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Aspect in Ikoma and Ngoreme: a comparison and analysis of two Western Serengeti Bantu languages

Tim Roth
University of Helsinki

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Map of the Ikoma, Ngoreme, and surrounding language areas in Mara Region, Tanzania.
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To my wife Jeana,
& our daughters, Micaiah & Areka

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Tim Roth
St. Louis, Missouri
October 27, 2018
S.D.G.

Abstract

Ikoma and Ngoreme are two closely-related, endangered Bantu languages in northwestern Tanzania. The tense/aspect (T/A) systems in Ikoma and Ngoreme are relatively unusual for Bantu in that tense marking is severely limited. Tense function is shown to be a largely emergent phenomenon in Ikoma and Ngoreme. With this in mind, I argue that perfective and imperfective aspect reflect completion and non-completion of the situation nucleus, respectively (Crane 2011), and form the core of the Ikoma and Ngoreme temporal systems. Ikoma, however, also has a *Vká-* formative which functions as a pseudo-perfective and progressive. I analyze this form as a *nucleative*, a form which encodes the situation nucleus itself. Despite being relatively rare on the African continent (Aikhenvald 2004), this nucleative *Vká-* in Ikoma manifests firsthand/eyewitness evidentiality.

The central aim of this dissertation is to provide a description and analysis of aspect in Ikoma and Ngoreme. This work includes data obtained from fieldwork in Musoma with multiple speakers from both languages, collected over the course of three two-week-long trips in 2014, 2016, and 2018. My analysis includes both form and function, and a focus on the interface between lexical and grammatical aspect. Along with the perfective/imperfective contrast, Ikoma and Ngoreme are shown to have a foundational contrast between punctive and durative verbs (Kershner 2002), with canonical stative verbs behaving as transitional punctives. Domains theory (Botne and Kershner 2008) is used to visually model the TAM distinctions.

This study is also comparative, demonstrating that even if closely-related Bantu languages have similar T/A morphology (and systems) in form, the functional elements of their lexical and grammatical aspectual interface can still be quite different. Understanding this type of microvariation hopefully leads to a better understanding of the historical evolution of these T/A systems. The historical evidence leads to the possibility that the reduced-tense systems of Ikoma and Ngoreme are not the result of the expansion and later retraction of tense, but are retentions from Proto-Bantu. The fact that Ikoma and Ngoreme are located near Lake Victoria, an area of considerable interest as it relates to the Bantu expansion, is intriguing in this regard.

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List of Abbreviations and Symbols

AUX	Auxiliary
BSp	Bantu spirantization
C	Coda
COMPL	Completive
CONT	Continuous
COP	Copula
DL	Dahl's Law
DRT	Discourse Representation Theory
EV/EVID	Evidentiality
FOC	Focus marker
FV	Final vowel
IPA	International Phonetic Alphabet
IPFV	Imperfective
MCA	Main Clause Affirmative
N	Nucleus
NARR	Narrative
NUCL	Nucleative
O	Onset
PASS	Passive
PERSIST	Persistive
PFV	Perfective
PL	Plural
PRF	Perfect
PRG	Progressive
PST	Past
S	Moment of Speech
SBJ	Subject prefix marker
SDRT	Segmented Discourse Representation Theory
SG	Singular
SIT	Situative
STAT	Stative
T/A	Tense-Aspect
TAM	Tense-Aspect-Modality
TAME	Tense-Aspect-Modality-Evidentiality
TDM	Thematic Development Marker
UT	Utterance Time
UTB	Uganda-Tanzania Branch
V	Verb/vowel
VB	Verbal base
WS	Western Serengeti

Chapter 1

Introduction

1.0. Prologue

As humans our ordinary notions of time are mental constructs. Language offers us the ability to encode the temporal qualities of situations and events, and we thereby create and communicate meaning from our perception of those experiences.

If languages encoded the real world, since time in the real world is constant, all languages would have the same number of pasts and futures, one past and one future being probably the best candidates. That languages don't do this suggests that verbal morphology represents conventional human conceptualization of situations, not the situations themselves. (Nurse 2008: 88).

Even fictional narrative (an expression of imagination) has a foundation in embodied experience. We are a storytelling species (e.g. Boyd 2010, Gottschall 2013). Herman says that “storytelling acts are grounded in the perceptual-conceptual abilities of embodied human minds” (2013: 169). These facts elicit a central question for me: In languages with multiple options for communicating similar temporal relations (e.g. several past tenses), how and why do speakers make the choices they do between one form or another?

This question remains front and center in this monograph as I explore the aspectual possibilities in two Bantu languages, Ikoma and Ngoreme. The Bantu language family is a branch of the Niger-Congo language phylum, and covers a large portion of sub-Saharan Africa. Ikoma and Ngoreme are part of a subgroup called Western Serengeti, along with the Nata and Ishenyi (or Isenye) languages. The Western Serengeti languages are typologically unusual for Bantu (but not non-Bantu Niger-Congo) in that they have reduced-tense systems (Nurse 2008: 102). This makes for a fairly unique opportunity to examine the aspectual system without a whole lot of interference from tense. (A table with an overview of the tense/aspect systems in Ikoma and Ngoreme is included in §2.2). In turn, the speakers of these languages can use aspect in tense function. Many questions arise from these realities: What are the possibilities? What are the restrictions? Do discourse considerations for a particular genre/register override any ‘default’ choices? Do these aspects always carry their ‘core’ meaning with them?

1.1. Ikoma and Ngoreme

The Ikoma and Ngoreme peoples live in the Mara Region of northwest Tanzania. The Mara Region is nestled between Lake Victoria and Serengeti National Park. The Kenyan border marks the northern boundary with Mwanza region to the south. Over twenty language groups reside within the relatively small populated area of the Mara region (Hill et al. 2007). The

resulting high language density has inevitably led to much linguistic diversity and language contact. Not all of these twenty-plus languages within Mara are Bantu. The region is also home to the Nilotic languages Datooga, Luo, and Maasai.



Map 1.1. *Map of the Ikoma, Ngoreme, and surrounding language areas in Mara Region, Tanzania.*
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further redistribution prohibited without permission.

Three language phyla are represented in Tanzania: Niger-Congo, Afro-Asiatic, and Nilo-Saharan. Two language isolates, Hadza and Sandawe, are also located in Tanzania. The majority of indigenous languages in Tanzania are Bantu (Niger-Congo). According to the Ethnologue, Nilo-Saharan is represented by six to seven Nilotic languages (Ngasa is probably extinct), and Afro-Asiatic by five to six Cushitic languages (Mbugu is a mixed Bantu/Cushitic language) (Simons & Fennig 2018).

There are anywhere from 250 to 600 total Bantu languages in sub-Saharan Africa, depending on the definition of language versus dialect used (Nurse 2008: 2). A common, primarily geographic, referential system used in Bantu studies is known as the Guthrie classification, and consists of a capital letter (A-S) for a regional zone and (most often) a two-digit number, e.g. G.42. Major dialects had lowercase letters after the number (e.g. Mombasa Swahili, G.42b), but subsequent updates to the classification (Bastin, Coupe, and Mann 1999; Maho 2003, 2009) have led to additions having capital letters after the number (e.g. G.42E), or an additional number (e.g. G.411 and G.412 as part of G.41). Around Lake Victoria, a subsequent update added a zone J to some languages within existing zones D and E

for putative genetic connections, e.g. JE.43 (Kuria) (Bastin, Coupez, and Mann 1999; Maho 2003). Ikoma is classified as JE.45, and Ngoreme as JE.401 (Maho 2009). More well-known JE.40 languages include Gusii and Kuria (e.g. Cammenga 2002, 2004).

The Ikoma, Nata, and Ishenyi varieties are listed under the same ISO identifier [ntk] and are considered dialects of the same language by Simons and Fennig (2018). While these varieties may share upwards of 85% lexical similarity with each other, the evidence from phonology and morphology paints a considerably more diverse picture (Aunio 2013b; Higgins 2012, Laine 2015). The speakers of Ikoma, Nata, and Ishenyi consider themselves different ethnic groups and refer to themselves by these ethnonyms. Muzale and Rugemalira (2008) estimate the total combined population of the Ikoma, Nata, and Ishenyi groups at close to 35,000. In this study I occasionally point out similarities and differences with Nata¹ and Ishenyi. Ngoreme, or sometimes Ngurimi [ngq], shares 77% lexical similarity with Ikoma along with many morphological innovations (Roth 2014). The population for Ngoreme is estimated at approximately 52,000 (Muzale and Rugemalira 2008).

1.2. Sociohistory of the Mara Region

The basis for the sociohistory of the Mara region is largely confined to the work of the historian Jan Bender Shetler. Shetler provides crucial sociohistorical context among several South Mara communities (the Ikizu, Ikoma, Nata, Ishenyi, Ngoreme, and Datooga) predominantly by collecting oral and written texts from community members on a variety of subjects. Fourshey explains why oral traditions are so important as historical evidence:

Oral tradition is an important reservoir to be tapped for historical evidence in eras with or without written records, because historical remembrances manifested in chronologies and stories passed down orally, although themselves figurative, do raise major issues that have been important over time at the local and regional levels (2002: 225).

Of course, there are also concerns in working with oral traditions, e.g. conflation, unknown time depth (Fourshey 2002: 226; Shetler 2007: 22ff). Shetler's (2007) work seeks to contextualize South Mara's history within the theoretical frame of *landscape memory* to alleviate these difficulties. "Historical changes in ways of seeing the landscape are reconstructed by identifying core spatial images in oral traditions that can then be reinserted into historical contexts identified by other kinds of sources" (Shetler 2007: 5).

Local histories by community members form the foundation of both works by Shetler on the Mara communities (Shetler 2003, 2007). Shetler examines historical anthropological elements such as descent systems, clan names, kinship, and age-set systems (2003: 10ff). One of the main goals of both books is to reconstruct the broad threads of South Mara's history in relation to surrounding communities. Shetler proposes the following:

¹ For more on Nata phonology and morphology specifically, see several chapters in Kandybowicz, Jason and Harold Torrence (eds.) *Africa's endangered languages: documentary and theoretical approaches*. Oxford: Oxford University Press, e.g. Anghelescu et al. (2017); Déchaine et al. (2017); Gambarage et al. (2017); Gambarage and Pulleyblank (2017)

As the Mara-speaking communities spread into new lands, those who crossed the Mara River formed the language communities of North Mara — Kuria and Gusii. In South Mara they differentiated themselves into three groups, probably becoming distinct about 500-300 years ago — Ngoreme, eastern South Mara [...] and western South Mara [...] (2003: 10, 12).

Shetler also outlines the sociohistory of the contact with the local Datooga and Maasai (Nilotic) (2003: 12-13). Of great importance as well is her discussion of the close relationship between the Temi [Sonjo] and the Western Serengeti groups. According to Nurse and Rottland, Sonjo is an exonym given by the Maasai, while Temi is the autonym (1991/2: 173). The Temi are a Bantu “island” within a predominantly Maasai area in Tanzania near Lake Natron and the Kenyan border (Nurse and Rottland 1991/2: 172-173). Most of the oral traditions from Western Serengeti discuss their origins as coming from the east in the territory of the Temi (Shetler 2003: 18). Fourshey says of oral traditions that, “The discourse of oral tradition employs elements of chronology to give a sense of the progression of time, but more importantly, the accounts are historical explanations of ideas and episodes that have been instrumental in shaping the social landscape” (2002: 227). In line with this view, Shetler concludes that the Temi “origins” of these oral traditions describe social upheaval during the mid-nineteenth century, including the aftermath of Maasai raiding (Shetler 2003: 20). A brief overview of the TAM system in Temi is provided in §2.1.

1.3. Sociolinguistics in Tanzania: Swahili and English

We see a reflection of the pre-colonial era in the vast multilingualism in Tanzania, 125 living languages. Swahili, a Bantu language, is the language of wider communication (or *lingua franca*) and an official language in Tanzania. About 92% of Tanzania’s population uses Swahili as L1 or L2 (Simons & Fennig 2018). Tanzania has what could be considered two official languages², Swahili and English. The current functional (language in use) state of affairs in Tanzania can be described as “overlapping diglossia”.

In Tanzania, for example, there was at first diglossia between the language inherited from colonialism, English, and the national language, Swahili. But there was also a second period when there was a diglossia between this same Swahili, which is the mother tongue of only a minority of the population, and the other African languages...In other words, English is in Tanzania a High form with regard to Swahili, which is itself a High form with regard to the other languages: a case of overlapping diglossia (Calvet 1998: 29).

More recently, Mekacha (2010) has argued that diglossia does not adequately characterize the language situation in Tanzania. Regardless, for our purposes here, the main point is that the role of multilingualism in Tanzania, specifically the impact of Swahili on the linguistic structures of minority languages, is incredibly significant. This is part of why it is important to get some socio-historical context before we continue.

The main theme of language policy for the colonial period in Tanzania is “de-Africanisation”. Tanganyika became a colony of Germany beginning in 1885, coalescing

² The Tanzanian Constitution no longer mentions any language policy at all, even though the original 1962 constitution did so. Additional policies (Education and Training, Cultural) clarify the role of language in Tanzanian education (Brock-Utne 2005: 62 and <http://www.judiciary.go.tz/downloads/constitution.pdf>).

as part of German East Africa in 1890-1891 (Iliffe 1979: 88ff.). German rule lasted until after World War I, with Britain taking over colonial administration in 1919. British rule lasted until independence in 1961. In Tanganyika, de-Africanisation through language policy was subtle, because it came in the form of an indigenous Bantu language. Although Swahili was already a lingua franca in parts of the interior of East Africa, Swahili could be considered a pseudo-imperialist language during this period. The argument for this rests on two interconnected factors: the motivations of the German and English colonial administrators, and the (largely unintended) acquiescence of the local people (Blommaert 2014: 54, Brock-Utne 2005: 53). Swahili language standardisation efforts could be considered part of this, as the Germans appropriated a local Bantu lingua franca for their own purposes, and not for the benefit of the Tanganyikan masses (Blommaert 2014: 55-6). The (largely unintended) acquiescence of the local people to Swahili is merely the continuation of the language as a lingua franca that had already been put into motion prior to colonialism. (A possible sign of resistance would have been maintaining Swahili in Arabic script, for instance). The acquiescence was unintended because of the different reasons each party had behind wanting unification of the local people. The Germans wanted Tanganyikans unified under a common language for ease of administration, and as part of de-Africanisation to abandon their local languages (Blommaert 2014: 69ff.). The Tanganyikans themselves needed to be unified (and not fighting intertribal battles) in order to mount effective resistance against the Germans, and later the British.

When the British took over, they began to advocate for the use of English (Blommaert 2014: 55, Brock-Utne 2005: 53). This polarity between Swahili and English in the British approach to language policy in Tanganyika is where the transition happened from Swahili being a pseudo-imperialist language to becoming a language of resistance and nationalism (Blommaert 2014: 55, 57). This shift was in part the unintended consequence of the German policy in regard to Swahili, and the British promotion of English.

Tanganyika gained independence in 1961 with Julius Nyerere as President by early 1962. The political themes for Nyerere and Tanzania in the aftermath of colonialism are summed up in the keywords *Ujamaa* ('socialism') and *Kujitegemea* ('self-reliance'). The Arusha Declaration of 1967 outlines the guiding principles of Tanzanian socialism at the time. The pre-colonial mythology of traditional African culture/villages as pseudo-socialist societies was foundational for African socialism and for resulting language policies. The flipside is that capitalism was seen as Western and therefore to be rejected in favor of a modified socialism. Another goal of Nyerere was to use Swahili for the unification of the country and to avoid the pitfall of tribalism, all within the framework of a more Marxist classless society (Blommaert 2014: 32). Swahili was infused with the hopes and dreams of Tanzanian socialism and Ujamaa principles. Swahilisation was intended to change the minds of the masses, with education in Swahili as the vehicle. In the process, Swahili became idealized (Blommaert 2014: 29-32, 41-3). However, because education in local languages was avoided because of the fear of

tribalism and resulting violence, the problem which still persists³ is that “most children in non-urban inland areas, where Swahili was not the mother tongue of the population, were faced with a ‘hidden’ language barrier when they entered primary school: that of Swahili. For them, Swahili was as foreign a language as English” (Blommaert 2014: 63). More specifically, “The root of this failure lies in the adoption of language-ideological categories and concepts that [...] could hardly account for the sociolinguistic reality of Tanzania” (Blommaert 2014: 71).

In sum, Tanzania handled its multilingualism in the immediate aftermath of colonialism by ignoring its existence and focusing the discussion elsewhere. Meanwhile, English lay dormant among the intellectual class, and the local people in the interior of the country continued to speak their mother-tongues. “And so the new language, the new culture and the concomitant identities became superimposed on Tanzanian villagers’ language, culture and identities, but didn’t really replace them. The efforts in favour of Swahili resulted in the Tanzanian citizens’ development of more complex multilingual repertoires” (Blommaert 2014: 43). By restricting access to English to the intellectual elite, Tanzania inadvertently advanced the cause of English, the very thing they were trying to avoid. English was restricted to the intellectual elites, those with higher education and academics, who “were given a symbolic instrument, the exclusivity of which provided a means of marking elite membership”, resulting in English as a prestige language (Blommaert 2014: 60-61). Thus, Swahili language planning in Tanzania was both a success and a failure. A success in the sense that most Tanzanians now speak Swahili (at least “specific registers”); a failure in the sense that the Swahili language did not automatically impart socialist Ujamaa ideals. Social stratification still remains, often with the varying registers of Swahili the driving force, along with materialist/capitalist worldviews (Blommaert 2014: 8).

Ikoma and Ngoreme have certainly not escaped Swahili influence. For more on the role of Swahili in the Western Serengeti area, see Makacha (1993) on Nata, and for the role of Swahili literacy on language description in Tanzania (as pertains to vowels), see Gambarage (2017).

1.4. Phonology/morphophonology in Ikoma and Ngoreme

The phonology/morphophonology of Ikoma and Ngoreme can be quite intricate, especially as it concerns vowels and vowel harmony (e.g. Higgins 2012). The goal here along with sections like §2.1 (the structure of Bantu verbs and T/A systems) is much more limited: to provide even the non-Bantuist reader with enough information and background to parse the data in subsequent chapters with minimal difficulty. I try and provide further resources along the way for the Bantuist reader especially to be able to explore some of the unique, yet less relevant facets for themselves in more detail, e.g. the descriptive overview of JE.40 languages in Aunio et al. (2019).

Regarding consonants, the Bantu-typological details of note on the inventory include the trilled /r/ in Ngoreme (but not Ikoma), the absence of /p/, and the fricatives /β, ɣ/ instead of

³ As of 2015, there is a new policy directing secondary education in the direction of Swahili (Lugongo 2015). However, “It will take decades for the new system to take root because extensive preparations will have to be carried out before English is phased out” (Lugongo 2015).

the plosives /b, g/. The phonemes in IPA are listed in the middle column, while the corresponding orthography used for this study is included in the last column.

Table 1.1. Ikoma and Ngoreme consonants

Plosive	/t, k/	<t, k>
	/tʃ/	<ch>
Fricative	/s, f, h/	<s, sh, h>
	/β, ɣ/	<β, ɣ>
Trill*	/r/	<rr>
	(*Ngoreme only)	
Flap	/ɾ/	<r>
Glide	/u, j/	<w, y>
Nasal	/m, n, ŋ/	<m, n, ny, ŋ>
Nasal compounds	+	e.g. <mb>
Palatalisation	+	<_y>
Labialisation	+	<_w>

The Mara languages, Ikoma and Ngoreme included, do not attest Bantu spirantization (BSp), which is atypical for Great Lakes (Nurse 1999). Although an independent phenomenon, BSp is inextricably linked to the process of 7V>5V merger (Bostoen 2008; Labroussi 1999; Schadeberg 1995). Ikoma and Ngoreme both have seven vowels (with some caveats regarding Ngoreme, see below), and so it is not necessarily (typologically) surprising that BSp is not present.

Dahl's Law is a dissimilation process in many eastern Bantu languages which makes voiceless consonants voiced in certain positions. Dahl's Law can occur stem-internally, but also across morpheme boundaries. The latter is what we need to be concerned with here regarding Ikoma and Ngoreme aspect. Consider the two infinitive verbs in Ikoma in (1).

- (1) *ko-βóóka* 'to wake up'
ɣo-túka 'to dig'

In (1) the velar consonant (k/ɣ) in the infinitive prefix alternates based on whether the adjacent consonant in the root is voiced (β) or voiceless (t). Dahl's Law is attested in both Ikoma and Ngoreme, although Ikoma has /ɣ/ in prefixes before voiced /ɣ/, and not just in front of voiceless consonants (Higgins 2012: 55). Consider the Ikoma examples in (2).

- (2) Ikoma (Higgins 2012: 55)⁴
ɣo-ɣora 'to buy'
ɣu-ɣɔɣa 'to skin (animal)'
ɣu-ɣaβa 'to inherit'

⁴ The vast majority of data in this study have tone marking (more about *how* tone is marked follows in the next section). However, some of my own data as well as some data from other sources do not have tone marked. As I describe below, in Bantuist convention only H tones are marked, and so there are forms with all L tones that appear unmarked. To avoid confusion, if tone is completely unmarked for whatever reason (e.g. not present in the source material, unavailable in my notes/sound files, etc.) I mark these examples with a hashtag/pound sign/octothorpe (#).

It is possible this particular phenomenon is a phonological process distinct from Dahl's Law. Regardless, these "exceptions" are attested and affect the morphophonology of verbs in Ikoma. Dahl's Law does not just apply to infinitive prefixes, but also to verbal prefixes such as the imperfective *Vko-* and perfect *Vká-* in Ikoma, resulting in the alternations *Vȳo-* and *Vȳá-*, respectively, dependent on whether the following consonant is voiced or voiceless.

In terms of vowels, both Ikoma and Ngoreme have a seven-vowel (7V) system with mid-vowel contrasts, and the resulting inventory in (3):

- (3)
- | | |
|----------|----------|
| <i>i</i> | <i>u</i> |
| <i>e</i> | <i>o</i> |
| <i>ɛ</i> | <i>ɔ</i> |
| <i>a</i> | |

However, Ngoreme, while having phonemic 7V contrast in nouns, only has five phonemic vowels in verbs, called asymmetric vowel distribution across lexical category (Roth 2014). This phenomenon can be thought of as noun-specific positional faithfulness (Smith 2001). In her study on Ikoma vowels, Higgins presents a thorough acoustical vowel formant study, and demonstrates that while there is evidence that Ikoma is a 7V(M) language with /e o/, it also shows patterns of +[ATR] dominance, a vowel harmony pattern normally associated with a different 7V inventory (2012: 276ff.; Casali 2003). Furthermore, there are asymmetries in Ikoma between the front and back vowels (possibly due to a ongoing progression to 5V), dissimilatory prefixes, both root control and affix control, among other typologically unusual vowel harmony processes (Higgins 2012: 276ff). Despite other differences in vowel harmony, Ngoreme shares the dissimilatory prefix pattern of Ikoma, and also has phonemic vowel length (Aunio et al. 2019; Higgins 2012). Although the vowel systems and vowel harmony are not the focus in this work, I have taken great care to ensure that the transcriptions of the TAM formatives and suffixes are as accurate as possible, along with the entirety of the examples throughout the dissertation. Some of these were checked again after the initial rounds of research and when possible were checked against vowel transcriptions in previous works.

