. Tense and aspect: Description and theory. In John Hewson and Vit Bubenik, 1–23. Amsterdam: John Benjamins.

Hewson, John and Derek Nurse. (Forthcoming). Chronogenetic staging in the Swahili verbal system.

Hewson, John and Vit Bubenik. 1997. *Tense and Aspect in Indo-European Languages: Theory, Typology, Diachrony.* (Current Issues in Linguistic Theory, 145). Amsterdam: John Benjamins.

Hewson, John, Derek Nurse, and Henry R. T. Muzale 1998. Chronogenetic staging of tense in Ruhaya. (MS). Memorial University of Newfoundland: Linguistics Department.

Hinnebusch, Thomas J. 1981. Introduction. *Studies in the Classification of Eastern Bantu Languages*, ed. by Thomas H. Hinnebusch, Derek Nurse, and Martin Mould, 1–19. Hamburg: Helmut Buske Verlag.

Hinnebusch, Thomas J. 1989. Bantu. *The Niger-Congo Languages*, ed. by John Bendor-Samuel, 450–473. Lanham: University Press of America, Inc.

Hirtle, Walter H. 1975. *Time, Aspect and the Verb*. Laval: Les Presses de L'Université Laval.

Hjelmslev, L. 1969. *Prolegomena to a Theory of Language*. Madison: University of Wisconsin Press.

Hock, Hans H. 1991. *Principles of Historical Linguistics*. Berlin: Walter de Gruyter.

Hopper, Paul J. and Elizabeth C. Traugott. 1993. *Grammaticalization*. Cambridge: Cambridge University Press.

Hornstein, Norbert. 1977. Towards a theory of tense. *Linguistic Inquiry*, 8: 521–557.

Hornstein, Norbert. 1990. *As Time Goes By: Tense and Universal Grammar*. Cambridge: The MIT Press.

Huddleston, Rodney. 1995. The English perfect as a secondary past tense. *The Verb in Contemporary English*, ed. by Bas Aarts and Charles F. Meyer, 102–122. Cambridge: Cambridge University Press.

Hyman, Larry M. 1995. Minimality and the prosodic morphology of Chibemba imbrication. *Journal of African Languages and Linguistics*, 16: 3–39.

Hyman, Larry M. and Ernest R. Byarushengo. 1984. A model of Haya tonology. *Autosegmental Studies in Bantu Tone*, ed. by G. N. Clements and J. Goldsmith, 76–103. Dordrecht: Foris Publications.

Hyman, Larry M. and John R. Watters. 1984. Auxiliary focus. *Studies in African Linguistics*, 15, 3: 234–273.

Jakobson, Roman. 1957. *Shifters, Verbal Categories, and the Russian Verb*. Cambridge: Harvard University Press.

Jespersen, Otto. 1931. *A Modern English Grammar: Syntax - Time and Tense*, Vol. 3. Heidelberg: Carl Winters Universitäts-Buchhandlung.

Johnson, Marion Rose. 1977. A semantic analysis of Kikuyu tense and aspect. (Unpublished) PhD Dissertation. The Ohio State University.

Kahigi, Kulikoyela K. 1989. Developments affecting the Bantu Perfective in *-ile: Another view. *Kiswahili (Journal of the Institute of Kiswahili Research)*, vol. 56: 92–108. University of Dar es Salaam.

Kenstowicz, M. J. and C. W. Kisseberth. 1977. *Topics in Phonological Theory.* New York: Academic Press.

Kimenyi, Alexandre. 1973. Tense-aspect modality systems in English and Kinyarwanda. (Unpublished) Master's Thesis. UCLA.

Kimenyi, Alexandre. 1979. *Studies in Kinyarwanda and Bantu Phonology.* (Current Inquiry into Language and Linguistics, 33). Carbondale: Linguistic Research, Inc.

Ladefoged, Peter. 1971. *Preliminaries of Linguistic Phonetics.* Chicago: University of Chicago Press.

Ladefoged, Peter, Ruth Glick, and Clive Criper. 1971. *Language in Uganda.* Nairobi: Oxford University Press.

Lakoff, George. 1987. *Women, Fire, and Dangerous Things*. Chicago: The University of Chicago Press.

Lass, Roger. 1993. How real(ist) are reconstructions? *Historical Linguistics: Problems and Perspectives*, ed. by Charles Jones, 156–189. London: Longman.

Lewandowska-Tomaszczyk, Barbara. 1992. Cognitive and interactional conditioning of semantic change. *Diachrony within Synchrony: Language History and Cognition*, ed. by Günter Kellermann and Michael D. Morrissey, 229–250. Frankfurt am Main: Peter Lang.

Lightfoot, David. 1979. *Principles of Diachronic Syntax.* Cambridge: Cambridge University Press.

Maddox, H. E. 1902. *An Elementary Lunyoro Grammar.* London: Society for Promoting Christian Knowledge.

Maganga, Clement and Thilo Schadeberg. 1992. *Kinyamwezi: Grammar, Text, Vocabulary.* Köln: Rüdiger Köppe Verlag.

Marchese, Lynell. 1986. Tense/Aspect and the Development of Auxiliaries in Kru Languages. Arlington: The Summer Institute of Linguistics.

McCawley, James D. 1971. Tense and time reference in English. *Studies in Linguistic Semantics*, ed. by Charles Fillmore and D. T. Langendoen. New York: Holt, Rinehart and Winston.

McCawley, James D. 1981. *Everything that Linguists Have Always Wanted to Know About Logic*. Chicago: University of Chicago Press.

McGilvray, James A. 1991. *Tense, Reference, and Worldmaking*. Montreal: McGill-Queen's University Press.

McKaughan, Howard P. 1964. A study of divergence in four New Guinea languages. *American Anthropologist 66,* 4, 2: 98–120.

McMahon, April M. S. 1994. *Understanding Language Change*. Cambridge: Cambridge University Press.

Meeussen, A. E. 1962. Meinhof's rule in Bantu. *African Language Studies,* 3: 25–29.

Meeussen, A. E. 1969. Bantu lexical reconstructions. (MS), Tervuren.

Mkhatshwa, Simon Nyana Leon. 1991. Metaphorical extensions as a basis for grammaticalization. With special reference to Zulu auxiliary verbs. (Unpublished) MA Thesis. Pretoria: University of South Africa.

Moore, Timothy E. (ed.). 1973. *Cognitive Development and the Acquisition of Language*. New York: Academic Press.

Morris, H. F. and B. E. R. Kirwan. 1972. *A Runyankore Grammar*. (Revised Edition). Nairobi: East African Literature Bureau.

Moshi, Lioba. 1994. Time reference in KiVunjo-Chaga. *Journal of African Languages and Linguistics,* 15: 127–159.

Mould, Martin. 1976. Comparative grammar reconstruction and language subclassification: The North Victoria Bantu languages. (Unpublished) PhD. Dissertation. Los Angeles: UCLA.

Mould, Martin. 1979. Reconstructing Bantu tense systems. Papers presented at Tenth Annual Conference of African Linguistics. University of Illinois, Urbana, April 5– 7, 1979.

Mould, Martin. 1981. Greater Luyia. *Studies in the Classification of Eastern Bantu Languages*, ed. by Thomas H. Hinnebusch, Derek Nurse, and Martin Mould, 181–236. Hamburg: Helmut Buske Verlag .

Mreta, Abel Y. 1997. An analysis of tense and aspect in Chasu: Their form and meaning in the affirmative constructions. (Unpublished) PhD Dissertation. Bayreuth University.

Muzale, Henry R. T. 1993. Synonymy in the language learner's mental lexicon. (Unpublished) MA Dissertation. Dar es Salaam: University of Dar es Salaam.

Myers, Amy. 1972. The making of an exception: A curious non-application of Dahl's Law in Kikuyu. *Third Annual Conference on African Linguistics*, (African Series, 7), ed. by Erhard Voeltz, 135–138. Bloomington: Indiana University.

Nerlich, Brigitte. 1990. *Change in Language: Whitney, Bréal, and Wegener*. London: Routledge.

Nurse, Derek. 1979a. *Classification of the Chaga Dialects: Language and History on Kilimanjaro, the Taita Hills, and the Pare Mountains.* Hamburg: Helmut Buske Verlag Hamburg. (PhD Dissertation: University of Dar es Salaam, 1977).

Nurse, Derek. 1979b. Description of sample Bantu languages of Tanzania. *African Languages/Langues Africaines*, 5, 1. London: International African Institute & Inter-African Bureau of Languages.

Nurse, Derek and G. Philippson. 1980. The Bantu languages of East Africa: A lexicostatistical survey. *Language in Tanzania*, ed. by E. Polomé and C. P. Hill, 26–67. London: Oxford University Press.

Nurse, Derek and Thomas J. Hinnebusch. 1993. *Swahili and Sabaki: A Linguistics History*. Berkeley: University of California Press.

Nurse, Derek. 1995. Social issues in historical linguistics in Africa. *Proceedings of the 21st Annual Meeting of the BLS: Parasession on Historical Issues in Sociolinguistics / Social Issues in Historical Linguistics*. Berkeley: BLS.

Nurse, Derek. (Forthcoming). Towards a historical classification of East African Bantu languages. *Recent Advances in Bantu Historical Linguistics,* ed. by J-M. Hombert and L. M. Hyman. Berlin: Mouton de Gruyter.

Nurse, Derek and Henry R. T. Muzale. (Forthcoming). Tense and aspect in Great Lakes Bantu languages. *Recent Advances in Bantu Historical Linguistics,* ed. by J-M. Hombert, and L. M. Hyman. Berlin: Mouton de Gruyter.

Polakow, Avron. 1981. *Tense and Performance: An Essay on the Uses of Tensed and Tenseless Language.* Amsterdam: Rodopi.

Pullum, Geoffrey K. and Deirdre Wilson. 1977. Autonomous syntax and the analysis of auxiliaries. *Language*, 53:741–88.

Pullum, Geoffrey K. and William A. Ladusaw. 1986. *Phonetic Symbol Guide.* Chicago: University of Chicago Press.

Rice, Mabel L. and Susan Kemper. 1984. *Child Language and Cognition.* Baltimore: University Park Press.

Reichenbach, Hans. 1947. *Elements of Symbolic Logic.* New York: Macmillan.

Robertson, John S. 1992. *The History of Tense/Aspect/Mood/Voice in the Mayan Verbal Complex.* Austin: University of Texas Press.

Rugemalira, Josephat M. 1994. Runyambo verb extensions and constraints on argument structure. (Unpublished) PhD Dissertation. Berkeley: University of California.

Rugero, Nkiko Munya et Kabange Mukala. 1987. Hypothèse du morphème verbal discontinu -id-e. *Studies in African Linguistics*, 18, 3: 299–308.

Saussure, Ferdinand de. 1959. *Course in General Linguistics.* Translated by Wade Baskin. New York: McGraw-Hill.

Schadeberg, Thilo C. 1995. Spirantization and the 7–to–5 vowel merger in Bantu. *Belgian Journal of Linguistics*, 9: 73–84.

Schoenbrun, David Lee. 1990. Early history in eastern Africa's Great Lakes region: Linguistic, ecological, and archaeological approaches. ca. 500 B.C. to ca. A.D. 1000. (Unpublished) PhD Dissertation. Los Angeles: University of California.

Snyder, Lynn S. 1984. Cognition and language development. *Language Science: Recent Advances*, ed. by Rita C. Naremore, 107–145. San Diego: College-Hill Press.

Sterelny, Kim. 1985. Semantic theory and developmental linguistics. *Developmental Mechanisms of Language*, ed. by Charles-James N. Bailey and Roy Harris, 89–107. Oxford: Pergamon Press.

Taylor, Charles. 1959. *A Simplified Runyankore-Rukiga-English and English-Runyankore-Rukiga Dictionary*. Kampala: The Eagle Press, East African Literature Bureau.

Taylor, Charles. 1966. A linguistic study of the names of persons, places, flora and fauna in Nkore-Kiga. (Unpublished) PhD Thesis. University of London.

Taylor, Charles. 1985. *Nkore-Kiga*. London: Croom Helm.

Thelin, Nils B. 1978. *Towards a Theory of Aspect, Tense and Actionality in Slavic*. (Studia Slavica Upsaliensia, 18). Stockholm: Almqvist & Wiksell International, UPSALA.

Thomason, Sarah G. (ed.). 1997. *Contact Languages: A Wider Perspective*. Amsterdam: John Benjamins.

Traugott, Elizabeth Closs. 1982. From propositional to textual and expressive meaning: Some semantic-pragmatic aspects of grammaticalization. *Current Issues in Linguistic Theory, Vo. 24. Perspectives on Historical Linguistics*, ed. by Winfred P. Lehmann & Yakov Milkiel, 245–271. Amsterdam: John Benjamins.

Valin, Roch. 1975. The aspects of the French verb. Translated by W. H. Hirtle (1975): 131–145. Laval: Les Presses de L'Université Laval.

Vansina, Jan. 1990. *Paths in the Rainforests: Toward a History of Political Tradition in Equatorial Africa*. Madison, Wisconsin: The University of Wisconsin.

Vassiliev, Valeri I. 1997. Towards cognitive aspectology: The subsystems of lexical aspects. (Unpublished) PhD Thesis. St. John's: Memorial University of Newfoundland.

Voeltz, Erhard F. K. 1980. The etymology of the Bantu Perfect. *L'Expansion Bantoue: Actes du Colloque International du CNRS Viviers (France) - 4–16 Avril 1977,* ed. by Luc Bouquiaux, vol. 2, Part 1: 487–492. Paris: SELAF.

Zwicky, Arnold M. 1970. Auxiliary reduction in English. *Linguistic Inquiry*, 1, 1:323–36.

BIBLIOGRAPHY

Asher, R. E. 1994. *The Encyclopedia of Language and Linguistics,* 8. Oxford: Pergamon Press.

Austen, C. L. 1975. Aspects of Bukusu syntax and phonology. (Unpublished) PhD Dissertation. Indiana University.

Batibo, H. M. 1987. The Bantu ancestors' vision of the world. *Journal of Languages and Linguistics,* 2. University of Dar es Salaam.

Batibo, H. M. 1988. Root affixation in Zairean Kiswahili as evidence for Eastern Bantu rules. *Kiswahili,* 55, 1 & 2: 58–70. University of Dar es Salaam: IKR/TUKI.

Beattie, John. 1960. *Bunyoro: An African Kingdom*. New York: Holt, Rinehart and Winston.

Bendor-Samuel, 1989. *The Niger-Congo Languages*. Lanham: University Press of America.

Bennett, Patrick R. 1976. Some problems of Bantu lexicostatistics. *Cahiers de l'institut de Linguistique,* 3, 5/6: 147–173.

Bennett, Patrick R. 1983. Patterns in linguistic geography and the Bantu origins controversy. *History in Africa*, 10: 35–51.

Bennett, Patrick R. 1985. On the reconstruction of Bantu technology and vocabulary. *Muntu,* 3: 121–135.

Berry, L. (ed.). 1971. *Tanzania in Maps*. London: University of London Press.

Bickmore, Lee S. 1991. Compensatory lengthening in Kinyambo. In F. Katamba (ed.) (1991): 75–104.

Bloom, Paul (ed.). 1993. *Language Acquisition*. New York: Harvester Wheatsheaf.

Bower, J. R. F. 1973. Early pottery and other finds from Kisii district, western Kenya. *Azania,* 8: 131–140.

Brain, J. 1975. Eastern and Western Tanzania: A comparison of non-culture terms. *Bashiru,* 6, 2: 67–81.

Bright, William 1992. *International Encyclopedia of Linguistics,* 4. New York: Oxford University Press.

Bryan, Margaret A. 1959. *The Bantu Languages of Africa.* London: Oxford University Press.

Byarushengo, Ernest R. 1975. An examination of the segmental phonology of Haya. (Unpublished) MA Dissertation. University of Dar es Salaam.

Byarushengo, Ernest R., A. Duranti, and Larry M. Hyman, (eds). 1977. *Haya Grammatical Structure.* SCOPIL 6. California: University of Southern California.

Chambers, J. K. and Peter Trudgill. 1980. *Dialectology.* Cambridge: Cambridge University Press.

Chesswas, J. D. 1963. *The Essentials of Luganda.* Oxford: Oxford University Press.

Clements, George N. and John Goldsmith, (eds). 1984. *Autosegmental Studies in Bantu Tone.* Dordrecht: Foris Publication.

Cole, S. 1963. *The Prehistory of East Africa.* New York: Macmillan.

Cole, Desmond T. 1967. *Some Features of Ganda Linguistic Structure.* Johannesburg: Witwatersrand University Press.

Cope, A. T. 1971. A consolidated classification of Bantu languages. *African Studies,* 30, 3/4.

Cory, Hans and M. M. Hartnoll. 1945. *Customary Law of the Haya Tribe.* London: Frank Cass & Co. Ltd.

Coupez, André. 1976. Linguistic taboo concerning cattle among the Interlacustrine Bantu. *Acts of the African Languages Congress.* Pretoria: University of South Africa.

Creider, Chet A. 1975. The semantic system of noun classes in Proto-Bantu. *Anthropological Linguistics*, 17, 3: 127–38.

Creider, Chet A. and J. P. Denny 1975. The semantics of noun classes in Proto-Bantu. *Patterns in Language, Culture, and Society: Sub-Saharan Africa. The Ohio State University Working Papers in Linguistics*, ed. by R. K. Herbert, 19: 142–63.

Crystal, David. 1997. *A Dictionary of Linguistics and Phonetics.* (Fourth Edition). Oxford: Blackwell.

Dalby, David 1975. The prehistorical implications of Guthrie's Comparative Bantu. Part I: Problems of internal relationship. *Journal of African History*. 16, 4: 481–501.

Dalgish, Gerald M. 1977. Past tense formation in (Oru)Haya. *African Languages/Langues Africaines*. 3: 78–92.

David, Nick. 1980. Early Bantu expansion in the context of central African prehistory: 400–1BC. *L'expansion Bantoue*, ed. by L. Bouquiaux, 3: 609–47. Paris: SELAF.

Ehret, Christopher 1971. *Southern Nilotic History*. Evanston: Northwestern University Press.

Eastman, Carol M. 1972. Lunyole of the Bamenya. *Journal of African Languages,* 11, 3: 63–78.

Ehret, Christopher 1972. Bantu origins and history: Critique and interpretation. *Transafrican Journal of History,* 2, 1: 1–9.

Ehret, Christopher 1973. Patterns of Bantu and central Sudanic settlement in central and southern Africa (ca. 1000BC–500AD). *Transafrican Journal of History*, 3, 1–2: 1–71.

Ehret, Christopher. 1982. Linguistic inferences about early Bantu history. *The Archaeological and Linguistic Reconstruction of African History*, ed. by C. Ehret and M. Posnansky, 57–65.

Ehret, Christopher and M. Posnansky, (eds). 1982. *The Archaeological and Linguistic Reconstruction of African History*. Berkeley: University of California Press.

Fabian, Johannes. 1982. Scratching the surface: Observations on the poetics of lexical borrowing in Shaba Swahili. *Anthropological Linguistics*, 24,1: 14–50.

Fallers, Margareth C. 1968. *The Eastern Lacustrine Bantu*. London: International African Institute.

Fivaz, Derek. 1977. *African Languages: A Genetic and Decimalised Classification for Bibliographic and Genetic Reference*. Boston: G. K. Hall.

Fletcher, Paul and Brian MacWhinney, (eds). 1995. *The Handbook of Child Language*. Oxford: Basil Blackwell Ltd.

Flight, Colin. 1980. Malcolm Guthrie and the reconstruction of Bantu prehistory. *History in Africa* 7: 81–118.

Fodor, István. 1969. *The Problems in the Classification of the African Languages*. (Third Edition). Budapest: Center for Afro-Asian Research.

Fraas, Pauline A. 1961. *A Nande-English and English-Nande Dictionary*. Washington, D.C.

Freeman-Grenville, G. S. P. 1962. *The East African Coast: Selected Documents from the First to the Earliest Nineteenth Century*. Oxford: Clarendon.

Givón, Talmy. 1970. Some historical changes in the noun-class system of Bantu, their possible causes and wider application. *Papers in African Linguistics*, ed. by C. W. Kim and H. Stahlke, 33–54. Edmonton: Linguistic Research.

Givón, Talmy. 1975. Focus and the scope of assertion: Some Bantu evidence. *Studies in African Linguistics*, 6: 185–205.

Givón, Talmy. 1978. Negation in language: Pragmatics, function, ontology. *Syntax and Semantics 9: Pragmatics*, ed. by Peter Cole, 69–112. New York: Academic Press.

Givón, Talmy. 1979. Language typology in Africa. *Journal of African Languages and Linguistics,* 1: 199–224.

Goodluck, Helen. 1991. *Language Acquisition: A Linguistic Introduction*. Oxford: Blackwell.

Goyvaerts, Didier L. 1985. *African Linguistics: Essays in Memory of M. W. K. Semikenke.* Amsterdam: John Benjamins.

Gray, J. M. 1936. The Basoga. *Uganda Journal,* 3, 4: 308–312.

Greenberg, Joseph 1948. The tonal system of Proto-Bantu. *Word*, 4, 3: 196–208.

Greenberg, Joseph H. 1972. Linguistic evidence regarding Bantu origins. *Journal of African History,* 13, 2: 189–216.

Gregersen, Edgar A. 1977. *Language in Africa: An Introductory Survey*. New York: Gordon and Breach.

Guthrie, Malcolm. 1967. *The Classification of Bantu Languages*. London: International African Institute.

Haddon, E. 1955. Note on the verbal -e stem in East African Bantu. *Africa*, 25: 79–83.

Heine, Bernd. 1973. Zur genetischen Gliederung der Bantu-Sprachen. *Afrika und Übersee*, 56: 164–184.

Heine, Bernd. 1980. Methods in comparative Bantu linguistics. *L'expansion bantoue* 2, ed. by L. Bouquiaux. Actes de Colloque International du CNRS, Viviers, 4–16 avril: 295–308. Paris: SELAF.

Heine, Bernd. 1976. *A Typology of African Languages: Based on the Order of Meaningful Elements*. (Kölner Beiträge zur Afrikanistik, 4). Berlin: Dietrich Reimer Verlag.

Heine, Bernd. 1974. Historical linguistics and lexicostatistics in Africa. *Journal of African Languages*, 11, 3: 7–20.

Heine, Bernd, 1984. The dispersal of the Bantu peoples in the light of linguistic evidence. *Muntu*, 1: 21–36.

Henrici, Alick. 1973. Numerical classification of Bantu languages. *African Language Studies,* 14: 81–104.

Herbert, Robert. K. 1994. Review of *Swahili and Sabaki: A Linguistic History* by D. Nurse and T. J. Hinnebusch. *Anthropological Linguistics,* 36, 3: 390–392.

Hinnebusch, Thomas J., Derek Nurse, and Martin Mould. 1981. *Studies in the Classification of Eastern Bantu Languages*. Beiheft 3, Hamburg: Buske.

Hopper, Paul J. (ed.). 1982. *Tense-Aspect: Between Semantics & Pragmatics*. Amsterdam: John Benjamins.

Huffman, Tom N. 1979. African origins. Review of *The Later Prehistory of Eastern and Southern Africa* by D. W. Phillipson. *South African Journal of Science*, 75: 232–237.

Huntingford, G. W. B. 1965. The Orusyan language of Uganda. *Journal of African Languages,* 4: 145–169.

Hymes, Dell. 1959. Genetic classification: Retrospect and prospect. *Anthropological Linguistics,* 1: 50–66.

Hymes, Dell. 1960. Lexicostatistics so far. *Current Anthropology* 1: 3–44.

Hymes, Dell. 1993. Anthropological Linguistics: A retrospective. *Anthropological Linguistics,* 35, 1–4: 9–14.

Hymes, Dell. 1993. Genetic classification: Retrospect and prospect. *Anthropological Linguistics,* 35, 1: 421–37.

ILCAA. 1989. *Studies in Tanzanian Languages*. Tokyo: Institute for the Study of Languages and Cultures of Asia and Africa.

Ishumi, A. G. M. 1980. *Kiziba: The Cultural Heritage of An Old African Kingdom*. New York: Syracuse University.

Jones, Charles (ed.). 1993. *Historical Linguistics: Problems and Perspectives*. London: Longman.

Kahigi, Kulikoyela K. 1977. Sumbwa Phonology: A Generative Transformational Approach. (Unpublished) MA Thesis. University of Dar es Salaam.

Kahigi, Kulikoyela K. 1988. Aspects of Sumbwa Diachronic Phonology. (Unpublished) PhD Dissertation. Michigan State University.

Kähler-Meyer, E. 1971. Niger-Congo, Eastern Bantu. CTL 7. *Linguistics in Sub-Saharan Africa*, ed. by Sebeok, 307–56. The Hague Mouton.