In the recent past, there has been a flurry of research on the tone systems of Ikoma and Nata (e.g. Anghelescu et al 2017; Aunio 2010, 2013; Lam 2015). For my purposes here concerning verbs and TAM marking, I bypass any discussion of nominal tone and point the reader to Anghelescu et al. (2017) and (Aunio 2010, 2013b, 2015) which cover nominal tone in Ikoma, Nata and Ishenyi. Ngoreme nominal tone is discussed in Aunio et al. (2019). Neither Ikoma nor Ngoreme have lexical tone contrasts in verbs (see Aunio 2013 and Lam 2015 for Ikoma and Nata). Thus, the tone focus in this work is on the way these languages make use of grammatical tone in their TAM systems. Ikoma and Ngoreme primarily employ melodic H tones⁵, or "grammatical tones that are assigned according to specific rules to either the verbal stem or the inflectional morphemes of the verb" (Aunio 2013: 274, see also the overview in Odden and Bickmore 2014). In general, the Bantu languages are known for elaborate noun

⁵ For more on melodic tone in Bantu languages, see vol. 20 of *Africana Linguistica* (2014). For more on tone in the Mara languages, see Aunio (2017).

class systems and for being highly agglutinative. Ikoma and Ngoreme have “canonical” noun class systems (generally at least 15-20 different noun classes; see Katamba 2003). In Bantu, these noun classes are distinguished by prefix morphology. In Ikoma, for example, with the prefixes underlined:

- (4) Ikoma
o-mu-tēmi ‘king’ (class 1)
a-ḃa-tēmi ‘kings’ (class 2)

The forms in (4) constitute a noun class pairing (classes 1 & 2), singular and plural. Classes are numbered according to a system originally developed in the 19th century based on initial Proto-Bantu reconstruction (Katamba 2003). Notice the underlined portions in (4) technically constitute two separate morphemes, the first which is called a preprefix or augment, and the second being the prefix proper. In this dissertation, I generally refer to both the preprefix and prefix together as the noun class prefix. If I want to refer specifically to the preprefix, I use the term *augment*. The augment is not obligatory and depends on the grammatical context, so nouns can appear without it. Furthermore, other elements of the noun phrase take noun class agreement (or *concord*s) based on the particular noun class, as do subject and object prefixes. These concords usually resemble the class prefix itself in some way, but do not have to. I discuss the structure of the Bantu verb in §2.1.

1.5. Orthography

The language development organization SIL International has been working in the Mara Region of Tanzania with an office in the regional center of Musoma since the mid-2000’s (Hill et al. 2007). Ikoma and Ngoreme have both been a part of the project at various stages beginning in 2006, with occasional research into Nata and Ishenyi. Both Ikoma and Ngoreme have initial orthographies developed mutually between SIL linguists/consultants and the Ikoma and Ngoreme communities. These orthographies are at different stages, with Ikoma further along in the process of standardization. Final orthography sketches have been published SIL-internally for both Ikoma and Ngoreme (Higgins et al. 2011, Higgins 2011), while an Ikoma orthography statement (an expansion, with updates and further clarification of issues from the sketch) awaits final checks as of this writing. A limited number of Bible portions as well as other literacy materials also have been published in Ikoma.

For vowels, Ngoreme is written using a five-vowel (5V) system (even though seven vowels are phonologically contrastive in nouns, see Roth 2014), the graphemes <i e a o u> for IPA /i ɛ a ɔ u/, while Ikoma uses a seven-vowel (7V) system, the graphemes <i e ě ä ö o u> for IPA /i e ɛ a ɔ o u/. For the writing convention in this study, I use IPA for the phonological vowels in Ikoma and Ngoreme, i.e. Ikoma Bible materials published with <ě, ö> are converted to IPA /ɛ, ɔ/, respectively. Long vowels are kept as double letters (oo, ee, etc.) rather than using the IPA long vowel symbol (:).

See Table 1.1 for the consonant writing convention used in this study alongside the IPA inventory. Both Ngoreme and Ikoma have similar inventories, and thus similar issues for their

SIL orthographies. These include <bh, gh, ng', ny, ch, sh> for IPA /β, ɣ, ŋ, ɲ, tʃ, ʃ/. For <ny> and [ɲ] not all cases are clearcut in terms of phonetic realization, especially across morpheme boundaries, and depending on issues like syllable structure and slow versus fast speech. In this study, orthographic <ny> can represent the palatal nasal, a palatalized alveolar nasal, or an alveolar nasal followed by a palatal approximant. For tone, according to Bantu convention, only high (H) tones are marked. The marked H tones are underlying and any tone variation motivated by the context is omitted. For example, in Ikoma, sequences of alternating H tones are often simplified to a H plateau (e.g. HLHLH → HHHHH). Therefore, only the underlying H tones are marked. None of the languages in question have contrastive verbal lexical tone (thus, no separate orthographic symbols). However, orthographic symbols for grammatical tone in Ikoma and Ngoreme include punctuation marks at the beginning of the verb in question <:, ^>. The relevant H tones are marked instead of these orthographic symbols.

Other symbols such as a hyphen (-) are sometimes used for clitics. Depending on the source material, these may appear. See the published orthography guides for Ikoma and Ngoreme for other word boundary issues.

1.6. Mara project(s)

The Uganda-Tanzania branch (UTB) of SIL International has been working in Musoma town, the regional capital of the Mara region, since 2006 (Hill et al. 2007). After survey, this project began with linguistic research into four local languages: Ikizu, Kwaya, Ngoreme, and Suba-Simbiti. This was soon followed by an expansion of the project to cover Ikoma-Nata-Ishenyi, Kabwa, Jita, and Zanaki. These eight languages formed the core of the project, with some literacy work done in Kuria, and the eventual grafting in of the already-in-progress Zinza project in 2009. The initial linguistic research was done in a series of workshops designed to also produce an experimental orthography. These workshops included word-collection, and research into phonology, morphology, syntax, TAM, and discourse. These workshops were conducted under the participatory approach (Kutsch-Lojenga 1996). At present, most of the languages have moved from experimental status, to trial status, and on to approved orthographies in partnership with mother-tongue language committees. Bible translation and other language development work continues in all eight of the core languages apart from Ngoreme. (A recent decision has also been made to spin off a separate Ishenyi project, while Ikoma and Nata will continue together).

I became a member of SIL and the Uganda-Tanzania branch in 2007, and began work in Musoma as part of the Mara project in July 2007. I began in the role of an initial linguist and was tasked with writing up results from some of the first workshops on Kwaya. For subsequent workshops on phonology and morphology, I worked primarily with Jita. However, I soon took over as the linguistics coordinator for the project, and became familiar with all the languages in the project to some degree. By the end of my time there in April 2009, I had worked more closely with Ngoreme and Suba-Simbiti, in addition to Kwaya and Jita. After completing an M.A. in linguistics at the Canada Institute of Linguistics in Langley, BC, Canada, I returned to Tanzania and worked in the Katavi Region from late 2011 to mid-2013, after participating in a

linguistic survey of the area in August 2010. The languages I researched included Bende-Tongwe, Konongo, Pimbwe, Rungwa, and Ruwila (see Roth 2011).

It was during my time in Musoma that I first met Lotta Aunio, the supervisor of this PhD dissertation project, and in late 2013 when I was deciding what to research I turned my eyes back to the Mara languages. My friends and colleagues Holly Robinson (née Higgins) and John Walker had since done their master's theses on Ikoma vowels and vowel harmony (Higgins 2012), and comparative TAM in a subset of Mara languages (Walker 2013). What particularly caught my eye was a tense/aspect formative (*Vká-*) in Ikoma that we had labeled inceptive, but still was confusing in many respects. This led to the initial scope of this project in looking at TAM microvariation in Ikoma, Nata, Ishenyi, and Ngoreme. Eventually it became clear that Ikoma and Ngoreme had enough to offer by themselves for the time being. This decision was made easier in that myself, Lotta Aunio, Antti Laine, and Rasmus Bernander (initially Hannah Gibson) received a substantial grant from the Kone Foundation to produce a grammar of these four languages⁶. Thus, I set aside Nata and Ishenyi somewhat, now that that data and analysis will still be incorporated into this future grammar in progress. See the project website at <https://blogs.helsinki.fi/mara-project/>. Many thanks are also in order for those at the Ryoichi Sasakawa Young Leaders Fellowship Fund (SYLFF, <https://www.sylff.org/>) and the associated SYLFF Research Abroad (SRA) program which funded the first year of my program and both my October 2014 and June 2016 research trips. This dissertation could not have been done without the financial assistance of both SYLFF and the Kone Foundation.

1.7. Methodology

This dissertation is grounded in fieldwork and description. My firsthand data comes from three research trips to Musoma, Tanzania in the Mara Region (October 2014, June 2016, and January 2018) for a combined period of approximately six weeks. Linguistic data came from elicitation, as well as oral (and subsequently transcribed) natural texts from mother-tongue speakers. Each technique for acquiring language data has its own pros and cons, and so a variety of fieldwork techniques were used to mitigate the cons, and try and ensure as much as possible that I was eventually getting an accurate picture of natural language usage in different styles, registers, and genres. For more on fieldwork methodology, see works such as Bowerman (2015), Gippert et al. (2006), Payne (1997), and Thieberger (2014).

The basis for the elicitation process came from pre-prepared lists of Swahili (and Ikoma) verbs and full Swahili sentences (with context). The focus for these Swahili verbs or full sentences was on the four major T/A forms in Swahili (past *li-*, future *ta-*, anterior *me-*, and imperfective (often cited as a present) *na-*). Other T/A forms such as situative/conditional *ki-*, habitual *hu-*, and compound constructions were also used. Enough was known about Ikoma beforehand from Walker (2013) and Ngoreme from previous Mara workshops to ensure I was not missing forms. I was also very aware of mismatches between the Swahili system and their own systems (i.e. just because Swahili *na-* can be analyzed as imperfective does not mean

⁶ <https://www.helsinki.fi/en/researchgroups/hals/research/the-mara-project-tanzania>

speakers of Ikoma and Ngoreme see their own imperfectives matching up in a one-to-one correspondence).

As I mentioned in the previous section, questions about the *Vká-* form in Ikoma have been there from the first workshops on tense, aspect, and modality. There was always a feeling that we had only captured part of what was going on, as the earlier inceptive analysis did not explain all of the examples we had. The first trip in October 2014 ended up being very beneficial for building off of Walker (2013) and getting a better idea of the system and the role that lexical aspect was playing. But I made little progress on solving the inceptive *Vká-* puzzle. The best hypothesis I had prior to the trip in June 2016 (where the evidentiality analysis actually clicked into place) was that *Vká-* might actually be functioning in the role of what Hewson (2012) calls performative aspect.

Two main issues were at play. The first was that in addition to more conventional past inceptive uses, there were also instances in which the “inceptive” aspect marker was used for speech at the very moment of action (in English, the performative is used in sports, i.e. “he shoots, he scores!”). The other main issue that raised red flags was that the “inceptive” aspect marker was being used in the headings in the Bible translations that were being done. In English, these usually occur in the historical present, i.e. Jesus *feeds* the five thousand, Abram *rescues* Lot, Jonah *goes* to Nineveh. It was in asking my language informants about this problem that we finally hit on the reason why they included the inceptive aspect marker in this context: evidentiality. This analysis in some ways is an analysis of exclusion; nothing else works. But as I present the data in chapter 5 I feel like even though it is a subjective criterion, there is something to be said for an elegant solution to a problem, which I believe this to be. The ability for grammatical aspect to fuse with evidentiality, and arise through independent innovation is fascinating.

One of my other main interests was seeing how these bilingual speakers mapped their own reduced-tense systems onto a largely past/present/future framework. What became equally interesting very quickly was the overlap of potential forms within the “present” tense. The perfective, “inceptive”, progressive/continuous, and imperfective could all be used for “present” tense. I had already begun to look at lexical aspect considerations during the first research trip, but both languages’ reliance on grammatical aspect, and the need to distinguish their usage pushed more of the focus on verbal lexical semantics and situation types.

The participants would discuss and either write down their own answers or I would write down their responses myself. Participants were encouraged to offer multiple answers for each “translation”, if possible. These sessions were either recorded as they happened, or we would go back and record the results at a later point. There were three main elicitation lists: (1) Walker’s (2013) sentence list (already complete for Ikoma) was used in Ishenyi, Nata, and Ngoreme, (2) for each language, another sentence list I designed with a few representative verbs from each of Vendler’s (1957) categories and a fuller range of possibilities from Swahili, and (3) for each language, a list I designed with a fuller range of verbs (at least 75-100 lexical items) but less of the T/A range in Swahili (i.e. no compound constructions, no habituales). To be honest, these lists did very little towards actually being able to distinguish the aspectual lexical semantics (except for canonical statives). What they actually did ended up being helpful

in two main respects: (1) they eliminated various hypotheses along the way, namely those which had tense as more central to the Ikoma and Ngoreme systems, and (2) the lists confirmed that the area of focus needed to be on the forms given in the equivalent semantic space around *me-* and *na-*, as I previously mentioned). These Swahili morphemes are often thought of as recent past and present, respectively, but in reality represent a foundational perfective versus imperfective contrast. This confirmation led to more sessions positing scenarios and exploring that semantic space. On the third and last research trip in January 2018, I focused on talking through usage scenarios for a smaller sample of verbs (30 to 40), and looked at aspectualizers, i.e. *begin to*, *continue to*, *stop*, *finish*) in addition to checking previous data.

In terms of texts, my main goal was to collect informal conversations between the participants, along with folktales, personal stories, and stories from wordless picture books. All of the texts were given orally, transcribed, and interlinearized into Swahili by the participants. I recorded the texts using a Zoom H2 digital recorder. (Another subset of the data, mainly that for vowel quality and tonal analysis, was recorded in the mini-studio at the SIL center in Musoma using higher quality equipment, including a variety of Marantz devices, and either AT899 or AKG C1000S condenser microphones, depending on availability at the time). For the conversations, I gave the participants instructions, helped them find a topic they wanted to talk about for five to ten minutes, set the device, and left the room. For all other text collection, I was present in the room.

As far as other additional materials, SIL-UTB already had a database of folktales and texts from other genres for Ikoma and Ngoreme, so the focus remained on the conversations for these languages. Nata and Ishenyi did not have any such text databases, and so I found it desirable to have at least one folktale and some additional material from the Mercer Mayer wordless picture books (similar to the idea behind *The Pear Film*).⁷ For comparison's sake it was helpful to collect the Mercer Mayer data for Ikoma and Ngoreme as well. The goal of eliciting oral texts from the wordless picture books was to get an idea of general discourse features in the language. Participants are able to flip through the books beforehand, get an idea of what is required and the general storyline, ask any questions (usually about cultural unknowns) and then tell that story while still using the book. Essentially what was gained from this particular process was a good idea of how each of the languages constructed their main event line (foreground) in this particular genre and register. The folktales tended to fill in the gaps, giving insight into aspects used for backgrounding, for instance. The conversations, however, were the most useful by far as they have a diversity of forms and contextual examples from natural speech. I plan to offer audio recordings for the texts and many of the examples in the dissertation at the Mara Project website (<http://blogs.helsinki.fi/mara-project/>). For the sake of recommendations for other linguistic researchers working on similar topics in Bantu, I would say the most helpful data I collected were the conversational texts, along with the discussions with speakers positing different scenarios with different verbs. However, I also had the added benefit of a foundation of previous research into Ikoma and Ngoreme, and a larger text corpus

⁷ The four books used include *A Boy, a Dog, and a Frog* (1967); *Frog, Where are You?* (1969); *A Boy, a Dog, a Frog, and a Friend* (1971); and *One Frog Too Many* (1975).

outside of what I was able to collect myself. For Nata and Ishenyi, elicitation using a template such as that in Walker (2013), along with texts of any genre were equally important.

Multiple speakers (both male and female) from each language area were chosen as language informants. A list of the names of these speakers with their home village, birth year, and gender (all with permission) is provided here:

Ikoma

Samina D. Mahemba	Park Nyigoti	1976	F
Samwel G. Shanyangi	Robanda	1962	M

Ishenyi

Monica M. Nyata	Nyiberekera	1979	F
Raheli M. Petro	Nyamisingisi	1986	F
Francis M. Rumati	Nyiberekera	1984	M
Paul M. Shakanyi	Nyichoka	1970	M

Nata

Prisca M. Bhohende	Nyichoka	1960	F
Dominick M. Kundukura	Nyichoka	1980	M

Ngoreme

Rhobi W. Mahende	Magange (Mwibara)	—	F
Samwel B. Mchanake	Borenga (Rogoro), Mugumu	—	M
Gabriel Mwita	Kenyamonta (Rogoro)	1954	M

Previously unpublished supplemental data from the SIL-UTB lexicon and text databases for Ikoma and Ngoreme are also used in this work, as well as translated Biblical texts for Ikoma and Ngoreme. A word on translated Biblical materials is needed here. Translated texts in general need to be used with some caution, but most concerns can be mitigated with knowing about how the translation in question was done and making sure to use additional non-translated materials (i.e. oral texts) as a further check. Most of the concerns involving Biblical materials have to do with much older generations of translated texts, where it is unclear whether the resulting text is accurate or natural. For more recent translation efforts such as the Gospel of Luke in Ikoma, for instance, translation work is done by a two-person team of native speakers with access to both a translation adviser and a translation consultant. Drafts are subsequently checked by translation consultants before they go out to be tested for accuracy and naturalness in the communities. This particular translation started as an adaptation from the Swahili back-translation of the Kifuliiru⁸ translation. Other sources used include various

⁸ The Kifuliiru language is spoken in the Democratic Republic of the Congo. See K. Van Otterloo (2011) and R. Van Otterloo (2011).

Swahili versions (Union Version, Neno, Habari Njema and Congo) as well as additional English resources.

1.8. Philosophy

Although description is in focus in this dissertation, theoretical concerns are not far from view. The underlying philosophy is a mixture of traditional accounts of aspect and evidentiality with a cognitive/functional bent (e.g. Boogaart and Janssen 2010; Croft and Cruse 2004) with the goal of enhancing and explaining the description, not forcing the data to fit certain theories and models. If I have found a theory or model useful in explaining how the T/A systems function in WS, I use it or make reference to it as needed. Cognitive semantics is a large field within the broader theoretical framework of cognitive linguistics (see Croft and Cruse 2004, Geeraerts and Cuyckens 2010, Langacker 2008, and Levin and Rappaport Hovav 2005). Cognitive linguistics stands as a stark alternative to the formal theories of generative grammar and truth-conditional semantics. The formal models take on the basics of predicate logic with resulting calculus notation and tree diagrams typical in generative grammar (Croft 2012: 7). Cognitive linguistics, on the other hand, “pursues a holistic understanding of language structure, in which linguistic data are explained through psychological mechanisms known to operate elsewhere in cognition” (Riemer 2010: 238). Language in use within the fullest context possible is immensely important for cognitive linguistics. In fact, a usage-based model helps shed light on the issue of Michaelis’ canonical Aktionsart, “allow[ing] for some predicates to have a default aspectual construal, or at least a preferred aspectual construal, as a result of asymmetries in the frequency of use of one aspectual construal over another” (Croft 2012: 91).

The study of verbal semantics is no exception to the importance of usage-based linguistics. Broader psychological realities of the mind (i.e. attention, perception, memory, etc.) are brought to bear on linguistic semantics. Croft and Cruse say that for language and the mind, “th[e] particular configuration of cognitive abilities is probably unique to language, but the component cognitive skills required are not” (2004: 2). Meanings therefore reside in the mind as “mental entities” (Gärdenfors 2014: 5).

Semantic properties have the features they do because the form of all human minds is the same. Culture and context themselves are projected worlds, intensions, another way that we fix extensions. Semantic properties are invariant because the constituents of our mentally projected worlds of reference are cut from the same mental fabric and derived by the same mental processes (Frawley 1992: 50-51).

These mental entities can then theoretically be represented geometrically. In Croft’s model, for instance, the diagrams even are not merely pictures or images, but “representations whose geometric properties define linguistic semantic properties” (2012: 196). As we will see, Botne and Kershner’s (2008) overall model is representative of actual cognitive realities, but the geometry does not define the semantic or grammatical encoding. Botne and Kershner utilize “cognitive domains” which represent the organization of the whole tense/aspect system and the contrast of forms within that system (2008: 158) (see §2.7).

1.9. Format

The next chapter provides background into the structure of Bantu verbs and T/A systems, the T/A systems in Ikoma and Ngoreme, lexical aspect, duratives and punctives, inchoatives and statives, resultatives and result states, and an overview of Botne and Kershner's (2008) domains framework. The two chapters after that are designed to cover the central perfective (chapter 3) and imperfective (chapter 4) distinction, along with related aspects and tense. Chapter 3 necessarily includes discussion of the simple past and the perfective. Chapter 4 includes discussion of the progressive/continuous and the imperfective. I also discuss some pragmatic/discourse considerations in chapter 4. These concerns are certainly an important piece of aspectual usage, but are not the primary focus of the study.

In chapter 5, I offer an account of the *Vká-* formative in Ikoma, including its evidential function. In chapters 3 and 5, I also include discussion of how situation type impacts grammatical aspect and overall verbal semantics. The goal of chapter 6 is to explore historical-comparative issues related to the material in chapters 3, 4, and 5. I believe strongly that it is impossible to truly divide linguistics into separate synchronic and diachronic concerns, and it often does a disservice to linguistic analysis to pretend otherwise. Thus, probable historical-comparative explanations are an integral facet of this work as well. Grammatical pathways are considered in light of previous studies such as Bybee et al. (1994), Dahl (1985), and Nurse (2008). The emphasis is on offering historical explanation(s) for the reduced-tense systems in Ikoma and Ngoreme, and the evidential *Vká-* in Ikoma, and not reconstructions or any wider subgrouping concerns in Mara, Great Lakes, or beyond. That being said, these relatively unusual Bantu features in Ikoma and Ngoreme might have potential implications for the Bantu expansion. Chapter 7 is a synthesis and conclusion chapter including an overall summary, brief summaries of each chapter, areas for further research, and implications of the study.

Chapter 2

Background

2.0. Introduction

This chapter builds on the previous chapter by supplying linguistic background on Bantu verbs and T/A systems (§2.1), a sketch of the Ngoreme and Ikoma T/A systems (§2.2), and an explanation of lexical aspect (§2.3), durative and punctive situation types (§2.4), inchoatives and statives (§2.5), resultative constructions and result states (§2.6), along with an overview of Botne and Kershner (2008) (§2.7).

Grammatical aspect⁹ has been defined as the “different ways of viewing the internal temporal constituency of a situation” (Comrie 1976: 3). Nurse’s (2008) survey of Bantu tense and aspect forms the backbone for several of the sections in this chapter. A theoretical background is interwoven throughout, along with an introduction to the domains framework of Botne and Kershner (2008). This particular framework has become especially important in Bantu studies in recent years as it provides a means of capturing remoteness distinctions, as well as complex interactions of tense and aspect, both of which can be considered typologically characteristic of Bantu (Botne and Kershner 2008: 146, 171). Seen on a cline from fewer remoteness distinctions and less complex interaction of tense and aspect to more of both, the Ikoma and Ngoreme T/A systems fall towards the side of the former.¹⁰ Instead, the complexity lies mostly within the interaction of lexical and grammatical aspect. Botne and Kershner’s (2008) framework also helps to model how speakers conceptualize these systems.