Katamba, Francis (ed.). 1991. *Lacustrine Bantu Phonology.* (AAP). Cologne: University of Cologne.

Katamba, Francis. 1993. *Morphology.* New York: St. Martin's Press.

Kendall, R. L. 1969. An ecological history of the Lake Victoria Basin. *Ecological Monographs,* 39: 121–175.

Kimenyi, Alexandre. 1980. *A Relational Grammar of Kinyarwanda.* (Linguistics, 91). Berkeley: University of California Press.

Kimenyi, Alexandre. 1989. *Kinyarwanda and Kirundi Names: A Semiolinguistic Analysis of Bantu Onomastics*. Lewiston: The Edwin Mellen Press.

Knappert, Jan. 1970. The origin of the term Bantu. *African Language Studies,* 11: 230–236.

Labov, William. 1994. *Principles of Linguistic Change, Volume 1: Internal Factors*. Oxford: Blackwell.

Love, Nigel (ed.). 1990. *The Foundations of Linguistics Theory: Selected Writings of Roy Harris*. London: Routledge.

Marle, Jaap van (ed.). 1993. *Papers from the 10th International Conference on Historical Linguistics*. Free University Amsterdam. Amsterdam: John Benjamins.

Massamba, David P. B. 1977. A comparative study of the Ruri, Jita and Kwaya "languages" of the eastern shore of Lake Nyanza (Victoria). (Unpublished) MA Thesis. University of Dar es Salaam.

Matthews, P. H. 1974. *Morphology: An Introduction to the Theory of Word-Structure*. Cambridge: Cambridge University Press.

Meeussen, A. E. 1967. Bantu grammatical reconstructions. *Aficana Linguistica,* 3: 81–121.

Meeussen, A. E. 1969. *Bantu Lexical Reconstructions* (Pro-manuscripto). Tervuren

Meeussen, A. E. 1974. Notes on tone in Luganda. *Bulletin of the School of Oriental and African Studies*, 37, 1: 147–156.

Meulen, Alice G. B. ter. 1995. *Representing Time in Natural Language: The Dynamic Interpretation of Tense and Aspect*. Cambridge: The MIT Press.

Mgomezulu, G. G. Y. 1981. Recent archeological research and dates from Eastern Africa. *Journal of African History,* 22, 4: 435–456.

Morris, H. F. 1958. Some aspects of Lunyankole. *Uganda Journal*, 22, 1: 554–63.

Morris, H. F. 1963. A note on Lunyole. *Uganda Journal,* 27, 1: 127–134.

Morris, H. F. (ed.). 1964. *The Heroic Recitations of the Bahima of Ankole*. London: Oxford University Press.

Mould, Martin J. 1976. Comparative grammar reconstruction and language subclassification: The North Victoria Bantu languages. (Unpublished) PhD Dissertation. UCLA.

Myachina, E. N. 1981. *The Swahili Language: A Descriptive Grammar*. London: Routledge & Kegan Paul.

Naremore, Rita C. (ed.). 1984. *Language Science: Recent Advances*. San Diego: College-Hill Press.

Nestor, Hellen B. 1977. *500 Haya Proverbs*. Nairobi: East African Literature Bureau.

Nsimbi, M. B. 1964. The clan system in Buganda. *Uganda Journal,* 28, 1: 25–30.

Nurse, Derek. 1979. Sample Bantu languages of Tanzania. *African Languages/Langues Africaines*, 5, 1.

Nurse, Derek. 1980. Historical implications of the language map of East Africa. *L'expansion Bantoue,* ed. by L.Bouquiaux 3: 685–714. Paris: SELAF.

Nurse, Derek. 1982. Bantu expansion into East Africa: Linguistic evidence. *The Archaeological and Linguistics Reconstruction of African History*, ed. by C. Ehret & M. Posnansky, 199–222. Berkeley: University of California Press.

Nurse, Derek. 1983. The Proto-Sabaki verb system and its subsequent development. *SUGIA* 5: 45–109.

Nurse, Derek. 1988. Alternative historical sources for Swahili vocabulary. *Languages and Cultures*, ed. by M. A. Jazayery and W. Winter, 475–487. Berlin: Mouton de Gruyter.

Nurse, Derek and Thomas Spear. 1985. *The Swahili: Reconstructing the History and Languages of an African Society, 800–1500*. Philadelphia: University of Pennsylvania Press.

Oliver, Roland. 1966. The problem of Bantu expansion. *Journal of African History*, 7: 361–76.

Oliver, Roland. 1978. The emergence of Bantu Africa. *The Cambridge History of Africa*, 2, ed. by J. D. Fage, 342–409. Cambridge: Cambridge University Press

Phillipson, David W. 1977. The spread of the Bantu languages. *Scientific American*, 236, 4, (April): 106–114.

Polomé, Edgar. C. 1975. The reconstruction of Bantu culture from the lexicon. *Patterns in Language, Culture and Society: Sub-Saharan Africa. The Ohio University Working Papers in Linguistics*, 19: 164–73.

Polomé, Edgar and C. P. Hill. 1980. *Language in Tanzania*. London: Oxford University Press.

Polomé, Edgar C. and Werner Winter, (eds). 1992. *Reconstructing Languages and Cultures*. Berlin: Mouton de Gruyter.

Polomé, Edgar C. (ed.). 1990. *Research Guide on Language Change*. Berlin: Mouton de Gruyter.

Posnansky, Merrick. 1968. Bantu genesis: Archaelogical reflections. *Journal of African History,* 9:11–22.

Rascher, A. (n.d.). *Guide for Learning the Ruhaya Language*. Bethel: Bielfeld.

Reining, R. P. 1967. The Haya: The agricultural system of a sedentary people. (Unpublished) PhD Dissertation. University of Chicago.

Robertshaw, R. 1984. Archaeology in Eastern Africa. *Journal of African History*, 25, 3: 369–393.

Robins, R. H. 1973. The history of language classification. *Current Trends in Linguistics II*, ed. by T. Sebeok. The Hague: Mouton.

Robins, R. H. 1990. *A Short History of Linguistics*. (Third edition). London: Longman.

Rubanza, Y. I. 1979. The relationship between Kiswahili and other African languages: The case of Kihaya. (Unpublished) MA Dissertation. University of Dar es Salaam.

Ruel, M. J. 1962. Kuria generation classes. *Africa*, 32, 1: 14–37.

Ruhlen, Merritt. 1991. *A Guide to the World's Languages, Volume 1: Classification.* Stanford: Stanford University Press.

Schoenbrun, David L. 1993. Cattle herds and banana gardens: The historical geography of the Western Great Lakes region, ca A.D. 800–1500. *The African Archaeological Review*. Vol. 11: 41–75.

Schoenbrun, David L. 1992. Great Lakes Bantu: Classification and settlement chronology. A paper submitted to Spache und Geschichte in Afrika: 22 July 1992.

Schoenbrun, David L. 1993. We are what we eat: Ancient agriculture between the Great Lakes. *Journal of African History*, 34: 1–31. Cambridge: Cambridge University Press.

Schmidt, Peter R. 1978. *Historical Archaeology: A Structural Approach to an African Culture*. Westport, CT: Greenwood Press.

Schmidt, Peter R. 1980. Early iron age settlements and industrial locales in West Lake. *Tanzania Notes and Records*, 84/85: 77–94.

Sibomana, Leo. 1991. The tonal structure of Kinyarwanda nouns. In F. Katamba (ed.) (1991): 55–74.

Siertsema, B. 1981. Masaba word list: English-Masaba and Masaba-English. Tervuren.

Sillery, A. 1932. A sketch of the Kikwaya language. *Bantu Studies*, 4, 273–308.

Sillery, A. 1936. Notes for a grammar of the Kuria language. *Bantu studies,* 10: 9–29.

Snoxall, R. A. 1938. Word importation into Bantu language with particular reference to Ganda. *Uganda Journal*, 5, 4: 267–283.

Snoxall, R. A. 1967. *Luganda-English Dictionary*. Oxford: Oxford University Press.

Soper, Robert 1982. Bantu expansion into East Africa: Archaeological evidence. *The Archaeological and Linguistic Reconstruction of African History*, ed. by C. Ehret & M. Posnansky, 223–238. Berkeley: University of California Press.

Stevick, Earl W. (n.d). *Kirundi: Basic Course*. Washington, D. C.: Foreign Service Institute.

Sutton, John E. G. 1972. New radiocarbon dates for eastern and southern Africa. *Journal of African History*, 13: 1–24.

Swadesh, Morris. 1952. Lexicostatistic dating of prehistoric ethnic contact. *Proceedings of the American Philosophical Society,* 96: 435–463.

Swadesh, Morris. 1955. Towards greater accuracy in lexicostatistical dating. *International Journal of American Linguistics*, 21: 121–137.

Swadesh, Morris. 1972. What is glottochronology? *The Origin of Diversification of Language*, ed. and translated by J. Sherzer, 271–284. Chicago & New York.

Swadesh, Morris. 1993. The mesh principle in comparative linguistics. *Anthropological Linguistics,* 35, 1–4: 38–45.

Taylor, Brian K. 1969. *The Western Lacustrine Bantu*. London: International African Institute.

Taylor, C. 1966. A linguistic study of the names of persons, places, flora and fauna in Nkore-Kiga. (Unpublished) PhD Thesis. University of London.

Tomasello, Michael and William E. Merriman, (eds). 1995. *Beyond Names for Things: Young Children's Acquisition of Verbs*. Hillsdale: Lawrence Erlbaum Associates, Inc.

Trask, R. L. 1996. *Historical Linguistics*. London: Arnold.

Tucker, Archibald N. 1960. Notes on Konzo. *African Language Studies,* 1: 16–41.

Van Sambeek, (n.d.). Ki-Ha Dictionary, (ms). Kasulu: White Fathers Missionary Society.

Vitale, Anthony J. 1981. *Swahili Sytanx*. Dordrecht, Holland: Foris Publications

Voegelin, C. F. and F. M. Voegelin 1977. *Classification and Index of the World's languages*. New York: Elsevier.

Vossen, Rainer. 1988. *Towards a Comparative Study of the Maa Dialects of Kenya and Tanzania*. Translated from German by Marion Frank. Hamburg: Buske.

Welmers, William E. 1973. *African Language Structures*. Berkeley and Los Angeles: University of California Press.

Were, Gideon and Derek A. Wilson. 1968. *East Africa Through a Thousand Years*. New York: Africana Publishing Corporation.

Whiteley, Wilfred H. 1960. *The Tense System of Gusii*. Kampala: East African Institute of Social Research.

Wright, A. C. A. 1940. Review of M. V. Davis' *A Lunyoro-Lunyankole-English and English-Lunyoro-Lunyankole Dictionary* (London, 1938). *Uganda Journal,* 7, 4: 195–201.

Wrigley, C. C. 1962. Linguistic clues to African history. *Journal of African History,* 3: 269–272.

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APPENDICES

APPENDIX I: TENSE/ASPECT

Introductory notes and comments

1. Formatives are presented in their underlying forms (except for tone) rather than being purely phonetic. Therefore, different phonological rules will apply in order to produce phonetic forms depending on the language.

e.g.	i.	{tu-ki-áá-gur-a}	→	[tukyáágura] / [tucyáágura] / [tucáágura].
	ii.	{tu-á-gur-a}	→	[twáágura] / [twáágula].
	iii.	{tu-riá-gur-a}	→	[turyáágura] / [turyágura] / [tulyáágura] / [tulyágura]..

2. None of these languages is purely homogeneous. Each has dialectal and even interdialectal differences, as well as interpersonal differences. Therefore, the differences pointed out at the foot of every page are either the major ones or just a representative sample.

3. The T/A labels used in these tables are all defined in their respective section, mainly Chapters Four–Five (see Table of Contents).

4. The T/A tables are organised in terms of completive *versus* incompletive aspects for each language. However, these tables do not include all the aspects available in the languages. They only summarise the most common aspects, particularly those which have been discussed in the thesis.

5. All notes and comments are placed after the last table.

I A. PROTO-RUTARA

(i) Completives

ASPECT→ TENSE⇓	**Performative** **A: *{-Ø-...-a}** **N: *{ti-...-Ø-...-a}**	**Perfect** **A: *{-Ø-...-ire}** **N: *{ti-...-Ø-...-ire}**	**Perfective** **A: *{-aa-...-a}** **N: *{ti-...-aa-...-a}**	**Retrospective** **A: *{-aa-...-ire}** **N: *{ti-...-ka-...-ire}**
REMOTE PAST **A: *{-ka-...-a}** **N: *{ti-...-ra-...-ire}** **N: *{ti-...-a-...-ire}**	A: tu-**ka**-gur-**a** N: ti-tu-**(r)a**-guz-**ire** *We bought*	A: tu-**ka**-βa tu-guz-**ire** N1: tu-**ka**-βa tu-ta-guz-**ire** N2: ti-tu-**(r)a**-βa-**ire** tu-guz-**ire** *We had bought*	A: tu-**ka**-βa tu-**aa**-gur-**a** N1: tu-**ka**-βa tu-ta-**ka**-guz-**ire** N2: ti-tu-**(r)a**-βa-**ire** tu-**aa**-gur-**a** *We had just bought*	A: tu-**ka**-βa tu-**aa**-guz-**ire** N1: tu-**ka**-βa tu-ta-**ka**-guz-**ire** N2: ti-tu-**(r)a**-βa-**ire** tu-**aa**-guz-**ire** *We had already bought*
NEAR PAST **A: *{-Ø-...-ire}** **N: *{ti...-Ø-...-ire}**	A: tu-guz-**ire** N: ti-tu-guz-**ire** *We bought*	A: tu-βa-**ire** tu-guz-**ire** N1: tu-βa-**ire** tu-ta-guz-**ire** N2: ti-tu-βa-**ire** tu-guz-**ire** *We had bought*	A: tu-βa-**ire** tu-**aa**-gur-**a** N1: ti-tu-βa-**ire** tu-**aa**-gur-**a** N2: tu-βa-**ire** tu-ta-**ka**-guz-**ire** *We had just bought*	A: tu-βa-**ire** tu-**aa**-guz-**ire** N1: tu-βa-**ire** tu-ta-**ka**-guz-**ire** N2: ti-tu-βa-**ire** tu-**aa**-guz-**ire** *We had already bought*
MEMORIAL PRESENT **A: *{-aa-...-a}** **N: *{ti-...-aa-...-a}**	A: tu-**aa**-gur-**a** N: ti-tu-**aa**-gur-**a** *We bought*	A: tu-**aa**-βa tu-guz-**ire** N1: tu-**aa**-βa tu-ta-guz-**ire** N2: ti-tu-**aa**-βa tu-guz-**ire** *We had bought*	A: tu-**aa**-βa tu-**aa**-gur-**a** N1: ti-tu-**aa**-βa tu-**aa**-gur-**a** N2: tu-**aa**-βa tu-ta-**ka**-guz-**ire** *We had just bought*	A: tu-**aa**-βa tu-**aa**-guz-**ire** N1: tu-**aa**-βa tu-ta-**ka**-guz-**ire** N2: ti-tu-**aa**-βa tu-**aa**-guz-**ire** *We had already bought*
EXPERIENTIAL PRESENT **A: *{-Ø-...-a}** **N: *{ti-...-Ø-...-a**		A: tu-guz-**ire** N: ti-tu-guz-**ire** *We have bought*	A: tu-**aa**-gur-**a** N1: ti-tu-**aa**-gur-**a** N2: ti-tu-**ka**-guz-**ire** *We have just bought*	A: tu-**aa**-guz-**ire** N: ti-tu-**ka**-guz-**ire** *We have already bought*
NEAR FUTURE **A: *{-raa-...-a}** **N: *{ti-...-raa-...-e}**	A: tu-**raa**-gur-**a** N: ti-tu-**raa**-gur-**e** *We will buy*	A: tu-**raa**-βa tu-guz-**ire** N1: tu-**raa**-βa tu-ta-guz-**ire** N2: ti-tu-**raa**-**βe** tu-guz-**ire** *We will have bought*	A: tu-**raa**-βa tu-**aa**-gur-**a** N1: ti-tu-**raa**-**βe** tu-**aa**-gur-**a** N2: tu-**raa**-βa tu-ta-**ka**-guz-**ire** *We will have just bought*	A: tu-**raa**-βa tu-**aa**-guz-**ire** N1: tu-**raa**-βa tu-ta-**ka**-guz-**ire** N2: ti-tu-**raa**-**βe** tu-**aa**-guz-**ire** *We will have already bought*
REMOTE FUTURE **A: *{-ria-...-a}** **N: *{ti-...-ria-...-a}**	A: tu-**ria**-gur-**a** N: ti-tu-**ria**-gur-**a** *We will buy*	A: tu-**ria**-βa tu-guz-**ire** N1: tu-**ria**-βa tu-ta-guz-**ire** N2: ti-tu-**ria**-βa tu-guz-**ire** *We will have bought*	A: tu-**ria**-βa tu-**aa**-gur-**a** N1: ti-tu-**ria**-βa tu-**aa**-gur-**a** N2: tu-**ria**-βa tu-ta-**ka**-guz-**ire** *We will have just bought*	A: tu-**ria**-βa tu-**aa**-guz-**ire** N1: tu-**ria**-βa tu-ta-**ka**-guz-**ire** N2: ti-tu-**ria**-βa tu-**aa**-guz-**ire** *We will have already bought*

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(ii) Incompletives

ASPECT→ TENSE ⇓	**Habitual** **A: *{-Ø-...-a(-ga)}** **N: *{ti-...-Ø-...-a(-ga)}**	**Progressive** **A: *{-ri-ku-...-a}** **N: *{ti-...-ri-ku-...-a}**	**Persistive** **A: *{-kiaa-...-a}** **N: *{ti-...-kiaa-...-a}**
REMOTE PAST **A: *{-ka-...-a}** **N: *{ti-...-(r)a-...-ire}**	A1: tu-**ka**-βa tu-gur-**a** N1: tu-**ka**-βa tu-ta-gur-**a** N2: ti-tu-**(r)a**-βa-**ire** tu-gur-**a** A2: tu-**a**-gur-**a**-**ga** N3: ti-tu-**a**-gur-**a**-**ga** *We used to buy*	A: tu-**ka**-βa tu-**ri**-**ku**-gur-**a** N1: tu-**ka**-βa tu-ta-**ri**-**ku**-gur-**a** N2: ti-tu-**(r)a**-βa-**ire** tu-**ri**-**ku**-gur-**a** *We were buying*	A: tu-**ka**-βa tu-**kiaa**-gur-**a** N1: tu-**ka**-βa tu-ta-**kiaa**-gur-**a** N2: ti-tu-**(r)a**-βa-**ire** tu-**kiaa**-gur-**a** *We were still buying*
NEAR PAST **A: *{-Ø-...-ire}** **N: *{ti...-Ø-...-ire}**		A: tu-βa-**ire** tu-**ri**-**ku**-gur-**a** N1: tu-βa-**ire** tu-ta-**ri**-**ku**-gur-**a** N2: ti-tu-βa-**ire** tu-**ri**-**ku**-gur-**a** *We were buying*	A: tu-βe-**ire** tu-**kiaa**-gur-**a** N1: tu-βe-**ire** tu-ta-**kiaa**-gur-**a** N2: ti-tu-βa-**ire** tu-**kiaa**-gur-**a** *We were still buying*
MEMORIAL PRESENT **A: *{-aa-...-a}** **N: *{ti-...-aa-...-a}**	A1: tu-gur-**a** N1: ti-tu-gur-**a** *We (do) buy*	A: tu-**aa**-βa tu-**ri**-**ku**-gur-**a** N1: tu-**aa**-βa tu-ta-**ri**-**ku**-gur-**a** N2: ti-tu-**aa**-βa tu-**ri**-**ku**-gur-**a** *We were buying*	A: tu-**aa**-βa tu-**kiaa**-gur-**a** N1: tu-**aa**-βa tu-ta-**kiaa**-gur-**a** N2: ti-tu-**aa**-βa tu-**kiaa**-gur-**a** *We were still buying*
EXPERIENTIAL PRESENT **A: *{-Ø-...-a}** **N: *{ti-...-Ø-...-a**	A2: tu-gur-**a**-**ga** N2: ti-tu-gur-**a**-**ga** *We buy regularly*	A: tu-**ri**-**ku**-gur-**a** N: ti-tu-**ri**-**ku**-gur-**a** *We are buying*	A: tu-**kiaa**-gur-**a** N: ti-tu-**kiaa**-gur-**a** *We are still buying*
NEAR FUTURE **A: *{-raa-...-a}** **N: *{ti-...-raa-...-e}**		A: tu-**raa**-βa tu-**ri**-**ku**-gur-**a** N1: tu-**raa**-βa tu-ta-**ri**-**ku**-gur-**a** N2: ti-tu-**raa**-**βe** tu-**ri**-**ku**-gur-**a** *We will be buying*	A: tu-**raa**-βa tu-**kiaa**-gur-**a** N1: tu-**raa**-βa tu-ta-**kiaa**-gur-**a** N2: ti-tu-**raa**-**βe** tu-**kiaa**-gur-**a** *We will still be buying*
REMOTE FUTURE **A: *{-ria-...-a}** **N: *{ti-...-ria-...-a}**	A1: tu-**ria**-βa tu-gur-**a** N1: ti-tu-**ria** tu-gur-**a** A2: tu-**raa**-βa-**ga** ku-gur-**a** N2: ti-tu-**raa**-βa-**ge** ku-gur-**a** *We will buy regularly*	A: tu-**ria**-βa tu-**ri**-**ku**-gur-**a** N1: tu-**ria**-βa tu-ta-**ri**-**ku**-gur-**a** N2: ti-tu-**ria**-βa tu-**ri**-**ku**-gur-**a** *We will be buying*	A: tu-**ria**-βa tu-**kiaa**-gur-**a** N1: tu-**ria**-βa tu-ta-**kiaa**-gur-**a** N2: ti-tu-**ria**-βa tu-**kiaa**-gur-**a** *We will still be buying*

I B1. RUNYORO (R1)

(i) Completives

ASPECT⇒ / TENSE ⇓	**Performative** **{-Ø-}**	**Perfective** **{-a-}**	**Perfect & Retrospective** **{-ire}**
REMOTE PAST **{-ka-}**	A: tu-**ka**-gúr-a N: tu-ta-gúr-**e** *We bought*	A: tu-**ka**-ba tu-**á**-gûr-a N: tu-**ka**-ba tu-ta-**ka**-guz-**íre** *We had just bought*	A: tu-**ka**-ba tu-gúz-**ire** N: tu-**ka**-ba tu-ta-guz-**íre** *We had bought*
NEAR PAST **{-Ø-...-ire(-ge)}**	A: tu-guz-**iré-ge** N: ti-tu-guz-**iré-ge** *We bought*	A: tu-ba-**ire** tu-**á**-gûr-a N: tu-ba-**ire** tu-ta-**ka**-guz-**íre** *We had just bought*	A: tu-ba-**ire** tu-gúz-**ire** N: tu-ba-**ire** tu-ta-guz-**íre** *We had bought*
MEMORIAL PRESENT **{-a-}**	A: tu-**a**-gûr-a N: ti-tu-**a**-gûr-a *We have just bought*	A: tu-**a**-ba tu-**á**-gûr-a N: tu-**a**-ba tu-ta-**ka**-guz-**íre** *We had just bought*	A: tu-**a**-ba tu-gúz-**ire** N: tu-**a**-ba tu-ta-guz-**íre** *We had bought*
EXPERIENTIAL PRESENT **{-Ø-}**		A: tu-**a**-gûr-a N1: ti-tu-**a**-gûr-a N2: ti-tu-(**ka**)-guz-**íre** *We have just bought*	A1: tu-guz-**íre** N: ti-tu-guz-**íre** *We have bought* A2: tu-**a**-ba tú-guz-**ire** *We had bought*
NEAR FUTURE **{-ra-}**	A: tu-**ra**-gúr-a N: ti-tu-gúr-**e** *We will buy*	A: tu-**ra**-ba tu-**á**-gûr-a N: tu-**ra**-ba tu-ta-**ka**-guz-**íre** *We will have just bought*	A: tu-**ra**-ba tú-guz-**ire** N: tu-**ra**-ba tu-ta-guz-**íre** *We will have bought*
REMOTE FUTURE **{-ri-}**	A: tu-**ri**-gúr-a N: ti-tu-**ri**-gúr-a *We will buy*	A: tu-**ri**-ba tu-**á**-gûr-a N: tu-**ri**-ba tu-ta-**ka**-guz-**íre** *We will have just bought*	A: tu-**ri**-ba tu-gúz-**ire** N: tu-**ri**-ba tu-ta-guz-**íre** *We will have bought*