Moreover, the present study assumes a certain level of general cross-linguistic knowledge about lexical and grammatical aspect (e.g. Comrie 1976, 1985). Much ink has been spilled in the last half-century or so in aspectual studies, and it would be easy to get weighed down unnecessarily by previous literature and a multitude of controversial issues. This is not the focus here, and so I bypass many of these issues and direct the interested reader to works such as Filip (2012), Binnick (1991: 135-214), and Sasse (2002) for summaries of the many theoretical and terminological issues involved. However, I do wish to spend time defining my terms, filling in gaps for the non-Bantuist reader and generally providing a solid enough

⁹ Key terms used in this study will be in **bold** font, usually when first introduced. A definition of the term, or a quick explanation, is located nearby this initial usage. Many terms which need definition or explanation, but are not terms I choose to use in the study, are in *italics*.

¹⁰ As we will see, while the characterization of Ikoma and Ngoreme as reduced-tense languages is appropriate, it would be slightly misleading to say that they do not have any remoteness distinctions (for the past) because aspect is often used in tense function. For instance, in the next chapter, in Ikoma, we see that the perfective covers the immediate and hodiernal periods, while the simple past is pre-hodiernal. In Ngoreme, the perfective only covers the immediate past, and the simple past begins with the hodiernal period.

theoretical background to understand the data, subsequent analysis, and relative importance of the Ikoma and Ngoreme data.

2.1. Structure of Bantu verbs and T/A systems

The agglutinative nature of Bantu certainly applies to both nouns and verbs, but is best observed within the verbal system. Consider the structural paradigm for a single inflected Bantu verb below (from Nurse 2008: 40):

(5) Pre-SM+ SM+ NEG₂+ TA+ OM+ root+ extension+ FV+ post-FV

Nearly every slot has its own multiple possibilities and variations, with the TA (tense/aspect) slot (or **formative**, see Nurse 2008: 34-35) being one of the most expansive. These slots include the pre-subject marker, subject marker, negative, tense/aspect, object marker, root, extension, final vowel, and post-final vowel. Only locatives are used in the post-final vowel slot in Ikoma and Ngoreme. Subject and object markers, negatives, and roots are reasonably self-explanatory. That leaves the pre-subject marker, extension, and final vowel categories. In Ikoma and Ngoreme, the pre-subject marker is the focus marker *n-*. The focus marker can be obligatory, optional, or ungrammatical depending on the tense/aspect form and clause type (Higgins 2012: 41, see also Cable 2013 on Gikuyu). I discuss the focus marker in Ikoma and Ngoreme in more detail in §2.3. The final vowel is most often *-a*, but can be *-e* (often for subjunctives), or even can be replaced by the perfective suffix *-iri* (with slightly different shapes in each language). Idiosyncratic to Ikoma and Ngoreme (and the rest of Western Serengeti), the final vowel is deleted after the passive and causative extensions. **Extensions** in Bantu are essentially derivational suffixes, and commonly include passives and causatives, but also includes categories such as the applicative (dative) and stative.

The Bantu verbal structure is also not one-dimensionally linear, but has hierarchical domains (Nurse 2008: 41-42), as below:

(6)

Pre-SM + SM + NEG ₂ + TA + OM + root + extension + FV	
	[derivational stem]
	[inflectional stem]
	[macrostem]
[inflection]	
[verbal word]	

These domains have been largely determined by phonological criteria such as vowel harmony and tonal phenomena, but also by the fact “elements that function together or are closely linked grammatically tend to occur together” (Nurse 2008: 42). For our purposes, the concept of the **macrostem** is important for the discussion of grammatical tone, and since the focus of the dissertation is on concerns related to TAM, the majority of time will be spent within the companion to the macrostem, the inflection domain.

Bantu does not just have single-word verbal forms, but also multiple word verb complexes often referred to as compound, or **periphrastic** constructions.¹¹

So the Bantu generalization is that perfectives, not overtly marked for aspect, and the ‘present’ forms of the other aspects, not marked for tense, are one-word forms, *while combinations of past/future with other aspects are expressed either analytically by compound constructions [...] or by combinations of pre-stem and post-stem morphology [...]* (Nurse 2008: 173, italics mine).

These periphrastic constructions commonly manifest in two ways, an inflected auxiliary with either an infinitive or an inflected main verb (Güldemann 1999; Nurse 2008: 59). The first type, *inflected auxiliary + infinitive* is shown in (7) for Kagulu (G.12, Tanzania).

- (7) Kagulu (Petzell 2008: 144-145)
- | | | | | | |
|-----|------------------------------------|----------------|-----------------|-------------|--------------|
| (a) | <i>Ha-ka-sowel-a</i> | <i>kw-ij-a</i> | <i>ka-mwedu</i> | <i>kw-a</i> | <i>wiki.</i> |
| | PST-1.PST-be used to-FV | 15-come-FV | NUM-one | 17-ASSOC | week:9/10 |
| | ‘S/he used to come once per week’. | | | | |
-
- | | | |
|-----|----------------------------------|------------------|
| (b) | <i>Ka-mal-a</i> | <i>ku-lim-a.</i> |
| | 1.-PST-finish-FV | 15-cultivate-FV |
| | ‘S/he has finished cultivating’. | |

Ngoreme constitutes an exception to the ordering of this type of periphrastic constructions in that it attests a process of auxiliary inversion with the continuous aspect (see Gibson 2012, Roth 2014), as in (8).

- (8) Ngoreme past continuous
- | | |
|-------------------|----------------|
| <i>N-ko-βín-a</i> | <i>tw-á-re</i> |
| FOC-CONT-dance | 1.PL-PST.COP |
| ‘We were dancing’ | |

Unlike Kagulu in (7), in (8) the main verb (*-βina* ‘dance’) occurs first with the focus marker *n-* and continuous *ko-* (see chapter 6 for discussion of *ko-* in Ngoreme in terms of its relationship to the infinitive; see chapter 4 for discussion of the difference between progressive and continuous aspect). The auxiliary occurs subsequently with the subject marker (in this case *tw-*) and the past tense marking with the ‘be’ verb *-áre*. The auxiliary inversion occurs with the past and present progressives in Ngoreme but not the future progressive (see chapter 4).

The second type, *inflected auxiliary + inflected main verb*, is demonstrated in (9) with Swahili¹²:

¹¹ Tense can combine with aspect and aspect with aspect in both single verb and periphrastic constructions (Nurse 2008: 12, 14). Tense can only combine with tense in periphrastic constructions (Nurse 2008: 176-177).

¹² In the examples in (9) and the discussion that follows I choose to abstract away from the final vowel *-a*, as contrast with *-e* (subjunctives) and *-i* (negatives) is not relevant here.

- (9) Swahili (Hewson 2012: 523)
- | | |
|------------------------------------|------------------------------|
| <i>tu-li-kuwa tu-me-kimbia</i> | ‘we had run’ |
| <i>tu-li-kuwa tu-na-kimbia</i> | ‘we w[ere] running (then)’ |
| <i>tu-li-kuwa tu-ki-kimbia</i> | ‘we ran (continuously)’ |
|
<i>tu-ta-kuwa tu-me-kimbia</i> |
‘we will have run’ |
| <i>tu-ta-kuwa tu-na-kimbia</i> | ‘we will be running’ |
| <i>tu-ta-kuwa tu-ki-kimbia</i> | ‘we will run (continuously)’ |

In the first part of the periphrastic construction in (9) the *tu-* morpheme is the 1st person plural subject marker, and the ‘be’ verb *-kuwa* is an auxiliary used with the tense markers *li-* (past) or *ta-* (future). In the second part of the construction, the subject marker is repeated, the lexical main verb is used (in this case *-kimbia* ‘run’), and various aspects (*me-*, *na-*, *ki-*)¹³ are employed. Both parts of the construction are finite, and the auxiliary carries tense while the main verb carries aspect.

As we have seen thus far, in Bantu tense and grammatical aspect are marked morphologically on the verb with affixes and/or grammatical tone. Grammatical aspect in Bantu consists of variations on a theme, as “the same fairly small central group of aspects recurs across Bantu and although the means of expression does of course vary, the morphology is quite similar” (Nurse 2008: 178). This “central group of aspects” includes the perfective, imperfective, perfect (anterior), and within the category of imperfectives: progressive, habitual, situative, and persistive (Nurse 2008: 134ff). The descriptive scope of this dissertation is focused on this “central group of aspects” within Ikoma and Ngoreme.

From this list of grammatical aspects, we can see that the perfective versus imperfective contrast in Bantu is foundational. The contrast between perfective and imperfective aspect is extremely prevalent cross-linguistically. “As evidenced by typological research [...] the distinction most commonly found in languages is that between perfective and imperfective aspect” (de Swart 2012: 756¹⁴). In some models, the state/event (or non-event/event) dichotomy even manifests itself in grammatical aspect as perfective and imperfective (Gvozdanović 2012: 789; Langacker 2001; Michaelis 1998: xi, 5-7). Comrie defines perfectivity and imperfectivity as follows: “perfectivity indicates the view of a situation as a single whole, [...] while the imperfective pays essential attention to the internal structure of the situation” (1976: 16). Comrie’s definitions reflect one way of conceptualizing the perfective and imperfective, and is focused on *viewpoint* (e.g. Smith (1997)’s “viewpoint aspect”).

Crane, in her analysis of the Bantu language Totela (K.41), discusses potential problems with this conceptualization, citing (among several other issues) the difficulty of analyzing Slavic aspect in accord with perfectivity and imperfectivity cross-linguistically outside of Slavic (2011: 10, see also Gvozdanović 2012). The Totela data, along with these more theoretical concerns and insights from Cover (2010) and others, lead Crane to an analysis of the perfective and

¹³ Hewson calls these retrospective, imperfective, and situative, respectively (2012: 523).

¹⁴ Frawley says that perfective versus imperfective opposition is “perhaps the most widely discussed aspectual distinction”, and that “many unrelated languages (Russian, Arabic, Chinese, Hawaiian, Hungarian) draw productive and overt distinctions” between them (1992: 296). See also Dahl and Velupillai (2013) for a cross-linguistic distribution map of the grammatical marking of perfective versus imperfective.

imperfective in terms of **completion semantics** (2011: 119ff., 130-131). This involves the completion or non-completion of the situation nucleus (Crane 2011: 116, see §2.3). More traditional viewpoint semantics in line with Comrie (1976) and Smith (1997) are perceived as insufficient (see Cover 2010: 34ff), although there are ways of incorporating viewpoint in harmony with completion semantics, as in Botne (2010).¹⁵ Even Cover, who argues against viewpoint semantics and defines perfectivity and imperfectivity in terms of modal semantics (2010: 43-48), acknowledges that “viewpoint is a good metaphor to reflect how people talk about times and eventualities” (2010: 38). Thus, while I believe Comrie’s definition of perfectivity especially to be unsuitable for the analysis of Ikoma and Ngoreme, I continue to agree with Comrie’s definition of grammatical aspect as “different ways of viewing the internal temporal constituency of a situation” (Comrie 1976: 3). Perfectivity and imperfectivity in Ikoma and Ngoreme are best viewed in terms of the completion or non-completion of the situation nucleus. I discuss these ideas further in the remainder of this chapter, and in more detail as applied to Ikoma and Ngoreme in chapters 3 and 4.

Ikoma and Ngoreme are exceptional not in that they have this foundational contrast between perfective and imperfective, but that this contrast can be seen more clearly with tense largely absent from the picture. Most¹⁶ Bantu languages have remoteness distinctions, i.e. multiple degrees of tense (Botne and Kershner 2008: 146; Botne 2012: 536; Nurse 2008: 21-2). The T/A systems in Ikoma and Ngoreme are relatively unusual for Bantu in that they fit the qualifications for what Nurse calls “reduced-tense” (2008: 102). The distinguishing mark for **reduced-tense** in Bantu is the “reduction to a single past tense” (Nurse 2008: 102). Nurse indicates that some Bantu languages can exceed this requirement, by either further combining this single past and the anterior, or by having a non-past instead of a contrast between present and future (2008: 103). Ikoma and Ngoreme exceed the requirement by both having a “non-past” (in reality, imperfective aspect), with no morphological contrast between the present and the future¹⁷. (There is also an argument to be made for the combination of the single past and Nurse’s “anterior”¹⁸ forms in Ikoma and Ngoreme, but because that argument is more intricate I deal with those questions in chapter 3).

The notion of system is crucial in TAM studies— “a tense, or an aspect, is a position in a mental, a *conceptual* system” (Hewson 2012: 509). The system needs to be determined in regard to both form and function. Ikoma and Ngoreme use grammatical aspect to communicate temporality (aspect in the role of tense function). Thus, tense is largely epiphenomenal in Ikoma and Ngoreme. While grammatical aspects in Ikoma and Ngoreme often function in tense roles, this does not in any way indicate that they should be categorized as tenses rather than aspects (see Hewson 2012). For example, the perfective is used mainly to discuss past situations not

¹⁵ I only had access to a digital copy from the author, and not the actual published version from *Africana Linguistica*. Thus, the page numbers associated with Botne (2010) in this study are different from the published version.

¹⁶ There is an imbalance between pasts and futures within the Bantu languages in Nurse’s sample—“most Bantu languages have multiple pasts, whereas only half have multiple futures” (2008: 88-9).

¹⁷ Except for more relatively recent future periphrastic constructions.

¹⁸ Nurse (2008) incorrectly considers the Bantu *-ile* suffix to indicate anterior (perfect) rather than perfective (c.f. Botne 2010), as I discuss further in chapter 3.

because it is the “past tense”, but because the representation of events as a complete whole often demands that it be in the past. The perfective can even be used for present and future situations (Nurse 2008: 134-5).

In one sense, Ikoma and Ngoreme are unusual in not adhering to certain Bantu generalizations in regard to tense, while in another sense the primacy of aspect in Bantu should not be considered so unusual. One argument is historical. The Bantu languages are a part of the Niger-Congo language phylum, and the majority of modern non-Bantu Niger-Congo languages are aspect-prominent. Nurse says on the subject:

Most Niger-Congo languages can be analysed in terms of aspect alone, having no tense distinctions [...] Because so many Niger-Congo families are ‘aspect’ languages and because the path from ‘aspect’ to ‘aspect and tense’ is fairly clear, we can assume that Proto-Niger-Congo was aspectual (2008: 281).

This indicates that tense is a later addition, a primarily Bantu innovation within Niger-Congo. The second argument is based on the fact that cross-linguistically “aspect markers are always closer to the verbal stem than tense markers if both occur on the same side of the verb, with tense markers preceding aspect markers in all other cases” (Deo 2012: 168). In Bantu, the tendency is for tense to be encoded on the left and aspect on the right, whether as part of a single verb form or in periphrastic constructions, where tense goes with the auxiliary and aspect with the lexical verb (Nurse 2008: 14-15). The placement of morphemes, including tense and aspect, within the verbal complex is not random, e.g. Baker’s (1985) “mirror principle”. Specifically, “aspect is the category that is most directly and exclusively relevant to the verb” and “the degree of morphophonological fusion of an affix to a stem correlates with the degree of semantic *relevance* of the affix to the stem” (Bybee 1985: 4, 21).

Nurse provides a list of languages with a single past, languages with neutralized single past/anterior, and languages with non-past (2008: 103). The languages closest to Ikoma and Ngoreme geographically include some Bantu E.70, G.30, and G.40 languages¹⁹ (Maho 2009). Nurse claims “a genetic and geographical link between E70 and G30-40” (2008: 103; see also Nurse & Hinnebusch 1993), and so I want to briefly examine two languages from G.30, Luguru and Kami,²⁰ to introduce reduced-tense systems and draw any comparisons. Nearby Temi (E.46) is not a reduced-tense language, but is relevant to the discussion here, and so I then take a brief look and speculate about any possibility of a close genetic relationship or historical language contact situation with JE.40.

Luguru (G.35) and Kami (G.36) are both spoken in the Morogoro Region of Tanzania (Morogoro is about 180km from Dar es Salaam). Both are under heavy influence from Swahili (Petzell & Hammarstöm (2013); Simons & Fennig 2018). Table 2.1 shows the inflectional tense morphemes in these languages.

¹⁹ The E70 languages in question are located in eastern Kenya, G412 is in Somalia, and G44 is in the Comoros. G401 is a dialect of Swahili in southeast Tanzania.

²⁰ See Edelsten & Petzell (2017); Petzell (2017); Petzell and Aunio (2019); Petzell & Hammarstöm (2013).

Table 2.1. Tense morphemes in Luguru and Kami (Edelsten & Petzell 2017)

Tense	Luguru	Kami
Non-past	—	<i>o-</i>
Present	<i>a-/o-</i>	—
Future	<i>tso-/ (tsa-); dzo-/ (dza-)</i>	—
Past	∅	∅

As can be observed in Table 2.1, both Kami and Luguru are severely limited in their number of bound tense morphemes — Kami with a basic past/non-past distinction, and Luguru with a very similar system, but with the addition of the *ts* (*dz*)- formative which distinguishes present from future²¹. Kami and Luguru have some additional TAM morphemes as part of periphrastic constructions (Edelsten & Petzell 2017). The systems in these G.30 languages bear a resemblance to Ikoma and Ngoreme in terms of their relative lack of tense morphology as compared to other Bantu languages. Moreover, these clusters of reduced-tense languages in Tanzania are interesting in what they may reveal about the history of tense in Bantu by their similarities and differences. Nurse is “more disposed to assume that past tense reference multiplied everywhere and that subsequently those few languages with one past today underwent a reduction from this intermediate multiple past situation” (2008: 103). The alternative is that instead of adding past tenses reduced-tense languages merely “retained the earlier situation” (Nurse 2008: 103). I offer more discussion of these types of historical questions in chapter 6.

Although Temi is not a reduced-tense language (having a clear future tense, although the past “tenses” are less clear), there is a clear perfective/imperfective split, as can be seen in the tense/aspect matrix in Table 2.2.

Table 2.2. Temi tense/aspect matrix (adapted from Nurse 2008b)

Tense/Aspect	Perfective	Imperfective <i>-aga</i>	Perfect <i>-ba-</i>
P₂ -a-	(<i>n</i>) <i>tw-a-gor-ε</i> ‘we bought’	(<i>n</i>) <i>tw-a-gol-aga</i> ‘we were buying, used to buy’	—
P₁ -ba-	(<i>n</i>) <i>tu-ba-gor-ε</i> ‘we bought’	(<i>n</i>) <i>tu-ba-gol-aga</i> ‘we were buying’	—
—	(<i>n</i>) <i>tu-gol-atε</i> ‘we are buying’	(<i>n</i>) <i>tu-gol-aga</i> ‘we buy regularly’	(<i>n</i>) <i>tu-ba-gol-a</i> ‘we have bought’
Future -ke-	(<i>n</i>) <i>tu-ke-gol-a</i> ‘we will buy’	<i>tu-ke-gol-aga</i> ‘we will be buying’	—

²¹ It is currently unclear whether the *a* and *o* vowels in the *tso/dzo*/*tso/dzo* formative are related to the present tense markers. I assume some sort of historical relationship, whether fusion, reanalysis by analogy, or other means. Regardless, the tense inventories in both Kami and Luguru are similar and reduced.

The differences include the presence of the imperfective *-aga* suffix, future *ke-*, perfective suffix *-te* (variant of *-ile*, see Nurse 2008: 267-268), and the *ba-* prefix in P₁ and for what Nurse labels the perfect (anterior). So while the perfective, imperfective, and perfect *categories* are similar, the morphology itself is very different. As I mentioned previously, most of the Western Serengeti oral traditions describe coming from the east in the territory of the Temi (Shetler 2003: 18). Shetler concludes that these stories actually describe social upheaval during the mid-nineteenth century, including the aftermath of Maasai raiding (Shetler 2003: 20). Nothing in the structure of the Temi tense/aspect system warrants throwing out Shetler's conclusions here (see also Nurse and Rottland 1991/2). Whatever happened in regard to the Ikoma and Ngoreme T/A systems most likely happened independently (leaving open the possibility of minimal influence on the T/A system from other Mara languages).

2.2. Sketch of T/A systems in Ngoreme and Ikoma

The core skeleton forms of the T/A systems in Ngoreme and Ikoma are shown below in Table 2.3. The systems are organized around the foundational perfective (completion) and imperfective (non-completion) distinction (at the top of the chart).

Table 2.3. Overview of T/A systems in Ngoreme and Ikoma

	Ngoreme	Ikoma
Perfective	⁴ (n)-SBJ-VB-ire	n-SBJ-VB-iri
Imperfective	¹ SBJ-ra-VB-a	¹ (n)-SBJ-Vko-VB-a
Nucleative	— —	² SBJ-Vká-VB-a
Simple past	¹ (n)-SBJ-a-VB-ire	³ n-SBJ-V-VB-iri
Non-past consecutive	— —	SBJ-VB-a
Narrative	¹ SBJ-Vka-VB-a	² SBJ-Vka-VB-a
Progressive/Continuous	¹ n-ko-VB-a SBJ-V-ní	¹ SBJ-ra-VB-a
	¹ n-ko-VB-a SBJ-áre	n-SBJ-V-ré ¹ SBJ-ra-VB-a
Habitual	n-SBJ-háá-VB-a n-SBJ-ráá-VB-a	n-SBJ-háá-VB-a
Persistent	SBJ-kéére ¹ SBJ-ra-VB-a	(n)-SBJ-keéré ¹ SBJ-ra-VB-a
	SBJ-kéére ko-VB-a	(n)-SBJ-keéré ¹ ko-VB-a
	SBJ-kéére ⁴ (n)-SBJ-VB-ire	(n)-SBJ-keéré ² n-SBJ-V-VB-iri
Situative	¹ SBJ-ko-VB-a	SBJ-ráá-VB-a

H on σ₁ of the macrostem (stem in Ngoreme): ¹

H on final σ: ²

H on σ₁ of the macrostem + final H: ³

H on SBJ: ⁴

The systems in Ngoreme and Ikoma are unsurprisingly quite similar and many differences superficial (e.g. Ngoreme has perfective *-ire*, while Ikoma has *-iri* and Nata/Ishenyi *-ire*); the main difference, however, is the inverse relationship they have in the imperfective and

progressive/continuous (imperfective is *Vko-* in Ikoma, *ra-* in Ngoreme; continuous is *ko-* in Ngoreme,²² progressive is *ra-* in Ikoma).

Bantu languages tend to encode tense on the left, and aspect on the right, either in a single verb or in periphrastic constructions (Nurse 2008: 14-15, 96-97). In both Ikoma and Ngoreme, the foundational perfective and imperfective distinction is at work. Let us begin by looking at some examples with the past auxiliary in (10)-(12). Both languages have a past auxiliary utilizing the past copula *-re*. In Ikoma, the past auxiliary (*N-SM-V-re*) consists of a nasal focus marker, the subject marker, and an unspecified vowel followed by the past copula. The forms in Ngoreme are subject to auxiliary inversion, so tense is encoded on the right (with no focus marker on the auxiliary). Note also the addition of the past marking, unspecified *-V-* in Ikoma and *-a-* in Ngoreme.