I B1. RUNYORO (R1)
(ii) Incompletives

ASPECT⇒ TENSE ⇓	**Habitual** **{-Ø-} / {-a-ga}**	**Progressive** **{n(i)-}**	**Persistive** **{(ni-)...-ki-(aa)-}**
REMOTE PAST **{-ka-}**	A: tu-**a**-gur-**á-ga** N: ti-tu-**a**-gur-**á-ga** *We used to buy*	A: tu-**ka**-ba **ni**-tu-gúr-a N: tu-**ka**-ba tu-tá-(**ru**)-**ku**-gur-a *We were buying*	A: tu-**ka**-ba **ni**-tu-**kiáá**-gúr-a N: tu-**ka**-ba tu-ta-**ki**-gúr-a *We were still buying*
NEAR PAST **{-Ø-...-ire(-ge)}**	A: tu-gúr-a N: ti-tu-gúr-a *We buy*	A: tu-ba-**ire** **ni**-tu-gúr-a N: tu-ba-**ire** tu-tá-(**ru**)-**ku**-gur-a *We were buying*	A: tu-ba-**ire** **ni**-tu-**kiáá**-gúr-a N: tu-ba-**ire** tu-ta-**ki**-gúr-a *We were still buying*
MEMORIAL PRESENT **{-Ø-...-ire(-ge)}**		A: tu-**a**-ba **ni**-tu-gúr-a N: tu-**a**-ba tu-tá-(**ru**)-**ku**-gur-a *We were buying*	A: tu-**a**-ba **ni**-tu-**kiáá**-gúr-a N: tu-**a**-ba tu-ta-**ki**-gúr-a *We were still buying*
EXPERIENTIAL PRESENT **{-Ø-}**		A: **ni**-tu-gúr-a N: ti-tú-**(r)u**-**ku**-gur-a *We are buying*	A: **ni**-tu-**kiáá**-gúr-a N: ti-tu-**ki**-gúr-a *We are still buying*
NEAR FUTURE **{-ra-}**		A: tu-**ra**-ba **ni**-tu-gúr-a N: tu-**ra**-ba tu-tá-(**ru**)-**ku**-gur-a *We will be buying*	A: tu-**ra**-ba **ni**-tu-**kiáá**-gúr-a N: tu-**ra**-ba tu-ta-**ki**-gúr-a *We will still be buying*
REMOTE FUTURE **{-ri-}**	A: tu-**ra**-gur-**á-ga** N: ti-tu**u**-gur-**é-ge** *We will buy (regularly)*	A: tu-**ri**-ba **ni**-tu-gúr-a N: tu-**ri**-ba tu-tá-(**ru**)-**ku**-gur-a *We will be buying*	A: tu-**ri**-ba **ni**-tu-**kiáá**-gúr-a N: tu-**ri**-ba tu-ta-**ki**-gúr-a *We will still be buying*

I B2. RUTOORO (R2)

(i) Completives

ASPECT⇒ TENSE ⇓	**Performative** **{-Ø-}**	**Perfective** **{-a-}**	**Perfect & Retrospective** **{-Ø-...-ire} / {-ka-...-ire}**
REMOTE PAST **{-ka-}**	A: tu-**ka**-gûr-a N: tu-ta-gûr-**e** *We bought*	A: tu-**ka**-ba tu-**a**-gûr-a N: tu-**ka**-ba tu-ta-**ka**-guz-**îre** *We had just bought*	A: tu-**ka**-ba tu-guz-**îre** N: tu-**ka**-ba tu-ta-**ka**-guz-**îre** *We had already bought*
NEAR PAST **{-Ø-...-ire(-ge)}**	A: tu-guz-**irê-ge** N: ti-tu-guz-**irê-ge** *We bought*	A: tu-ba-**ire** tu-**a**-gûr-a N: tu-ba-**ire** tu-ta-**ka**-guz-**îre** *We had just bought*	A: tu-ba-**ire** tu-guz-**îre** N: tu-ba-**ire** tu-ta-**ka**-guz-**îre** *We had already bought*
MEMORIAL PRESENT **{-a-}**	A: tu-**a**-gûr-a N: ti-tu-**a**-gûr-a *We have just bought*	A: tu-**a**-ba tu-**a**-gûr-a N: tu-**a**-ba tu-ta-**ka**-guz-**îre** *We had just bought*	A: tu-**a**-ba tu-guz-**îre** N: tu-**a**-ba tu-ta-**ka**-guz-**îre** *We had already bought*
EXPERIENTIAL PRESENT **{-Ø-}**		A: tu-**a**-gûr-a N1: ti-tu-**a**-gûr-a N2: ti-tu-**ka**-guz-**îre** *We have just bought*	A: tu-guz-**îre** N: ti-tu-**ka**-guz-**îre** *We have already bought*
NEAR FUTURE **{-raa-}**	A: tu-**raa**-gûr-a N: ti-tu-**aa**-gûr-**e** *We will buy*	A: tu-**ra**-ba tu-**a**-gûr-a N: tu-**ra**-ba tu-ta-**ka**-guz-**îre** *We will have just bought*	A: tu-**raa**-ba tu-guz-**îre** N: tu-**raa**-ba tu-ta-**ka**-guz-**îre** *We will have already bought*
REMOTE FUTURE **{-ri-}**	A: tu-**ri**-gûr-a N: ti-tu-**ri**-gûr-a *We will buy*	A: tu-**ri**-ba tu-**a**-gûr-a N: tu-**ri**-ba tu-ta-**ka**-guz-**îre** *We will have just bought*	A: tu-**ri**-ba tu-guz-**îre** N: tu-**ri**-ba tu-ta-**ka**-guz-**îre** *We will have already bought*

I B2. RUTOORO (R2)
(ii) Incompletives

ASPECT⇒ TENSE ⇓	**Habitual** **{-Ø-} / {-a-ga}**	**Progressive** **{n(i)-} / {-ri-ku-}**	**Persistive** **{n(i)-...-ki-aa-}**
REMOTE PAST **{-ka-}**	A: tu-**a**-gur-**â-ga** N: ti-tu-**a**-gur-**â-ga** *We used to buy*	A: tu-**ka**-ba **n(i)**-tu-gûr-a N: tu-**ka**-ba tu-ta-(**ru**)-**ku**-gûr-a *We were buying*	A: tu-**ka**-ba **n(i)**-tu-**kiaa**-gûr-a N: tu-**ka**-ba tu-ta-**kiaa**-gûr-a *We were still buying*
NEAR PAST **{-Ø-...-ire(-ge)}**	A: tu-gûr-a N: ti-tu-gûr-a *We buy*	A: tu-ba-**ire** **n(i)**-tu-gûr-a N: tu-ba-**ire** tu-ta-(**ru**)-**ku**-gûr-a *We were buying*	A: tu-ba-**ire** **n(i)**-tu-**kiaa**-gûr-a N: tu-ba-**ire** tu-ta-**kiaa**-gûr-a *We were still buying*
MEMORIAL PRESENT **{-a-}**		A: tu-**a**-ba **n(i)**-tu-gûr-a N: tu-**a**-ba tu-ta-(**ru**)-**ku**-gûr-a *We were buying*	A: tu-**a**-ba- **n(i)**-tu-**kiaa**-gûr-a N: tu-**a**-ba tu-ta-**kiaa**-gûr-a *We were still buying*
EXPERIENTIAL PRESENT **{-Ø-}**		A: **n(i)**-tu-gûr-a N: ti-tu-(**ri**)-**ku**-gûr-a *We are buying*	A: **n(i)**-tu-**kiaa**-gûr-a N: ti-tu-**kiaa**-gûr-a *We are still buying*
NEAR FUTURE **{-raa-}**		A: tu-**raa**-ba **n(i)**-tu-gûr-a N: tu-**raa**-ba tu-ta-(**ru**)-**ku**-gûr-a *We will be buying*	A: tu-**raa**-ba **n(i)**-tu-**kiaa**-gûr-a N: tu-**raa**-ba tu-ta-**kiaa**-gûr-a *We will still be buying*
REMOTE FUTURE **{-ri-}**	A: tu-**raa**-gur-**â-ga** N: ti-tu-**aa**-gur-**ê-ge** *We will buy (regularly)*	A: tu-**ri**-ba **n(i)**-tu-gûr-a N: tu-**ri**-ba tu-ta-(**ru**)-**ku**-gûr-a *We will be buying*	A: tu-**ri**-ba **n(i)**-tu-**kiaa**-gûr-a N: tu-**ri**-ba tu-ta-**kiaa**-gûr-a *We will still be buying*

I B3. RUNYANKORE (R3)

(i) Completives

ASPECT⇒ TENSE ⇓	**Performative** {-Ø-}	**Perfect & Resultative** {-Ø-...-ire}	**Retrospective** {-aa-...-ire}
REMOTE PAST **{-ka-}**	A: tú-**ka**-gur-a N: ti-tu-**rá**-guz-**ire** *We bought*	A: tu-**ka**-bá tú-guz-**ire** N: tu-**ka**-bá tu-ta-guz-**íre** *We had bought*	A: tu-**ka**-bá tu-**áá**-guz-**ire** N: tu-**ka**-bá tu-tá-**ka**-guz-**ire** *We had already bought*
NEAR PAST **{-Ø-...-ire}**	A: tu-guz-**íre** N: ti-tu-guz-**íre** *We bought*	A: tu-ba-**ire** tú-guz-**ire** N: tu-ba-**ire** tu-ta-guz-**íre** *We had bought*	A: tu-ba-**ire** tu-**áá**-guz-**ire** N: tu-ba-**ire** tu-tá-**ka**-guz-**ire** *We had already bought*
MEMORIAL PRESENT **{-a(a)-}**	A: tu-**áá**-gur-a N: tí-tu-**aa**-gur-a *We bought*	A: tu-**aa**-ba tú-guz-**ire** N: ti-**aa**-ba tu-ta-guz-**íre** *We had bought*	A: tu-**aa**-ba tu-**áá**-guz-**ire** N: tu-**aa**-ba tu-tá-**ka**-guz-**ire** *We had already bought*
EXPERIENTIAL PRESENT **{-Ø-}**		A: tu-guz-**íre** N: ti-tu-guz-**íre** *We have bought*	A: tu-**áá**-guz-**ire** N: ti-tú-**ka**-guz-**ire** *We have already bought*
NEAR FUTURE **{ni-...-iža ku-} / {-raa-}**	A: **ni**-tu-**ižá ku**-gur-a N: ti-tú-ri-ku-**iža ku**-gur-a *We will buy*	A: **ni**-tu-**ižá ku**-bá tú-guz-**ire** N: **ni**-tu-**ižá ku**-bá tu-ta-guz-**íre** *We will have bought*	A: **ni**-tu-**ižá ku**-bá tu-**áá**-guz-**ire** N: **ni**-tu-**ižá ku**-bá tu-tá-**ka**-guz-**ire** *We will have already bought*
REMOTE FUTURE **{-ri(a)-}**	A: tu-**ríá**-gur-a N: ti-tu-**rí**-gur-a *We will buy*	A: tu-**ri**-ba tú-guz-**ire** N: tu-**ri**-ba tu-ta-guz-**íre** *We will have bought*	A: tu-**ri**-ba tu-**áá**-guz-**ire** N: tu-**ri**-ba tu-tá-**ka**-guz-**ire** *We will have already bought*

I B3. RUNYANKORE (R3)
(ii) Incompletives

ASPECT⇒ TENSE ⇓	**Habitual** **{-Ø-} / {-a-ga}**	**Progressive** **{ni-}**	**Persistive** **{-ki-(aa)-}**
REMOTE PAST **{-ka-}**	A: tu-**ka**-bá tú-gur-a *We used to buy*	A: tú-**ka**-bá **ni**-tu-gúr-a N: tu-ka-bá tu-tá-(r)í-ku-gur-a *We were buying*	A: tú-**ka**-bá tu-**kí-(áá)**-gur-a N: tú-**ka**-bá tu-tá-**ki**-gur-a *We were still buying*
NEAR PAST **{-Ø-...-ire}**	A: tu-gúr-a N: ti-tu-gúr-a *We buy*	A: tu-ba-**ire** **ni**-tu-gúr-a N: tu-ba-**ire** tu-tá-**(r)í-ku**-gur-a *We were buying*	A: tu-ba-**ire** tu-**kí-(áá)**-gur-a N: tu-ba-**ire** tu-tá-**ki**-gur-a *We were still buying*
MEMORIAL PRESENT **{-a(a)-}**		A: tu-**aa**-ba **ni**-tu-gúr-a N: tu-**aa**-ba tu-tá-**(r)í-ku**-gur-a *We were buying*	A: tu-**aa**-ba tu-**kí(-áá)**-gur-a N: tu-**aa**-ba tu-tá-**ki**-gur-a *We were still buying*
EXPERIENTIAL PRESENT **{-Ø-}**		A: **ni**-tu-gúr-a N: ti-tú-**rí-ku**-gur-a *We are buying*	A: tu-**kí-(áá)**-gur-a N: ti-tú-**ki**-gur-a *We are still buying*
NEAR FUTURE **{ni-...-iža ku-} /** **{-raa-}**		A: **ni**-tu-**ižá ku**-bá **ni**-tu-gúr-a N: tu-**ni**-tu-**ižá ku**-bá tu-tá-**rí-ku**-gur-a *We will be buying*	A: **ni**-tu-**ižá ku**-bá tu-**kí-(áá)**-gur-a N: **ni**-tu-**ižá ku**-bá tu-tá-**ki**-gur-a *We will still be buying*
REMOTE FUTURE **{-ri(a)-}**	A1: tu-**ríá**-gur-**a**-**ga** A2: tu-**ri**-ba **ni**-tu-gúr-a *We will buy (regularly)*	A: tu-**ri**-ba **ni**-tu-gúr-a N: tu-**ri**-ba tu-tá-**rí-ku**-gur-a *We will be buying*	A: tu-**ri**-ba tu-**kí-(áá)**-gur-a N: tu-**ri**-ba tu-tá-**ki**-gur-a *We will still be buying*

I B4. RUKIGA (R4)
(i) Completives

ASPECT⇒ TENSE ⇓	**Performative** **{-Ø-}**	**Perfect & Resultative** **{-Ø-...-ire}**	**Retrospective** **{-aa-/-ka-...-ire}**
REMOTE PAST **{-ka-}**	A: n-**ka**-gur-a N: ti-n-**dá**-guz-**ire** *I bought*	A: n-**ka**-bá n-gúz-**ire** N: n-**ka**-bá n-tá-guz-**íre** *I had bought*	A: n-**ka**-bá n-**áá**-guz-**ire** N: n-**ka**-bá n-tá-**ka**-guz-**ire** *I had already bought*
NEAR PAST **{-Ø-...-ire}**	A: n-guz-**íre** N: ti-n-guz-**íre** *I bought*	A: n-ba-**ire** n-gúz-**ire** N: n-ba-**ire** n-tá-guz-**íre** *I had bought*	A: m-b-**ire** n-**áá**-guz-**ire** N: m-b-**ire** n-tá-**ka**-guz-**ire** *I had already bought*
MEMORIAL PRESENT **{-a-}**	A: n-**áá**-gur-a N: tí-n-**aa**-gur-a *I bought*	A: n-**a**-ba n-gúz-**ire** N: n-**a**-ba n-tá-guz-**íre** *I had bought*	A: n-**a(a)**-ba n-**áá**-guz-**ire** N: n-**a(a)**-ba n-tá-**ka**-guz-**ire** *I had already bought*
EXPERIENTIAL PRESENT **{-Ø-}**		A: n-guz-**íre** N: n-tu-guz-**íre** *I have bought*	A: n-**áá**-guz-**ire** N: tí-n-**ka**-guz-**ire** *I have already bought*
NEAR FUTURE **{ni-...-iža} / {-raa-}**	A: **ni**-ñ-**ižá** ku-gur-a N: tí-n-**daa**-gúr-**e** *I will buy*	A: n-**daa**-bá n-guz-**ire** N: n-**daa**-bá n-tá-guz-**íre** *I will have bought*	A: **ni**-ñ-**ižá ku**-bá n-**áá**-guz-**ire** N: **ni**-ñ-**ižá ku**-bá n-tá-**ka**-guz-**ire** *I will have already bought*
REMOTE FUTURE **{-ri-(a)-}**	A: n-**diá**-gur-a N: ti-n-**dí(á)**-gur-a *I will buy*	A: n-**di**-bá n-guz-**ire** N: n-**di**-bá n-tá-guz-**íre** *I will have bought*	A: n-**di**-bá n-áá-guz-**ire** N: n-**di**-bá n-tá-**ka**-guz-**ire** *I will have already bought*

I B4. RUKIGA (R4)
(ii) Incompletives

ASPECT⇒ TENSE ⇓	**Habitual** **{-Ø-} / {-a-ga}**	**Progressive** **{ni-}**	**Persistive** **{-či-aa-}**
REMOTE PAST **{-ka-}**	A: n-**ka**-bá ngur-a N: n-**ka**-bá n-ta-gúr-a *I used to buy*	A: n-**ka**-bá **ni**-n-gúr-a N: n-**ka**-bá n-tá-**rí-ku**-gur-a *I was buying*	A: n-**ka**-bá n-**čáá**-gur-a N: n-**ka**-bá n-tá-**či**-gur-a *I was still buying*
NEAR PAST **{-Ø-...-ire}**	A: n-gúr-a N: ti-n-gúr-a *I buy*	A: m-be-**ire ni**-n-gúr-a N: m-be-**ire** n-tá-**rí-ku**-gur-a *I was buying*	A: m-b-**ire** n-čáá-gur-a N: m-b-**ire** n-tá-či-gur-a *I was still buying*
MEMORIAL PRESENT **{-a-}**		A: n-**a(a)**-ba **ni**-n-gúr-a N: n-**a(a)**-ba n-tá-**rí-ku**-gur-a *I was buying*	A: n-**a(a)**-ba n-**čáá**-gur-a N: n-**a(a)**-ba n-tá-**či**-gur-a *I was still buying*
EXPERIENTIAL PRESENT **{-Ø-}**		A: **ni**-n-gúr-a N: ti-n-**dí-ku**-gur-a *I am buying*	A: n-**čáá**-gur-a N: tí-n-**či-(áá)**-gur-a *I am still buying*
NEAR FUTURE **{ni-...-iža} /** **{-raa-}**		A: **ni**-ñ-**ižá ku**-bá **ni**-n-gúr-a N: **ni**-ñ-**ižá ku**-bá n-tá-**rí-ku**-gur-a *I will be buying*	A: **ni**-ñ-**ižá ku**-bá n-**čáá**-gur-a N: **ni**-ñ-**ižá ku**-bá n-tá-**či**-gur-a *I will still be buying*
REMOTE FUTURE **{-ri-(a)-}**	A: n-**daa**-gur-**á-ga** *I will buy (regularly)*	A: n-**di**-bá **ni**-n-gúr-a N: n-**di**-bá n-tá-**rí-ku**-gur-a *I will be buying*	A: n-**di**-bá n-**čáá**-gur-a N: n-**di**-bá n-tá-**či**-gur-a *I will still be buying*

I B5. **RUNYAMBO (R5)**
(i) Completives

ASPECT⇒ TENSE ⇓	**Performative** **{-Ø-}**	**Perfect & Resultative** **{-Ø-...-ire}**	**Retrospective** **{-aa-...-ire} / {-ka-...ire}**
REMOTE PAST **{-ka-}**	A: tu-**ka**-gur-a N: ti-tu-**rá**-guz-**ire** *We bought*	A: n-**ka**-βá n-guz-**ire** N: n-**ka**-βa n-ta-guz-**íre** *I had bought*	A: tu-**ka**-βá tu-**áá**-guz-**ire** N: tu-**ka**-βá tu-tá-**ka**-guz-**ire** *We had already bought*
NEAR PAST **{-Ø-...-ire}**	A: tu-guz-**íre** N: ti-tu-guz-**íre** *We bought*	A: n-βe-**iré** n-guz-**ire** N: n-βe-**ire** n-ta-guz-**íre** *I had bought*	A: tu-βe-**ire** tu-**áá**-guz-**ire** N: tu-βe-**ire** tu-tá-**ka**-guz-**ire** *We had already bought*
MEMORIAL PRESENT **{-á(á)-}**	A: tu-**áá**-gur-a N: tí-tu-**aa**-gur-a *We bought*	A: n-**a(a)**-βá n-guz-**ire** N: n-**a(a)**-βa n-ta-guz-**íre** *I had bought*	A: tu-**a(a)**-βa tu-**áá**-guz-**ire** N: tu-**a(a)**-βa tu-tá-**ka**-guz-**ire** *We had already bought*
EXPERIENTIAL PRESENT **{-Ø-}**		A: n-guz-**íre** N: ti-n-guz-**íre** *I have bought*	A: tu-**áá**-guz-**ire** N: ti-**tú-ka**-guz-**ire** *We have already bought*
NEAR FUTURE **{ni-...-ja ku-} / {-raa-}**	A: **n(i)**-tu-**zá** ku-gur-a N: ti-tú-ku-**zá** ku-gur-a A: tu-**raa**-gúr-a N: ti-tu-**raa**-gúr-**e** *We will buy*	A: n-**daa**-βá n-guz-**ire** N: n-**daa**-βa n-ta-guz-**íre** *I will have bought*	A: **n(i)**-tu-**já** ku-βá tu-**áá**-guz-**ire** N: **n(i)**-tu-**já** ku-βá tu-tá-**ka**-guz-**ire** *We will have already bought*
REMOTE FUTURE **{-ri-}**	A: tu-**ri**-gúr-a N: ti-tu-**rí**-gur-a *We will buy*	A: n-**di**-βá n-guz-**ire** N: n-**di**-βa n-ta-guz-**íre** *I will have bought*	A: tu-**ri**-βa tu-**rá**-guz-**ire** N: tu-**ri**-βa tu-tá-**ka**-gurá-**ga** *We will have already bought*

I B5. RUNYAMBO (R5)
(ii) Incompletives

ASPECT⇒ TENSE ⇓	**Habitual** **{-Ø-}**	**Progressive** **{n(i)-} / {-ri-ku-}**	**Persistive** **{-či-/-čaa)-}**
REMOTE PAST **{-ka-}**	A: tu-**ka**-βá tu-gúr-a N: tu-**ka**-βá tu-ta-gúr-a *We used to buy*	A: tu-**ka**-βá **n(i)**-tu-gúr-a N: tu-**ka**-βá tu-ta-**rí-ku**-gur-a *We were buying*	A: tu-**ka**-βá tu-**čáá**-gur-a N: tu-**ka**-βá tu-tá-**či**-gur-a *We were still buying*
NEAR PAST **{-Ø-...-ire}**	A: tu-gúr-a N: ti-tu-gúr-a *We buy*	A: tu-βe-**iré** **n(i)**-tu-gúr-a N: tu-βe-**ire** tu-ta-**rí-ku**-gur-a *We were buying*	A: tu-βe-**ire** tu-**čáá**-gur-a N: tu-βe-**ire** tu-tá-**či**-gur-a *We were still buying*
MEMORIAL PRESENT **{-á(á)-}**		A: tu-**a(a)**-βa **n(i)**-tu-gúr-a N: tu-**a**-βa tu-ta-**rí-ku**-gur-a *We were buying*	A: tu-**a(a)**-βa tu-**čáá**-gur-a N: tu-**a**-βa tu-tá-**či**-gur-a *We were still buying*
EXPERIENTIAL PRESENT **{-Ø-}**		A: **n(i)**-tu-gúr-a N: ti-tú-**ku**-gur-a *We are buying*	A: tu-**čáá**-gur-a N: ti-**tú-či**-gur-a *We are still buying*
NEAR FUTURE **{ni-...-ja ku-} / {-raa-}**		A: **n(i)**-tu-**ja** ku-βá **n(i)**-tu-gúr-a N: **n(i)**-tu-**já** ku-βá tu-ta-**rí-ku**-gur-a *We will be buying*	A: **n(i)**-tu-**ja** ku-βá tu-**čáá**-gur-a N: **n(i)**-tu-**ja** ku-βá tu-tá-**či**-gur-a *We will still be buying*
REMOTE FUTURE **{-ri-}**	— ---	A: tu-**ri**-βa **n(i)**-tu-gúr-a N: tu-**ri**-βa tu-ta-**rí-ku**-gur-a *We will be buying*	A: tu-**ri**-βa tu-**čáá**-gur-a N: tu-**ri**-βa tu-tá-**či**-gur-a *We will still be buying*

I B6. RUHAYA (R6)