- (10) Ikoma past perfective
N-to-o-ré *tó-βin-iri*
 FOC-1.PL-V-PST.COP 1.PL-dance-PFV
 ‘We had danced’
- (11) Ikoma past imperfective
N-to-o-ré *to-ra-βín-a*
 FOC-1.PL-V-PST.COP 1.PL-IPFV-dance-FV
 ‘We were dancing, used to dance’
- N-a-a-ré* *a-ra-kór-a*
 FOC-3.SG-V-PST.COP 3.SG-IPFV-make-FV
 ‘S/he was making [a chair], used to make [chairs]’
- (12) Ngoreme past imperfective²³
N-ko-βín-a *tw-á-re*
 FOC-IPFV-dance-FV 1.PL-PST.COP
 ‘We were dancing’
- N-go-túk-a* *tw-á-re*
 FOC-IPFV-dig-FV 1.PL-PST.COP
 ‘We were digging’

This is definitively the simple past tense auxiliary in both languages. The auxiliaries in the past imperfective constructions are formed with the past copula *-á-re* (Ngoreme) and *-V-ré* (Ikoma). This past copula is derived from the Proto-Bantu verb **li-* (Nurse 2008: 60).

The past perfective in Ngoreme, however, gets more interesting. Past perfectives in Ngoreme are formed with the verb *-βwíne* ‘to get, receive, obtain’ as in (13).

²² The form for the Ngoreme continuous resembles the infinitive (see chapter 6 for discussion of *ko-* in Ngoreme in terms of the relationship to the infinitive; see chapter 4 for discussion of the difference between progressive and continuous aspect).

²³ I am fairly confident the Ngoreme past imperfective also has a “used to V” sense, as in Ikoma, but I have not confirmed this.

- (13) Ngoreme past perfectives
- | | |
|--------------------|-----------------------|
| <i>Waβwine</i> | <i>βa-hik-iré</i> |
| PST.COP | 1.PL-arrive-PFV |
| ‘They had arrived’ | |
|
<i>Waβwine</i> |
<i>a-koo-re</i> |
| PST.COP | 3.SG-build-PFV |
| ‘He/she had built’ | |
|
<i>Naβwine</i> |
<i>á-many-ire</i> |
| PST.COP | 3.SG-know-PFV |
| ‘He/she had known’ | |

A few points of interest here: (a) *waβwine* most often does not change at all to agree for person and number, (b) on the rare occasion when it does, it shows up in the 3rd person singular with the focus marker *n-* (and with the expected prefix *a-* on the lexical verb), (c) thus, it is unclear whether *wa-* and *na-* are actually subject prefixes or whether they are fused, and there is a focused form and a non-focused counterpart, and (d) if they are subject prefixes, it is unclear why the subject marker is *wa-* and not the expected *βa-*. These forms need more research (here in (13) they have all been glossed as simply *past copula*). The grammaticalization of a verb meaning ‘get, receive, obtain’ to ‘past tense/already’ is attested in Khmer, Hmong, and Thai in East Asia (Heine and Kuteva 2002: 147). In reference to these Asian languages and this verb, they say the following:

The evidence supporting this process is far from satisfactory, and we may be dealing with a genetically and/or areally defined phenomenon. Still, this grammaticalization appears to be an instance of a more general process whereby process verbs are grammaticalized to auxiliaries denoting tense or aspect functions (2002: 147).

However, at the time of writing, I am not aware of this specific pathway in other Bantu languages.

The future auxiliary (*n-SM-Vku-β-a*) consists of the nasal focus marker, subject marker, imperfective (*Vku-*), the future copula (*-β-*) derived from the verb “to be”, and final *-a*, as in the future imperfective in (14):

- (14) Ikoma future imperfectives
- | | |
|---------------------------|---------------------|
| <i>N-a-aku-β-á</i> | <i>a-ra-hík-a</i> |
| FOC-3.SG-IPFV-FUT.COP-FV | 3.SG-PROG-arrive-FV |
| ‘He/she will be arriving’ | |

I have two possible reasons we see underlying *Vku-* here and not *Vko-* as elsewhere: (1) an origin in vowel harmony issues (see Higgins 2012), or (2) the class 15 infinitive prefix is also *ku-*²⁴ in Western Serengeti as a whole²⁵, which means that it often occurs before the “to be” verb as the infinitive prefix (and then fuses with monosyllabic stems), and therefore *Vku-*

²⁴ With other allomorphs due to vowel harmony and Dahl’s Law: *ko-*, *yo-*, *yu-*.

²⁵ Also Proto-Bantu, Katamba (2003: 104).

morphology could have developed by analogy. The same form is also used in Swahili, the lingua franca of Tanzania, as in (15).

- (15) Swahili (Nurse 2008: 15)
tu-li-kuwa tu-ki-kimbia
 1.PL-PST-COP 1.PL-SIT-run
 ‘We were running’

The future perfective in Ikoma is formed in much the same way with the lexical verb in the perfective, as in (16).

- (16) Ikoma future perfective
N-to-oku-βá to-βin-iri
 FOC-1.PL-IPFV-FUT.COP 1.PL-dance-PFV
 ‘We will have danced’

The Ngoreme future perfective is formed in much the same way as Ikoma, with the copula *-βa*, imperfective *ra-*, and the lexical verb in the perfective.

- (17) Ngoreme future perfective
A-rá-βa n-a-mány-ire
 3.SG-IPFV-FUT.COP FOC-3.SG-know-PFV
 ‘S/he will (have) know(n)’

The Ngoreme future imperfective is also formed with the copula *-βa*, but with imperfective *ra-* in both the auxiliary (functioning as future) and the lexical verb.

- (18) Ngoreme future imperfective #
Tu-ra-βa tu-ra-βin-a
 1.PL-IPFV-FUT.COP 1.PL-IPFV-dance-FV
 ‘We will be dancing’

In addition to the forms discussed so far, both Ikoma and Ngoreme have relatively newer auxiliaries based on *(ku)-cha* ‘come’# that can express future tense. They are more readily identifiable with the existing lexical form *(ku)-cha* #, and therefore are still going through the grammaticalization process, and are more likely to be used by younger generations of speakers. Typologically, a future derived from ‘come’ is not surprising (Bybee et al 1994: 252-3).

There are two additional issues from this chart that I want to examine more closely before moving on: the focus marker (*n-*) and the non-past consecutive. In Ikoma and Ngoreme, the pre-subject marker is the focus marker *n-*. The focus marker can be obligatory, optional, or ungrammatical depending on the tense/aspect form and clause type (Higgins 2012: 41, see also Cable 2013 on Gikuyu). The nasal focus marker is required for some forms but is optional in others. Where it is optional, there are possible epistemic modality distinctions. For instance, as we see in chapters 4 and 5, the Ikoma imperfective can yield both “present” and “future” readings, i.e. *naayokú* ‘s/he is dying’ but also ‘s/he will die’ (see Bybee et al. 1994: 243ff for the connection between modality and futures). With the focus marker *n-* this form

communicates a level of certainty. Without the focus marker in this example (*ayokú*) the form indicates less certainty, i.e. ‘s/he may/might die’. As Nurse says of [J]E.40:

The presence of *ni-* is said to represent greater certainty on the part of the speaker about the validity of what is being said, while the absence of *ni-* indicates less certainty. Typically it appears in affirmative statements and questions, and not in relatives, negatives, or most WH-questions. When the possibility of assertion or certainty is not present, there is no contrast between the presence and absence of *ni-* (Nurse 2008: 207).

There is also a conventionalized back and forth with the presence and absence of the focus marker (and also between the eyewitness and non-eyewitness evidentials, see chapter 5) among Ikoma speakers, at least, between questions and responses. One speaker asks a question with one form, and the conversation partner responds with the companion form. However, more research is needed in this area, especially for Ngoreme. Moreover, it is extremely likely (in line with Dalgish (1979) on Chaga) that “*ni* itself derives from the copula, and in constructions originally involving copular *ni* and a cleft construction” (Nurse 2008: 207). This type of focal construction is still seen in the JE.40 languages, including Ikoma and Ngoreme (see Aunio et al. 2019). For my purposes here in this study, however, mention of the focus marker is confined to its use in the pre-subject marker position, and broader concerns regarding more syntactic considerations with the copula (i.e. cleft constructions) are left outside the scope of this study (for discussion and examples of various clause types in JE.40, see Aunio et al. 2019).

The second form needing more explanation is what has been called the **non-past consecutive** in Ikoma, with the unmarked structure *SBJ-VB-(a)* (Aunio 2013, Walker 2013). The final vowel *-a* is absent among verbs with CV roots, and those which contain causative and passive extensions (most likely lexicalized, resulting in many non-past consecutive forms ending in *-i* and *-u* as well as *-a*). The *consecutive* in Bantu is synonymous with the **narrative** (tense). The narrative is a *relative tense* used for sequences of situations in a narrative text. “Relative tenses relate [the situation] to some other time already established” (Nurse 2008: 120). Consider (19) below.

- (19) Ikoma (Walker 2013: 92) #
- | | | | |
|--------------------|--------------------|----------------------|-------------------|
| <i>N-to-haa-yi</i> | <i>mo=mu-teera</i> | <i>to-Ø-yor-a</i> | <i>cham-bori.</i> |
| FOC-1.PL-HAB-go | NC18=NC3.SG-market | 1.PL-NPST.CNS-buy-FV | NC10.PL-goat |
- ‘We usually go to the market (and) we buy goats.’

In (19) the “time” of the *toyora* ‘we buy’ situation is set by the first verb in the sequence *ntohaayi* ‘we usually go’ (habitual aspect). The majority of the time the non-past consecutive functions in a discourse as described in (19), as a relative tense. This fits with standard descriptions of null-forms like these in Bantu, as “one of several ways of indicating narrative” and “akin to the use of the infinitive, as in both there is no need to mention time further, once it is established” (Nurse 2008: 119, 122).

However, Walker brings up the issue of whether the non-past consecutive can function independently (as a finite verb). He says of this form that it has a “timeless, action-focused meaning”, but “does not appear to function on its own as a Vast Present” (2013: 92). The *Vast*

Present in this context is a term equivalent to “general, frequent, or generic situations [...] often called ‘general presents’” (Nurse 2008: 118). However, Nurse’s description here of the Vast Present would seem to fit with Walker’s assessment of the Ikoma non-past consecutive as “timeless” and “action-focused” (2013: 92). Walker’s view is also based on scant evidence, e.g. “the form that was elicited from a sentence with the Swahili Vast Present” was not a null form, but a *Vká-* form (2013: 92). While the description fits somewhat, whether the non-past consecutive can function independently is an open grammatical question that needs more research in Ikoma. Regardless, for the purposes of this study, we can consider Ikoma to have two narrative forms, one “past” (*Vka-*) and one “non-past” (*Ø-*).

Perhaps the most important reason it remains an open question is that there is an identical segmental form with an initial melodic H tone which functions as a situative, one of several in Ikoma (Aunio 2013: 280, 314). (For more on the role of the melodic H in null forms, see discussion in Nurse 2008: 118). The **situative** is “often used in narratives to refer to events that preceded the events expressed with the main clause” (Aunio 2013: 314). Consider example (20) below.

- (20) Ikoma (Aunio 2013: 315)
- | | | | | |
|-----------------|--------------------|--------------|-----------|-------------------|
| <i>Abííkoma</i> | <i>bányahareka</i> | <i>biitu</i> | <i>ná</i> | <i>Abiikwabe.</i> |
| aba-íkoma | ba-nyahar-ek-a | ba-it-u | ná | aba-ikwabe |
| 2-Ikoma | 2-hurt-STAT-FV | 2-kill-PASS | with | 2-Maasai |
- ‘The Ikoma being hurt they are killed by the Maasai.’

In (20), *bányahareka* ‘[they] being hurt’ has an initial melodic H and is functioning as a situative, as the ‘hurt’ event precedes the ‘killed’ event expressed in the main clause. For my purposes here in this study, the non-past consecutive is important because it appears as a non-eyewitness counterpart (instead of the usual perfective) in example (67) in chapter 5, in which case it does appear independently, and may be functioning as a Vast Present. From a cursory examination of Ikoma folktale texts as well as the conversational text, there are verbs which occur more often in the non-past consecutive, including the verb in (67) *-buya* ‘say’. Other verbs in this category include *-soha* ‘enter’#, *-ita* ‘kill’#, and *-βona* ‘meet, find’#. Again, more research is needed into pragmatic/discourse considerations and whether forms like these are indeed more conventionalized expressions.

Another issue with the non-past consecutives is that because null forms such as these often function as a Vast Present, Nurse (2008) puts them in a default perfective category (see 2008: 279 for Proto-Bantu, and Nurse’s (2008b) appendices for a synchronic view). Part of the reason for this is that Nurse (2008) incorrectly considers the Bantu *-ile* suffix to indicate anterior (perfect) rather than perfective (c.f. Botne 2010), as I discuss further in chapter 3.

In order to understand how the Ikoma and Ngoreme systems actually function, this study explores the verbal semantics in terms of grammatical *and* lexical aspect. And so next, this chapter continues with a background on lexical aspect and Aktionsart (§2.3), duratives and punctives (§2.4), and how inchoatives and statives are related to punctives (§2.5).

2.3. Lexical aspect and Aktionsart

In §2.0, I discussed Comrie's definition of grammatical aspect as the "different ways of viewing the internal temporal constituency of a situation" (1976: 3). However, in using this fairly standard definition I sidestepped a relevant terminological issue (what exactly is a *situation*?) in order to deal with it here because it opens up a host of other issues related to lexical aspect and Aktionsart. So before we fully get into that discussion, it is important to briefly introduce and define some more aspectual terminology.

What is a *situation*, and how should we define related terms such as *event* and *eventuality*? I consider **situation** to be a cover term that includes both *events* and *states*. *Eventuality* is synonymous with *situation* (Bach 1986: 6). An **event** is a non-state and can be considered a *spatiotemporal particular* (Davidson 1967). However, along with Crane "a situation for these purposes is not a spatio-temporal particular or state as it obtains in the world, but the linguistic treatment of what is perceived or imagined of these events and states" (2011: 33). Smith defines **states** as "stable situations which hold for a moment or an interval" (1997: 32). Filip adds that states "entail no change, [therefore] they can in principle be judged true of an individual with respect to a *single moment of time*, and hence at *any* instant during the interval at which they are true (2012: 728).

I consider states and **statives** to be different categories. As Walker says, "Our understanding of stativity [...] may be defined inconsistently across studies" (2010: 99). Particularly, Walker asks whether "stativity [is] a property of the verb or the situation" and concludes that "we can overcome this dilemma by coding stativity in both ways, lexically and propositionally" (2010: 99, italics removed). For our purposes, *state* is the property of the situation as described immediately above, and *stative* is the property of the lexical verb. The term *change-of-state* can also be applied lexically or propositionally. When applied to a lexical verb, they are called either **change-of-state**, or **inchoative** verbs (e.g. Crane 2011, Nurse 2008, Osa-Gómez del Campo 2014). I use both terms interchangeably. Botne and Kershner define them as "express[ing] a change of condition or location of the experiencer or patient, many expressing the change or transition from one state to another" (2000:165). I continue the discussion of statives and change-of-state verbs later on in this section.

Binnick recognizes three aspectual categories: (grammatical) aspect, Aristotelian aspect (lexical aspect), and Aktionsart (1991: 170). One of the predominant terminological issues in aspectual studies occurs between the terms *lexical aspect* and *Aktionsart*. Many, if not most, linguists consider both terms to refer to the same phenomenon, while others define them separately but as related and interdependent entities (Kershner 2002: 11). Binnick (1991) supports this more controversial view, which Kershner (2002) follows. However, even Binnick recognizes the intense connection between them:

It is not necessarily incorrect to subsume the *Aktionsarten* as subcases of the Aristotelian categorization [lexical aspect], as the latter denotes the phasic structure of whole events and the former, subsequences within them; we can trivially let the whole event count as the maximal sequence of phases" (1991: 210)

Thus, for my purposes here in this work I consider *lexical aspect* and *Aktionsart* to be one and the same. Filip defines **lexical aspect** as “a semantic category that concerns properties of eventualities [...] expressed by verbs” (2012: 721). De Swart adds that “lexical aspect bears on inherent features of the verb” (2012: 753). *Situation type* is another term used synonymously with *lexical aspect*. Crane defines **situation type** as “a categorization of situations (or more accurately, the predicates used to describe situations) according to their structural properties (e.g. whether there is an inherent completion point), which affect how they interact with various forms of grammatical aspect” (2011: 363). Accordingly, in this work, I use lexical aspect and situation type interchangeably. For the most part I use the term *lexical aspect* to contrast with *grammatical aspect*, and use *situation type* elsewhere.

Vendler’s (1957) classes are the most well-known situation types: activities, achievements, accomplishments, and states (statives). This classification has been foundational. These situation types are usually distinguished by a bundle of binary semantic features, such as \pm dynamic, \pm telic, and \pm durative (Kershner 2002: 13-14). Thus, each Vendler class can be distinguished by the cluster of these features, i.e. an activity would be [+dynamic, –telic, +durative] while an achievement would be [+dynamic, +telic, –durative]. While Vendler’s verb classes remain the standard categories, many linguists have introduced modifications by either adding classes on par with the other four (e.g. semelfactives, Smith 1997), or by adding various sub-classes, e.g. directed *and* undirected activities, incremental *and* non-incremental accomplishments (Croft 2012). Others have combined achievements and accomplishments (Kershner 2002: 60-61). The differences between Vendler’s categories have been traditionally organized in terms of telicity — whether or not there is an inherent endpoint (**telic** versus **atelic**) to the verb, thus linking achievements and accomplishments on the one hand, and activities and statives on the other.

Another important concept regarding situation type is that of **phase**. Phases are the constituents that make up the event (or situation, if we consider not all statives to be phaseless) (Desclés and Guentchéva 2012: 137). There are various models for how many phases and subphases can be included in the event, e.g. Desclés and Guentchéva include “preparatory, initial, terminal, final, or resultative phases” (2012: 137). I come back to this in a moment (see Figure 2.2). However, analogous to syllable constituency, Freed (1979) divides events into three main phases, the onset (O), nucleus (N), and coda (C). The **onset** is a “temporal segment which takes place PRIOR to the initial temporal part of the nucleus of that event. It is a preparatory stage necessary before the nuclear activity of the event (or action) is actually initiated” (Freed 1979: 31). The **coda** “consists of a final (often resultant) phase or state, if such a phase exists” (Crane 2011: 35).

The **nucleus** is “the prominent characteristic phase named by the event” and is either *punctual* or *durative* in nature (Kershner 2002: 62). Comrie defines *durativity* as “the fact that the given situation lasts for a certain period of time (or at least, is conceived of as lasting for a certain period of time)” (1976: 41). He considers *punctuality* to be “the quality of a situation that does not last in time (is not conceived of as lasting in time), one that takes place momentarily” (Comrie 1976: 42). Verbs with a punctual nucleus are considered **punctive**, and those with a durative nucleus are considered **durative**. In Bantu studies especially, the

organization around telicity has been called into question, being seen as problematic, and the emphasis has been placed on the punctual and durative distinction instead (Crane 2011: 34). These types of Bantu studies include Botne and Kershner (2008), Crane (2011), Kershner (2002), and Seidel (2008), each with various iterations of the same general schema.

There are also subcategories of punctive and durative verbs, “characterized according to whether or not they also contain temporal segments corresponding to an onset phase and/or a coda phase” (Botne 1983: 151-152). If the verbs in question have onsets and/or codas, durative verbs have punctual onsets and/or codas, while punctive verbs have durative onsets and/or codas (Botne 1983: 153). Statives are often considered phaseless. However, there is disagreement on this point, which I discuss later in this section. Figure 2.1 shows geometric representations of the three main situation types discussed so far — duratives, punctives, and statives. For now for ease of presentation, statives are represented as phaseless.

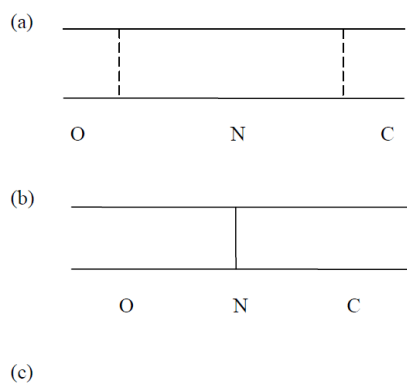


Figure 2.1. Representations of generalized duratives (a), punctives (b), and statives (c)
(Kershner 2002: 62, used with permission)

In Figure 2.1(a), the durative nucleus is represented by the space between the two vertical dashed lines. The dashed lines in (a) represent the fact that the onset and/or coda are not obligatory. In (b), the punctual nucleus is represented by the solid vertical line, and in this case with the onset and coda on either side. (However, different types of punctives may or may not encode onsets and/or codas). The particular diagram in (b) represents a *transitional* punctive (includes onset and coda). Statives are represented by the dashed line in (c).

Phases can also be singled out by what Freed (1979) calls *aspectualizers*.

Aspectualizers “denote phases or phase sequences, and may be iterated to denote subphases or subphase sequences” (Binnick 1991: 207). Binnick provides the following examples of the possibilities of recursion in English, which are also illustrative of these types of phasal distinctions (1991: 207):

- (21)
- She ran.
 - She continued to run.
 - She ceased to continue to run.
 - She started to cease to continue to run.
 - She resumed starting to cease to continue to run.
 - She was about to continue to run.
 - She was continuing to run.
 - She had been about to continue to run.
 - She had been continuing to run.
 - She had continued to run.

Freed says that they have “associated with them, as part of their meaning, particular presuppositions and consequences” (1979: 3-4). Because aspectualizers refer to specific phases, their inability to be used with certain verbs (i.e. a collocational clash) indicates the absence of that phase in the lexical aspect of the verb in question. Binnick provides some examples in English (1991: 174, 177):

- (22)
- a. *John finished noticing the picture.
 - b. John finished painting the picture.
 - c. Joan started being ill (all the time)
 - d. [Joan] stopped being ill (all the time).
 - e. *[Joan] finished being ill.

By and large, Vendler achievement verbs like *notice* in (10a) cannot be used with *finish*, whereas accomplishments like *paint the picture* (10b) can. The combination of aspectualizer and certain verb classes can also result in a restriction to certain senses (i.e. habitual, progressive, etc.). So, *start* and *stop* can be used with the Vendler state *be ill* (10c) and (10d), but only in a habitual sense, while at the same time *finish* results in a clash when used with *be ill*, as in (10e).

While I use Freed’s (1979) three main phases (onset, nucleus, and coda), aspectualizers help expose the more complicated reality. If we look at Figure 2.2 (from Desclés and Guentchéva 2012: 138), we get a better idea of the range of different phases that are possible as characteristic of an event. Possible aspectualizers are included below the main horizontal event line in the diagram. Languages differ in which of these phases they encode, but this diagram can also represent what Hewson refers to as the “five cardinal positions” (before the event begins, the beginning, between the beginning and the end, the end of the event, and after the end) (2012: 511). However, not only do aspectualizers highlight specific encoded phases, but they can also supply non-encoded phases (Kershner 2002: 204). In Ikoma and Ngoreme, for instance, a *-mara* (‘finish’) aspectualizer can supply the “missing” coda phase for inceptive punctives (which encode the onset and nucleus, but not the coda phase).