(i) Completives

ASPECT⇒ TENSE ⇓	**Performative** **{-Ø-}**	**Perfective** **A: {-aa-...-a}**	**Perfect & Resultative** **{-Ø-...-ire}**	**Retrospective** **{-áá-/-ka-...-ire}**
REMOTE PAST **{-ka-}**	A: tú-**ka**-gur-a N: ti-tu-**á**-guz-**ire** *We bought*	A: tú-**ka**-bá tu-**áá**-gur-a N: tú-**ka**-bá tu-tá-**ka**-guz-**ire** *We had just bought*	A: tú-**ka**-bá tú-guz-**ire** N: tú-**ka**-bá tu-ta-guz-**íre** *We had bought*	A: tú-**ka**-bá tu-**áá**-guz-**ire** N: tú-**ka**-bá tu-tá-**ka**-guz-**ire** *We had already bought*
NEAR PAST **{-Ø-...-ire}**	A: tu-guz-**îre** N: ti-tu-guz-**íre** *We bought*	A: tu-ba-**ire** tu-**áá**-gur-a N: tu-ba-**ire** tu-tá-**ka**-guz-**ire** *We had just bought*	A: tu-ba-**ire** tú-guz-**ire** N: tu-ba-**ire** tu-ta-guz-**íre** *We had bought*	A: tu-ba-**ire** tu-**áá**-guz-**ire** N: tu-ba-**ire** tu-tá-**ka**-guz-**ire** *We had already bought*
MEMORIAL PRESENT **{-a(a)-}**	A: tu-**áá**-gur-a N: ti-tu-**á**-gur-a *We bought*	A: tu-**aa**-ba tu-**áá**-gur-a N: tu-**aa**-ba tu-tá-**ka**-guz-**ire** *We had just bought*	A: tu-**aa**-ba tú-guz-**ire** N: tu-**aa**-ba tu-ta-guz-**íre** *We had bought*	A: tu-**a**-ba tu-**áá**-guz-**ire** N: tu-**a**-ba tu-tá-**ka**-guz-**ire** *We had already bought*
EXPERIENTIAL PRESENT **{-Ø-}**		A: tu-**áá**-gur-a N1: ti-tu-**áá**-gur-a N2: ti-tú-**ka**-guz-**ire** *We have just bought*	A: tu-guz-**îre** N: ti-tu-guz-**íre** *We have bought*	A: tu-**áá**-guz-**ire** N: ti-tú-**ka**-guz-**ire** *We have already bought*
NEAR FUTURE **{-raa-}**	A: tu-**raa**-gúr-a N: ti-tu**u**-gúr-**e** *We will buy*	A: tu-**raa**-ba tu-**áá**-gur-a N: tu-**raa**-ba tu-tá-**ka**-guz-**ire** *We will have just bought*	A: tu-**raa**-ba tú-guz-**ire** N: tu-**raa**-ba tu-ta-guz-**íre** *We will have bought*	A: tu-**raa**-ba tu-**áá**-guz-**ire** N: tu-**raa**-ba tu-tá-**ka**-guz-**ire** *We will have already bought*
REMOTE FUTURE **{-ri-}**	A: tu-**ri**-gúr-a N: ti-tú-**ri**-gur-a *We will buy*	A: tu-**ri**-ba tu-**áá**-gur-a N: tu-**ri**-ba tu-tá-**ka**-guz-**ire** *We will have just bought*	A: tu-**ri**-ba tú-guz-**ire** N: tu-**ri**-ba tu-ta-guz-**íre** *We will have bought*	A: tu-**ri**-ba tu-**áá**-guz-**ire** N: tu-**ri**-ba tu-tá-**ka**-guz-**ire** *We will have already bought*

I B6. RUHAYA (R6)
(ii) Incompletives

ASPECT⇒ / TENSE ⇓	**Habitual** {-Ø-} / {-a-ga}	**Progressive** {n(i)-}	**Persistive** {-ki-aa-}
REMOTE PAST {-ka-}	A: tu-**a**-gur-**â-ga** N: ti-tu-**á**-gur-**a-ga** *We used to buy*	A: tú-**ka**-bá **n(i)**-tu-gúr-a N: tú-**ka**-bá tu-tá-**(r)i-ku**-gur-a *We were buying*	A: tú-**ka**-bá tu-**kiáá**-gur-a N: tú-**ka**-bá tu-tá-**ki**-gur-a *We were still buying*
NEAR PAST {-Ø-...-ire}	A: tu-gúr-a N: ti-tu-gúr-a *We buy*	A: tu-ba-**ire n(i)**-tu-gúr-a N: tu-ba-**ir-e** tu-tá-**(r)i-ku**-gur-a *We were buying*	A: tu-ba-**ire** tu-**kiáá**-gur-a N: tu-ba-**ire** tu-tá-**ki**-gur-a *We were still buying*
MEMORIAL PRESENT {-a(a)-}		A: tu-**a**-ba **n(i)**-tu-gúr-a N: tu-**a**-ba tu-tá-**(r)i-ku**-gur-a *We were buying*	A: tu-**a**-ba tu-**kiáá**-gur-a N: tu-**a**-ba tu-tá-**ki**-gur-a *We were still buying*
EXPERIENTIAL PRESENT {-Ø-}		A: **n(i)**-tu-gúr-a N: ti-tú-**(r)i-ku**-gur-a *We are buying*	A: tu-**kiáá**-gur-a N: ti-tú-**ki**-gur-a *We are still buying*
NEAR FUTURE {-raa-}		A: tu-**raa**-ba **n(i)**-tu-gúr-a N: tu-**raa**-ba tu-tá-**(r)i-ku**-gur-a *We will be buying*	A: tu-**raa**-ba tu-**kiáá**-gur-a N: tu-**raa**-ba tu-tá-**ki**-gur-a *We will still be buying*
REMOTE FUTURE {-ri-}	A: tu-**raa**-gur-**â-ga** N: ti-tu**u**-gur-**ê-ga** *We will buy regularly*	A: tu-**ri**-ba **n(i)**-tu-gúr-a N: tu-**ri**-ba tu-tá-**(r)i-ku**-gur-a *We will be buying*	A: tu-**ri**-ba tu-**kiáá**-gur-a N: tu-**ri**-ba tu-tá-**ki**-gur-a *We will still be buying*

I B7. RUZINZA (R7)

(i) Completives

ASPECT⇒ TENSE ⇓	**Performative** **{-Ø-}**	**Perfect & Resultative** **{-Ø-...-ire}**	**Retrospective** **{-aa-...-ire} / {-ka-...-ire}**
REMOTE PAST **{-ka-}**	A: tú-**ka**-gur-a N: ti-tú-**rá**-guz-**ire** *We bought*	A: n-**ka**-βá n-guz-**ire** N: n-**ka**-βa n-ta-guz-**íre** *I had bought*	A: tu-**ka**-βa tu-**áá**-guz-**ire** N: tu-**ka**-βa tu-tá-**ka**-guz-**ire** *We had already bought*
NEAR PAST **{-Ø-...-ire}**	A: tu-guz-**íre** N: ti-tu-guz-**íre** *We bought*	A: n-βe-**eré** n-guz-**ire** N: n-βe-**ere** n-ta-guz-**íre** *I had bought*	A: tu-βe-**ere** tu-**áá**-guz-**ire** N: tu-βe-**ere** tu-tá-**ka**-guz-**ire** *We had already bought*
MEMORIAL PRESENT **{-aa-}**	A: tu-**áá**-gur-a N: ti-tu-**áá**-gur-a *We bought*	A: n-**aa**-βá n-guz-**ire** N: n-**aa**-βa n-ta-guz-**íre** *I had bought*	A: tu-**aa**-βa tu-**áá**-guz-**ire** N1: tu-**aa**-βa tu-tá-**ka**-guz-**ire** N2: ti-tu-**áá**-βa ni-tu-gúr-a *We had already bought*
EXPERIENTIAL PRESENT **{-Ø-}**		A: n-guz-**íre** N: ti-n-guz-**íre** *I have bought*	A: tu-**áá**-guz-**ire** N: ti-tú-**ka**-guz-**ire** *We have already bought*
NEAR FUTURE **{-raa-}**	A: tu-**raa**-gúr-a N: ti-tú-**ku**-gur-a *We will buy*	A: n-**daa**-βá n-guz-**ire** N: n-**daa**-βa n-ta-guz-**íre** *I will have bought*	A: tu-**raa**-βa tu-**áá**-guz-**ire** N: tu-**raa**-βa tu-tá-**ka**-guz-**ire** *We will have already bought*
REMOTE FUTURE **{-raa-}/{-ri-}**	A: tu-**ráa**-gur-a N: ti-tú-**rí**-ku-gur-a *We will buy*	A1: n-**di**-βá n-guz-**ire** N1: n-**di**-βa n-ta-guz-**íre** A2: n-**daa**-βá n-guz-**ire** N2: n-**dáá**-βa n-ta-guz-**íre** *I will have bought*	A: tu-**ráa**-βa tu-**áá**-guz-**ire** N: tu-**ráa**-βa tu-tá-**ka**-guz-**ire** *We will have already bought*

I B7. RUZINZA (R7)

(ii) Incompletives

ASPECT⇒ TENSE ⇓	**Habitual** **({-Ø-})**	**Progressive** **{n(i)-}**	**Persistive** **{-či-(aa)-}**
REMOTE PAST **{-ka-}**	A: tu-**ka**-βa tu-gúr-a N: tu-**ka**-βa tu-ta-gúr-a *We used to buy*	A: tu-**ka**-βa **ni**-tu-gúr-a N: tu-**ka**-βa tu-tá-**ku**-gur-a *We were buying*	A: tu-**ka**-βa tu-**či-áá**-gur-a N: tu-**ka**-βa tu-tá-**či**-gur-a *We were still buying*
NEAR PAST **{-Ø-...-ire}**	A: tu-gúr-a N: ti-tu-gúr-a *We buy*	A: tu-βe-**ere** **ni**-tu-gúr-a N: tu-βe-**ere** tu-tá-**ku**-gur-a *We were buying*	A: tu-βe-**ere** tu-**či-áá**-gur-a N: tu-βe-**ere** tu-tá-**či**-gur-a *We were still buying*
MEMORIAL PRESENT **{-aa-}**		A: tu-**aa**-βa **ni**-tu-gúr-a N: tu-**aa**-βa tu-tá-**ku**-gur-a *We were buying*	A: tu-**aa**-βa tu-**či-áá**-gur-a N: tu-**aa**-βa tu-tá-**či**-gur-a *We were still buying*
EXPERIENTIAL PRESENT **{-Ø-}**		A: **ni**-tu-gúr-a N: ti-tú-**ku**-gur-a *We are buying*	A: tu-**či-áá**-gur-a N: ti-tú-**či**-gur-a *We are still buying*
NEAR FUTURE **{-raa-}**		A: tu-**raa**-βa **ni**-tu-gúr-a N: tu-**raa**-βa tu-tá-**ku**-gur-a *We will be buying*	A: tu-**raa**-βa tu-**či-áá**-gur-a N: tu-**raa**-βa tu-tá-**či**-gur-a *We will still be buying*
REMOTE FUTURE **{-raa-}/{-ri-}**	A: tu-**ráa**-βa **ni**-tu-gúr-a N: tu-**ráa**-βa tu-tá-ku-gur-a *We will buy (regularly)*	A: tu-**ráa**-βa **ni**-tu-gúr-a N: tu-**ráa**-βa tu-tá-ku-gur-a *We will be buying*	A: tu-**ráa**-βa tu-**či-áá**-gur-a N: tu-**ráa**-βa tu-tá-**či**-gur-a *We will still be buying*

I B8. RUKEREBE (R8)

(i) Completives

ASPECT⇒ / TENSE ⇓	**Performative** {-Ø-}	**Perfect & Resultative** {-Ø-...-ile}	**Retrospective** {-a-...-ile} / {-ka-...-ile}
REMOTE PAST {-ka-} / {-a-li...-ga}	A: tu-**ka**-gul-a N: ti-tu-**a**-gúz-**ile** *We bought*	A: n-**ka**-βá n-gúz-**íle** N: n-**ka**-βá n-tá-guz-**ilé** *I had bought*	A: tu-**a-li-ga** tu-**a**-gúz-**ile** N: tu-**a-li-ga** tu-ta-**ká**-guz-**ile** *We had already bought*
NEAR PAST {-Ø-...-ile}	A: tu-guz-**ilé** N: ti-tu-guz-**ílé** *We bought*	A: n-βe-**ele** n-gúz-**íle** N: n-βe-**ele** n-tá-guz-**ilé** *I had bought*	A: tu-βe-**ele** tu-**a**-gúz-**ile** N: tu-βe-**ele** tu-ta-ká-guz-**ile** *We had already bought*
MEMORIAL PRESENT {-a-}	A: tu-**a**-gul-á N: ti-tu-**a**-gúl-a *We bought*	A: n-**á**-βá n-gúz-**íle** N: n-**á**-βá n-tá-guz-**ilé** *I had bought*	A: tu-**a-li** tu-**a**-gúz-**ile** N: tu-**a-li** tu-ta-**ká**-guz-**ile** *We had already bought*
EXPERIENTIAL PRESENT {-Ø-}		A: n-guz-**ilé** N: ti-n-guz-**ilé** *I have bought*	A: tu-**á**-guz-**ile** N: ti-tu-**ka**-guz-**ile** *We have already bought*
NEAR FUTURE {-laa-}	A: tu-**laa**-gúl-a N: ti-tú-gul-a *We will buy*	A: n-**daa**-βa n-gúz-**íle** N: n-**daa**-βa n-tá-guz-**ilé** *I will have bought*	A: tu-**laa**-βa tu-**a**-gúz-**ile** N: tu-**laa**-βa tu-ta-**ká**-guz-**ile** *We will have already bought*
REMOTE FUTURE {-li-}	A: tu-**li**-gul-á N: ti-tu-**li**-gúl-a *We will buy*	A: n-**di**-βa n-gúz-**íle** N: n-**di**-βa n-ta-guz-**íle** *I will have bought*	A: tu-**li**-βa tu-**a**-gúz-**ile** N: tu-**li**-βa tu-ta-**ká**-guz-**ile** *We will have already bought*

I B8. RUKEREBE (R8)

(ii) Incompletives

ASPECT⇒ / TENSE ⇓	**Habitual** **{-Ø-} / {-a-ga}**	**Progressive** **{n(i)-} / {-ku-}**	**Persistive** **{-ki-(aa)-}**
REMOTE PAST **{-ka-} / {-a-li...-ga}**	A: tu-**a**-gul-**á-ga** N: ti-tu-**a**-gúl-**a-ga** *We used to buy*	A: tu-**a-li-ga n(í)**-tú-gul-á N: tu-**a-li-ga** tu-ta-**kú**-gul-a *We were buying*	A: tu-**a-li-ga** tu-**kí**-gul-a N: tu-**a-li-ga** tu-ta-**kí**-gul-a *We were still buying*
NEAR PAST **{-Ø-...-ile}**		A: tu-βe-**ele n(í)**-tú-gul-á N: tu-βe-**ele** tu-ta-**kú**-gul-a *We were buying*	A: tu-βe-**ele** tu-**kí**-gul-a N: tu-βe-**ele** tu-ta-**kí**-gul-a *We were still buying*
MEMORIAL PRESENT **{-a-}**	A1: tu-gul-**a-gá** N1: ti-tú-gul-**a-ga** A2: tu-gul-á N2: ti-tu-gúl-a *We buy*	A: tu-**a-li n(i)**-tu-gúl-a N: tu-**a-li** tu-ta-**kú**-gul-a *We were buying*	A: tu-**a-li** tu-**kí**-gul-a N: tu-**a-li** tu-ta-**kí**-gul-a *We were still buying*
EXPERIENTIAL PRESENT **{-Ø-}**		A: tu-**kú**-gul-a N: ti-tu-**kú**-gul-a *We are buying*	A: tu-**caa**-gúl-a N: ti-tu-**kí**-gul-a *We are still buying*
NEAR FUTURE **{-laa-}**		A: tu-**laa**-βa **ni**-tú-gul-á N: tu-**laa**-βa tu-ta-**kú**-gul-a *We will be buying*	A: tu-**laa**-βa tu-**kí**-gul-a N: tu-**laa**-βa tu-ta-**kí**-gul-a *We will still be buying*
REMOTE FUTURE **{-li-}**	A: tu-**laa**-gul-**á-ga** N: ti-tu**u**-gul-**e-ga** *We will buy (regularly)*	A: tu-**li**-βa **ni**-tu-gúl-a N: tu-**li**-βa tu-ta-**ku**-gul-a *We will be buying*	A: tu-**li**-βa tu-**kí**-gul-a N: tu-**li**-βa tu-ta-**kí**-gul-a *We will still be buying*

NOTES TO THE T/A TABLES

RUNYORO (R1)

Temporal references: Remote Past ≡ 'before yesterday'; Near Past ≡ 'earlier today—yesterday'; Memorial Present ≡ 'a short moment ago'; Experiential Present ≡ 'currently'; Near Future ≡ 'today—tomorrow'; Remote Future ≡ 'after tomorrow'.

Dialectal variations and other alternations

Morphosyntactic:

(i) The occurrence of {-ire-ge} *vs* {-ire} depends on the verb and other morphosyntactic constraints; *e.g.* {-ge} is not attached to AVs, thus {a-**a**-genz-**ire**} → [ayagenzire] 'he who went'; {a-ta-**ra**-fi-**ire** ijo} 'he who did not die yesterday'; {a-fi-i**re-ge** nyenkya} 'he died this morning'; {nyika**ire** nyenkya ...} 'I stayed ... yesterday'; {tu-ba-**ire** n(i)-tugura} 'we were buying'. (ii) Locative {-yo-} precedes {-ga}: {ti-n-ka-genda-**yo**-ga} 'I have never been there'. (iii) {tu-a-gur-aga} *vs* {tu-**ka**-ba tu-ta-gura} 'we used to buy'. (iv) There is the form {tu-**ka**-ba tu-ta-**ka**-gur-**aga**} 'we had never bought', but its affirmative counterpart could not be found!

Morphonological:

(i) {tu-ka-ba tu-ta-ru-ku-gura} *vs* {tu-ka-ba tu-taa-kugura} 'we were not buying'; (ii) {ni-ri-na} → {nyina} *vs* {ndina} 'I have'; (iii) {(ti-) tu-ri-na} → [(ti)tuyina] *vs* [(ti)tunyina] 'we (don't) have' (*cf.* Maddox 1902).

Tone:

There is primary penultimate stress, mainly realised with a high [H] pitch, but also with a falling [F] pitch in some of the compound forms. There are also tone-like features in this dialect; thus it appears to be between a tone language and a pitch-accent language; *e.g.* [ni-n-gúra] 'I am buying', [mu-ta-gúra] 'do not buy', [n-guz-íre] 'I have bought', [tu-kw-ênda ku-gûra] 'we want to buy', [n-a-ba n-á-gûra] 'I had just bought' / 'I was just about to buy'; [ni-tu-kyáá-gúra] 'we are still buying'.

RUTOORO (R2)

Temporal references: Remote Past ≡ 'before today'; Near Past ≡ 'earlier today'; Memorial Present ≡ 'a short moment ago'; Experiential Present ≡ 'currently'; Near Future ≡ 'today—tomorrow'; Remote Future ≡ 'after tomorrow'.

Dialectal variations and other alternations

Morphosyntactic:

(i) The occurrence of {-ire-ge} *vs* {-ire} depends on the verb and other morphosyntactic constraints; *e.g.* {-ge} is not attached to AVs, thus {mbaire ningûra} 'I was buying'; nor to aspectual forms, as in {kuba nguzîre} 'If I had bought', {ba-kyaa-gwijagí-ìre} 'They are still sleeping/asleep'. (ii) {tu-**a**-gur-**âga**} *vs* {tu-**ka**-ba tu-gûra} 'we used to buy'. (iii) {ndaaba ntarikukôma} *vs* {timbe ninkôma} 'I will not be picking up'; {naba ntarikukôma} *vs* {tinaba ninkôma} 'I was not picking up'. (iv) There is the form {tu-**ka**-ba tu-ta-**ka**-gur-**aga**} 'we had never bought', but its affirmative counterpart could not be found!

Morphonological:

(i) {tu-ka-ba tu-ta-ru-ku-gûra} *vs* {tu-ka-ba tu-taa-kugûra} 'we were not buying'. (ii) {ki-aa-} → [kyaa] / [kya] / [čyaa] / [čya], thus, {-aa-} ranges phonetically between [aː], [aˑ] and [a].

Tone:

There is primary penultimate stress, mainly realised with a falling [F] pitch. This is a stess language (rather than tone), but there are also a few phonetic features which look like tone relics.

RUNYANKORE (R3)

Temporal references: Remote Past ≡ 'before yesterday'; Near Past ≡ 'yesterday'; Memorial Present ≡ 'earlier today'; Experiential Present ≡ 'currently'; Near Future ≡ 'today—tomorrow'; Remote Future ≡ 'after tomorrow'.

Dialectal variations and other alternations

Phonological:

(i) {a-ki-aa-rwa-ire} → {a-ki-rwa-ire} *vs* {a-caa-rwa-ire} 'she is still ill'; (ii) {n-daa-ba ni-n-gura} *vs* {n-daa-bá ni-n-gúra} 'I will be buying'; (iii) {tu-gura} *vs* {tu-gúra} 'we buy'.

Morphosyntactic:

(i) {n-ki-gúra} *vs* {**ni**-n-ki-gúra} 'I am still buying' (see Taylor 1959:xvii, 1985:156); (ii) Near Future Relative: {tu-raa-kora} *vs* {tu-raa-kor-e} 'that we will work' (*cf.* Taylor, 1985:162, 168). (iii) Experiential Retrospective: {a-ra-rwaire-(ho)} *vs* {ti-a-ka-rwaara-(ho)-ga} 'she once fell ill' *vs* 'she has never been ill'.

Morphosemantic:

(Near Past Progressive), {m-baire ni-n-shoma} also means 'I have been reading' (Taylor, 1985:161).

RUKIGA (R4)

Temporal references: Remote Past ≡ 'before yesterday'; Near Past ≡ 'yesterday'; Memorial Present ≡ 'earlier today'; Experiential Present ≡ 'currently'; Near Future ≡ 'today—tomorrow'; Remote Future ≡ 'after tomorrow'.

Dialectal variations and other alternations

Morphonological:

(i) {tí-n-čaa-gura} *vs* {tí-n-či-gura} *vs* {ti-n-čáá-gura} 'I will not buy any more'; (ii) {ti-n-di-áá-gura} → [tindyáágura] / [tindígura].

Morphosyntactic:

(i) Experiential Retrospective: {a-ra-rwaire-(ho)} *vs* {ti-a-ka-rwaara-(ho)-ga} 'she once fell ill' *vs* 'she has never been ill'.

RUNYAMBO (R5)

Temporal references: Remote Past ≡ 'before yesterday'; Near Past ≡ 'yesterday'; Memorial Present ≡ 'earlier today'; Experiential Present ≡ 'currently'; Near Future ≡ 'today—tomorrow'; Remote Future ≡ 'after tomorrow'.

Dialectal variations and other alternations

Morphosyntactic:

(i) {tu-**ka**-βá tu-ta-**rí**-ku-gura} → {tu-**ka**-βá tu-tá-ku-gura} 'We were not buying'. (ii) No form was found for the Remote Future Performative.

Phonological:

(i) {**ni**-tu-gúra} → [ntugúra] 'We are buying'; (ii) [tituríkugura] *vs* [titurúkugura] *vs* [titúkugura] 'We are not buying'; (iii) {**n(i)**-tu-**já** ku-gura} *vs* {**n(i)**-tu-**zá** ku-gura} 'We will buy' (form *ku-ija* 'to come'); (iv) The length of {-aa-} in the AV varies interpersonally between [a], [aˑ] and [aː].

Semantic:

{tu-**ri**-βa **n(i)**-tu-gúra} could also mean 'We are likely to buy'.

RUHAYA (R6)

Temporal references: Remote Past ≡ 'before yesterday'; Near Past ≡ 'yesterday'; Memorial Present ≡ 'earlier today'; Experiential Present ≡ 'currently'; Near Future ≡ 'today—tomorrow'; Remote Future ≡ 'after tomorrow'.

Dialectal variations and other alternations

Morphological:

{... tu-tá-**ki**-gura} *vs* {... tu-tá-**ki-áá**-gura} '...not still buying', '... not buying any more'.

Morphosyntactic:

(i) {tu-a-ba **tu-tá**-ri-ku-gura} vs {**ti-tu**-á-ba ni-tu-gúra} 'we were not buying'. (ii) {ti-tuu-gur-**êga**} vs {ti-tuu-gur-**âge**} 'we will not keep buying/buy regularly/habitually/etc'. (iii) {tu-raa-gura} is also used for the Remote Future in some dialects.

Phonological:

(i) [twáákómire] vs [twáàkómire], but the [H] on [ó] is less high in H1 than in other dialects; probably, "mid" tone would be a more appropriate description, thus [twáàkōmire]. This difference applies only to high toned stems especially when preceded by a long vowel, as in {n-a-gyá o-múka} → [nagyóómúka] / [nagyóòmúka] / [nagyóòmūka] 'I have gone home' (ii) {ni-tu-gúra} → [ntugúra]; (iii) {ti-tú-ri-ku-gura} → [titúlikugura] / [titwíikugura] / [titwíikugura] / [titúúkugura] / [titúùkugura] 'we are not buying'.