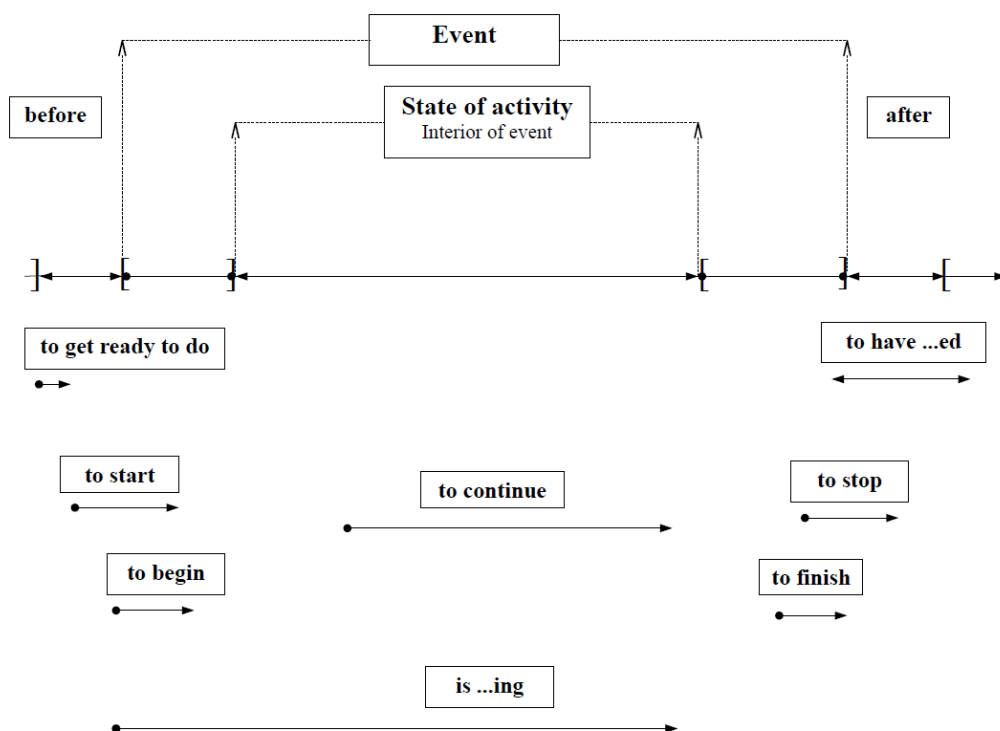


Figure 2.2. Different phases of an event (Desclés and Guentchéva 2012: 138, used with permission)

Because aspectualizers highlight specific encoded phases and supply non-encoded phases, aspectualizers can be extremely useful in parsing out the phasal nature of the verbs in a language and organizing them into categories (Kershner 2002: 15). Binnick says:

The distinction of finishing and stopping shows that it is aspectual auxiliary verbs which allow one to refer most explicitly to phases or subphases of events. And it is by considering the various ways such auxiliaries can modify expressions containing verbs that Freed and especially Woisetschlaeger are able to build up a characterization of events in terms of their possible phasic structure (1991: 208).

The difficulty in this type of analysis is determining whether a particular phase is encoded and is being singled out, or whether the phase is not encoded and is being supplied by the aspectualizer. I use diagrams like Figure 2.2 throughout this study as applied to the systems in Ikoma and Ngoreme.

2.4. Duratives and punctives

Both duratives and punctives have subcategories. Each of the subcategories is based on “which phases they encode and whether particular phases are punctual or durative” (Kershner 2002: 62). The durative subtypes in Kershner (2002) for Chisukwa (her language of study) include extended (*hunt, dance, run, eat, build*), instantaneous (*sneeze, hiccup, hit, kick, jump*), and periodic (*flap, shiver/shake*) verbs. Those verbs that fall into the instantaneous and periodic

durative categories are also called *semelfactives* (Comrie 1976; Smith 1997). **Semelfactives** are defined as “single-stage events with no result or outcome”, but also “often occur in repetitive sequences, rather than as single-stage events” (Smith 1997: 29-30). Smith considers the latter to be “multiple-event Activities” (Smith 1997: 30). Semelfactives are in some sense both punctual and durative (see discussion in Comrie 1976: 42-44). However, Ikoma and Ngoreme do not seem to pattern any differently in regard to “traditional” semelfactives. For example, would-be “semelfactive” verbs like *ɣw-ásimor-a/ɣo-tíriyiny-a* ‘to sneeze’ and *ku-hám-a/ko-húr-a* ‘to bark’ (Ikoma/Ngoreme) are morphologically indistinguishable²⁶ from other duratives.

Kershner also argues that Chisukwa does not distinguish accomplishments. Concerning accomplishments, we also need to understand that verbal complements (i.e. noun/prepositional phrases) influence the inherent lexical aspect of verbs (Dowty 1986).

[T]he tests given for distinguishing verb classes are often phrasal or sentential (e.g., especially accomplishments); therefore, the aspectual class of a verb often differs from the aspectual class of the verb phrase and/or sentence housing that particular verb (Kershner 2002: 61).

Accomplishments are the category most subject to these considerations (e.g. *build* (atelic) versus *build a chair* (telic)). If we are talking about the verb itself and not the verb phrase, the verbs in question needs to have an *inherent* endpoint (e.g. *melt*, *drown*). Like the semelfactives, inherent accomplishments such as *-yaya* ‘melt’# do not appear to be distinguishable from other duratives. Thus, I do not believe these are relevant categories in Ikoma and Ngoreme. However, this is an area for further research.

Extended duratives are what are typically thought of as activities, and indeed in Chisukwa the majority of duratives are extended (Kershner 2002: 77). Due to the lack of semelfactives and accomplishments, Ikoma and Ngoreme do not seem to have distinct subtypes of duratives at all, and so there is no need in this work to use the additional term *extended* for duratives. With duratives in Ikoma and Ngoreme, the most interesting concern is in the interaction between lexical and grammatical aspect, which results in a difference in meaning between *specific* events and *generic/habitual* events.

The punctive subtypes can include transitional, achievement, resultative, and inceptive verbs (Botne 2001)²⁷. Here achievements are just one type of punctive, encoding only the nuclear pivot point, having no onset or coda. However, I do not include these types of achievements in my analysis of Ikoma and Ngoreme. (Also, inceptive punctives have no relation to the inceptive grammatical aspect). Figure 2.3 shows geometric representations of the various punctive phasal structures. The punctual nucleus, or “transitional pivot”, is represented spatially as a solid vertical line in each type (Botne 2001; Kershner 2002: 67). **Transitional punctives** (top) have both an onset and a coda. **Resultative punctives** (middle) do not have an onset, but rather an extended (durative) coda. **Inceptive punctives** (bottom) are the converse of resultatives, they have a durative onset but no coda (Kershner 2002: 79ff).

²⁶ For the interested reader, the criterion for distinguishing the different subtypes of Chisukwa duratives can be found in Kershner (2002: 78).

²⁷ Seidel (2008) uses the terms *inceptive transitional*, *punctive achievement*, *resultative*, and *terminative transitional*, respectively.

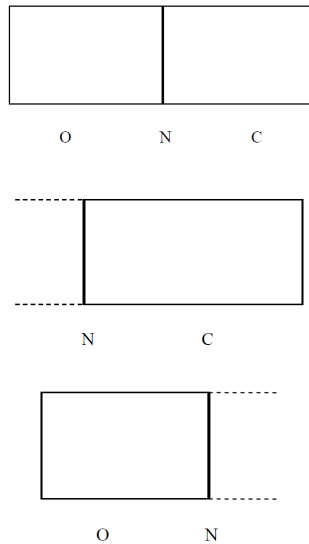


Figure 2.3. Representations of punctive categories (Kershner 2002: 63, used with permission)

What of the *change-of-state*, or *inchoative*, verbs mentioned earlier in this chapter? We saw that “[s]emantically, inchoative verbs express a change of condition or location of the experiencer or patient, many expressing the change or transition from one state to another” (Botne and Kershner 2000:165). On the opposite side, under this framework, *non-inchoatives* correspond “roughly, though not exactly, [...] to Vendler’s states, activities, and accomplishments” (Crane 2011: 34). Thus, in a general sense, for this study we can think of inchoative verbs and Vendler’s achievements as *punctives*, while Vendler’s activities pattern under *duratives*. However, we need more discussion of the relationship between inchoatives, achievements, and punctives. Also, because in the literature statives can pattern independently as a phaseless third category (e.g. Kershner 2002), as duratives (e.g. Crane 2011), or as punctives (e.g. Osa-Gómez del Campo 2014), we are left needing further discussion on how statives pattern in Ikoma and Ngoreme.

2.5. Inchoatives, statives, and their relationship to punctives

The relationship between inchoatives and statives is often blurred. For example, Nurse (2008: 97), in regard to Bantu, presents a non-comprehensive list of what he calls “stative” verbs, but in reality the list contains both *traditional inchoatives* (verbs that are often considered inchoative typologically) and would-be **canonical statives** (verbs that are often considered stative typologically). Adding to the confusion between these categories in Bantu is this fact: “Although certain verbs tend to be categorized with change-of-state verbs quite frequently across Bantu [...], more narrow categorizations are greatly variable across and even within languages, as evidenced by the lists and dual classifications in Seidel (2008) and Kershner

(2002)” (Crane 2011: 34). It is possible that either the Bantu typological variation is too great or the data is too limited to make an adequate determination.

In the case of Ikoma and Ngoreme, however, I believe something different is happening. Specifically, because of their behavior, I analyze would-be canonical statives in Ikoma and Ngoreme as *transitional punctives*. As Osa-Gómez del Campo (2014) demonstrates for closely-related Nata, in some Bantu languages many canonical stative verbs behave like change-of-state verbs. Like Nata, in Ikoma, for instance, *yosíya* ‘to love’ should be thought of as ‘come to love’, and *yukárara* ‘to hate, be angry’ as ‘come to hate’, or ‘to become angry’. In Ngoreme, *kumánya* should be thought of as ‘come to know’ and *yokúmi* as ‘come to believe’. Osa-Gómez del Campo splits the punctive category into achievements and statives (change-of-states), and the duratives into activities and accomplishments (2014: 146, 151). In her analysis, would-be statives are subsumed with change-of-state verbs, and yet are still somewhat separate from other (typical) change-of-state verbs like *die* and *fall* which she labels *achievements* (2014: 146).

The term *achievement*, however, is fraught with difficulty. I have already referenced both Vendler’s achievements and achievement punctives. In Botne (1983), *achievements* are the equivalent of inceptive punctives, while in Botne (2001, 2003) *achievements* are tied to Vendler’s achievement category and are broken up into the four categories in Figure 2.4. Kershner “subsume[s] Vendler’s (1967) achievement class as a subtype of inchoative or punctive verb, making the total number of punctive verb types four—achievement, inceptive, resultative, and transitional” (2002: 62-63). (Here as well, inchoatives and punctives are equivalent, while in Botne (1983: 153) the equivalent of Kershner’s achievement punctive (N only), or *acute achievements* in Botne (2003), is not included with inchoatives). The point I am making here is merely that these categories can be quite confusing because of the way the terminology has changed over the years. Here I need to define these categories a step further, as well as the hierarchical relationships between them.

Figure 2.4 below can help us in this discussion. In this study, punctives and Vendler’s achievements are equivalent categories. The punctive category can be split into four types: transitional, inceptive, resultative, and achievement punctives. Following Botne (1983), the transitional, inceptive, and resultative punctive categories are considered inchoatives, while the achievement punctive category is non-inchoative (1983: 153, 164). Only one possible example of an achievement punctive has been found in Ikoma and Ngoreme: *koryóka* ‘to resurrect’. It appears to be limited to a Biblical context in Ikoma, but also has a meaning of ‘to sprout (again)’ in a botanical context in Ngoreme. Thus, I make no further mention of achievement punctives. Also, instead of the term *achievement* as it refers to Vendler’s category, I use the terms *punctive* or *inchoative* (or *change-of-state*) depending on the context of the discussion, in relation to the hierarchy here in Figure 2.4.

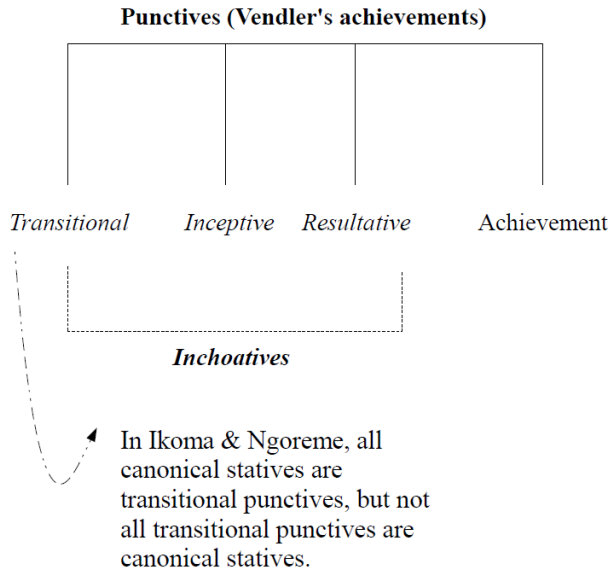


Figure 2.4. Hierarchy of terms within the punctive category

Furthermore, as I have mentioned prior, in this study for Ikoma and Ngoreme, it appears that would-be canonical statives behave as transitional punctives. This does not rule out traditional inchoatives from being transitional punctives. *Thus, all canonical statives are transitional punctives, but not all transitional punctives are canonical statives.* For the most part, however, it seems that traditional inchoatives fall under either the inceptive or resultative punctive categories. This is an area that needs more research.

It may seem odd for canonical statives to have phasal structure, because they are generally considered phaseless. However, like punctives and duratives, subcategories of statives are possible. For example, Croft identifies four different kinds of statives: transitory, permanent acquired, permanent inherent, and point statives (2012: 33ff.). Some statives clearly can begin (*hate, stand*), end (*love, believe*), and be interrupted (*know, sleep*), while others seem to have no beginning or end and cannot be interrupted (*resemble, weigh, contain*). The latter are permanent inherent statives, and any beginning or end is relative to the existence (or lifetime) of the entities in question (Croft 2012: 58). Inherent statives cannot form imperatives (e.g. in English **Resemble him!*, **Weigh 34 kilos!*, **Contain blood in your body!*). Other statives are *transitory* — they have a beginning, may or may not have an end, and can be interrupted (i.e. are reversible), and so have phasal structure. The examples that Croft gives are in English, and as we will see for Ikoma and Ngoreme even verbs like *resemble* can have inchoative meaning, i.e. *come to resemble*.

2.6. Resultatives, result states, and implicatures

Resultative constructions consist of at least two types. The first are constructions whereby “in addition to the main verb (V), there is an additional, secondary predicate [...] predicating some

state that comes about for some participant in the event as a result of the action described by the clause” (Beavers 2012: 908). Examples of this type are included in (23) from Beavers (2012: 909).

- (23) John hammered the metal flat.
John swept the floor clean.

The second type of **resultative**²⁸ constructions are those we are concerned with here: “verb forms that express a state implying a previous event” (Nedjalkov and Jaxontov 1988: 6). This is considered the **result state** (or *resultant state*).

The semantics of resultatives are closely related to those of both the perfect and the perfective. The perfect carries with it the idea of the “continuing present relevance of a previous situation” (Comrie 1976: 52). Several differences between the perfect and resultative are noted in Nedjalkov and Jaxontov (1988: 15-17). Bybee et al. argue that “[r]esultatives serve as sources for anteriors (which eventually evolve into simple pasts or perfectives)” (1994: 68). Botne, on the other hand, contends that resultatives and completives are types of perfectives in Bantu (2010: 26).

Botne further claims that in Bantu the perfective *-ile* construction was originally used as a resultative construction with change-of-state verbs (2010: 26). Resultative meaning is only produced with changes-of-state:

A resultative sense is only compatible with a predicate that indicates a change of state or an action that produces a change of state. Thus resultative constructions may be lexically restricted, or a more generally used construction may have a resultative use only with change-of-state verbs. (Bybee et al. 1994: 65-66).

A result state can be produced from the interaction of the perfective grammatical aspect with changes-of-state. Binnick says that “often the perfective refers to, or implies, the result of an action” (1991: 154). Here we get into the idea of **implicatures** (see Crane 2011 in reference to implicatures in relation to pragmatics and relevance theory, as well as Huang 2017). Conversational implicatures are “any meaning or proposition expressed implicitly by a speaker in his or her utterance of a sentence which is meant without being part of what is said in the strict sense” (Huang 2017: 156). Because conversational implicatures can be conventionalized (Crane 2011: 21), they can be encoded in the phasal structure or not. Crane provides the following example in Totela.

²⁸ Dahl discusses resultative constructions as follows in the context of the ‘perfect of result’: “The term ‘result’ may be understood in a wider or narrower sense. In the wider sense, everything that is caused by an event may be said to be the result of that event. For instance, my happiness may be a result of my getting a pay rise. In the narrower sense, a state is said to be the result of an event if that state is part of the characterization of a certain event-type to which the event is said to belong. For instance, if a person dies, the result in the narrow sense is that he is dead: the results in the wider sense include e.g. his relatives being sad. It is results in the narrower sense that characterize resultative constructions [...]” (1985: 134-135)

- (24) Totela (Crane 2011: 123)
 ndákàtàlà
 nda-katal-a
 1SG.CMPL-tire-FV
 ‘I’m tired’ (i.e. I became tired, and now I am tired)

In this example, the present state “I am tired” is an implicature, based on the fact that “I became tired” in the past. However, since the coda phase is encoded for transitional and resultative punctives, both a past state and a present state implicature are encoded for these situation types. Consider Figure 2.5. below.

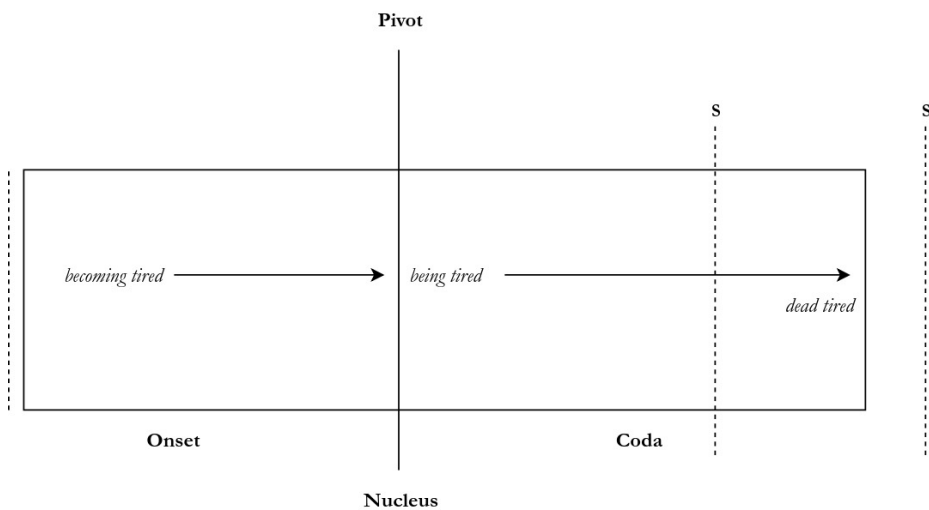


Figure 2.5. Phasal model of transitional punctives

In Figure 2.5, and still using the verb “become tired”, the present state may or may not obtain at the moment-of-speech. If the moment-of-speech (S) occurs during the post-nucleus coda phase, we *can* get a present state “I am tired” reading, but also available are the past state resultative readings “I became tired” and “I have become tired”. If the moment-of-speech occurs after the coda phase is terminated, the “I am tired” reading is no longer available. The present state is an encoded implicature here.

However, we can also get non-encoded implicatures, even with verbs where we might expect the implicature to always be encoded. For example, “being *tired*” is a non-permanent state of affairs, while “being *dead*” is permanent. The implicature depends in part on the lexical semantics of the verb itself, and can be either strong or weak (Eisele 1990; Newman and Yamaguchi 2002: 47; Ritz 2012: 890). For instance, in regard to the *sit* verb in Japanese (Japonic, Japan), Newman and Yamaguchi maintain the following:

The sitting frame inclines us to assume the maintenance of the state of sitting even when it is the action of sitting which is profiled, as in ['sat down']. This is consistent with the normal expectations we have of the sitting event. In the case of the action of sitting, there is a conscious intention on the part of the person performing the action to remain seated (normally) [...] Similar observations may be made about the other posture verbs and change of location verbs like *hairu* 'enter', *tuku* 'arrive', *kuru* 'come', and *iku* 'go'. With all these verbs, there is an action which strongly implies a subsequent maintained state (2002: 47).

This can become quite confusing, especially when dealing with a verb like “die”, where the implicature of a present ongoing result state is extremely strong, i.e. once you have died, you *are* dead. However, a coda phase does not have to be encoded for “die”. Botne (2001) offers examples in African languages where the present state implicature is not encoded, i.e. inceptive punctives, as in (25) from Yoruba (Benue-Congo, Nigeria).

- (25) Yoruba (Botne 2001: 10)
o! ti ku!, o! ti ku!
 3S PF die
 's/he has died (→ is dead)'

We will see in later sections that Ikoma and Ngoreme operate in a similar way for the verb “to die”. Because all present result states can be considered implicatures, in this study I place these readings in parentheses, and make special note when dealing with inceptive punctives that these implicatures are present but not encoded in the phasal structure.

So far, I have defined terminology and outlined some key theoretical basics regarding situation types. Now that we have enough background, what then is the importance of situation types for our understanding of grammatical aspect in Ikoma and Ngoreme? As Botne and Kershner say:

Aspect denotes the particular temporal view of time in the narrated event. More precisely, a specific aspect denotes a particular temporal phase of the narrated event as the focal frame for viewing the event. This focal frame depicts the status of the event in relation to the vantage point determined by Ego, by default typically the moment of speaking. (Botne & Kershner 2008: 171).

This type of analysis reveals that grammatical aspects highlight, or focus on, certain phases of the verb, depending on which verb class it belongs to. Grammatical aspect markers are not used in a vacuum. They are used in combination with the inherent lexical semantics of the verb in question. Namely, that specific grammatical aspect is going to put different phases of the verb in focus. Secondly, and related to this last point, is that even closely-related languages do this differently. There are patterns and restrictions, but the exact nature of the lexical/grammatical aspect interface is not predictable. Thus, we do not need to be satisfied with static definitions of common grammatical aspects, but can pursue their semantics further in determining how the language actually functions.

2.7. Overview of Botne and Kershner's (2008) domains framework

Botne and Kershner's (2008) model of cognitive temporal domains is indispensable in understanding the mental architecture of speakers. Here I want to explain the essential background to the theory and how it operates, as well as how to understand the diagrams. To begin with, because Ikoma and Ngoreme are reduced-tense languages, and therefore primarily aspect-based, they are not necessarily optimal for illustrating the concepts of the theory/model. The impetus for Botne and Kershner's model is languages for which the traditional linear timeline does not have sufficient explanatory power (2008: 146). For Bantu, this is most clearly evident in languages with multiple tenses and more combinations of tense/aspect. Nevertheless, I try here to provide for the interested reader at least a ready introduction to the examples in Botne and Kershner (2008), and perhaps an entry-level tutorial on how to implement the model.

The starting point for understanding Botne and Kershner's domains theory is in the insufficiency of the traditional linear timeline. The reality is that there are multiple perspectives on the timeline, not in the sense of the fabric of space-time in physics, but in the sense of conceptual metaphors (or construals) for time. Lakoff and Johnson (1980) represented two of these as *TIME AS PATH* vs. *TIME AS STREAM*, along with others even earlier including the influential French linguist Gustave Guillaume, although not in the same terms (Binnick 1991: 197ff; Hewson 2012). In Guillaume's view, for instance, "There is a fundamental distinction between *ascending time*, in which the event is unfolding, developing toward completion and a resultant state of affairs, and *descending time*, in which it is not" (Binnick 1991: 198).

To get at the implications, let us explore these two conceptual metaphors of time as a kind of thought experiment (Botne and Kershner 2008: 148-149). In the first, *TIME AS PATH*, like a hiking path in the woods, time is stationary and we walk along the path of time. This is much like the traditional linear timeline; wherever we are on the timeline is the present, future events are up ahead, and we can also stand in place, turn around, and look at events behind us in the past. In the second, *TIME AS STREAM*, the opposite is true, time is no longer stationary but moving, like a small flowing river in those same woods. Here though since time is not stationary, either the event is stationary or we are stationary. In the former, we can imagine that we are in a canoe and letting the river take us where it pleases, and we are able to look on various stationary events on the sandbars as we pass by (past to future). In the latter, the river is flowing and we are watching from above while on a small bridge. Events are floating, moving downstream on the water like paper boats towards us (future to past). These are all ways that we can conceptualize time, with the idea being that "a language may correlate these different orientations with different formal linguistic features" (2008: 149).

Thus far, we have multiple possible timelines which exist as conceptual metaphors within the mind. Here is where we need to introduce the idea of cognitive temporal domains, also cognitive worlds, conceptual spaces, or mental spaces (Cutrer 1994; Fauconnier 1985, 1997; Gärdenfors 2000, 2014). "Mental spaces, in the theory, are partial and temporary conceptual domains constructed during the process of discourse" (Botne and Kershner 2008:

156). TAM helps to organize these mental spaces, and provides a means of following the path of these spaces within the discourse (2008: 156). In Botne and Kershner's theory these mental spaces are given names, the *P-domain* and *D-domain(s)*. Before explaining these further, I need to introduce one additional concept. Left out of the thought experiment above was the moment of speech (S) itself, also called "utterance time" (UT), "the locus of the speech event", or the "deictic center" (Botne 2012: 548; Botne and Kershner 2008: 152). Where is S within the multiple perspectives on the timeline and mental spaces we have discussed?

The mental spaces have either an inclusive or exclusive relationship with S—the P-domain (primary) includes S, while the D-domain (dissociation) excludes S (2008: 153). The **P-domain** is best thought of as the counterpart of the "actual contemporaneous world" where "time is construed as extending through a contemporaneous domain encompassing utterance time (UT), with complementary intervals in the past and future" (Botne 2012: 548-49). The **D-domains**, however, "locate the event in a mental world separate and distinct from the actual contemporaneous world (P-domain)" (Botne 2012: 548-549). For now, in terms of the initial model, these mental spaces (P- and D-domains) and the three time construals from earlier are combined together. The domains are represented as quadrangular planes, TIME AS PATH as a solid line running through each of the domains, and each of the possible orientations of TIME AS STREAM as dashed arrows running through the P-domain (2008: 149, 153). The past-to-future or future-to-past orientation of TIME AS STREAM depends on the language (2008: 153). Consider Figure 2.6 below demonstrating this combination (Botne and Kershner 2008: 153).

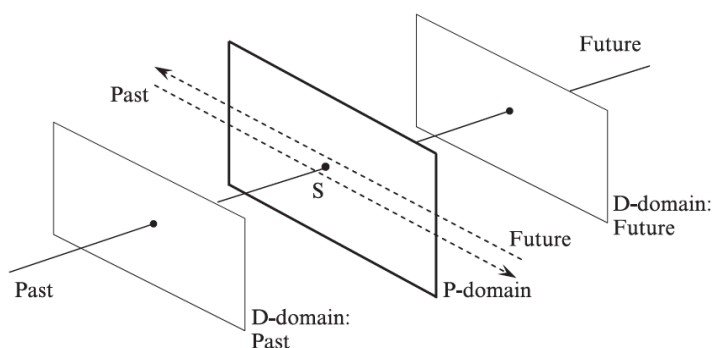


Figure 2.6. Cognitive temporal domains with time construals (Botne and Kershner 2008: 153, used with permission)

In many ways we can consider the P- and D-domains to correlate with grammatical aspect and tense, respectively, especially in languages like Ikoma and Ngoreme with reduced-tense. This can be a helpful mnemonic as we move forward. It follows from the following considerations. Tense is deictic, and aspect is not. As Comrie says: "Since tense locates the time of a situation relative to the situation of the utterance, we may describe tense as deictic" (1976: 2). Similarly D-domains "locate the event in a mental world separate and distinct from the actual contemporaneous world (P-domain)" (Botne 2012: 548-549).

However, for some languages the D-domains carry tense and aspect equally, but still with relative remoteness as the determining factor. Remember that in part the domains theory was built to more adequately handle remoteness distinctions, multiple tenses with degrees of remoteness. Prototypically, these more remote tenses, such as P_3/P_4 and F_3/F_4 tenses, correspond to the various D-domains. But even this is a bit more complex, as Botne explains:

Because these [D-] domains are cognitively separate, or dissociated, it is possible for speakers to situate domains temporally nearer or farther from one another; that is, there may be some subjectivity in locating a domain temporally. Hence, not only can the remote tense markers be used to refer to temporally distant situations, but also to temporally proximate ones (e.g., earlier today), which are nevertheless construed as epistemically remote. (2012: 549).

This level of flexibility is possible because the very nature of the D-domains is separateness. In addition, while the P-domain includes the moment of speech (S), it does so “with complementary intervals in the past and future” (Botne 2012: 548). This is called **tenor**, which “situates the event at some location in time in relation to a reference point” (Botne and Kershner 2008: 171). “The distinction, then, is whether a marker situates an event (or the part of the event that is referred to) within a cognitively dissociated world (tense), or in a prior or future unit of the currently associated world (tenor)” (Crane 2011: 17). In a prototypical Bantu situation, these intervals would house recent past and near future forms, i.e. P_1/F_1 around S and P_2/F_2 in the past and future complementary intervals. The various grammatical aspects in the vast present would then be structured around S as well.

2.8. Conclusion

This chapter was designed to present an introduction to Bantu verbs and T/A systems, a sketch of the specific systems in Ikoma and Ngoreme, and explanations of lexical and grammatical aspect, situation types, and resultative constructions. Botne and Kershner’s (2008) domains framework was also introduced with an aim towards being able to visualize and model the aspectual distinctions in Ikoma and Ngoreme. The next three chapters are devoted to detailing the function and usage of many of the forms listed in Table 2.3: the simple past and perfective (chapter 3), the imperfective, habitual, and progressive/continuous (chapter 4), and the pseudo-perfective/progressive and evidential *Vká-* form in Ikoma (chapter 5).

Chapter 3

The simple past and perfective in Ikoma and Ngoreme

3.0. Introduction

In §2.1 I discussed perfectivity and imperfectivity in terms of viewpoint (e.g. Comrie 1976, Smith 1997) and in terms of completion semantics (e.g. Cover 2010, Crane 2011). Viewpoint sees perfective aspect, for instance, as “present[ing] an event as an undifferentiated and time-bounded whole, without regard to the internal constituency of the event. It takes an exterior view of the event as a whole” (Nurse 2003: 96-97). Completion semantics, on the other hand, involves the completion or non-completion of the situation nucleus (Crane 2011: 116ff). For the analysis of Ikoma and Ngoreme completion semantics is going to be more in order, but that there were ways in which viewpoint can harmonize with completion (e.g. Botne 2010). For instance, Botne’s definition of the **perfective** as “aspectual markers that denote a vantage point that is posterior to an endpoint, either (1) the endpoint of the whole situation or (2), more common in Bantu, the endpoint of the nuclear phase of the situation; thus, they signify completion or completedness of a phasal endpoint” (2010: 3). This is the route I take here in this chapter.

In analyzing the **-ile* form in Ikoma and Ngoreme as a perfective in this chapter, I need to distinguish it from (a) the simple past, and (b) the perfect (or anterior). Neither Ikoma nor Ngoreme has a perfect form, but these terms (perfect and perfective) are often confused, and Nurse (2008) analyzes the *-ile* suffix as an anterior. My framework for teasing apart these categories for Bantu is mainly based on Botne (2010), whose conclusions depart from Nurse’s (2008) perspective. Foremost, Botne analyzes the Bantu *-ile* suffix and concludes that it is a marker of *perfective* and not perfect. Secondly, the conclusion from Bybee et al. (1994) and Nurse (2008) was that resultatives and completives evolve into perfects, and these perfects evolve into perfectives/simple pasts (Bybee et al 1994: 105; Nurse 2008: 301-302). Botne’s conclusion is that, at least in Bantu, there is no perfect stage in between. Rather, perfects are on a different grammatical path altogether (2010: 26).

However, despite the semantic similarities, there is a way forward for analyzing the individual forms in Ikoma and Ngoreme and determining how the system operates. We can begin by looking at the domains framework diagrams for Ikoma (Figure 3.1) and Ngoreme (Figure 3.2). In both diagrams, the simple past and perfective are located on the left side of the P-domain.

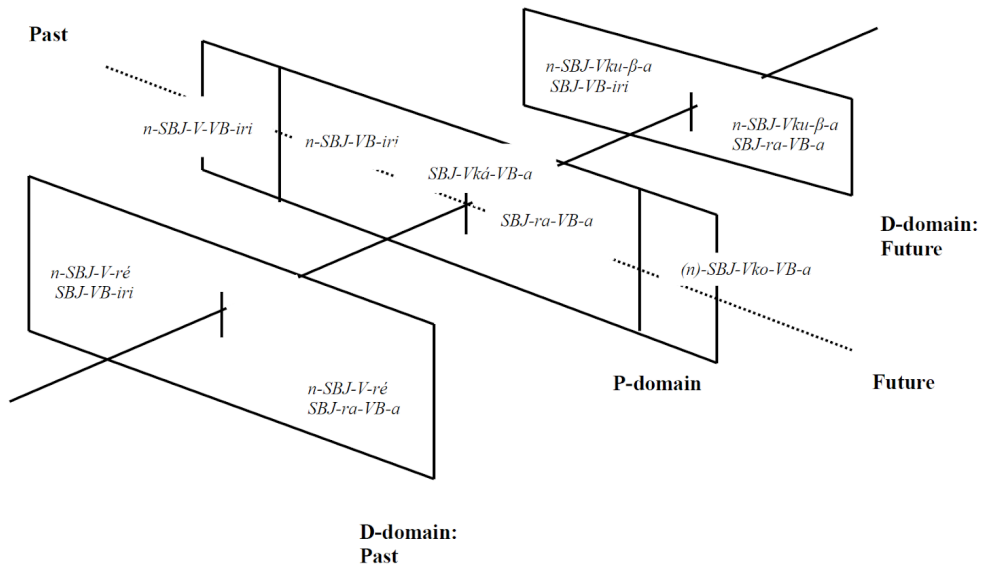


Figure 3.1. Domains framework for Ikoma

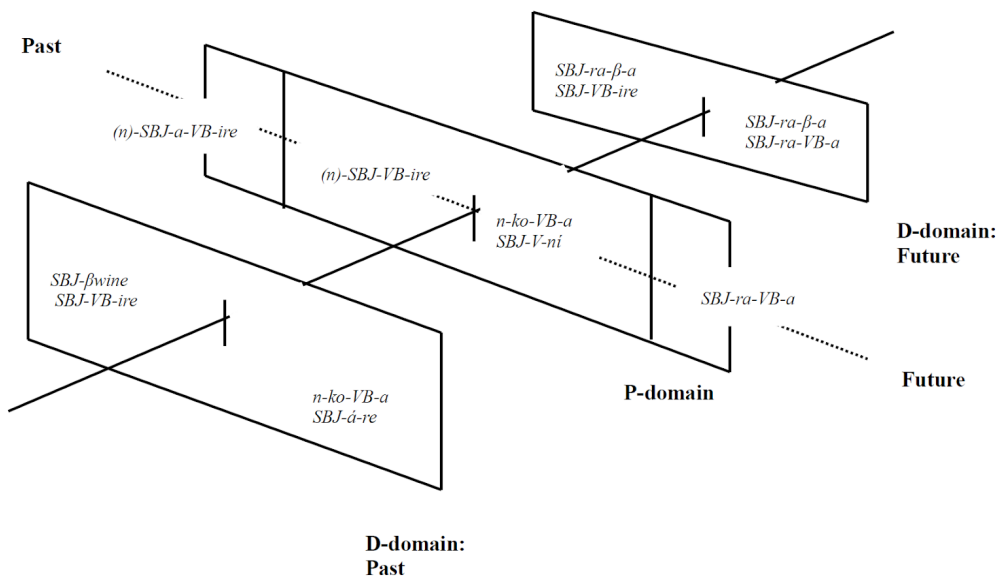


Figure 3.2. Domains framework for Ngoreme

Although the simple past is included in both diagrams here in the past *tenor* position, it could also be analyzed as a D-domain past. For reference, let us take a look again at the T/A system table for Ikoma and Ngoreme, with the perfective and simple past.

Table 3.1. Perfective and simple past in Ngoreme and Ikoma

	Ngoreme	Ikoma
Perfective	(n)-SBJ-Ø-VB-ire	n-SBJ-Ø-VB-iri
Simple past	[†] (n)-SBJ-a-VB-ire	^α n-SBJ-V-VB-iri

H on σ1 of the stem: [†]

H on σ1 of the macrostem + final H: ^α

We can automatically see some similarities and differences between Ikoma and Ngoreme. One, the perfectives and simple pasts in both languages are nearly identical. For the perfective, the differences are the optionality of the nasal focus marker in Ngoreme, grammatical tone (H tone on the subject marker in Ngoreme), and the vowel difference at the end of the perfective suffix (*-ire* in Ngoreme versus *-iri* in Ikoma). For the simple past, the differences include the same focus marker optionality and vowel difference in the suffix. Also, Ngoreme has a H tone on σ1 of the stem, while in Ikoma it is the macrostem. Ikoma also has a final H tone. Finally, Ngoreme has the *a-* past formative, while in Ikoma that vowel is unspecified. In the scheme of things, these are all fairly minor differences. The parallels between the languages are readily apparent, and the connection between the perfective (*-Ø-...-ire*) and simple past (*-a-/V-...-ire*) in each language is also evident. I start with the simple past.

3.1. Simple past

Bybee et al. define the simple past as a form which ““has scope over the whole proposition, which it locates in time with respect to the moment of speech, but without imposing any special perspective on the structure of the situation” (1994: 92). I want to begin with some examples of the simple past in both languages. The simple past *-a-/V-...-ire* describes an event that occurred further in the past than the coverage of the perfective. However, Ikoma and Ngoreme are slightly different in the time periods they cover. If we think of time in the past being divided up with “communal consciousness” in mind, we end up with divisions such as *recent* (last few hours), *hodiernal* (earlier today), *hesternal* (yesterday), and *remote* (before yesterday) (Nurse 2008: 90). In Ikoma, the perfective covers the recent and hodiernal periods, while the simple past is pre-hodiernal. Consider the following examples.

(26) Ikoma perfectives versus simple past

- a. *N-to-siik-ire* *nawé* *amasá* *aßere* *yáno yáhetiri*.
 FOC-1.PL-speak-PFV with him hours two ago
 ‘We spoke with him (two hours ago)’
- b. *N-to-siik-ire* *nawé* *atáßóóri* *íno*.
 FOC-1.PL-speak-PFV with him morning this
 ‘We spoke with him (this morning)’
- c. *Ícho,* *n-to-o-siik-ire* *nawé*.
 yesterday FOC-1.PL-PST-speak-PST with him
 ‘We spoke with him (yesterday)’

Again, the forms are very similar, but there is a vowel length and grammatical tone difference between (11a-b) and (11c) which distinguishes the perfective and simple past. If we look at examples (12a-c) from Ngoreme, we see that unlike Ikoma the simple past does not begin with the hesternal (yesterday) period, but with the *hodiernal* (earlier today) period. Also, note in these Ngoreme examples the *-ire* morph is affected by imbrication, a process “whereby the [i] of the perfective suffix is infixed and fuses with a base vowel” (Hyman 2003: 48; see also Bastin 1983). Thus, in (27) imbrication results in the final *-ine* by the process *-gamban-* + *-ire* > *-gamba-i-n-e*.

(27) Ngoreme perfective versus simple pasts

- a. *N-tú-gamba-ine* *náwe* *chinsa* *ibére* *chino chihétere*.
 FOC-1.PL-speak-PFV with him hours two ago
 ‘We spoke with him (two hours ago)’
- b. *N-tw-a-gámba-ine* *náwe* *rééro* *tabóóri*.
 FOC-1.PL-PST-speak-PST with him today morning
 ‘We spoke with him (this morning)’
- c. *Ichó,* *n-tw-a-gámba-ine* *náwe*.
 yesterday FOC-1.PL-PST-speak-PST with him
 ‘We spoke with him (yesterday)’

Here we have relatively the same type of vowel length and grammatical tone differences between the perfective and simple past as in Ikoma, but because in Ngoreme the simple past formative is *a-* and not an unspecified vowel we get the labialization of the subject prefix (*tw-*) in (27b-c). Thus, in Ngoreme, the perfective only covers the recent period, and the simple past is used for anything earlier, including any *hodiernal* reference. This resembles the *li*-past in Swahili that “can refer to any past situation, including quite recently on the day of speaking [...]” (Nurse 2008: 98).

The *-a-* formative as a marker of past tense in Bantu is extremely common (Nurse 2008: 82-83; Nurse and Philippson 2006). Furthermore, Nurse says in his overview of Bantu tense/aspect that “[w]here [-Ø-...-ile] and *-a-...-ile* co-occur, *-a-...-ile* always indicates a time further removed, suggesting that *-a-* is added to encode the past component” (2008: 157). The key for distinguishing a simple past is that it is indiscriminate in terms of verb class (situation type). Bybee et al. confirm that “pasts have a more general distribution among lexical classes of verbs than perfectives do [...] Diachronically this would mean that as perfectives develop into pasts, they gradually come to be used in a past sense with all classes of verbs, including stative verbs” (1994: 92-93). Both Ikoma and Ngoreme can use the simple past for canonical stative verbs, typically with a past, stative reading, as in examples (28)-(30).

- (28) Simple past with canonical stative verb ‘come to know’
 Ikoma: *Neemá n-a-a-mány-iri*
 Neema FOC-3.SG-PST-come to know-PST

 Ngoreme: *Néémá n-a-a-mány-ire*
 Neema FOC-3.SG-PST-come to know-PST
 ‘Neema came to know (knew)’.
- (29) Simple past with canonical stative verb ‘come to love’
 Ikoma: *Neemá n-a-a-síiy-iri oβokíma kááre.*
 Neema FOC-3.SG-PST-come to love-PST ugali a long time ago
 ‘Neema came to love (loved) ugali a long time ago’.
- (30) Simple past with canonical stative verb ‘come to resemble’
 Ngoreme: *m-ba-a-héka-ine*
 FOC-3.PL-PST-come to resemble-PST (imbrication, *-hékan-* + *-ire*)
 ‘They came to resemble (resembled)’

With the simple past the dynamic, inchoative reading “came to V”, highlighting the onset of a transitional punctive, is also available. With perfectives, however, these canonical stative verbs have both a recent past and present reading. “When perfectives do apply to stative predicates, the effect is usually to signal a present state, not a past one, despite the fact that perfectives are usually past” (Bybee et al. 1994: 92). The recent past reading has dynamic, inchoative meaning, while the present reading has stative meaning. The present reading comes from the implicature that if entry into the state took place in the past it holds “now” in the present (Bybee et al. 1994: 73ff.; Nurse 2008: 97). Consider the examples in (31) which use some of the same canonical stative verbs in (28)-(30). The present resultative reading is indicated in parentheses.

- (31) Perfectives with canonical stative verbs
 Ikoma: *n-a-many-iri*
 FOC-3.SG-come to know-PFV
 ‘s/he has come to know (knows)’

 n-a-siiy-iri
 FOC-3.SG-come to love-PFV
 ‘s/he has come to love (loves)’

 Ngoreme: *n-á-many-ire*
 FOC-3.SG-come to know-PFV
 ‘s/he has come to know (knows)’

 m-bá-heka-ine
 FOC-3.PL-come to resemble-PFV (imbrication, *-hékan-* + *-ire*)
 ‘they have come to resemble (resemble)’

Thus, canonical stative verbs in the perfective have either recent past or present readings, while in the simple past, only past readings are available. In both Ikoma and Ngoreme, the perfective

“interacts with the verb’s inherent semantics” (Bybee et al. 1994: 92) more so than the simple past, although there is definitely a historical connection to the past perfective.

3.2. Perfective

Botne says that “the interpretation of perfective marking is dependent on two factors: verb type (e.g., Activity vs Achievement) and temporal frame of reference, either that inherent to the reference situation (situation-centered orientation) or that inherent to Ego (speaker-centered orientation)” (2010: 3). Temporal frame of reference has to do with “the privileged vantage point”, or the point-of-view on the event (Botne 2010: 2). The speaker-centered orientation is the point of view from the moment of speech, or utterance time, while the situation-centered orientation is the point of view from “the endpoint of the situation nucleus” (Botne 2010: 3). These orientations also correspond to the distinction between resultative and completive perfective senses, respectively (Botne 2010: 24, 26). As I discuss in the next section, the completive *aspect* is different from the concept here of the **completive interpretation** of the perfective. In the latter sense here of Botne (2010), it is another way of saying the situation nucleus is seen as complete. I continue to use the term *completive* in both ways, as it should always be clear from the context which sense is meant. Once I have addressed the Ikoma *Vká-* form in chapter 5, I explore some historical possibilities regarding the resultative and completive senses of Ikoma perfectives in chapter 6. Regardless of what may have happened historically, synchronically in the Ikoma and Ngoreme perfectives we can identify speaker-centered/ resultative/ moment-of-speech readings, as well as situation-centered/ completive/ endpoint of the situation-nucleus readings. Let us take a look at sets of perfective examples in both languages. In Table 3.2 (Ikoma) and Table 3.3 (Ngoreme), the examples are separated into durative and punctive situation types (subdivided into inceptive, transitional, and resultative categories).