RUZINZA (R7)

Temporal references: Remote Past ≡ 'before yesterday'; Near Past ≡ 'yesterday'; Memorial Present ≡ 'earlier today'; Experiential Present ≡ 'currently'; Near Future ≡ 'today—tomorrow'; Remote Future ≡ 'after tomorrow'.

Dialectal variations and other alternations

Morphosyntactic:

(i) {tu-**raa**-βa ti-tú-**či**-gura} (Mainland) vs {tu-**raa**-βa tu-tá-**či**-gura} (Insular) 'we will not be buying any more'. (ii) {tu-**ka**-βa tu-**čyáá**-gura} vs {tu-**ka**-βa tu-čyááli tu-čyáá-gura} 'we were still buying'. RP: {tu-aa-kaa-guz-ire} 'we could have bought', NP: {tu-ku-guz-ire} 'we could have bought', Non-Past: {tu-aa-ka-gura} 'we could/can buy'. (iii) {tu-**ka**-βa tu-tá-**ku**-gura} vs {ti-tú-**rá**-βe-**ere** ni-tu-gúra} 'we were not buying; {tu-βe-**ere** tu-tá-**ku**-gura} vs {ti-tu-βé-**ére** tu-**á**-guz-**ire**} 'we had not yet bought'. (iv) There is a trio of Retrospectives: {tu-ka-βa tu-**aa**-guz-**ire**} 'we had already bought' vs {tu-ka-βa tu-**ra**-guz-**ire**} 'we had already bought long before' vs {tu-ka-βa tu-**a-ra**-guz-**ire**} 'we had already bought long long time before'; *cf.* negative: {tu-ka-βa tu-ta-**ka**-guz-**ire**}'we had not bought' vs {tu-ka-βa tu-ta-**ka**-gur-**aga**} 'we had never bought'.

Phonological:

(i) {-ki-aa-} → [čyaa] / [čaa]; (i) the phonetic value of {-aa-} in the AV varies relatively (dialectal or interpersonal) between [a], [aˑ] and [aː], while the half long variant appears to be the most dominant.

RUKEREBE (8)

Temporal references: Remote Past ≡ 'before yesterday'; Near Past ≡ 'yesterday'; Memorial Present ≡ 'earlier today'; Experiential Present ≡ 'currently'; Near Future ≡ 'today—tomorrow'; Remote Future ≡ 'after tomorrow'.

Dialectal variations and other alternations

Morphosyntactic:

(i) *cf.* {tu-βe-ele ni-tu-gula} *vs* {tu-a-li(-ga) ni-tu-gula} 'we were buying'. (ii) {tu-a-li} *vs* {sanga} [saaŋga] 'we were' (sanga 'find'}. (iii) {tu-laa-βa tu-a-guz-ile} *vs* {tu-ku-βá tu-a-guz-ile} 'we will have already bought'. (iv) {tu-laa-βa tu-ta-ká-guz-ile} *vs* {tíí-tú-kú-βá tu-a-gúz-ile} 'we will not have bought yet'. (v) {tu-laa-gula} *vs* {tu-ku-gula} 'we will buy'. (vi) {ti-tú-ku-gula} *vs* {tu-laa-βúlá ku-gula} 'we will not buy'. (vii) {tu-ku-gul-aga} *vs* {tu-gula} 'we buy'. (viii) {ti-tuu-gul-éga} *vs* {ti-tu-li-gúl-aga} 'we will not buy (regularly/habitually)'. (xi) {tu-βe-ele tu-ta-kú-gula} *vs* {ti-tu-βe-ele n(í)-tú-gulá} 'we were not buying'. (x) {tu-laa-βa tu-ta-kú-gula} *vs* {ti-tuu-βé n(í)-tú-gulá} 'we will not be buying'.

Morphosemantic:

{tu-ku-gula} 'we are buying' *vs* 'we will buy' *vs* 'we buy' *vs* 'we will buy if...'. *cf.* (ii) {tu-ku-gula} *vs* {ni-tu-gula} 'we will buy if...' as in {a-ka-leetá a-matá tu-ku-gula/ni-tu-gula} 'if she brings milk we will buy (it)' (iii) {tu-**a**-gul-**ága**} *vs* {tu-a-li-ga ni-tu-gula} both could mean 'we were buying' and/or 'we used to buy'.

Phonological:

{-tu-} in {ti-**tu**-gúla}, {ti-**tú**-gula}, and {ti-**tú**-gul-**aga**} varies relatively between [tu]/[tu˙]/[tu:] .

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APPENDIX II: LEXICAL LIST

RUTARA LANGUAGES

PART A: Rutooro, Runyankore, Rukiga, Ruzinza, and Rukerebe

English	Rutooro	Runyankore	Rukiga	Ruzinza	Rukerebe	Ref
abdomen	e-nda	e-nda	e-nda	e-nda	e-nda	418
abuse (n)	e-kijumo	e-kižumo	e-čižumo	izumi	e-kigombo	421
add	kw-ongera	kw-ongyera	kw-onžera	kw-ongeza	kw-ongezya	190
after tomorrow	kwosa nyenkya	nyentsya	nyensya	izweli	izweli	075
agree	kw-ikiriza	kw-ikiriza	kw-ičiriza	kw-ičiliza	kw-ikilizya	155
all	-ona	-ona, -ena	-ona, -ena	-oona	-oona	449
anger	e-kiniga	e-kiniga	e-činiga	e-činiga	e-biniga	048
animal	e-nyamaiswa	e-namaishwa	e-namaishwa	ikookwa	e-namenswa	313
answer (v)	ku-garukamu	ku-garuramu	ku-horoora	ku-subya	ku-subya	140
ant	e-nswa	e-nkyebebe	o-mushwa	e-nčebebe	o-muswa	285
arm	o-mukono	o-mukono	o-mukono	o-mukono	o-mukono	307
armpit	e-nkwaha	o-kwahwa	o-kwaahwa	o-kwahwa	o-bunakwaya	248
arrow	e-kiraso	o-mwambi	o-mwambi	o-mwambi	o-mwambi	318
ashes	iju	e-ižu	e-ižu	izu	izu	264
aunt (mater.)	maama o-muto	maawento	maawento	maaha-omuto	mawe	265
aunt (pater.)	tat'enkazi	tat'enkazi	tat'enkazi	sengi	sengi	396
axe	e-ndemu	e-mpango	e-mpango	e-nseenya	e-nčwa-nku	400
back (+body)	o-mugongo	o-mugongo	o-mugongo	o-mugongo	o-mugongo	292
bad	-bi	-bi	-bi	-bi	-bi	012
bald	o-ruhara	o-ruhara	o-ruhara	o-luhala	e-kiharasyo	088
banana	e-kitooke	e-kitookye	e-čitooče	e-čitooke	i-kitooke	352
banana farm	o-rugonjo	o-rutookye	o-rutooče	e-čibanza	o-lutoke	395
banana plant	o-mukonde	o-mutumba	o-mutumba	e-nzemu	e-kitooke	291
be	ku-ba	ku-ba	ku-ba	ku-ba	ku-ba	245
be afraid	ku-tiina	ku-tiina	ku-tiina	ku-tiina	ku-tiina	188
bef. yesterday	ijo	ižo	ižo	izweli	izweli	067
be full	kw-ijura	kw-ižura	kw-ižura	kw-izula	kw-izula	139
beans	e-bihimba	e-bihimba	e-bihimba	a-maharage	a-maharage	258
beards	e-bireju	e-birežu	e-birežu	e-bilezu	e-bilezu	350
beat (v)	ku-teera	ku-teera	ku-teera	ku-teela	ku-teela	198
become thin	ku-keeha	ku-hururuka	ku-kooha	kw-anuka	kw-anuka	150
become wet	ku-juba	ku-žuba	ku-žuba	ku-loba	ku-loba	167
bee	e-njoki	e-nžoki	e-nžoči	e-nzoči	e-nzoki	371
beer/liquor	a-maarwa	a-maarwa	a-maarwa	a-maarwa	o-bwalwa	385

English	Rutooro	Runyankore	Rukiga	Ruzinza	Rukerebe	Ref
behind	e-nyuma	e-nyima	e-nyima	e-nyuma	e-numa	372
bend (intr. v)	kw-inama	ku-hotama	ku-inama	kw-inama	kw-inama	135
big/large	-koto	-hango	-hango	-hango	-hango	104
bird	e-kinyonyi	e-nyonyi	e-(či)nyonyi	e-nyonyi	e-noni	349
bite (v)	ku-ruma	ku-ruma	ku-ruma	ku-luma	ku-luma	231
bitter	ku-saarira	ku-shaarira	ku-shaarira	ku-saalila	ku-saalila	029
black	kw-iragura	kw-iragura	kw-iragura	kw-ilagula	mwilaguzu	366
blood	o-musahi	o-rwamba	o-rwamba	o-bwamba	e-nsagama	032
body	o-mubiri	o-mubiri	o-mubiri	o-mubili	e-ngingo	340
bone	igufa	e-igufa	e-igufa	igufa	e-igufwa	290
bow	o-buta	o-buta	o-buta	o-buta	o-bukoma	433
boy	o-mwojo	o-mwožo	o-mwožo	o-musigazi	o-musigazi	333
branch	itaagi	e-itaagi	e-itaaži	itabazi	itabi	412
break (v)	ku-henda	ku-henda	ku-henda	ku-henda	ku-henda	242
breast	ibeere	e-ibeere	e-ibeere	ibeele	ibeele	415
breathe	kw-ikya	kw-itsya	kw-isya	kw-(i)eča	kw-iča	202
bride	o-mugole	o-mugore	o-mugore	o-mwenga	o-mwenga	334
bridge	o-rutindo	o-rutindo	o-rutindo	o-rudanda	o-ludaalo	033
bull	e-nimi	e-nimi	e-numi	e-zagamba	inumi	039
burn (intr. v)	ku-hya	ku-sya	ku-sya	ku-sha	ku-hya	232
burn (tr. v)	kw-okya	kw-otsya	kw-osya	kw-oča	kw-oča	111
bury	ku-ziika	ku-ziika	ku-ziika	ku-ziika	ku-ziika	247
but	kyonka	kwonka	čonka	naho	nawe	252
butterfly	e-kihoiholya	e-kihuguhugu	e-čihuguhugu	ihuguhugu	ikubukubu	089
buy	ku-gura	ku-gura	ku-gura	ku-gula	ku-gula	179
calf	e-nyana	e-nyana	e-nyena	e-nyana	e-nana	347
cassava	muhogo	e-biriibwa	e-biriibwa	e-čiliibwa	iliibwa	295
cat	e-njangu	e-nžangu	e-nžangu	e-nyamu	e-nzangu	380
catch (v)	ku-baka	ku-baka	ku-baka	ku-kwata	ku-kwata	116
cattle-shed	e-kihongole	e-kihongore	e-čihongore	o-lugo	e-kibuga	452
cave	o-bwingira	e-nyanga	e-nyanga	e-mpako	e-nanga	381
charcoal	ikara, a-ma-	e-ikara, a-ma-	e-ikara, a-ma-	ikala, a-ma-	ikala, a-ma-	303
cheek	itama	e-itama	e-itama	itama	itama	397
chest	e-kifuba	e-kifuba	e-čifuba	e-čifuba	e-kifuba	083
chew	ku-futana	ku-futana	ku-futana	ku-futana	ku-gwanya	218
chicken	e-nkoko	e-nkoko	e-nkoko	e-nkoko	e-nkoko	153
child	o-mwana	o-mwana	o-mwana	o-mwana	o-mwana	326
chin	e-kireju	e-kirežu	e-čirežu	e-čilezu	e-kilezu	080

English	Rutooro	Runyankore	Rukiga	Ruzinza	Rukerebe	Ref
claim/ demand	ku-tonga	kw-ihuza	ku-banža	ku-tonga	ku-tonga	115
climb	ku-temba	ku-temba	ku-temba	ku-hanama	ku-hanama	158
cloud	e-kiču	e-kiču	e-čiču	iho	e-lile	446
cock/rooster	e-nsanje	e-nshanže	e-nshanže	e-nkokolomi	ikookolome	063
cockroach	e-nyenje	e-kiyenže	e-čiyenže	e-nyenze	ihenze	288
cold (n)	e-mbeho	e-mbeho	e-mbeho	e-mbeho	e-mbeho	010
come	kw-ija	kw-iža	kw-iža	kw-iza	kw-iza	138
conversation	e-mbazo	e-bigaaniiro	e-bigaaniiro	o-luhoyo	e-bifumoolo	272
cook (v)	ku-čumba	ku-teeka	ku-teeka	ku-teeka	ku-teeka	200
cooking stone	ihega	e-ihega	e-ihega	ihiga	ihiga	040
corpse	o-mutumbi	o-mutumbi	o-mutumbi	o-mutumbi	o-mutumbi	261
cough (v)	ku-korra	ku-korora	ku-korora	ku-kolola	ku-kolola	148
count	ku-bara	ku-bara	ku-bara	ku-peta	ku-bala	131
cow/cattle	e-nte	e-nte	e-nte	e-nte	e-nte	354
crocodile	e-nsambya	e-nshambya	goonya	e-nsambi	e-nsambi	267
crow (n)	e-kikoona	e-kikoona	e-čikoona	ikolonolo	namunkolo	176
cry (v)	ku-rra	ku-rira	ku-rira	ku-lila	ku-lila	165
cure (v)	ku-tamba	ku-tamba	ku-tamba	ku-lagula	ku-lagula	225
cut (v)	ku-tema	ku-tema	ku-tema	ku-nogola	ku-tema	144
darkness	o-mwirima	o-mwirima	o-mwirima	e-nsimbaazi	o-mwilima	043
daughter	(o)-muhara	(o)-muhala	(o)-muhala	(o)-mhala	o-muhala	017
day	e-kiro	e-kiro, -izooba	e-čiro, izooba	e-čilo	e-naku	404
day (*vs.* night)	nyamusana	nyomushana	nyomushana	o-musana	msana	280
death	o-rufu	o-rufu	o-rufu	o-lufu	o-lufu	082
debt	ibanja	e-ibanža	e-ibanža	ibanza	o-muhelo	035
defecate	ku-nia	ku-nia	ku-nia	ku-nia	ku-nya	181
dew	o-rume	o-rume	o-rume	o-lume	e-kime	430
die	ku-fa	ku-fa	ku-fa	ku-fa	ku-fwa	118
dirt/filth	e-kirofa, -iko	e-ikwe	e-ikwe	iko	o-bulofu	423
divide up	ku-gaba	ku-gaba	ku-gaba	ku-gaba	ku-gaba	128
dog	e-mbwa	e-mbwa	e-mbwa	e-mbwa	e-mbwa	279
door	o-rwigi	o-rwigi	o-rwiži	o-mlyango	o-mulyango	309
drag (v)	ku-kurra	ku-kurura	ku-kurura	ku-kurura	ku-kwesa	078
draw (water)	ku-taha	ku-taha	ku-taha	ku-taha	ku-taha	222
dream (v)	ku-roota	ku-roota	ku-roota	ku-loota	ku-loota	192
drink (v)	ku-nywa	ku-nywa	ku-nywa	ku-nywa	ku-nwa	185
dry (v)	kw-oma	kw-oma	kw-oma	kw-oma	kw-oma	146
ear	o-kutu	o-kutu	o-kutu	o-kutwi	o-kutwi	403

English	Rutooro	Runyankore	Rukiga	Ruzinza	Rukerebe	Ref
earth/world	e-nsi	e-nsi	e-nsi	e-nsi	e-nsi, -čaalo	037
earthen pot	e-nyungu	e-nyungu,	e-nyungu,	e-nyungu	e-nungu	028
eat	ku-lya	ku-rya	ku-rya	ku-lya	ku-lya	159
egg	ihuri	e-ihuri	e-ihuri	ihuli	ihuli	447
eight	munaana	munaana	munaana	mnaana	munaana	346
elbow	e-nkokera	e-nkokora	e-nkokora	e-nkokora	e-nkokola	095
elephant	e-njojo	e-nžožo	e-nžožo	e-nzozo	e-nzozu	413
evening	o-rwebagyo	o-mwabazyo	o-mwebazyo	o-lwebazo	bwebazyo	060
expel (v)	ku-binga	ku-binga	ku-binga	ku-binga	kw-iluča	125
eye	e-riiso	e-riisho	e-riisho	e-liiso	e-liiso	057
eyebrow(s)	e-bisige	bahungu	bahungu	e-ngohe	e-bisigesige	374
eyelashes	e-nkohe	o-rugohe	o-rugohe	e-ngohe	e-ngohe	098
face/forehead	o-buso	o-buso	o-buso	o-buso	o-busyo	437
fall	ku-gwa	ku-gwa	ku-gwa	ku-gwa	ku-gwa	102
fall sick	ku-rwara	ku-rwara	ku-rwara	ku-lwala	ku-lwala	230
far	hara	hare	hare	hala	hala	273
father	taata	tata	tata	taata	taata	007
fatten up	ku-nyeeta	ku-gomoka	ku-gomoka	ku-gomoka	ku-hanguha	174
feather(s)	e-byoya	e-ryoya	a-mooya	a-mooya	e-lyoya	269
fence	o-rugo	o-rugo	o-rugo	o-lugo	o-lugo	440
fever	o-muswija	o-mushwiža	o-mushwiža	o-muswiza	o-muswiza	049
fight (v)	ku-rwana	ku-rwana	ku-rwana	ku-lwana	ku-kungana	130
finger	e-kyara	o-rukumu	e-čaara	o-lukumu	e-čaala	081
finger nail	e-nono	e-kyara	e-nono	e-čaala	o-luzara	105
finish (intr. v)	ku-hwaho	ku-hwaho	ku-hwa(ho)	ku-hwa	ku-hwa	137
finish (tr. v)	ku-mara	ku-heza	ku-heza, -mara	ku-mala	ku-malaho	168
fire wood	e-nku	e-nku	e-nku	e-nkwi	e-nkwi	177
fire	o-murro	o-muriro	o-muriro	o-mulilo	o-mulilo	316
fish (v)	ku-tega	ku-žuba	ku-shoha	ku-tega	ku-tega	238
fish (n)	e-kyenyanja	e-kyenyanža	e-čenyanža	e-nfi	e-mfwi	392
five	itaano	taano	taano	itaanu/-o	itaanu	410
flow (v)	ku-jwa	ku-žwa	ku-žwa	ku-zela	ku-gelelela	226
fly (v)	ku-harruruka,	ku-guruka	ku-guruka	ku-guluka	ku-guluka	205
food	e-byokurya	e-byokurya	e-byokurya	e-čokulya	e-bilyo	021
fool	o-musiru	e-kifeera	e-čifeera	o-mufeela	o-msilu	300
force (v)	ku-hambiriza	ku-gyema	ku-žema	ku-hatika	ku-sinilizya	163
forest	e-kibira	e-kibira	e-čibira	ilungu	e-kituntu	321
forget	kw-ebwa	kw-ebwa	kw-ebwa	kw-ebwa	kw-ebwa	208

English	Rutooro	Runyankore	Rukiga	Ruzinza	Rukerebe	Ref
four	ina	ina	ina	ina		362
friend	o-munywani	o-munywanyi	o-munywanyi	o-munywanyi	o-munwani	388
frog/toad	e-kikere	e-kikyere	e-čičere	e-čele	ikere	030
fur	e-byoya	e-byoya	e-byoya	a-mooya	e-lyoya	268
get drunk	ku-tamiira	ku-sinzira	ku-sinzira	ku-tamiila	ku-tamiila	164
get tired	ku-jwaha	ku-ruha	ku-ruha	ku-lemwa	ku-lemwa	110
get lost	ku-bura	ku-bura	ku-bura	ku-bula	ku-bula	201
girl	o-mwisiki	o-mwishiki	o-muhara	o-muharakazi	o-muhalakazi	320
give birth	ku-zaara	ku-zaara	ku-zaara	ku-zaala	ku-zaala	246
give	ku-ha	ku-ha	ku-ha	ku-ha	ku-ha	194
go	ku-genda	ku-gyenda	ku-ženda	ku-zenda	ku-genda	250
goat	e-mbuzi	e-mbuzi	e-mbuzi	e-mbuzi	e-mbuzi	278
good	-rungi	-rungi	-runži	-zima	-zima	453
grandfather	isenkuru	ishenkuru	ishenkuru	guku	guuku	009
grandmother	nyinenkuru	nyinenkuru	nyinenkuru	kaaka	kaaka	014
grass	o-bunyaansi	o-bunyaatsi	o-bunyaasi	-inyaasi	a-manansi	363
grasshopper	e-nseenene	e-kiharara	e-čiharara	e-mpalala	ihalala	383
grassland	o-rweya	o-rwera	o-rwera	rueya	mumbuga	277
gray hair	enju	e-nžu	e-nžu	e-nzwi	e-nzwi	331
greed	o-mururu	o-mururu	o-mururu	o-mutubo	o-mululu	428
grind	ku-sa	ku-sa	ku-sa	ku-sa	ku-sya	207
groom	o-muswezi	kishwera	čishwera	o-mwenga	o-mukwelima	020
groundnut	e-kinyoobwa	e-kinyoobwa	e-činyoobwa	o-lukalanga	e-nkalanga	070
grow	ku-kura	ku-kura	ku-kura	ku-kula	ku-kula	154
gum	e-ngunu	e-ngino	e-nžino	e-nzino	e-mbuno	425
hair	isoke	e-ishokye	e-ishoče	e-isoke	e-isoke	375
hang (tr. v)	ku-hanika	ku-hanika	ku-hanika	ku-hanika	ku-hanika	227
happiness	o-kusemererwa	o-kushemererwa	o-kushemererwa	a-manulilwa	o-busemelerwa	042
harvest (v)	ku-gesa	ku-gyesha	ku-žesha	ku-gesa	ku-gesa	241
he/she	we	we	we	wenyini	wenene	448
head	o-mutwe	o-mutwe	o-mutwe	o-mutwe	o-mutwe	079
healer	o-mufumu	o-mufumu	o-mufumu	o-mufumu	o-mufumu	257
hear	ku-hurra	ku-hurira	ku-hurira	ku-hulila	ku-hulila	213
heart	o-mutima	o-mutima	o-mutima	o-mwoyo	o-mtima	317
heel	e-kisinziro	e-kitsintsiino	e-čisinsiino	e-čizele	-isinsinyo	090
here	hanu	aha, hanu	aha, hanu	aha	hanu	045
hide (tr. v)	ku-sereka	ku-shereka	ku-shereka	ku-seleka	ku-seleka	119
hippo	e-njubu	e-nžubu	e-nžubu	e-nzubu	e-nzubu	077

English	Rutooro	Runyankore	Rukiga	Ruzinza	Rukerebe	Ref
hoe	e-nfuka	e-fuka	e-fuka	e-nfuka	e-nfuka	055
hold	ku-kwata	ku-kwata	ku-kwata	ku-kwata	ku-kwata	209
hole	e-kiina	e-kiina	e-čiina	ihulu	itundu, e-lina	420
honey	o-bwoki	o-bwoki	o-bwoči	o-bwoči	o-bwoki	004
horn	ihembe	e-ihembe	e-ihembe	ihembe	ihembe	384
house	e-nju	e-nžu	e-nžu	e-nzu	e-nzu	373
housefly	e-nsohera	e-shihera	e-shohera	o-lusohela	e-nsohera	051
hundred	kikumi	kikumi	čikumi	igana	igana	296
hunger	e-njara	e-nžara	e-nžara	e-nzala	e-nzala	359
hunter	o-muhiigi	o-muhiigi	o-muhiiži	o-muhiigi	o-mufwimi	341
hurry/haste	o-bwira	o-bwira	o-bwira	bwangu	bwangu	047
husband	o-musaija, iba	o-mushaiža, iba	o-mushaiža, iba	iba	balo, museeza	328
I	nyowe	nyowe	nyowe	inye	ine	298
illness	e-ndwara	e-ndwara	e-ndwara	e-ndwala	o-bulwele	426
in/inside	o-munda	o-munda	o-munda	o-mugati	munda	348
inherit	ku-gwetwa	ku-hungura	ku-hungura	ku-hungula	ku-hungula	203
intestine(s)	a-mara	a-mara	a-mara	a-mala	o-bula	438
iron	e-kyoma	e-kyoma	e-čooma	e-čooma	e-čoma	026
judge (v)	ku-ramura	ku-ramura	ku-ramura	ku-lamula	ku-lamula	132
jump (v)	ku-guruka	ku-guruka	ku-guruka	ku-guluka	ku-čuma	206
kill	kw-ita	kw-ita	kw-ita	kw-ita	kw-ita	229
king/chief	o-mukama	o-mukama	o-mukama	o-mukama	o-mukama	289
knee	o-kuju	o-kužu	o-kužu	izwi	e-bizwi	044
knife	o-muhyo	o-musyo	o-musyo	o-musho	o-musho	092
know	ku-manya	ku-manya	ku-manya	ku-manya	ku-manya	141
lake	e-nyanja	e-nyanža	e-nyanža	e-nyanza	e-nanza	451
laugh	ku-seka	ku-sheka	ku-sheka	ku-seka	ku-seka	107
leaf	ibabi	e-ibabi	e-ibabi	ibabi	ituutu	053
left	e-moso	e-mosho	ku-mosho	o-kumosho	o-mumoso	211
leg	o-kuguru	o-kuguru	o-kuguru	o-kugulu	o-kugulu	293
leopard	e-ngo	e-ngwe	e-ngwe	e-nzumula	e-ndala	025
lick	ku-ramba	ku-rigatsa	ku-rigasa	ku-lamba	ku-lamba	162
lie down	ku-biama	ku-biama	ku-biama	ku-lyama	ku-nyaama	160
lie on one's back	ku-garama	ku-garama	ku-garama	ku-galama	bugalame	022
lie(s)	e-kisuba	e-kishuba	e-čishuba	e-bisuba	o-lubehi	439
life	o-bwomezi	a-magara	a-magara	a-kekalile	o-bulame	260
lift (v)	kw-imukya	kw-imutsya	kw-imusya	ku-sutula	kw-imuča	182
lion	e-ntale	e-ntare	e-ntare	e-nganza	e-ntale	405