Table 3.2. Range of perfective readings in Ikoma with durative and punctive situation types

Situation Types	Reading(s)	Examples	References
Duratives	Past	<i>Akúru iyeyiri ekyóra amuyóngo</i> ‘The tortoise (has) carried the frog on its back’	Oct2014 no-musani 24g
		<i>nyako rééro nemwitiri</i> ‘Your mother, today I (have) killed her ’	Erigano, 14d
		<i>Akamoboorera, ‘Omosúúhu waacho niichiri, isó namuyyiire ekehéeri kenóru, yo kußá nayarokiri aný muhoru.’</i> ‘Your brother has come ,’ he replied, ‘and your father has killed the fattened calf because he (has) returned safe and sound (“yuko ni mzima”).’	Luke 15:27

		<p><i>Abachúngu mbayoriri asé.</i> ‘The white foreigners (have) bought the land’.</p> <p><i>Éni ntemiri akabwé</i> ‘Me, I (have) beat(en)/struck the dog</p> <p><i>Ekyóra eyekóro kený ambere yíkangatiri ná asése na kúru</i> ‘The big frog in front has gone/went ahead of the dog and the tortoise’</p>	<p>Ikoma convo 7f</p> <p>H2300808, 3d</p> <p>Oct2014 kyora, 18d</p>
Punctives			
Inceptive	<i>Past w/ non-encoded result implicature</i>	<p><i>Aḃayeni mbahikiri moyesósoni yé yeyoro.</i> The tourists have arrived (are there) at the mountain summit.</p> <p><i>yo yayo báno bákuure na</i> ‘So, these [people] have died (are dead), but [...]</p>	<p>Ikoma fieldnotes 2014</p> <p>Luke 20:38a</p>
Transitional	<i>Past w/ encoded result implicature</i>	<p><i>Yooná akamuyarokeri akaḃuḃa, “Hée! Nikariire chwée ekirengere ye yokú!”</i> “It is,” he said. “And I have gotten so angry (am so angry) I wish I were dead.”</p> <p><i>Namenyiri Mwanchá (niḃéére nakeéré iyo).</i> ‘S/he has come to live (lives) in Mwanza (and continues to now)’.</p> <p><i>Nemureyiri Trump</i> ‘I have come to hate (hate) Trump’</p>	<p>Jonah 4:9b</p> <p>Ikoma fieldnotes 2018</p> <p>Ikoma fieldnotes 2016</p>
Resultative	<i>Past w/ encoded result implicature</i>	<p><i>‘Otanyaaki! Kaná nimariri ywíyara orwíye! Eni ná aḃáána ḃaane ntomisiri. Kwi ḃeeré nteeyotóra koḃóóka yokúha yeyíro yyókyose.’</i> ‘Don’t bother me. Look, I have already closed the door! Me and my children have gone to sleep (are sleeping). For now, I’m not able to wake up to give you anything’.</p> <p><i>wimerire mómogóndo waane</i> ‘You have come to stand (are standing) in my field (shamba)’</p> <p><i>Omóóna naḃokiri eribáya isúhu.</i> ‘The baby has woken up (is awake) a couple of minutes ago’.</p>	<p>Luke 11:7</p> <p>H15080908, 18e</p> <p>Ikoma fieldnotes 2016</p>

Note in both Ikoma and Ngoreme that the durative categories only have a past (completed) reading, while two of the punctive categories (transitional and resultative) can also have a resultative (stative) reading. Inceptive punctives are unable to have a resultative (stative) reading because they do not encode a coda (Botne 2010: 14).

Table 3.3. Range of perfective readings in Ngoreme with durative and punctive situation types

Situation Types	Reading(s)	Examples	References
Duratives	<i>Past</i>	<p>Wáhiti newe arííre The hyena has indeed eaten</p> <p>Rééro rináni richiré Today the ogre has come</p>	<p>NH4180908, 18c</p> <p>NH9200908, 22c</p>
Punctives			
Inceptive	<i>Past w/ non-encoded result implicature</i>	<p>Niyó rehikiré hááre ka Indeed [the ogre] has arrived (is there) at that house</p> <p>Néβire emisánga yeene I have forgot(ten) my beads</p> <p>Aβánto βáyo βayasími komuseká, γo kuβa mbaamányire, omónke uyo nákuure. Those people began to laugh at him, because they knew, that girl has died (is dead).</p> <p>Wayátoocho aináchire kó-mote The hare has suspended himself (is still there) from the tree</p>	<p>NH10200908, 33g-34a</p> <p>NH10200908, 6c</p> <p>Luke 8:53</p> <p>NH5180908, 18a</p>
Transitional	<i>Past w/ encoded result implicature</i>	<p>Hano aahikire, akaβona mbámisiri, γo kuβa, mbaarósire kúmaitegerro gaaβo. When he arrived, he found they have fallen asleep (are asleep), because they were tired from their thoughts.</p> <p>reere amánche gahírre That water has boiled (is boiled)</p>	<p>Luke 22:45b</p> <p>NH10200908, 39d</p>
Resultative	<i>Past w/ encoded result implicature</i>	<p>Mbahékaine na aβáána βano βakóβina momóteera, βaikáire βaraβékerrana. ‘They resemble children who are singing in the market, they have sat down (are sitting/seated) and are calling to each other’</p> <p>Chácha náikaire ‘Chacha has sat down (is sitting)’</p>	<p>Luke 7:32a</p> <p>Ngoreme fieldnotes 2014</p>

		<p>Aḃóókire ‘S/he has woken up (is awake)’</p> <p><i>yo kuḃa, aḃánto aḃánde ḃaare ḃaraḃúya kuḃá, Yohána aryókire kóru mu aḃakuuré.</i> ‘[And King Herod was afraid] because other people were saying that, “John has been raised (is raised) from the dead”.’</p>	<p>Ngoreme fieldnotes 2018</p> <p>Luke 9:7</p>
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Why and how do these different situation types receive different readings? The recent past (completive) reading is due to the fact that the perfective expresses “a vantage point that is posterior to an endpoint, either (1) the endpoint of the whole situation or (2), more common in Bantu, the endpoint of the nuclear phase of the situation; thus, they signify completion or completedness of a phasal endpoint” (2010: 3). The present (resultative) reading comes from the inference that if entry into the state took place in the past it holds “now” in the present (Bybee et al. 1994: 73ff.; Nurse 2008: 97).

Why not consider the *-Ø-...-ire* constructions in Ikoma and Ngoreme to be perfects instead? The semantic difference between the two can obviously be extremely subtle. The traditional idea of the usage of a perfect is that it “refers to an earlier action which produced a state which either lives on, or whose consequences or relevance live on” (Nurse 2003: 96). Botne argues that the difference is that “Unlike a Perfect, *which imposes an evaluative temporal frame over the time dimension*, the Perfective depicts a post-Nucleus or post-Situation stance, i.e., a point in time relative to the relevant endpoint adopted by the speaker” (2010: 3, *italics mine*). Simply put, the *-Ø-...-ire* constructions in Ikoma and Ngoreme do not impose such an evaluative temporal frame. Rather, they mark the completion of the situation nucleus.

Crane says that “Further exploration of the notion of verbal “completion” and “culmination” as a function of situation type may lead to a better understanding of the role of forms labeled “perfective” across Bantu” (2011: 131). This is where I now turn, first with duratives (§3.3) and then with punctives (§3.4).

3.3. Duratives, perfective aspect, and completives in Ikoma and Ngoreme

Here we begin to encounter the specifics of the perfective as a marker of the endpoint of the situation nucleus. To do so, we need to go into more detail about what is meant by the onset, nucleus, and coda. As I mentioned in chapter 2, Hewson makes reference to the “five cardinal positions” (before the event begins, the beginning, between the beginning and the end, the end of the event, and after the end) which correspond to the prospective, inceptive, imperfective, perfective, and retrospective (equivalent to the perfect or anterior) aspects, respectively (2012: 511). In that same discussion of aspectualizers, we looked at the different phases of an event in Figure 2.2 from Desclés and Guentchéva (2012), but not specifically in terms of onset, nucleus, and coda. The general definition of *nucleus* I offered was “the prominent characteristic phase named by the event” (Kershner 2002: 62). However, Freed notes that “the nucleus of an event may be viewed informally as having three parts: an INITIAL, a MIDDLE, and a FINAL stage” (1979: 33).

Consider Figure 3.3 below. We can begin to see how the onset/nucleus/coda terminology fits with the idea of there being an interior of the event along with the event proper, as seen in Figure 2.2.

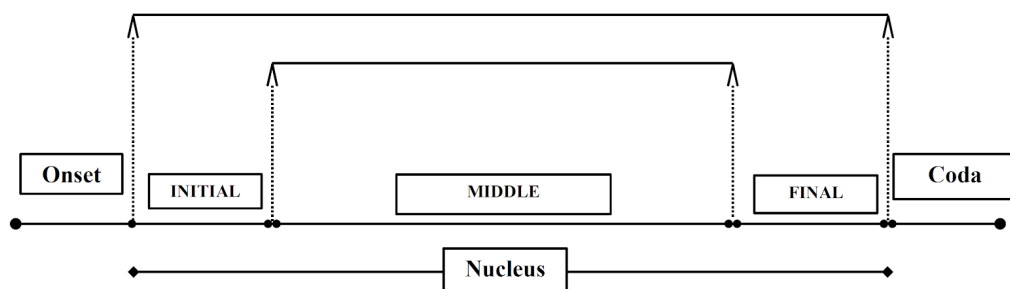


Figure 3.3. Different phases of an event with new terminology

Thus, in Figure 3.3, I have included the three subphases of the nucleus (initial, middle, and final) along with the onset and coda. In Table 3.4, I have listed definitions for each of the phases from Freed (1979).

Table 3.4. Definitions for new event phase terminology

Phases	Definition	Citation
<i>Onset</i>	the “preparatory stage necessary <i>before</i> the nuclear activity of the event (or action) is actually initiated” (italics mine).	Freed 1979: 31
<i>Initial (nucleus)</i>	“the initial or first part of the nucleus is qualitatively indistinguishable from the rest of the nucleus of the event. <i>The difference is that it is the first period during which the nuclear (or characteristic) activity of the event can be said to be taking place</i> ” (italics mine).	Freed 1979: 33
<i>Middle (nucleus)</i>	defined more in terms of relation to the initial and final, but generally “the period during which the nuclear or characteristic activity of the event is taking place”	Freed 1979: 34
<i>Final (nucleus)</i>	The final stage of the nucleus, like the initial, is indistinguishable in character from the rest of the nucleus. However, following the nuclear final, “the nucleus is understood as being over, and in some cases, the entire event is thought to be terminated”.	Freed 1979: 35
<i>Coda</i>	For a durative event, the coda is “a period during which the nature of the event is slightly modified so as to suggest that it is slowing down, or trailing off, or generally ‘coming to an end’”.	Freed 1979: 36

I continue to refer to these definitions in the remainder of this chapter, as well as chapters 4 and 5. The subphases of the nucleus will become even more important for the analysis of the Ikoma *Vká-* form in chapter 5, and for punctive verbs in the next section.

The diagrams I want to use now are layered combinations of the P-domain and situation type diagrams. Crane (2011) uses related diagrams in her work on Totela. One difference is that Crane (2011) uses the concept of perspective time (Condoravdi 2002, Cover 2010), or “the time from which a proposition’s truth value is assessed” (Crane 2011: 38). Perspective time often coincides with utterance time (UT), or moment of speech (S), but not always (Crane 2011: 38). While I agree with this assessment, for ease of discussion, I continue here to use UT and S (synonymously). If we look at the examples in (32) and Figure 3.4 with the durative verb *run* in mind, the *run* event may or may not have an onset. If the *run* event does not start with an automatic sprint, perhaps it takes a short amount of time before one would say that the person is actually “running”. This “start-up” time would be the onset. More to the point here in regards to the perfective forms, as in (32), the person running may or may not come to an abrupt stop. It is possible for the *run* event to (abruptly) end with the nucleus, but it is also possible the person running slows down to a jog first (the coda).

- (32) *m-ba-yaar-iri* (Ikoma)
 FOC-3PL-run-PFV
 ‘they have run (they ran)’

m-ba-ryér-re (Ngoreme)
 FOC-3PL-run-PFV
 ‘they have run (they ran)’

In Figure 3.4, I begin to model this type of event and how the perfective, completive, and Ikoma *Vká-* grammatical aspects interact with it. Here in Figure 3.4 the modeling for *Vká-* is an oversimplification, but it illustrates the main point for now. Again, Ngoreme does not have the *Vká-* form. Here in this section we are really only concerned with the perfective (PFV) and completive (COMPL) aspect categories, along with their relationship to the nuclear final and the coda. (S) refers to the moment of speech.

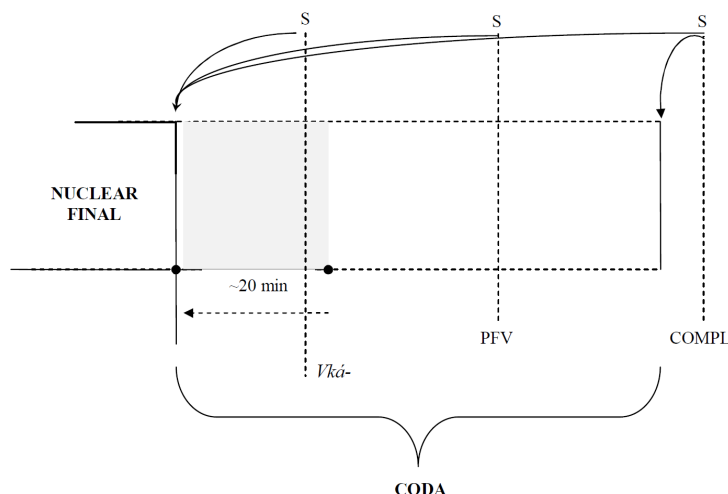


Figure 3.4. Perfective and completive in Ikoma and Ngoreme

The perfective can be seen here as marking the endpoint of the event nucleus, or the line between the nuclear final and the coda, if one exists. This is the case for both Ikoma and Ngoreme. For some duratives “the entire event is thought to be terminated” at this point (Freed 1979: 35). If the moment of speech occurs at any point subsequent to this endpoint marking, the perfective can be used, in accordance with what I described in §3.1. In Ikoma, the perfective covers the recent and hodiernal periods, while in Ngoreme the perfective only covers the recent period.

Furthermore, both Ikoma and Ngoreme have completive periphrastic constructions involving the auxiliary *-mara* ‘finish’ (see Bybee et al. 1994: 58-59 for lexical sources). The **completive** aspect indicates “to do something thoroughly and to completion” (Bybee et al. 1994: 54, 57ff). These completives in Ikoma and Ngoreme have semantics much like the completive *kwisha* ‘finish, already’ constructions in Swahili (Nicolle 2012: 373-375). Completive periphrastics with *-mara* as auxiliary come in a variety of different combinations. In Ikoma, *-mara* as auxiliary can co-occur with any of the main aspect markers, but is restricted from any future usage with *Vko-* (future events cannot be completed). The “present” usage below in example (33) is relatively rare, as this is also an example of generic/habitual use of *Vko-* for durative verbs, which I discuss in chapter 4.

- (33) Luke 8:16 (Ikoma)
- | | | | | | | |
|------------------|---------------|------------|---------------------|----------------|---------------|--------------------|
| <i>Taanyi-hó</i> | <i>omóoto</i> | <i>úno</i> | <i>a-ku-már-a</i> | <i>yu-ɣɔti</i> | <i>atára,</i> | <i>ayehúnya na</i> |
| there is no | person | who | 3.SG-IPFV-finish-FV | 15.INF-light | lamp | and hides it |
- anyóngo,* *hamu* *koyétoora* *irungu ré ßorére.*
clay jar or puts it under bed
‘No one (**finishes**) **lighting** a lamp and hides it in a clay jar or puts it under a bed’.

As in Figure 2.2 which shows the duration of the “to finish” aspectualizer, this usage in (33) would indicate a time period within the nuclear final. However, much more common are the perfective *(n)-SM-mariri* and narrative *SM-ka-mara* forms both used with the infinitive. These constructions have the meaning “has finished”, and so are not used with the nuclear final, but either mark the endpoint of the nucleus (like the perfective, but also highlighting completion), or mark the end (termination) of the whole situation. Consider example (34) below in Ikoma (see §4.2 for a discussion of *hano* ‘when’ clauses).

- (34) Luke 24:40 (Ikoma) #
- | | | | | | | |
|------------------|------------------|----------------------|--------------|---------------------|----------------|-----------|
| <i>Hano Yesu</i> | <i>a-mar-iri</i> | <i>ko-ßaßoorer-a</i> | <i>yayo,</i> | <i>a-ka-ßeereki</i> | <i>amaßoko</i> | <i>na</i> |
| when Jesus | 3SG-finish-PFV | 15.INF-say-FV | this | 3SG-NAR-show-FV | hands | and |
- amayoro* *yaache.*
feet his
‘When Jesus **had said (had finished saying)** this, he showed them his hands and feet’.

Here in example (34) with the durative verb ‘say’, Jesus has finished the speaking event, and has moved on to the “showing” event. This does not preclude him from speaking again in the

discourse, but the use of the completive confirms that Jesus had finished that particular speaking event in the mind of the writer, storyteller, or translator, as the case may be, and had gone on to another activity. The use of only the perfective here in this context includes the possibility of the same speaking event continuing, i.e. “Jesus has said”, and so may or may not indicate “Jesus has finished saying”. Ngoreme functions in much the same way as Ikoma, with the most common construction occurring with the perfective form of *-mara* and the infinitive (*SM-marre* + INF), as in (35).

- (35) *a-mar-re* *ku-yarok-a*
 3SG-finish-PFV 15.INF-return-FV
 ‘s/he has already returned, has finished returning’#

I include more examples of the Ngoreme completive in the next section, as I deal with punctives and perfective aspect in Ngoreme.

3.4. Punctives and perfective aspect in Ngoreme

In this section, I only handle punctives and perfective aspect as they apply in Ngoreme. I point out the similarities between the languages, but the Ikoma punctives and perfective aspect are dealt with in detail in relationship to *Vká-* in chapter 5. I begin here with the transitional punctives in Ngoreme.

Transitional

In many traditional accounts, canonical statives are phaseless, but this is not the case in Ikoma and Ngoreme. In chapter 2, I discussed the fact that in both Ikoma and Ngoreme canonical statives behave as transitional punctives, and thus have phasal structure. All canonical statives are transitional punctives, but not all transitional punctives are canonical statives. Here I use the verbs *-kár-* ‘be(come) angry, come to hate’ (36a-c) and *-mány-* ‘come to know’ (36d-f) to illustrate the differences, along with the diagram in Figure 3.5.

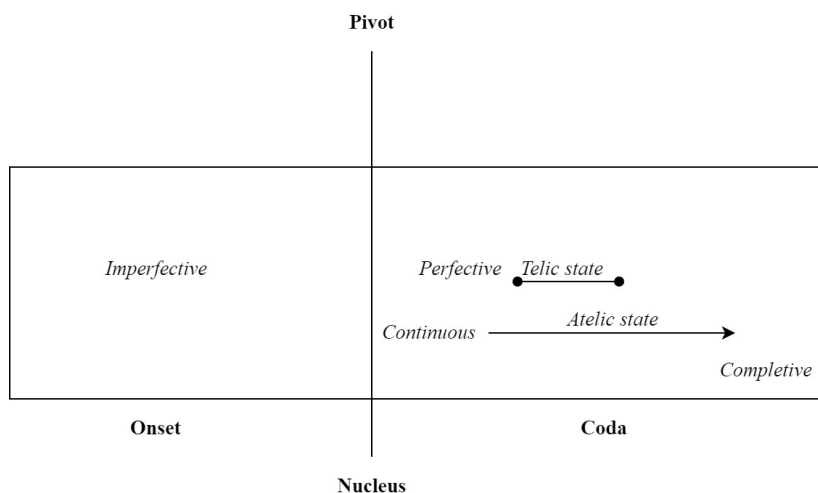


Figure 3.5. Model for transitional punctives in Ngoreme

(36) Ngoreme transitional punctives

- | | |
|------------------|---|
| a. nákaraire | ‘s/he has become angry (is angry)’ PFV |
| b. amárre yukára | ‘s/he is already angry, is furious’ COMPL |
| c. ngukara bááni | ‘they are angry, hating’ CONT |
| d. namányire | ‘s/he has come to know (knows)’ PFV |
| e. ndamánya | ‘I am coming to know, will know’ (Luke 7:43, also ‘I suppose’) IPFV |
| f. nkumánya aaní | ‘s/he is knowing, knows’ CONT |

On the left side of Figure 3.5 in the onset phase, which the imperfective covers, for example in (36e). The imperfective form *ndamánya* has either a dynamic inchoative reading “I am coming to know” or a future reading “I will know”. If the moment of speech is during the onset, the imperfective can be used up until the **culmination point**, the nuclear pivot (see Moens and Steedman 1988). On the far right side of Figure 3.5 is the completive (see 36b) which can emphasize the **termination point** in the coda. For example, in Ngoreme, *amárre kurósa* ‘s/he is dead tired’ marks *termination*, while *atíghire kurósa* ‘s/he is done having become tired’ marks *culmination*. The range of meaning of the former can be seen as ‘s/he is already tired’ > ‘s/he is definitely tired’ > ‘s/he is dead tired’.

For the perfective (36a, d) we have a view toward the culmination point and entry into a state, the former yielding the past dynamic inchoative reading and the latter the stative resultative reading. The continuous (21c, f) is similar to the perfective, but crucially does not view the onset, and so there is no dynamic inchoative reading. Rather, the continuous covers the coda and has a stative resultative reading. In Figure 3.5, these perfective and continuous forms are marked with “telic” and “atelic”, respectively. The continuous can be used during the coda up until termination, as in “they are angry” (36c) but they can continue becoming more

angry, or “s/he knows” (36f) but s/he can continue knowing a topic more in-depth. With the perfective, however, the resultative stative reading is completely static.

These two different kinds of result states appear in both Ngoreme and Ikoma. They can be considered **telic** and **atelic** result states (Beavers 2012: 926-927). In some sense, both types have endpoints, as even the atelic result state can have a termination point. However, the atelic result state is perceived as ever ongoing and increasing as long as the situation persists and allows (i.e. “s/he is tired and will continue to become even more tired until s/he is dead tired”). Otherwise, the telic result state (“a specific, *final* state”) is used (“s/he is tired”) (Beavers 2012: 926). The telic result state points back to the culmination point, the completion of the situation nucleus.

Resultative

Here, for the resultative punctives, I examine the verb *-βóók-* ‘wake up’ (see examples (37a-d) and Figure 3.6). The major difference between the transitional punctives and the resultative punctives is that resultative punctives do not encode an onset. (The “onset” can be indicated by a different lexical verb entirely, for instance, for example (37), ‘to sleep’). The dashed lines below in Figure 3.6 represent the “missing” onset phase. The imperfective is labeled here to reflect that it is used as a future, as in *araβóóka* ‘s/he will wake up’ (37d). The imperfective cannot have ongoing “present” (“awakens, is waking up”) or inceptive (“is beginning to wake up”) readings with the resultative punctive. In Ikoma, at least, the imperfective *Vko-* can indicate habitual action, e.g. waking up at 6am every day (Ngoreme is less certain, see chapter 4).

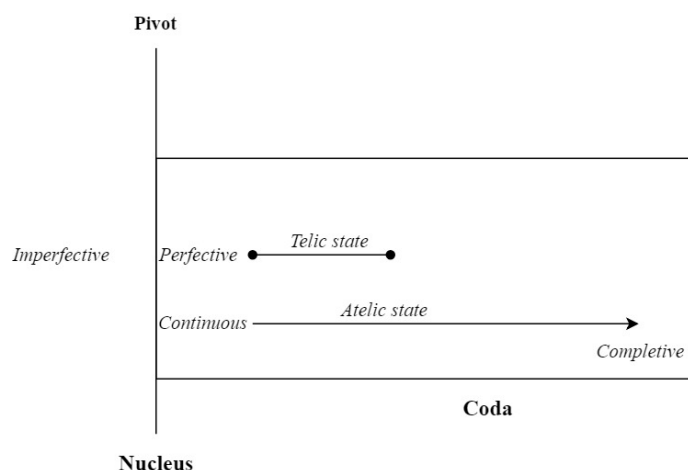


Figure 3.6. Model for resultative punctives in Ngoreme

(37) Ngoreme resultative punctives

- | | | |
|----|-----------------------|--|
| a. | <i>aβóókire</i> | ‘s/he has woken up (is awake)’ PFV |
| b. | <i>nkoβóóka aní</i> | ‘s/he awakens, is waking up (continues to wake up)’ CONT |
| c. | <i>amarre kuβooká</i> | ‘s/he has already woken up, finished waking up’ COMPL |
| d. | <i>araβóóka</i> | ‘s/he will wake up’ IPFV |

The continuous form *nkoβóóka aní* (37b) covers the pivot (“s/he awakens”) and also encodes the aftermath of waking up (i.e. still groggy, no coffee yet). Again, the perfective *aβóókire* (37a) marks nuclear completion, “s/he has woken up”, and encodes the stative result implicature “s/he is awake”. The completive *amarre kuβooká* (37c) either highlights the endpoint of the nucleus “s/he has already woken up” (culmination), or marks the end of the whole situation, “s/he has finished waking up” (termination).