English	Rutooro	Runyankore	Rukiga	Ruzinza	Rukerebe	Ref
lip	o-munwa	o-munwa	o-munwa	o-munwa	o-munwa	286
liver	e-bune	e-kine	e-čitigu	ini	ini	050
lizard	o-munya	o-munya	o-mu-sherebanganyi	ihangala	ihangala	302
locust	o-ruzige	o-ruzigye	o-ruziže	e-nzige	e-nzige	376
long ago	ira	kare	kare	kala	niila , kala	450
look at	ku-leeba	ku-reeba	ku-reeba	ku-leeba	ku-leebya	101
look for	ku-serra	ku-sherura	ku-sherura	ku-londela	ku-hiiga	219
louse	e-nda	e-nda	e-nda	e-nda	e-nda	023
lung	e-kihaha	e-kihaha	e-čihaha	ihaha	ihaha	378
mad	o-muraru	o-mushazi	o-mushazi	o-musazi	o-musazi	337
maize	e-kičooli	e-kičoori	e-čičoori	ipo	ilingwa	294
maize farm	o-musiri	o-musiri	o-musiri	e-nsambu/-o	e-nsambu	394
man	o-musaija	o-mushaiža	o-mushaiža	o-mukwata	o-museza	336
marry	ku-swera	ku-shwera	ku-shwera	ku-swela	ku-swela	186
medicine	o-mubazi	o-mubazi	o-mubazi	o-mubazi	o-muti	034
milk	a-mata	a-mate	a-mate	a-mata	a-mata	271
moon	o-kwezi	o-kwezi	o-kwezi	o-kwezi	o-kwezi	338
morning	a-kaseese	a-kasheeshe	a-kasheeshe	enčakara	bwanenča	005
mortar	e-nsekuro	e-shekuro	nshekuro	itwangilo	itwangilo	087
mosquito	o-mubu	o-mubu	o-mubu	o-mubu	o-mubu	276
mother	maama	maawe	maawe	maha	mawe	266
mould in clay	ku-bumba	ku-bumba	ku-bumba	ku-bumba	ku-bumba	123
mount/hill	o-rusozi	o-rushozi	o-rushozi	ibanga	ibanga	310
mud	e-bisaabu	e-byondo	e-byondo	o-lwondo	o-lutoto	416
name	ibara	e-iziina	e-iziina	izina	iziina	058
navel	o-mukundi	e-nkundi	o-mukundi	o-mukundi	o-mukundi	093
near	haihi	haihi	haihi, hiihi	hehi	hehi	071
neck	e-bikya	e-bitsya	e-bisya	e-biča	e-biča	399
neighbour	o-mutaahi	o-mutaahi	o-mutaahi	o-mutuuzi	o-mutulanwa	061
night	e-kiro	e-kiro	e-čiro	e-čilo	mu-kilo	436
nine	mwenda	mwenda	mwenda	mwenda	mwenda	414
nipple	e-nywanta	e-nyonto	e-nyonto	-ibeele	e-nywata	024
no	nangwa	ngaa(ha)	ingaa(ha)	mahi	pai	046
noise	e-toko	o-rwari	e-yombo	e-yombo	ku-sekaana	073
nose	e-nyindo	e-nyindo	e-nyindo	e-nyindo	e-nindo	386
old man	o-mugurusi	o-mugurusi	o-mugurusi	o-munyampala	o-mugulusi	393
old woman	o-mukaikuru	o-mukaikuru	o-mukaikuru	o-mkeekuru	o-mukwekulu	003
one	emu	emwe	emwe	emo	emo	314

English	Rutooro	Runyankore	Rukiga	Ruzinza	Rukerebe	Ref
one thousand	rukumi	rukumi	rukumi	e-čihumbi	kihumbi	038
out/outside	a-heeru	a-heeru	a-heeru	a-heelu	-hanza	360
palm	e-kiganja	e-kiganža	e-čiganža	e-čiganza	e-kiganza	085
parent	o-muzaire	o-muzaire	o-muzaire	o-muzeele	o-muzeele	343
path/way	o-muhanda	o-muhanda	o-muhanda	o-muhanda	o-muhanda	361
peel (orange)	ku-čwa	ku-nyubura	ku-tondora	ku-tondola	ku-sosola	171
peel (potato)	ku-haata	ku-haata	ku-haata	ku-halagata	ku-sosola	170
person	o-muntu	o-muntu	o-muntu	o-muntu	o-muntu	327
pig	e-mpunu	e-mpunu	e-mpunu	e-mpunu	e-mpunu	356
pinch (v)	ku-suna	ku-shuna	ku-shuna	ku-suna	ku-suna	122
pit/hole	e-kiina	e-kiina	e-čiina	e-liina	e-liina	398
plant (v)	ku-byara	ku-byara	ku-byara	ku-byala	ku-byala	195
play (v)	ku-zaana	ku-zaana	ku-zaana	ku-zaana	ku-zaana	108
pregnancy	e-nda	e-nda	e-nda	e-nda	e-nda	297
pull	ku-kurra	ku-nyurura	ku-nyurura	ku-kwesa	ku-nulula	244
pumpkin	e-kikeke	e-kyozi	e-ryozi	o-mwongo	o-mwongu	018
pus	a-masira	a-mahira	a-mahira	a-mahila	a-mahila	434
push	ku-sindika	ku-tsindika	ku-sindika	ku-sindika	ku-sindika	216
put on/wear	ku-jwara	ku-žwara	ku-žwara	ku-zwala	ku-zwala	235
rabbit	a-kame	a-kami	a-kame	e-nyakami	nawakame	408
rain	e-njura	e-žura	e-nžura	e-zula	e-nzula	332
raise/lift up	kw-imukya	kw-imutsya	kw-imusya	kw-imuča	kw-imuča	136
rat	e-mbeba	e-mbeba	e-mbeba	e-mbeba	e-mbeba	382
red	ku-tukura	ku-tukura	ku-tukura	ku-tukula	mutuku	365
red safari ant	e-mpazi	e-mpazi	e-mpazi	e-mpazi	e-mpazi	402
refuse	kw-anga	kw-anga	kw-anga	kw-anga	kw-anga	145
remember	kw-ijuka	kw-ižuka	kw-ižuka	kw-izuka	kw-izuka	156
return (v)	ku-garuka	ku-garuka	ku-garuka	ku-suba	ku-suba	204
reveal	ku-serukurra	ku-shuuruura	ku-shuuruura	ku-suulula	ku-sokola	120
right	o-bulyo	o-buryo	o-buryo	o-bulyo	o-bulyo	166
river	o-mugera/-gezi	o-mugyera	o-mužera	o-munona	o-mugela	325
roof (v)	ku-sakaara	ku-shakaara	ku-shakaara	ku-sakaala	ku-sakaala	117
root	o-muhama	o-muzi	o-muzi	o-muzi	o-muzi	344
rope	o-muguha	o-muguha	o-muguha	o-muguha	o-lugohe	069
rot	ku-junda	ku-žunda	ku-žunda	ku-zunda	ku-zunda	193
rub	ku-siimura	ku-shushura	ku-shushura	ku-kubula	ku-kubula	196
run (v)	kw-iruka	kw-iruka	kw-iruka(nga)	kw-iluka	kw-iruka	147
salt	o-munyo	o-mwonyo	o-mwonyo	o-mwonyo	o-mwonu	027

English	Rutooro	Runyankore	Rukiga	Ruzinza	Rukerebe	Ref
sand	o-musenyi	o-musheenye	o-musheenye	o-mushenyi	o-museni	281
scar	e-nkojo	e-nkožo	e-nkožo	e-nkozo	e-nkozu	099
scratch (v)	kw-agura	kw-agura	kw-agura	kw-agula	ku-haga	157
sculpture (v)	ku-gema	ku-baiža	ku-biiža	ku-beeza	ku-beeza	112
season	o-mwaka	o-mwaka	o-mwaka	o-bučilo	a-katungu	263
see	ku-bona	ku-reeba	ku-reeba	ku-bona	ku-lola	189
seed	e-mbibo	a-mbibo	a-mbibo	e-mbimbo	e-mbibo	274
sell	ku-guza	ku-tunda	ku-tunda	ku-guza	ku-guzya	234
seven	musanju	mushanžu	mushanžu	msanzu	musanzu	391
shake (tr. v)	ku-nyiganyiga	ku-nyiganyiga	ku-nyiganyiga	ku-zuguma	ku-zuguma	224
shame	e-nsoni	e-nshoni	e-nshoni	e-nsoni	e-nsoni	002
sharpen	ku-tooza	ku-tyaza	ku-syaza	ku-shola	ku-hyola	178
sheep	e-ntaama	e-ntaama	e-ntaama	e-ntaama	e-nabalega	096
short	-gufu	-gufu	-gufu	-gufu	-gufu	041
shoulder	ibega	e-ibega	e-ibega	ibega	ibega	013
shut/close	ku-kinga	ku-kinga	ku-činga	ku-činga	ku-kinga	127
side	o-rubaju	o-rubažu	o-rubažu	o-lubazu	o-lubazu	431
sister, (elder)	-munyaanya	-munyaanya	-munyaanya	-mnyanyeenye	o-muhala wetu	031
sit	ku-sitama	ku-shutama	ku-shutama	kw-ikala	kw-ikala	142
six	mukaaga	mukaaga	mukaaga	mukaaga	mukaaga	407
skin	o-ruhu	o-ruhu	o-ruhu	o-luhu	o-luhu	355
slaughter	ku-baaga	ku-baaga	ku-baaga	ku-baaga	ku-baaga	109
sleep	ku-gwijagira	ku-gwežegyera	ku-gwežažira	ku-hunila	ku-nagila	161
slope	a-kasirimuko	a-kashuumo	a-kashuumo	o-mugolomoko	a-kahanatuko	323
small/little	-ke, -toito	-kye	-če	-če	-inolo	036
smell (intr. v)	ku-nunka	ku-nuuka	ku-nuuka	ku-nunka	ku-nunka	180
smoke (tr. v)	ku-leesa	ku-reetsa	ku-reesa	ku-peha/-be-	ku-peha	243
smoke	o-mwika	o-mwika	o-mwika	o-mwika	o-mwika	315
snail/slug	e-kitindinda	e-kinya-ngondokyera	e-činya-ngondočeera,	e-nyonga	linawatelela	097
snake	e-njoka	e-nžoka	e-nžoka	e-nzoka	e-nzoka	369
sneeze (v)	kw-es(y)amura	kw-etsyamura	kw-esyamura	kw-ečamuza/-ty-	kw-ityamuzya	199
snore	ku-gona	ku-gona	ku-gona	ku-gona	ku-gona	152
soil	itaka	e-itaka	e-itaka	itaka	itaka	424
son	(o)-mutabani	(o)-mutabani	(o)-mutabani	(o)-mtabani	o-mwende	016
song	e-kizina	e-kyeshongoro	e-česhongoro	o-luzina	o-lwembo	445
sorghum	o-mugusa	o-mugusha	o-mugusha	o-mugusa	o-mugusa	322
spear	ičumu	e-ičumu	e-ičumu	ičumu	ičumu	308
spider	e-nyamubumbira	o-rutangura	o-rutangura	o-lububi	nalububi	019

English	Rutooro	Runyankore	Rukiga	Ruzinza	Rukerebe	Ref
spit	ku-čwa	ku-čwera	ku-čwera	ku-čwela	ku-čwa	223
spittle	a-mačwanta	a-mačwante	a-mačwansi	a-mačwanta	a-mačwanta	270
stand up	kw-emerra	kw-emerera	kw-emerera	kw-emelela	kw-imelela	214
star	e-nyunyuuzi	e-nyonyoozi	e-nyonyoozi	e-nyenyezi	e-neneezi	370
start/begin	ku-banza	ku-banza	ku-banza	ku-banza	ku-tandika	103
steal	kw-iba	kw-iba	kw-iba	kw-iba	kw-iba	133
stone	ibaale	e-ibaare	e-ibaare	ibaale	ibaale	062
stop (v)	ku-leka	ku-reka	ku-reka	ku-leka	ku-leka	100
straighten out	ku-gorra	ku-gorora	ku-gorora	ku-golola	ku-golola	184
strenght	a-maani	a-maani	a-maani	a-maani	a-maani	357
suckle	kw-onka	kw-onka	kw-onka	kw-onka	kw-onka	183
sugar cane	e-kikaijo	e-kikoižo	e-čikaižo	igusa	igusa	330
sun	izooba	e-izooba	e-izooba	e-(i)zooba	izooba	065
swallow (v)	ku-mira	ku-mira	ku-mira	ku-mila	ku-mila	172
sweat (n)	e-mpiita	e-mpiita	e-mpiita	e-mpiita	a-moyelo	054
sweet potato	e-kitakuri	e-kitakuri	e-čitakuri	e-numbu	e-numbu	076
sweet	ku-nura	ku-nuririra	ku-nuririra	ku-nula	ku-nulilila	409
swell	ku-zimba	ku-zimba	ku-zimba	ku-zimba	ku-zimba	236
swim	ku-ziha	ku-ziha	ku-ziha	ku-ziha	ku-ziha	187
tail	o-mukira	o-mukira	o-mučira	o-mučila	o-mukila	305
tall/long	-raihire	-raingwa	-rengwa	-la, ku-leha	-lehi	389
taste (v)	ku-rozaho	ku-rozaho	ku-roza(ho)	ku-loza	ku-lozya	191
tear (v)	ku-taagura	ku-taagura	ku-taagura	ku-temula	ku-teemula	106
tears	a-maziga	a-marira	a-maziga	a-maziga	a-maziga	255
ten	ikumi	ikumi	ikumi	ikumi	ikumi	173
termite	e-bisooro	e-nkyebebe	o-mushwa	e-nswa	e-nswa	169
they	bo	bo	bo	bonyini	bonene	442
thief	o-musuma	o-mushuma	o-mushuma	o-mwibi	o-musuma	342
thigh	e-kibero	e-kibero	e-čibero	e-čibelo	e-kibelo	379
think	ku-teekereza	ku-teekateeka	ku-teekateeka	ku-tekuza	ku-teekateeka	121
thorn	ihwa	e-ihwa	e-ihwa	ihwa	ihwa	339
three	isatu	shatu	shatu	isatu	isatu	411
throw away	ku-naga	ku-naga	ku-naga	ku-naga	ku-naga	228
thunderbolt	e-nkuba	e-nkuba	e-nkuba	e-nkuba	o-lubalagazi	387
thurst	iriho	e-iriho	e-iriho	iliho	eliho	094
tie (v)	ku-boha	ku-koma	ku-koma	ku-koma	ku-boha	126
tobacco	e-taaba	e-taabe	e-taabe	itaaba	ipapo	417
today	hati	hati	hati	leelo	lelo	253

English	Rutooro	Runyankore	Rukiga	Ruzinza	Rukerebe	Ref
tomorrow	nyenkya kara	nyenčakare	nyenčakare	nyenča	nenča	074
tongue	o-rulimi	o-rurimi	o-rurimi	o-lulimi	o-lulimi	429
tooth	e-riino	e-riino	e-riino	e-liino	e-liino	059
tread	ku-rubata	ku-ribata	ku-ribata	ku-libata	ku-libatilila	143
tree	o-muti	o-muti	o-muti	o-muti	iti	324
turn (intr. v)	ku-hinduka	ku-hinduka	ku-hinduka	ku-hinduka	ku-hinduka	129
twin	o-murongo	e-mpasha	e-mpasha	ilongo	malongo	377
two	ibiri	biri	biri	ibili	ibili	275
uncle (mater.)	maarumi	maarumi	maarume	mami	malumi	301
uncle (pater.)	is'ento	tat'ento	tat'ento	taat'omuto	taata-izina	008
undress	ku-juura	ku-žuura	ku-žuura	ku-zuula	ku-zuula	237
up	haiguru	aha-iguru	aha-iguru	o-lugulu	o-lugulu	066
uproot	ku-sindura	ku-tsindura	ku-sindura	ku-kuula	ku-kuula	175
urinate	ku-nyaara	ku-nyaara	ku-nyaara	ku-nyaala	ku-naala	149
urine	e-nkali	e-nkari	e-nkari	e-nkali	e-nkali	306
vomit	ku-tanaka	ku-tanaka	ku-tanaka	ku-tanaka	ku-tanaka	221
wait (for)	ku-linda	ku-tegyereza	ku-težeereza	ku-lindilila	ku-lindilila	215
want	kw-enda	kw-enda, -tenga	kw-enda, -tenga	kw-enda	kw-enda	220
wasp	e-nwa	e-nžoki	e-nžoči, -nwa	e-nwa	ilumambogo	367
water	a-maizi	a-maizi	a-maizi	a-menzi	a-menzi	262
we	itwe	itwe	itwe	ičwe, itwe	itwe	406
what	-kiki	-ki	-či	čiiha	ni-ki, kiihi	358
where	(nka)ha	(nka)hi	(nka)he	(nka)hi	hai	443
whistle (n)	e-kisulizo	e-kičurizo	e-čičurizo	o-lučulilizo	o-mučulizo	311
white	kw-era	kw-era	kw-era	kw-ela	mwela	364
wife	o-mukazi	o-mukazi	o-mukazi	mukazi	o-mukazi	304
win	ku-sing(ur)a	ku-singa	ku-singa	ku-singa	ku-singa	210
wind	o-muyaga	o-muyaga	o-muyaga	o-muyaga	o-muyaga	432
wing	ipapa	e-ipapa	e-ipapa	ipapa	embaba	011
winnow	ku-heheeza	kw-era	kw-era	kw-elula	ku-hehya	197
wizard	o-murogo	o-murogi	o-muroži	o-mulozi	o-mulogi	282
woman	o-mukazi	o-mukazi	o-mukazi	o-mukazi	o-mukazi	335
work (n)	o-mulimo	o-murimo	o-murimo	o-mulimo	e-milimo	072
yawn	kw-eyamura	kw-emamura	kw-eyayamura	kw-eyayamula	kw-iyayamula	251
yes	eego, ee	eego, ee	(y)eego, (y)ee	eego	nikwo, yee	351
yesterday	ijo	nyomwabazyo	nyomwebazyo	nyenčilo	negolo	052
you (pl.)	inywe	imwe	imwe	imwe	imwe	368
you (sg.)	iwe	iwe	iwe	iwe	iwe	444

PART B: Ruhaya (Ruziba, Ruhyoza, Ruhamba, Runyaihangiro), and Runyambo

English	Ruziba	Ruhyoza	Ruhamba	R'ihangiro	Runyambo	Ref
abdomen	e-ibunda	e-ibunda	e-ibunda	ibunda	e-nda	418
abuse (n)	e-kijumi	e-kijumi	e-kijumi	e-kijumi	e-čijumi/-zu-	421
add	kw-ongera	kw-ongera	kw-ongera	kw-ongera	kw-ongera/-nj-	190
after tomorrow	ijo	ijo	ijo, ijweri	ijweri	ijweeri(ho)/-iz-	075
agree	kw-ikiriza	kw-ikiriza	kw-ikiriza	kw-ikiriza	kw-ičiriza	155
all	-oona	-oona	-oona	-oona	-oona	449
anger	e-kiniga	e-kiniga	e-kiniga	e-činiga	e-činiga	048
animal	e-kigunju	e-kigunju	e-kigunju	e-čigunju/-ki-	e-čigunju/-zu-	313
answer (v)	ku-holoola	ku-horoora	ku-horoora	ku-horoora	ku-horoora	140
ant	o-mushwa	o-mushwa	o-mushwa	o-mushwa	o-muswa	285
arm	o-mukono	o-mukono	o-mukono	o-mukono	o-mukono	307
armpit	e-nyakwahwa	e-nyakwahwa	e-nyakwahwa	e-nyakwahwa	e-nkwawa	248
arrow	o-muhambi	o-muhambi	o-mwambi	o-mwambi	e-ngobe	318
ashes	e-ijwi	e-ijwi	e-ijwi	ijwi	e-iju/-zu-	264
aunt, maternal	mawento	maawento	mawento	mawento	mawento	265
aunt, paternal	tat'enkazi	tat'enkazi	tat'enkazi	tat'enkazi	swenkazi	396
axe	e-mbaizi	e-ndya-miti	e-ndya-miti	e-ndya-miti	e-mbeizi	400
back (+body)	o-mugongo	o-mugongo	o-mugongo	o-mugongo	o-mugongo	292
bad	-bi	-bi	-bi	-bi	-bi	012
bald	o-ruhara	o-ruhara	o-ruhara	o-ruhara	o-ruhara	088
banana	e-kitooke	e-kitooke	e-kitooke	e-čitooke, -ki-	e-čitooke/-če	352
banana farm	e-kibanja	e-kibanja	e-kibanja	e-čibanja, -ki-	e-čibanja/-za	395
banana plant	e-ngemu	e-ngemu	e-ngemu	e-ngemu	e-ngemu/-je-	291
be	ku-ba	ku-ba	ku-ba	ku-ba	ku-ba	245
be afraid	ku-tiina	ku-tiina	ku-tiina	ku-tiina	ku-tiina	188
bef. yesterday	ijo	ijo	ijo, ijweeri	ijweri	ijweeri/-zwe-	067
be full	kw-ijura	kw-ijura	kw-ijura	kw-ijura	kw-ijura/-zu-	139
beans	e-bihimba	e-mperege	e-bihimba	e-biherege	e-bihimba	258
beards	e-bireju	e-bireju	e-bireju	e-bireju	e-bireju/-zu-	350
beat (v)	ku-teera	ku-teera	ku-teera	ku-teera	ku-teera	198
become thin	ku-teba	ku-teba	ku-teba	ku-teba	ku-teba	150
become wet	ku-shaaba	ku-shaaba	ku-shaaba	ku-roba	ku-roba	167
bee	e-njoki	e-njoki	e-njoki	e-njoki	e-njoči/-zo-	371
beer/liquor	a-maarwa	a-maarwa	a-maarwa	a-maarwa	a-maarwa	385
behind	e-nyuma	e-nyuma	e-nyuma	e-nyuma	e-nyima	372
bend (intr. v)	kw-inama	kw-inama	kw-inama	kw-inama	kw-inama	135
big/large	-hango	-hango	-hango	-hango	-hango	104

English	Ruziba	Ruhyoza	Ruhamba	R'ihangiro	Runyambo	Ref
bird	e-kinyonyi	e-kinyonyi	e-kinyonyi	e-kinyonyi	e-činyonyi	349
bite (v)	ku-ruma	ku-ruma	ku-ruma	ku-ruma	ku-ruma	231
bitter	ku-shaalira	ku-shaalira	ku-shaalira	ku-shaalira	ku-saalila	029
black	kw-iragura	kw-iragura	kw-iragura	kw-iragura	kw-iragura	366
blood	o-bwamba	o-bwamba	o-bwamba	o-bwamba	o-bwamba	032
body	o-mubiri	o-mubiri	o-mubiri	o-mubiri	o-mubiri	340
bone	e-igufa	e-igufa	e-igufa	-iguf(w)a	(e)-igufa	290
bow	o-buta	o-butai	o-buta	o-buta	o-buta	433
boy	o-mwojo	o-mwojo	o-mwojo	o-mwojo	o-musigazi	333
branch	e-itabi	e-itaagi	e-itaagi, -itaabi	itabi, itaagi	(e)-taaji	412
break (v)	ku-henda	ku-henda	ku-henda	ku-henda	ku-henda	242
breast	e-ibeere	e-ibeere	e-ibeere	ibeere	(e)-ibeere	415
breathe	kw-ikya	kw-ikya	kw-ikya	kw-ičya	kw-iča/sya	202
bride	o-mugole	o-mugole	o-mugole	o-mugole	o-mugore	334
bridge	o-lutindo	o-rutindo	o-rutindo	o-rutindo	o-lutindo	033
bull	e-numi	e-numi	e-numi	e-numi	e-nimi	039
burn (intr. v)	ku-hya	ku-hya	ku-hya	ku-hya	ku-sya	232
burn (tr. v)	kw-okya	kw-okya	kw-okya	kw-očya	kw-oča/sya	111
bury	ku-ziika	ku-ziika	ku-ziika	ku-ziika	ku-ziika	247
but	kyonka	kyonka	čonka	č(y)onka/-e	čonka	252
butterfly	e-kiwoiwo	e-kiwoiwo	e-kiyoiyo	e-kihweihwo	e-čihuguhugu	089
buy	ku-gura	ku-gura	ku-gura	ku-gura	ku-gura	179
calf	e-nyana	e-nyana	e-nyana	e-nyana	e-nyena	347
cassava	e-kiriibwa	e-kiriibwa	e-kiriibwa	e-čiriibwa	e-čiriibwa	295
cat	o-njangwa	e-njangu	e-njangwa	e-njangu	e-njangwa/-nz-	380
catch (v)	ku-baka	ku-baka	ku-baka	ku-baka	ku-baka	116
cattle-shed	e-kiraaro	e-kiraaro	e-kiraaro	e-kiraaro	e-čiraaro	452
cave	e-mpako	e-mpako	e-mpako	e-mpako	e-nyaanga	381
charcoal	e-ikara, a-ma-	e-ikara, a-ma-	e-ikara, a-ma-	-ikara, a-ma-	(e)ikala,a-ma-	303
cheek	e-itama	e-itama	e-itama	-itama	(e-)itama	397
chest	e-kifuba	e-kifuba	e-kifuba	e-kifuba	e-čifuba	083
chew	ku-kanj(ur)a	ku-kanjura	ku-kanjura	ku-kanjura	ku-kanjura	218
chicken	e-nkoko	e-nkoko	e-nkoko	e-nkoko	e-nkoko	153
child	o-mwana	o-mwana	o-mwana	o-mwana	o-mwana	326
chin	o-mureju	o-kireju	e-kireju	e-kireju	e-čireju/zu	080
claim/demand	ku-tonga	ku-tonga	ku-tonga	ku-tonga	ku-tonga	115
climb	ku-hanama	ku-kuuba	ku-kuuba	ku-hanama	ku-hanama	158
cloud	e-kičwi	e-kičwi	e-kičwi	e-čičwi, e-čiho	e-čiču	446

English	Ruziba	Ruhyoza	Ruhamba	R'ihangiro	Runyambo	Ref
cock/roaster	e-nkookoromi	e-nkookoromi	e-nshaaki	e-nshaaki	e-nsaači	063
cockroach	e-nyenje	e-nyenje	e-nyenje	e-nyenje	e-čičegesi/-je-	288
cold (n)	e-mbeho	e-mbeho	e-mbeho	e-mbeho	e-mbeho	010
come	kw-ija	kw-ija	kw-ija	kw-ija	kw-ija/-za	138
conversation	e-fumooro	e-fumooro	e-fumooro	e-fumooro	e-fumooro	272
cook (v)	ku-čumba	ku-čumba	ku-čumba	ku-čumba	ku-teeka	200
cooking stone	e-ihiga	e-ihiga	e-ihiga	ihiga	(e)-ihiga/-ihega	040
corpse	o-mufu	o-mufu	o-mufu	o-mufu	o-mufu	261
cough (v)	ku-korora	ku-korora	ku-korora	ku-korora	ku-korora	148
count	ku-bara	ku-bara	ku-bara	ku-bara	ku-bara	131
cow/cattle	e-nte	e-nte	e-nte	e-nte	e-nte	354
crocodile	e-yambi	e-nshambi	e-nshambya	e-nshambi	e-nsambi	267
crow (n)	e-kikoona	e-kikoona	e-kikoona	e-kikoona	e-čikoona	176
cry (v)	ku-lira	ku-lira	ku-lira	ku-lira	ku-rira	165
cure (v)	ku-tamba	ku-tamba	ku-tamba	ku-tamba	ku-tamba	225
cut (v)	ku-tema	ku-tema	ku-tema	ku-tema	ku-tema	144
darkness	o-mwilima	o-mwirima	o-mwirima	o-mwirima	o-mwirima	043
daughter	(o)-muhara	(o)-muhala	(o)-muhara	(o)-muhara	(o)-muhala	017
day	e-kiro	e-kiro	e-kiro	e-čiro	e-čiro	404
day (*vs.* night)	nyemishana	o-mushana	o-mushana	o-mushana	(e)-ihangwe	280
death	o-rufu	o-rufu	o-rufu	o-rufu	o-rufu	082
debt	e-ibanja	e-ibanja	e-ibanja	-ibanja	(e)-ibanja/za	035
defecate	ku-nia	ku-nia	ku-nia	ku-nia	ku-nia	181
dew	o-rume	o-rume	o-rume	o-rume	o-rume	430
die	ku-f(w)a	ku-f(w)a	ku-f(w)a	ku-f(w)a	ku-fa	118
dirt/filth	e-nziro	e-nziro	e-nziro	e-nziro	o-burofa	423
divide up	ku-gaba	ku-gaba	ku-gaba	ku-gaba	ku-gaba	128
dog	e-mbwa	e-mbwa	e-mbwa	e-mbwa	e-mbwa	279
door	o-rwigi	o-rwigi	o--rwigi	o-ruhigi	o-mulyango	309
drag (v)	ku-kurura	ku-kurura	ku-kurura	ku-kurura	ku-kurura	078
draw (water)	ku-taha	ku-taha	ku-taha	ku-taha	ku-taha	222
dream (v)	ku-roota	ku-roota	ku-roota	ku-roota	ku-roota	192
drink (v)	ku-nywa	ku-nywa	ku-nywa	ku-nywa	ku-nywa	185
dry (v)	kw-oma	kw-oma	kw-oma	kw-oma/-um-	kw-oma	146
ear	o-kutwi	o-kutwi	o-kutwi	o-kutwi	o-kutu	403
earth/world	e-nsi	e-nsi	e-nsi	e-nsi	e-nsi	037
earthen pot	e-nyungu	e-nyungu	e-muga	e-nyungu	e-nyungu	028
eat	ku-lya	ku-lya	ku-lya	ku-lya	ku-rya	159

English	Ruziba	Ruhyoza	Ruhamba	R'ihangiro	Runyambo	Ref
egg	e-ihuli	e-ihuli	e-ihuli	ihuli	(e)-ihuri	447
eight	munaana	munaana	munaana	munaane	munaana	346
elbow	e-nkokora	e-nkokora	e-nkokora	e-nkokora	e-nkokora	095
elephant	e-njoju	e-njoju	e-njojo	e-njojo	e-njojo/-zozo	413
evening	bwaigolo	bwaigoro	bwaigoro	bweigoro	bweigoro	060
expel (v)	ku-binga	ku-binga	ku-binga	ku-binga	ku-binga	125
eye	e-liisho	e-liisho	e-liisho	e-liisho	e-liiso	057
eyebrow(s)	e-bisige	e-bisige	e-bisige	e-bisige	e-ngohe	374
eyelashes	e-ngohe	o-ngohe	e-ngohi	e-ngohe	e-ngohe/-gu-	098
face/forehead	o-buso	o-buso	o-buso	o-buso	o-buso	437
fall	ku-gwa	ku-gwa	ku-gwa	ku-gwa	ku-gwa	102
fall sick	ku-rwara	ku-rwara	ku-rwara	ku-rwara	ku-rwara	230
far	a-hara	a-harai	a-harai	hale	hare	273
father	tata	taata	taata	taata	taata	007
fatten up	ku-gomoka	ku-gomoka	ku-gomoka	ku-gomoka	ku-gomoka	174
feather(s)	e-bishanda	e-bishanda	e-kishanda	e-bishanda	e-ryooya	269
fence	o-rugo	o-rugo	o-rugo	o-rugo	o-rugo	440
fever	o-mushwago	o-mushwago	o-mushwago	o-mushwago	o-muswago	049
fight (v)	ku-rwana	ku-rwana	ku-rwana	ku-rwana	ku-rwana	130
finger	e-kyaara	e-kyaara	e-kyaara	e-čyara	o-lukumu	081
finger nail	e-nono	e-mpambo	e-mpambo	e-mpambo	e-nono	105
finish (intr. v)	ku-hwa	ku-hwa	ku-hwa	ku-hwa	ku-hwa	137
finish (tr. v)	ku-mara	ku-mara	ku-mara	ku-mara	ku-mara	168
fire wood	e-nkwi	e-nkwi	e-nkwi	e-nkwi	e-nku	177
fire	o-muliro	o-muliro	o-muliro	o-muliro	o-muriro	316
fish (v)	ku-juba	ku-juba	ku-juba	ku-juba	ku-juba/-zu-	238
fish (n)	e-nfuru	e-nfuru	e-nfuru	e-nfuru	e-nfuru	392
five	itaanu	itaanu	itaanu	itaano/-u	itaano	410
flow (v)	ku-gera	ku-gera	ku-gera	ku-gera	ku-gera/-je-	226
fly (v)	ku-harara	ku-harara	ku-harara	ku-harara	ku-harara	205
food	e-kyakulya	e-kyakulya	e-kyakulya	e-čyakulya	e-čakulya	021
fool	o-mufeera	o-mufeera	o-mufeera	o-mufeera, e-či-	o-muf(w)eera	300
force (v)	ku-kaka	ku-kaka	ku-sinza	ku-kaka	ku-jimba	163
forest	e-kibira	e-kibira	e-kibira	e-čibira	e-čibira	321
forget	kw-ebwa	kw-ebwa	kw-ebwa	kw-ebwa	kw-ebwa	208
four	ina	ina	ina	ine	ina	362
friend	o-munywanyi	o-munywanyi	o-munywanyi	o-munywanyi	omunywan(y)i	388
frog/toad	e-kikere	e-kikere	e-kikere	e-čikere	e-čičele	030

English	Ruziba	Ruhyoza	Ruhamba	R'ihangiro	Runyambo	Ref
fur	o-mwoya	o-mwoya	o-mwoya	e-byoya	o-mwoya	268
get drunk	ku-tamiira	ku-tamiira	ku-tamiira	ku-tamiira	ku-sinda	164
get tired	ku-lemwa	ku-lemwa	ku-lemwa	ku-lemwa	ku-lemwa	110
get lost	ku-bura	ku-bura	ku-bura	ku-bura	ku-bura	201
girl	o-mwisiki	o-mwisiki	o-mwisiki	o-mwisiki	o-mwisiči	320
give birth	ku-zaara	ku-zaara	ku-zaara	ku-zaara	ku-zaara	246
give	ku-ha	ku-ha	ku-ha	ku-ha	ku-ha	194
go	ku-genda	ku-genda	ku-genda	ku-genda	ku-genda/-je-	250
goat	e-mbuzi	e-mbuzi	e-mbuzi	e-mbuzi	e-mbuzi	278
good	-rungi	-rungi	-rungi	-rungi	-rungi	453
grandfather	tat'enkuruu	tat'enkuru	tat'enkuru	tat'enkuru	swenkuru	009
grandmother	maawenkuru	maa(w)enkuru	maawenkuru	mawenkuru	mukaaka	014
grass	o -bunyaasi	o-bunyaasi	a-bunyaasi	a-bunya(n)si	o-bunyansi	363
grasshopper	e-mparara	e-mparara	e-mparara	e-mparazi	e-čiharara	383
grassland	o-rweya	o-rweya	o-rweya	o-rweya	o-rweeya	277
gray hair	e-njwi	e-njwi	e-njwi	e-njwi	e-nju/-zu-	331
greed	o-mururu	o-mururu	o-mururu	o-mururu	o-mururu	428
grind	ku-sa	ku-sa	ku-sa	ku-sa	ku-sa	207
groom	kishwera	kishwera	kishwera	o-mugole	čiswela	020
groundnut	e-kinyoobwa	e-kinyoobwa	e-kinyoobwa	e-činyobwa	e-činyobwa	070
grow	ku-kura	ku-kura	ku-kura	ku-kura	ku-kura	154
gum	o-rugino	o-rugino	o-rugino	o-rugino	e-njino	425
hair	e-ishoke	e-ishoke	e-ishoke	-ishoke	(e)-isoke/-če	375
hang (tr. v)	ku-hanika	ku-hanika	ku-hanika	ku-hanika	ku-hanika	227
happiness	e-byera	e-byera	e-byera	e-byera	e-byera	042
harvest (v)	ku-gesha	ku-gesha	ku-gesha	ku-gesha	ku-saaruura	241
he/she	wenene	wenene	wenene	wenene	wenene	448
head	o-mutwe	o-mutwe	o-mutwe	o-mutwe	o-mutwe	079
healer	o-mutambi	o-mutambi	o-mufumu	o-mutambi	o-mutambi	257
hear	ku-hulira	ku-hulira	ku-hulira	ku-hulira	ku-hurira	213
heart	o-mwoyo	o-mwoyo	o-mwoyo	o-mwoyo	o-mutima	317
heel	e-kisinzilyo	e-kisinzilyo	a-kakongoijoli	e-čisinziro	e-čisinsino	090
here	aha, hanu	aha, hanu	aha	aha, hanu	aha	045
hide (tr. v)	ku-shereka	ku-shereka	ku-shereka	ku-shereka	ku-sereka	119
hippo	e-njubu	e-njubu	e-njubu	e-njubu	e-njubu/-zu-	077
hoe	e-nfuka	e-nfuka	e-nfuka	e-nfuka	e-nfuka	055
hold	ku-kwata	ku-kwata	ku-kwata	ku-kwata	ku-kwata	209
hole	e-kihuru	e-kihuru	e-kihuru	e-čihuru	e-čihuru	420

English	Ruziba	Ruhyoza	Ruhamba	R'ihangiro	Runyambo	Ref
honey	o-bwoki	o-bwoki	o-bwoki	o-bwoči, bwoki	o-bwoči	004
horn	e-ihembe	e-ihembe	e-ihembe	ihembe	(e)-ihembe	384
house	e-nju	e-nju	e-nju	e-nju	e-nju/-zu	373
housefly	e-nshwera	e-nshwera	e-nshwera	e-nshwehera	e-nsohela	051
hundred	kikumi	kikumi	kikumi	čikumi	čikumi	296
hunger	e-njara	e-njara	e-njara	e-njara	e-njara/-za-	359
hunter	o-muhiigi	o-muhiigi	o-muhiigi	o-muhiigi	o-muhiiji	341
hurry/haste	o-bwangu	o-bwangu	o-bwangu	o-bwangu	bwangu	047
husband	o-mushaija, iba	o-mushaija, iba	o-mushaija, iba	o-musheija	o-museija, iba	328
I	nyowe	inye	inye	inye	nyawe	298
illness	e-ndwara	e-ndwara	e-ndwara	e-ndwara	o-burweire	426
in/inside	o-munda	o-munda	o-munda	o-munda	o-munda	348
inherit	ku-sika	ku-sika	ku-sika	ku-sika	ku-sika	203
intestine(s)	a-mara	a-mara	a-mara	a-mara	a-mara	438
iron	e-kyoma	e-kyoma	e-kyoma	e-čyoma	e-čooma	026
judge (v)	ku-ramura	ku-ramura	ku-ramura	ku-ramura	ku-ramura	132
jump (v)	ku-čooka	ku-čooka	ku-guruka	ku-čooka	ku-ooka	206
kill	kw-ita	kw-ita	kw-ita	kw-ita	kw-ita	229
king/chief	o-mukama	o-mukama	o-mukama	o-mukama	o-mukama	289
knee	o-kujwi	o-kujwi	e-kiju	e-kijwi	o-kuju/zu	044
knife	o-muhyo	o-muhyo	o-muhyo	o-muhyo	o-musyo	092
know	ku-manya	ku-manya	ku-manya	ku-manya	ku-manya	141
lake	e-nyanja	e-nyanja	e-nyanja	e-nyanja	e-nyanja/-za-	451
laugh	ku-sheka	ku-sheka	ku-sheka	ku-sheka	ku-seka	107
leaf	e-ibabi	e-kibabi	e-kibabi	ibabi, ki-babi	(e)-ibabi	053
left	o-bumosho	o-bumosho	o-bumosho	o-bumosho	(o)-bumoso	211
leg	o-kuguru	o-kuguru	o-kuguru	o-kuguru	o-kuguru	293
leopard	e-ngo	e-mpisi	e-ngo	e-ngwe	e-ngo, -ngwe	025
lick	ku-ramba	ku-ramba	ku-ramba	ku-ramba	ku-ramba	162
lie down	ku-byama	ku-byama	ku-niama	ku-niama	ku-byama	160
lie on one's back	ku-garama	ku-garama	ku-garama	ku-garama	ku-garama	022
lie(s)	e-bishuba	e-bishuba	e-bishuba	e-kishuba	e-čisuba	439
life	o-burora	o-burora	o-burora	o-burora	o-burora	260
lift (v)	ku-shutura	ku-shutura	ku-shutura	ku-shutura	ku-sutura	182
lion	e-ntale	e-ntale	e-ntale	e-ntale	e-(n)simba	405
lip	o-munwa	o-munwa	o-munwa	o-munwa	o-munwa	286
liver	e-ine	o-mwirima	e-ini	i-ini	(e)-ine, čine	050
lizard	o-munya	o-munya	o-munya	o-munye	o-munya	302

English	Ruziba	Ruhyoza	Ruhamba	R'ihangiro	Runyambo	Ref
locust	e-nzige	e-nzige	e-nzige	e-nzige	e-nzige/-je	376
long ago	e-ira	e-ira	e-ira	kale	(e)-ila	450
look at	ku-leeba	ku-leeba	ku-leeba	ku-leeba	ku-leeba	101
look for	ku-hiiga	ku-hiiga	ku-hiiga	ku-hiiga	ku-hiiga	219
louse	e-nda	e-nda	e-nda	e-nda	e-nda	023
lung	e-kihaha	e-kihaha	e-kiyaa	e-čihaha	e-čihaha	378
mad	o-muraru	o-muraru	o-muraru	o-muraro	o-muraru	337
maize	e-kičooli	e-kičooli	e-kičooli	e-čičooli, ičooli	e-čičooli	294
maize farm	o-musiri	o-musiri	o-musiri	e-ndimiro	o-musiri	394
man	o-mushaija	o-mushaija	o-mushaija	o-musheija	o-museija/-za-	336
marry	ku-shwera	ku-shwera	ku-shwera	ku-shwera	ku-swela	186
medicine	o-mubazi	o-mubazi	o-mubazi	o-mubazi	o-mubazi	034
milk	a-mata	a-mata	a-mata	a-mate	a-mate	271
moon	o-kwezi	o-mwezi	o-mwezi	o-mwezi	o-mwezi	338
morning	bwankya	bwankya	bwankya	bwančya	bwanča/sya	005
mortar	e-kitwangiro	e-kitwangiro	e-kitwangiro	e-kitwangiro	e-ntwanjiro	087
mosquito	o-mubwi	o-mubwi	o-mubu	o-mubu	o-mubu	276
mother	maa(w)e	maa(w)e	maawe	maawe	mawe	266
mould in clay	ku-bumba	ku-bumba	ku-bumba	ku-bumba	ku-bumba	123
mount/hill	e-ibanga	e-ibanga	e-ibanga	ibanga	(e)-ibanga,	310
mud	e-shaabo	e-shaabo	e-shaabo	e-byondo	e-byondo	416
name	e-ibara	e-ibara	e-ibara	ibara	(e)-izina	058
navel	o-mukundi	o-mukundi	o-mukundi	o-mukundi	o-mukundi	093
near	ahi	ahi	ahi	heihi	eihi	071
neck	e-bikya	e-bikya, -ngoto	e-ngoto,	e-bičya, -bikya	e-biča/sya	399
neighbour	o-mwatani	o-mwatani	o-mwatani	o-mwatani	o-mwatani	061
night	e-kiro	e-kiro	e-kiro	e-čiro	e-čiro	436
nine	mwenda	mwenda	mwenda	mwende	mwenda	414
nipple	e-nyantwa	e-naatwa	e-naatwa	e-nyaatwa	e-nyantwa	024
no	čei	čei	čei	čehi, nga	čehi	046
noise	e-yombo	e-yombo	e-yombo	e-yombo	e-nduuru	073
nose	e-nyindo	e-nyindo	e-nyindo	e-nyindo	e-nyindo	386
old man	o-mugurusi	o-mugurusi	o-mugurusi	o-mugurusi	-mugurusi	393
old woman	o-mukaikuru	o-mukaikuru	o-mukaikuru	o-mukeikuru	o-mukeikuru	003
one	e-mo	e-mo	e-mo	e-mwe	emo	314
one thousand	rukumi	rukumi	rukumi	rukumi	rukumi	038
out/outside	e-nja	e-nja	a-heeru	a-heelu	a-heeru	360
palm	e-ngaro	e-kiganja	e-kiganja	e-kiganja	e-čiganja/za	085

English	Ruziba	Ruhyoza	Ruhamba	R'ihangiro	Runyambo	Ref
parent	o-muzaire	o-muzaire	o-muzaire	o-muzeire	o-muzeire	343
path/way	o-muhanda	o-muhanda	o-muhanda	o-muhanda	o-muhanda	361
peel (orange)	ku-tondora	ku-tondora	ku-tondora	ku-tondora	ku-tondora	171
peel (potato)	ku-haata	ku-haata	ku-haata	ku-haata	ku-haata	170
person	o-muntu	o-muntu	o-muntu	o-muntu	o-muntu	327
pig	e-mpunu	e-mpunu	e-mpunu	e-mpunu	e-mpunu	356
pinch (v)	ku-shuna	ku-shuna	ku-shuna	ku-shuna	ku-suna	122
pit/hole	e-kiina	e-kiina	e-kiina	e-čiina	e-čiina	398
plant (v)	ku-byara	ku-byara	ku-byara	ku-byara	ku-byara	195
play (v)	ku-zaana	ku-zaana	ku-zaana	ku-zaana	ku-zaana	108
pregnancy	e-nda	e-nda	e-nda	e-nda	e-nda	297
pull	ku-nyurura	ku-nyurura	ku-nyurura	ku-nyurura	ku-nyurura	244
pumpkin	o-mwongu	o-mwongu	o-mwongo	o-mwongo	o-mwongo	018
pus	a-mahira	a-mahira	a-mahira	a-mahira	a-mahira	434
push	ku-sindika	ku-sindika	ku-sindika	ku-sindika	ku-sindika	216
put on/wear	ku-jwara	ku-jwara	ku-jwara	ku-jwara	ku-jwara/-zw-	235
rabbit	a-kami	a-kami	a-kami	a-kami	a-kami	408
rain	e-njura	e-njura	e-jura	e-njura	e-njura/-zu-	332
raise/lift up	kw-imukya	kw-imukya	kw-inunura	kw-imučya	kw-emereza	136
rat	e-mbeba	e-mbeba	e-mbeba	e-mbeba	e-mbeba	382
red	ku-tukura	ku-tukura	ku-tukura	ku-tukura	ku-tukura	365
red safari ant	o-buhazi	o-bwazi	e-mpazi	e-mpazi	e-mpazi	402
refuse	kw-anga	kw-anga	kw-anga	kw-anga	kw-anga	145
remember	kw-ijuka	kw-ijuka	kw-ijuka	kw-ijuka	kw-ijuka/-zu-	156
return (v)	ku-garuka	ku-garuka	ku-garuka	ku-garuka	ku-garuka	204
reveal	ku-sherura	ku-sherura	ku-sherura	ku-sherura	ku-serura	120
right	o-bulyo	o-bulyo	o-bulyo	o-bulyo	(o)-buryo	166
river	o-mwiga	o-mwiga	o-mwiga	o-mwiga	o-mugera/-je-	325
roof (v)	ku-shakaara	ku-shakaara	ku-shakaara	ku-shakaara	ku-sakaara	117
root	o-muzi	o-muzi	o-muzi	o-muzi	o-muzi	344
rope	o-muguha	o-muguha	o-muguha	o-muguha	o-mugoha	069
rot	ku-junda	ku-junda	ku-junda	ku-junda	ku-junda/-zu-	193
rub	ku-ragaza	ku-ragaza	ku-ragaza	ku-ragaza	ku-ragaza	196
run (v)	kw-iruka	kw-iruka	kw-iruka	kw-iruka	kw-iruka	147
salt	o-mwonyu	o-mwonyu	o-mwonyo	o-mwonyo	o-mwonyo	027
sand	o-mushenye	o-mushenye	o-mushenye	o-mushenyi	o-musenyi	281
scar	e-nkoju	e-nkoju	e-nkoju	e-nkojo	e-nkojo/zo	099
scratch (v)	kw-aga	kw-aga	kw-ag(ur)a	kw-agura	kw-eyagura	157

English	Ruziba	Ruhyoza	Ruhamba	R'ihangiro	Runyambo	Ref
sculpture (v)	ku-baija	ku-baija	ku-baija	ku-beija	ku-beija/za	112
season	e-kirumo	e-kirimo	a-makiro	a-makiro	a-mačiro	263
see	ku-bona	ku-bona	ku-bona	ku-bona	ku-reeba	189
seed	e-mpambo	e-mpambo	e-mpambo	e-mpambo	o-rubibo	274
sell	ku-guza	ku-guza	ku-guza	ku-guza	ku-guza	234
seven	mushanju	mushanju	mushanju	mushanju	mushanju	391
shake (tr. v)	ku-čundwa	ku-čundwa	ku-čundwa	ku-tungura	ku-tetema	224
shame	e-nshoni	e-nshoni	e-nshoni	e-nshoni	e-nsoni	002
sharpen	ku-hyora	ku-hyora	ku-hyora	ku-hyora	ku-syora	178
sheep	e-ntaama	e-ntaama	e-ntaama	e-ntaama	e-ntaama	096
short	gufi	gufi	gufi	gufu, gufi	gufu	041
shoulder	e-ibega	e-ibega	e-ibega	ibega	(e)-ibega	013
shut/close	ku-kinga	ku-kinga	ku-kinga	ku-činga/-ki-	ku-činga	127
side	o-rubaju	o-rubaju	o-rubaju	o-rubaju	o-rubaju/-zu-	431
sister, (elder)	-munyaanya	-munyaanya	-munyaanya	-munyaanya	-munyaanya	031
sit	ku-shuntama	ku-shuntama	ku-shuntama	ku-shutama	ku-sitama	142
six	mukaaga	mukaaga	mukaaga	mukaaga	mukaaga	407
skin	o-ruhu	o-ruhu	o-ruhu	o-ruhu	o-ruhu	355
slaughter	ku-baaga	ku-baaga	ku-baaga	ku-baaga	ku-baaga	109
sleep	ku-nagira	ku-nagira	ku-nagira	ku-nagira	ku-najila	161
slope	o-busooka	o-busooka	o-busooka	o-busooka	a-kasuumo	323
small/little	-ke	-ke	-ke	-ke	-če	036
smell (intr. v)	ku-nunka	ku-nuuka	ku-nuuka	ku-nunka	ku-nunka	180
smoke (tr. v)	ku-nywa	ku-nywa	ku-nywa	ku-leesa	ku-leesa	243
smoke	o-mwika	o-mwika	o-mwika	o-mwika	o-mwika	315
snail/slug	e-kinyira	e-kinyira	e-kinyira	e-kinyira	e-činyira	097
snake	e-njoka	e-njoka	e-njoka	e-njoka	e-njoka/-zo-	369
sneeze (v)	kw-esaimura	kw-esaimura	kw-esaimura	kw-esamura	kw-eseimura	199
snore	ku-gona	ku-gona	ku-gona	ku-gona	ku-gona	152
soil	e-itaka	e-itaka	e-itaka	itaka	(e)-itaka	424
son	(o)-mutabani	(o)-mutabani	(o)-mutabani	(o)-mutaani	(o)-mwene	016
song	o-ruhooya	o-ruhooya	o-ruhooya	o-ruhooya	o-ruhooyo	445
sorghum	o-mugusha	o-mugusha	o-mugusha	o-mugusha	o-mugusa	322
spear	e-ičumu	e-ičumu	e-ičumu	ičumu	(e)-ičumu	308
spider	o-rububi	o-rububi	o-rububi	o-rububi	o-rububi	019
spit	ku-čwa	ku-čwa	ku-čwa	ku-čwa	ku-čwera	223
spittle	e-bičwanta	e-bičwanta	e-bičwanta	e-mačwante	e-mačwante	270
stand up	kw-emeerera	kw-emeerera	kw-emerera	kw-emerera	kw-emerera	214

English	Ruziba	Ruhyoza	Ruhamba	R'ihangiro	Runyambo	Ref
star	e-nyanyiinyi	e-nyanyiinyi	e-nyanyiinyi	e-nyanyiinyi	e-nyonyozi	370
start/begin	ku-banza	ku-banza	ku-banza	ku-banza	ku-banza	103
steal	kw-iba	kw-iba	kw-iba	kw-iba	kw-iba	133
stone	e-ibaale	e-ibaale	e-ibaale	ibaale	ibaale	062
stop (v)	ku-lek(er)a	ku-lek(er)a	ku-lek(er)a	ku-lekera	ku-lek(er)a/-č-	100
straighten out	ku-gorora	ku-gorora	ku-gorora	ku-gorora	ku-gorora	184
strenght	a-maani	a-maani	a-maani	a-maani	a-maani	357
suckle	kw-onka	kw-onka	kw-onka	kw-onka	kw-onka	183
sugar cane	e-kitenge	e-kigusha	e-kigusha	e-čigusha, -ki-	e-čigusa	330
sun	e-izooba	e-izooba	e-izooba	izooba	(e)-izooba	065
swallow (v)	ku-mira	ku-mira	ku-mira	ku-mira	ku-mira	172
sweat (n)	e-mpiita	e-mpiita	e-mpiita	e-mpiita	e-mpiita	054
sweet potato	e-kitakuli	e-nfuma	e-kifuma	o-rufuma	e-čitakuri	076
sweet	ku-nura	ku-nura	ku-nura	ku-nura	ku-nura	409
swell	ku-zimba	ku-zimba	ku-zimba	ku-zimba	ku-zimba	236
swim	ku-ziha	ku-ziha	ku-ziha	ku-ziha	ku-ziha	187
tail	o-mukira	o-mukira	o-mukira	o-mučira/-ki-	o-mučira	305
tall/long	-ra	-ra	-ra	-rengwa, -re	-leingwa	389
taste (v)	ku-roza	ku-roza	ku-roza	ku-roza	ku-roza	191
tear (v)	ku-taagura	ku--taagura	ku-taagura	ku-taamura	ku-taagura	106
tears	a-malira	a-malira	a-malira	a-malira	a-marira	255
ten	ikumi	ikumi	ikumi	ikumi	ikumi	173
termite	a-kashwa	a-kashwa	a-kashwa	a-kashwa	e-nswa	169
they	boonene	boonene	boonene	boonene	bo(nene)	442
thief	o-mushuma	o-mushuma	o-mushuma	o-mushuma	o-musuma	342
thigh	e-kibero	e-kibero	e-kibero	e-čibero, -ki-	e-čibero	379
think	ku-teekereza	ku-teekereza	ku-teekereza	ku-teekereza	ku-teečeleza	121
thorn	e-ihwa	e-ihwa	e-ihwa	ihwa	(e)-ihwa	339
three	ishatu	ishatu	ishatu	ishatu	ishatu	411
throw away	ku-naga	ku-naga	ku-naga	ku-naga	ku-naga	228
thunderbolt	e-nkuba	e-nkuba	e-nkuba	e-nkuba	e-nkuba	387
thurst	e-irihwo	e-irihwo	e-iriho	-iriho	(e)-iliho	094
tie (v)	ku-koma	ku-koma	ku-koma	ku-koma	ku-koma	126
tobacco	e-taaba	e-taaba	e-taaba	e-taabe	e-taabe	417
today	mbwenu	mbwenu	mbwenu	mbwenu	mbwenu	253
tomorrow	nyenkya	nyenkya	nyenkya	nyenčya/ -kya	nyenčya/sya	074
tongue	o-rulimi	o-rulimi	o-rulimi	o-rulimi	o-rulimi	429
tooth	e-liino	e-liino	e-liino	e-liino	e-liino	059

English	Ruziba	Ruhyoza	Ruhamba	R'ihangiro	Runyambo	Ref
tread	ku-libata	ku-libata	ku-libata	ku-rubata/-ri-	ku-ribata	143
tree	o-muti	o-muti	o-muti	o-muti	o-muti	324
turn (intr. v)	ku-hinduka	ku-hinduka	ku-hinduka	ku-hinduka	ku-hinduka	129
twin	o-murongo	o-murongo	o-murongo	o-murongo	(e)-irongo	377
two	ibiri	ibiri	ibiri	ibiri	ibili	275
uncle (mater.)	marumi	marumi	marumi	marumi	malimi	301
uncle (pater.)	tat'ento	taat'ento	tat'ento	tat'ento	tat'ento	008
undress	ku-juura	ku-juura	ku-juura	ku-juura	ku-juura/-zu-	237
up	e-iguru	e-iguru	e-iguru	iguru, o-ruguru	ahe-igulu	066
uproot	ku-nyukura	ku-nyukura	ku-nyukura	ku-nyukura	ku-kuura	175
urinate	ku-nyaara	ku-nyaara	ku-kojora	ku-kojora	ku-nyaara	149
urine	e-nkali	e-nkali	o-mukojo	o-mukojo	e-nkari	306
vomit	ku-tanaka	ku-tanaka	ku-tabika	ku-tanaka	ku-tanaka	221
wait (for)	ku-linda	ku-linda	ku-linda	ku-linda	ku-rinda	215
want	kw-enda	kw-enda	kw-enda	kw-enda	kw-enda	220
wasp	e-nwa	e-nwa	e-nwa	e-nwa	e-nwa	367
water	a-maizi	a-maizi	a-maizi	a-meizi	a-meizi	262
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white	kw-era	kw-era	kw-era	kw-era	kw-era	364
wife	mukazi	mukazi	mukazi	o-mukazi	o-mukazi	304
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wind	o-muyaga	o-muyaga	o-muyaga	o-muyaga	o-muyaga	432
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work (n)	o-mulimo	o-mulimo	o-mulimo	o-mulimo	o-murimo	072
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you (pl.)	inywe	inywe	inywe	inywe	imwe	368
you (sg.)	iwe	iwe	iwe	iwe	iwe	444

***

APPENDIX III: SOUND CORRESPONDENCES

☐ (empty cells) = lack of sufficient data; G = semi vowel; L = liquid; ? = not certain; *i, *u = *į, *ų

	*p	*p/_i	*p/_u	*b	*b/_i	*b/_u	*t	*t/_i	*t/_u	*d	*d/_i	*d/_u	*c	*c/_i	*c/_u	*ɟ	*ɟ/_i	*ɟ/_u	*k	*k/_i	*k/_u	*g	*g/_i	*g/_u	vowels
Luganda	G	s	f	β	z	v	t	s	f	l	z	v	s	s		j	z	z	k	s	f	g	z	v	10
Lusoga	G	s	f	β	z	v	t	s	f	l	z	v	s			ð	ð		k	s	f	g	z	v	10
Lugwere		s	f	β	β	v	t	s	s	L	L/z	z	s			z?	z		k	s	f	g	z		10
Rutooro	h	h	f	β	z	j	t	s	č	r	z	j	s	s	f	j	z	j	k	s	f	g	z	j	10
Runyoro	h	h	f	β	z	j	t	s	č	r	z	j	s	s	f	j	z	j	k	s	f	g	z	j	10
Runyankore	h	h	f	β	z	ž	t	ʦ	č	r	z	ž	š	s	f	ž	z	ž	k	ʦ	f	g	z	ž	10
Rukiga	h	h	f	β	z	ž	t	s	č	r	z	ž	š	s	f	ž	z	ž	k	s	f	g	z	ž	10
Runyambo	h	h	f	β	z	j	t	s	č	r	z	j	š/s	s	f	j	z	j	k	s	f	g	z	j	10
Ruhaya	h/Ø	h/Ø	f	β	z	j	t	s	č	r	z	j	š	s	f	j	z	j	k	s	f	g	z	j	10
Ruzinza	h	h	f	β	z	z	t	s	č	r	z	z	s	s	f	z	z	z	k	s	f	g	z	z	10
Rukerebe	h	h	f	β	z	z	t	s	č	l	z	z	s	s	f	z	z	z	k	s	f	g	z	z	10
Kinyarwanda	h	š/f	f	β	vy	v	t	s	pf	r	z	v	s	s/š	s	z	z	z	k	ʦ	pf	g	z	v	10
Kirundi	h	š/f	f	β	vy	v	t	s	pf	r	z	v	s	s/š	s	z	z	z	k	ʦ	pf	g	z	v	10
Kihangaza	h	š/f	f	β	vy	v	t	s	pf	r	z	v	s	s/š	s	z	z	z	k	ʦ	pf	g	z	v	10
Kishubi	h	š/f	f	β	vy	v	t	s	pf	r	z	v	s	s/š	s	z	z	z	k	ʦ	pf	g	z	v	10
Kiha	h	š/f	f	β	vy	v	t	s	pf	r	z	v	s	s/š	s	z	z	z	k	ʦ	pf	g	z	v	10
Kijita	G/Ø	s/Ø	s?	β		f	t	s?	f?	L	s	f	č			j			k	s	f	g	s	f	10
Kikwaya	G/Ø	s/Ø	s?	β		f	t	s?	f?	L	s	f	s			j			k	s	f	g	s	f	10
Čhiruri	G/Ø	s/Ø	s?	β		f	t	s?	f?	L	s	f							k	s	f		s	f	10
Kiregi	G/Ø	s/Ø	s?	β			t	s?	f?	L	s	f	s			č			k	s	f	k	s	f	10

	*p	*p/_i	*p/_u	*b	*b/_i	*b/_u	*t	*t/_i	*t/_u	*d	*d/_i	*d/_u	*c	*c/_i	*c/_u	*ɟ	*ɟ/_i	*ɟ/_u	*k	*k/_i	*k/_u	*g	*g/_i	*g/_u	vowels
Kegusii	Ø			β			t			L			s			č			k			g			14
Kikurya	h			β			t			L			s			č			k			g			14
Kisimbiti	h			β			t			L			s			š			k			g			14
Kingurimi	h			β			t			L			s			č			k			g			14
Kinata	h			β			t			L			s			č			k			g			14
Kishashi	h			β			t			L			s			z			k			g			14
Kiikizu	h			β			t			L			s			z			k			g			14
Kizanaki	h			v			t			L			s			z			k			g			14?
Lumasaamia	G	G	f	b	b/fw	f	r	s	f	l/t	s	f	s			ʦ			x	s	f	k	f	f	10
Lusaamia	G/Ø	s	f	b	s	f	t	s	f	L	s	f	s			č			h	s	f	k	f	f	10
Lwisuxa	h	h?	h?	b	b	b	r	r	r	l/t	l/ʦ	l	s?			ʦ			x	š	x	k	k	ŋg	14
Lulogooli	h	h	f	v	v	v	t	t	t	l	l	l	s			z			k	č	k	g	g	ŋg	14
Lubukusu	Ø	Ø	Ø	β	β	β	t	s		l	l	f	j	s					x	s	f	g			

APPENDIX IV: INFORMANTS

RUHAYA

Ruziba (H1): Constantine Christian (m), 24yrs, Undergraduate (BA Statistics) at UDSM; Kikukwe village, Kanyigo, Kiziba, Bukoba (Rural) District, Kagera Region, Tanzania. [1996/7].

Peter Deo (m), 25-32yrs, Bwanjai, Kiziba, Bukoba (Rural) District, Kagera, Tanzania. [1994].

Ruhyoza (H2): Sospeter Rwabyo (m), 68-76yrs; Method Ngirwa Cornel (m), 58-65yrs; Mukaruganyirwa Barongo Karumuna (f), 65-72yrs; Justina Francis (f), 45-48yrs; Paschal Trazias Kashandura (m), 45-55yrs; Theresa Aloys (f), 65-70yrs; Nestor Tigwera Nkaranga (m), 45-50yrs; Stanislaus John (m), 50-66yrs; all from: Itahwa village, Karabagaine, Kyamutwara, Bukoba (Rural) District, Kagera Region, Tanzania. [1994]; Henry R.T. Muzale (m), 38yrs, Itahwa village, Karabagaine, Kyamutwara, Bukoba (Rural) District, Kagera Region, Tanzania. [1994-8].

Ruhamba (H3): A. R. Badru (m), 25-32yrs; Undergraduate at UDSM; Kihanja, Bukoba (Rural) District, Kagera Region, Tanzania. [1994].

Runyaihangiro (H4): Philbert N. Kawemama (m), 30yrs, Graduate (MA Sociology) at UDSM; Kagondo village, Mubunda, Kimwani, Muleba District, Kagera Region, Tanzania. [1996/7].

Others consulted at different times for various (specific) issues (by e-mail 1996-98): Sweetbert R. Kamazima, Charles Bwenge, Theophil R. Rwehumbiza, Alphonce Ndibalema, Leonce Rushubirwa, Dr. Frederick Mwanuzi, Consolatha P. Muzale.

RUNYAMBO

Lazaro Ponsian (m), 27yrs, Undergraduate (BCom.) at UDSM; Mabira village, Kituntu-Mabira, Karagwe District, Kagera, Tanzania. [1996/7].

Dr. Josephat M. Rugemalira (m), 42yrs, Senior Lecturer in Linguistics at UDSM; Karagwe District, Kagera Region, Tanzania. [1997/98].

Emmanuel Eustadi (m), 24-28yrs; Undergraduate at UDSM; Karagwe District, Kagera Region, Tanzania. [1994].

RUNYORO

Mugenyi Richard (m), 22yrs, Undergraduate at UDSM; Masindi village, Bunyoro, Mid-Western Region, Uganda. [1997].

RUTOORO

Rwakijuma Fredrick (m), 23yrs, Undergraduate (BSc Computer) at UDSM; Kihooka village, Kihura, Mwenge, Kabarole District, Toro, Western Region, Uganda. [1996-98].

RUNYANKORE

Patience Kabiije (m), 20yrs, Undergraduate at UDSM; Ntungamo, Western Uganda, Uganda. [1997].

Katusiime Lelia (f), Undergraduate at UDSM; Uganda. [1997].

RUKIGA

Tushabe Florence (f), 19yrs, Undergraduate at UDSM; Kampala, Uganda. [1997].

RUZINZA

Kamwesigire Boniphace (m), 23yrs, Undergraduate at UDSM; Bukondo village, Nyachiluluma, Butundwe Division, Geita District, Mwanza Region, Tanzania. [1996/7].

Makoye Luswaga (m), 26yrs, Undergraduate at UDSM; Nyakarilo, Sengerema District, Mwanza Region, Tanzania. [1996/7].

Magwanya C. Mathias (m), Undergraduate at UDSM; Tanzania. [1996/7].

Kamalamo (m), 22-26yrs, Undergraduate at UDSM; Tanzania. [1994].

Kazagata (m), 22-26yrs, Undergraduate at UDSM; Tanzania. [1994].

KIKEREBE (RUKEREBE)

Majula W. K. Juma (m), 24yrs, Undergraduate (BA Sociology) at UDSM; Mibungo village, Ilangara, Ukerewe District, Mwanza Region, Tanzania. [1996/7].

Simon Mtobesya Mabagala (m), 30yrs, Undergraduate at UDSM; Bukindo village, Mumulambo Division, Ukerewe District, Tanzania. [1997].

Sahau Sullusi (m), 14-18yrs, Student at Bwiru Girls Secondary School, Mwanza Region, Tanzania. [1994].

L. Mtalai (m), 24-30yrs, Undergraduate at UDSM; Mara Region, Tanzania. [1994].

LUGANDA

Ssebitosi Jude (m), 22yrs, Undergraduate (BSc Engineering) at UDSM; Namasuba village, Makindye, Kyadondo County, Mpigi District, Central Buganda Region, Uganda. [1996/7].

Muyodi (m), Graduate student (Microbiology) at UDSM; Uganda. [1994]

Celestina Kirungo Tirengerwa (f), 56-65yrs; Ferejio Kanazi (m), 60-68yrs; both (couple) had lived in Buganda for a long time (the latter is native); Kangoma-Igombe village, Nyakato, Bukoba (Rural) District, Kagera Region, Tanzania. [1994].

RUBUMBIRO

Gabriel Birungi Kiiza, 29yrs, Undergraduate (BA General) at UDSM; Kasambya village, Misenye, Bukoba (Rural) District, Kagera Region, Tanzania. [1996/7].

KIJITA

Lenny S. Mang'ara (m), 25yrs, Undergraduate at UDSM; Bulinga village, Majita, Musoma District, Mara Region, Tanzania. [1996/7].

R. E. M. Lwikolela (m), 30-35yrs, Teacher; Athmani Omari (m), 25-30yrs; Grayson Mbogo (m), 25-32yrs; All working/living at Bwiru Girls Secondary School, Mwanza Region, Tanzania. [1994].

Burilo D. Musombwa (m), 25yrs, Undergraduate at UDSM; Rusoli, Majita, Musoma District, Mara Region, Tanzania. [1997].

Mtiro Chahya (m), 25-33yrs, Undergraduate student at UDSM; Mara Region, Tanzania. [1994].

KIKWAYA

J. A. Sagini (m), 23-26yrs, Undergraduate at UDSM; Mara Region, Tanzania. [1994].

CHIRURI

Pendo J. Amas (f), 22-25yrs, Undergraduate at UDSM; Bwai Kwitururu village, Kiriba, Nyanja, Musoma (Rural) District, Mara Region, Tanzania. [1996/7].

KIRUNDI

Denis Bukuru (m), 31yrs, Visiting Undergraduate student at UDSM; Higiro, Ruganga, Ndava District, Muramvya Region, Burundi. [1994].

Bategereza (m), 36-40yrs, Undergraduate student at UDSM; Ngara District, Kagera Region, Tanzania. [1994].

Freddy Ngenze (m), 30-35yrs, Immigrant/Refugee from Burundi; Itahwa village, Karabagaine, Kyamutwara, Bukoba (Rural) District, Kagera Region, Tanzania. [1994].

J. M. Mtwale (m), 25-33yrs, Undergraduate at UDSM; Burundi. [1994].

KINYARWANDA

Richard Petro (m), 25-30yrs, Undergraduate (LL B) at UDSM; Kachwamba village, Nyamilenge, Biharamulo District, Kagera Region, Tanzania. [1996/7].

Denis Bukuru (m), 34yrs, Graduate (MA Linguistics) at UDSM; Higiro, Ruganga, Ndava District, Muramvya Region, Burundi. [1996/7].

KIHANGAZA

Alexander A. Nkundabandi (m), 30yrs, Graduate at UDSM; Murutabo village, Kirushya, Kanazi, Ngara District, Kagera Region, Tanzania. [1996/7].

Joseph Gwasa (m), 27-35yrs, Undergraduate at UDSM; Kumbogara village, Ngara District, Kagera Region, Tanzania. [1996/7].

J. R. Bashaka (m), 43-46yrs, Teacher at Bwiru Girls Secondary School, Mwanza Tanzania; Ngara District, Tanzania. [1994].

KIHA

January M. Basela (m), 28yrs, Undegraduate (BA Education) at UDSM; Kinyinya village, Nyamtukuza, Kakondo, Kibondo District, Kigoma Region, Tanzania. [1996/7].

Ferdinand Ishimana (m), 26yrs, Undergraduate (BA Economics) at UDSM; Ilagala village, Ilagala, Kigoma (Rural) District, Kigoma Region, Tanzania. [1996/7].

Anthony Ntilema (m), 38-42yrs; Undergraduate (BA Education) at UDSM; Kigoma Region, Tanzania. [1994].

KISHUBI

Sperancia Godwin (m), 14-18yrs, Jenina Darlington (m), 14-18yrs; both students at Bwiru Girls Secondary school, Mwanza Region, Tanzania. [1994].

M. Kilama (m), 23-28yrs, Undergraduate at UDSM; Kagera Region, Tanzania. [1994].

KIKURIA

Donald Antony (m), 25-32yrs, Undergraduate at UDSM; Matare village, Mugumu, Serengeti District, Mara Region, Tanzania. [1996/7].

Sabai Daniel (m), 23-28yrs, Undergraduate at UDSM; Mogabiri village, Inchage, Tarime District, Mara Region, Tanzania. [1996/7].

Nchagwa Mbulyani (f); Boke Samwel (f); Juliana Chacha (f); all Form One students (14-16yrs) at Bwiru Girls Secondary School, Mwanza Region, Tanzania. [1994].

Msabi Chacha (m), 25-30yrs, Undergraduate at UDSM. [1994].

SISUMBWA (KISUMBWA)

Simon Migangara (m), 23-30yrs, Undergraduate (B Com.) at UDSM; Masumve village, Masumve, Kahama District, Shinyanga Region, Tanzania. [1996/7].

Benjamin Magazi (m), 32-36yrs, Teacher at Bwiru Girls Secondary School, Mwanza; Kahama District, Shinyanga Region, Tanzania. [1994].

Anthon Kasase (m), 30-35yrs, living at Bwiru Girls Secondary School, Mwanza; Kahama District, Shinyanga Region, Tanzania. [1994].

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