Inceptive

For the Ngoreme inceptive punctives, I examine the verb *-hík-* ‘arrive’ in (38a-d) and Figure 3.7. Inceptives are the reverse of the resultatives, encoding an onset but no coda. Like the transitional punctives, the onset is primarily encoded by the imperfective, as with *βarahíka* or *mbarahíka* “they are arriving” (38d). The imperfectives can also have a future reading with inceptive punctives, e.g. “s/he will arrive” (38d).

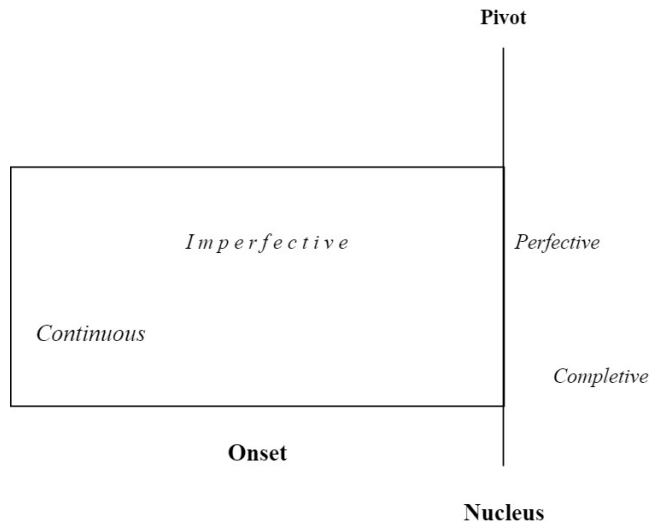


Figure 3.7. Model for inceptive punctives in Ngoreme

(38) Ngoreme inceptive punctives

- | | | |
|----|---------------------------|---|
| a. | <i>nahikire</i> | ‘S/he has arrived’ PFV |
| b. | <i>namárre kohíka</i> | ‘S/he has already arrived, has finished arriving’ COMPL |
| c. | <i>nkohíka aaní</i> | ‘S/he arrives, is arriving’ CONT |
| d. | <i>βarahíka/mbarahíka</i> | ‘They are arriving, will arrive’ IPFV |

Again, the perfective, in this case *nahikire* ‘s/he has arrived’ (38a), marks the completion of the situation nucleus. The completive, here *namárre kohíka* ‘s/he has already arrived, has finished arriving’ (38b), *can* serve to supply an otherwise absent coda phase (‘being in a state of having arrived’), but more often emphasizes the completion of the situation, in this case ‘the arrival’. Consider example (39) with the situative *ko-* (ku-) in combination with the completive.

- (39) NH1040908, 25f
Hanó n-ku-mar-a ko-hik-a nyúmba
 when FOC-SIT-finish-FV 15.INF-arrive-FV house
 ‘When I finished arriving (inside the) house’

The continuous *nkohíka aaní* ‘she arrives, is arriving’ (38c) overlaps with the imperfective in encoding the onset. This form can also apply to the immediate aftermath of arrival, or be dependent on the subjective threshold for arrival, i.e. s/he has arrived at the gate, but has not come inside the house yet (post-nucleus ‘still arriving’, ‘continuing to arrive’).

3.5. Conclusion

In this chapter, I distinguished the simple past from the perfective in Ikoma and Ngoreme, and began to make the argument for why the *-Ø-...-ire* constructions should not be analyzed as perfects instead. I introduced perfectives, provided examples of different perfective readings with different situation types, and also looked at completive constructions in Ikoma and Ngoreme. In the course of showing how the perfective and completive were marking phasal endpoints, I also introduced the idea of the nucleus having three subphases: the initial, middle, and final. Furthermore, I examined punctives in Ngoreme and how they interact with several different grammatical aspects. In doing so, I also discussed culmination and termination points, as well as telic and atelic result states. We have now seen how completion of the situation nucleus is marked by the perfective. Now I want to look at non-completion and the various imperfective categories in Ikoma and Ngoreme.

Chapter 4

Imperfective, progressive, and continuous

4.0. Introduction

As I have argued in chapters 2 and 3, perfectivity and imperfectivity in Ikoma and Ngoreme are best viewed in terms of completion and non-completion, respectively. We saw in chapter 3 how the perfective indicates the completion of the situation nucleus. Kershner conceptualizes imperfectivity as “an event without bounds or endpoints, and, therefore, with no regard to the temporal boundaries of an event” (2002: 152-53). This definition is problematic because as we have already seen in §3.4 for Ngoreme punctives (I explore Ikoma punctives further in chapter 5 in tandem with the *Vká-* formative), imperfective categories *do* have a regard for the temporal boundaries of punctive situations. Another traditional notion of imperfectivity says that it “pays essential attention to the internal structure of the situation” (Comrie 1976: 16). However, this definition is inadequate in that we have already seen how the perfective *also* pays attention to the internal structure of the event. Non-completion of the situation nucleus works as a baseline for Ikoma imperfectivity, but for Ngoreme is also unsatisfactory. As we saw in §3.4 while focusing on the perfectives and completives, the Ngoreme continuous can apply in the coda of the transitional and resultative punctives. The Ngoreme continuous is best seen as *non-termination* in these contexts.

For duratives, viewing imperfectivity as non-completion of the event nucleus is reasonably straightforward. If we look at the Ngoreme examples in (40), we can begin to see this concept of non-completion more clearly.

- (40) Ngoreme duratives
- | | |
|---------------------------|------------------------------|
| a. <i>nkoryera bááni</i> | ‘they are running’ CONT |
| b. <i>βararyéra</i> | ‘they run, are running’ IPFV |
| c. <i>βarachá βaryére</i> | ‘they will run’ FUT IPFV |

The future imperfective *βarachá βaryére* ‘they will run’ (40c) can occur anywhere within the onset. (The single form *βararyéra* (40b) can also be used as a future but is ceding ground to the future periphrastic). Both the imperfective *βararyéra* ‘they run, are running’ (40b) and the continuous *nkoryera bááni* ‘they are running’ (40a) are used during the nucleus, but not during the coda.

Here in this chapter I go further into detail of the functions of the imperfective categories in both Ikoma and Ngoreme (§4.1), and also explore some important discourse considerations in both languages (§4.2). The general imperfectives in Ngoreme and Ikoma use the formatives *ra-* and *Vko-*, respectively. Consider Table 4.1.

Table 4.1. Imperfectives in Ngoreme and Ikoma

	Ngoreme	Ikoma
they ARRIVE	<i>βa-ra-hík-a</i> 2.SP-IPFV-arrive-FV 'they arrive, are arriving, will arrive'	<i>m-ba-ako-hík-a</i> FOC-2.SP-IPFV-arrive-FV 'they arrive, are arriving, will arrive'
we SPEAK	<i>tu-ra-ýáámban-a</i> 1.PL.SP-IPFV-speak-FV 'we speak, are speaking, will speak'	<i>n-to-oýo-sííker-a</i> FOC-1.PL.SP-IPFV-speak-FV 'we speak, are speaking, will speak'
we DIG	<i>tu-ra-túk-a</i> 1.PL.SP-IPFV-dig-FV 'we dig, are digging, will dig'	<i>n-to-oýo-túk-a</i> FOC-1.PL.SP-IPFV-dig-FV 'we dig, are digging, will dig'

The **progressive** aspect encodes the “process ongoing at contextual occasion (commonly the here-and-now of speech) that is projected to continue in the immediate future, but could easily change or cease” (Timberlake 2007: 304). The **continuous** aspect is closely linked with the progressive, i.e. “while the progressive is usually reserved for dynamic verbs and predicates, non-progressive continuous aspectuality additionally covers stative predicates” (Mair 2012: 806). Consider the Ngoreme continuous and Ikoma progressive forms in Table 4.2.

Table 4.2. Ngoreme continuous and Ikoma progressive aspects

Ngoreme	Ikoma
<i>n-ko-VB-a SBJ-V-ní</i>	<i>SBJ-ra-VB-a</i>
<i>n-ko-VB-a SBJ-áre</i>	<i>n-SBJ-V-ré SBJ-ra-VB-a</i>

In the forms in Table 4.2, there is a melodic H on the first syllable of the *macrostem* in Ikoma, while in Ngoreme the melodic H is on the first syllable of the *stem*. (The *ko-* forms in Ngoreme could be considered infinitival instead. I deal with this question alongside the history of these forms in chapter 6).

The imperfective, progressive, and continuous are extremely similar categories in terms of history, semantics, morphology, and function (see Bybee et al. 1994: 148-49). Thus, part of the goal of this section is to tease apart the semantics of *(V)ko-* and *ra-* and the imperfective categories in Ikoma and Ngoreme.

4.1. Imperfective and progressive/continuous

In terms of the imperfective category as a whole, Comrie splits the function of the imperfective into two main subcategories: habitual and continuous (1976: 24-25). Nurse says the following in regard to the connection of the probable Proto-Bantu imperfective suffix to habitual reflexes:

This points to a cognitive connection between imperfective and habitual, excluding progressive. What imperfective, habitual, (and iterative) share is the notion of lengthy and unbounded duration, as contrasted to progressive, which emphasizes a short period of time around the point of reference. (2008: 144).

This division is important for the analysis of the Ikoma and Ngoreme imperfective categories. More specifically, I argue that the division is really between “individuated and collective expressions of events”, as in Chisukwa (Kershner 2002: 145). According to Kershner, for Chisukwa, the **individuated** category consists of *continuous* and *distributed* subcategories, while the **collective** category consists of *habitual*, *generic*, and *episodic* subcategories. An *emphatic* subcategory is also present in both the Chisukwa individuated and collective categories (2002: 152). For Ikoma and Ngoreme, I ignore the *distributed* subcategory, but would add *iterative/frequentative*²⁹ and *emphatic* to the collective category (Bybee et al. 1994: 127). Both Ikoma and Ngoreme³⁰ also have the dedicated habitual aspect marker *háá-*, and so there is some semantic overlap between the general imperfective and the habitual in both languages. Consider the Ikoma and Ngoreme examples in Table 4.3. with the imperfective (iterative/frequentative) and (main) habitual markers.

Table 4.3. Imperfective (iterative/frequentative) and habitual examples in Ikoma and Ngoreme

Aspect	Ikoma	Ngoreme	English	Source
Imperfective: iterative/ frequentative	<i>N-to-oyo-túk-a torayárukera yarukera.</i>	<i>Tu-ra-túk-a kira maru.</i>	‘We are digging over and over’	Ikoma: Walker 2013 Ngoreme: Fieldnotes 2014
Imperfective: iterative/ frequentative	<i>N-to-oyo-túk-a mwishe moyíma.</i>	<i>Tu-ra-túk-a orosíko orogíma.</i>	‘We are digging all day long’	Ikoma: Walker 2013 Ngoreme: Fieldnotes 2014
Habitual	<i>m-ba-háá-tuk-a</i>	<i>N-tu-háá-tuk-a orosíko orogíma.</i>	Ikoma: ‘They dig (habitually)’ Ngoreme: ‘We are usually digging all day long’	Ikoma: Robinson 2012 Ngoreme: Fieldnotes 2014

In the first two rows, we can see that both Ikoma and Ngoreme can use their imperfectives in iterative/frequentative function. Both languages use the habitual marker *háá-* in the last row to indicate “*repetition of an event on different occasions*” (Frawley 1992: 316).

Important to note here is that Nurse (2008: 137) describes the difference between the progressive and continuous differently than Bybee et al. (1994) and Comrie (1976). Nurse frames the difference as “a short versus a long imperfective” (2008: 137). Under this definition, the second example here “We are digging all day long” would constitute continuous function. For Bybee et al (1994: 127), this would be an iterative or frequentative. Furthermore, they

²⁹ Bybee et al. define *iterative* as “describ[ing] an event that is repeated on a particular occasion”, and *frequentative* as “includ[ing] habitual meaning — that a situation is characteristic of a period of time — but additionally specifying that it be frequent during that period of time” (1994: 127).

³⁰ In addition, Ngoreme has another habitual marker, *ráá-*, which is possibly an emergent form related to the imperfective and habitual aspect markers by analogy# (*háá- + ra- = ráá-*). It is not clear how habitual *ráá-* is distinguished from other habitual marking in Ngoreme. (In Ikoma, there is a formative with the same shape (*ráá-*), but it indicates situative aspect (Nurse 2008: 148ff)).

define the continuous as a progressive that has generalized to be able to take stative predicates (1994: 127, 139). Nurse does acknowledge the tendency for a lack of compatibility between the progressive and stative verbs, but ignores the continuous in the grammatical cline: “Because they have to do with an ongoing situation, progressives, whatever their source, tend to associate with dynamic rather than stative verbs. Not until they expand from progressive to general imperfective or present meaning do they become associated with all verbs” (2008: 143). I take the view of Bybee et al (1994) and Comrie (1976).

The division of labor between individuated (i.e. progressive/continuous) and collective (i.e. imperfective/habitual) categories³¹ is easiest to see if we examine canonical stative (transitional punctive) and durative situation types in both languages. In Ikoma, progressives are not permissible with punctives (including canonical stative verbs)³², and with the imperfective, canonical statives are restricted to generic, habitual, and future readings (collective). It should also be stated here that the single progressive *ra-* construction is not used often, as I explain further in the next section (see also Aunio 2013: 288). Let us take a look at a series of examples from the Gospel of Luke translation in Ikoma. Examples (41) and (42) from Luke 12:56 and 21:30, respectively, demonstrate the use of the imperfective with a canonical stative verb (*know*, in Ikoma and Ngoreme change-of-state *come to know*) with a collective reading. Both are generic and also have a habitual interpretation.

- (41) Luke 12:56
- | | | | | | |
|-------------|----------------|----------------|-------------------------------|----------------|-----------------|
| <i>Inyu</i> | <i>mbarɔŋɔ</i> | <i>moonyí!</i> | <i>M-o-oku-mány-a</i> | <i>bohééne</i> | <i>ebyereki</i> |
| You (all) | liars | here | FOC-2.PL-IPFV-COME to know-FV | well | signs |
-
- | | | | | | |
|---------------|-------------|---------------|-------------|-------------------------|------------------------|
| <i>βé se.</i> | <i>Mbe!</i> | <i>Ngwake</i> | <i>kaná</i> | <i>m-o-okw-áng-a</i> | <i>ku-mány-a</i> |
| of world | enough | why | how come | FOC-2.PL-IPFV-refuse-FV | 15.INF-come to know-FV |
-
- | | | | | | |
|----------------------|----------------|-------------|----------------------|-----------------|----------------|
| <i>ekyékereri ké</i> | <i>amaŋána</i> | <i>ýáno</i> | <i>ya-ako-rwér-a</i> | <i>chaasiko</i> | <i>chíno?”</i> |
| signs | of matters | these | 6-IPFV-happen-FV | days | these |
- ‘Hypocrites! **You come to know (know)** how to interpret the appearance of the earth and the sky. How is it that you don’t (know) how to interpret this present time?’
-
- (42) Luke 21:30
- | | | | | | |
|-------------|------------------|-------------|----------------------|-------------------|-----------------|
| <i>Hano</i> | <i>ó-ko-riyi</i> | <i>kuβá</i> | <i>ye-eyá-seem-a</i> | <i>yo-séβoka,</i> | <i>hayoháyo</i> |
| when | 2.SG-IPFV-see | leaves | ?-NUCL-begin-FV | 15.INF-sprout | right then |
-
- | | | | | |
|-------------------------------|-------------|--------------------|---------------|---------------------|
| <i>m-o-oku-mány-a</i> | <i>kuβa</i> | <i>eriiβáya ré</i> | <i>mayesa</i> | <i>re-eyá-tiŋi.</i> |
| FOC-2.PL-IPFV-COME to know-FV | to be | time of | harvest | 5-NUCL-come near |
- ‘When they sprout leaves, you can see for yourselves and **come to know (know)** that summer is near’.

³¹ I do not model Ikoma generic and habitual imperfectives in this study, but general representations can be found in Botne and Kershner (2008: 214).

³² With two different exceptions: (1) There are two different discourse templates in Ikoma, one of which uses *ra-*morphology as the narrative. While technically still the progressive, in certain more informal discourse situations, situation type interactions are neutralized, and (2) As the lexical verb with the persistive auxiliary, you can also get stative verbs with *ra-* morphology (*akeéré aramánya* ‘s/he still knows’ — fieldnotes 2018).

In both of these examples, there is also a future sense in which the audience will continue to know these things in perpetuity. This leads us semantically to the instance of the imperfective with a canonical stative verb resulting in a future reading based on the context. Example (43) illustrates this.

- (43) Luke 21:20
- | | | | | | |
|-------------|---------------------|-----------------------------|------------------|-----------|------------------|
| <i>Hano</i> | <i>m-ó-óko-riyi</i> | <i>ómoyya ó Yérusareemu</i> | <i>wínariiru</i> | <i>ná</i> | <i>apakééya,</i> |
| when | FOC-2.PL-IPFV-see | city of Jerusalem | surrounded | by | armies |
-
- | | | | | |
|-------------|-------------------------------|-------------|-----------------|--------------------|
| <i>nihó</i> | <i>m-o-oku-many-a</i> | <i>kúβα</i> | <i>eriiβáya</i> | <i>re-eyá-tiji</i> |
| indeed | FOC-2.PL-IPFV-come to know-FV | to be | time | 5-NUCL-come near |
-
- | | | | |
|-----------|--------------|------------|---------------------|
| <i>ré</i> | <i>moyya</i> | <i>úyo</i> | <i>yu-sářiβu</i> |
| of | city | this | 15.INF-be destroyed |
- ‘When you see Jerusalem being surrounded by armies, **you will come to know (will know)** that its desolation is near’.

The siege on Jerusalem is a specific event, but it also covers a longer period of time (in that a siege is not a brief event). Also, in the context at the moment of speech, the event is clearly in the future because it is part of a prophecy. An example of an individuated event with (*come to*) *know* is found in (44) below, in which the perfective is used in “present” function.

- (44) Luke 8:46
- | | | | |
|--------------------|--------------------|---------------------------|------------------|
| <i>Amare, Yésu</i> | <i>a-ka-βuy-a,</i> | <i>“N-i-many-iri</i> | <i>naanyi-hó</i> |
| But Jesus | 3.SG-NARR-say-FV | FOC-1.SG-come to know-PFV | here |
-
- | | | | |
|-------------------|---------------------|----------------|--------------------|
| <i>omóoto úno</i> | <i>á-n-tur-iri,</i> | <i>yo kúβα</i> | <i>niiyoɣwire</i> |
| person this | 3.SG-1.SG-touch-PFV | because | I myself have felt |
-
- | | | | | |
|-------------|-----------------|------------|---------------|----------------------------|
| <i>kúβα</i> | <i>changuru</i> | <i>ché</i> | <i>kuhɔri</i> | <i>nchenduure.”</i> |
| to be | power | of | healing | which has gone out from me |
- ‘But Jesus said, “Someone touched me; **I have come to know (know)** that power has gone out from me.”’

It is also possible in these situations to use the *Vká-* form, e.g. *akámanya* ‘s/he has (just) come to know (knows)’, depending on the evidential context (see chapter 5).

For Ikoma, the durative situation type is also illustrative of this division of labor between individuated and collective. For duratives, the progressive is used for specific events, as in examples (45a) and (46a). In example (45a-b), with the verb *-tóóra* ‘put’ the progressive *ra-* is used in (45a), while the imperfective *Vko-* is used in (45b), a generic/habitual context.

- (45)(a) Luke 21:2
- | | | | | | |
|---------------------|--------------|----------------|------------|---------------|--------------------|
| <i>A-ka-mo-riyi</i> | <i>wiikí</i> | <i>omosíno</i> | <i>umu</i> | <i>muháβe</i> | <i>a-ra-tóór-a</i> |
| 3.SG-NARR-3.SG-see | also | widow | one | poor | 3.SG-PRG-put-FV |
-
- | | | |
|-------------|------------------|---------------|
| <i>muyo</i> | <i>chááchaβa</i> | <i>iβere.</i> |
| in | coins | two |
- ‘He also saw a poor widow **putting** in two very small copper coins’.

(b) Luke 5:37a-38

<i>“Wiikí</i>	<i>taanyi-hó</i>	<i>móoto</i>	<i>úno</i>	<i>a-yo-tóór-a</i>	<i>adiváayi</i>	<i>ahé</i>	
again	there is not	person	any	3.SG-IPFV-put-FV	wine	new	
<i>mo-mayɔchí</i>	<i>ya</i>	<i>amashεεɔ</i>	<i>amakúngu. [...]</i>	<i>Mbe,</i>	<i>adiváayi</i>	<i>áhe,</i>	
in sacks/bags	of	skin	old [...]	Well	wine	new	
<i>aβááto</i>	<i>m-ba-ako-yé-toor-a</i>	<i>mo-mayɔchí</i>	<i>ya</i>	<i>amashεεɔ</i>	<i>amahé.</i>		
people	FOC-3.PL-IPFV-REL-put-FV	in sacks/bags	of	skin	new		

‘And no one **puts** new wine into old wineskins. [Otherwise, the new wine will burst the skins; the wine will run out and the wineskins will be ruined]. No, new wine must be **put** into new wineskins’.

The first situation with the “poor widow” is specific, one-time, and of limited duration, and the progressive is used. In the second situation, the speaker (Jesus) is illustrating a point using the example of a normal, generic activity (putting wine in wineskins) for the audience. In example (46a-b), the Ikoma verb *-ééyi* ‘teach’ is used. Again, the first example (46a) uses the progressive, and the second (46b) uses the imperfective.

(46)(a) Luke 13:10

<i>Orosíko rumu</i>	<i>ró</i>	<i>Riikáne,</i>	<i>Yesu</i>	<i>naaré</i>	<i>mo-nyúmba imu e Eryóβa,</i>	<i>a-ré-éyi</i>	<i>aβááto.</i>
day	one	of	Sabbath	Jesus	was in the house one of God	3.SG-PRG-teach	people

‘On a Sabbath Jesus **was teaching** in one of the synagogues’,

(b) Luke 20:21b

<i>Wiikí</i>	<i>n-o-okw-ééyi</i>	<i>amanána ya Ryóβa</i>	<i>kwo βuheεε,</i>
again	FOC-2.SG-IPFV-teach	words of God	indeed

‘[we know] that you **teach** the way of God in accordance with the truth’.

In (46a), the situation is specific and one-time (point of departure “One Sabbath day...”), and thus individuated. In (46b) however, the speakers (“the spies”), are talking about habitual teaching, or rather teaching that has taken place as a “*repetition of an event on different occasions*” (Frawley 1992: 316).

In Ngoreme, the situation is similar to Ikoma but a bit more intricate. Ngoreme appears to be further along in the grammaticalization process of imperfective aspect moving to non-past tense, as these categories are not as straightforward in Ngoreme. One complicating factor is that canonical statives can co-occur³³ with the perfective, imperfective, *and* progressive (continuous). On this last category, Bybee et al. define the continuous “as more general than progressive because it can be used in progressive situations but in addition with stative predicates” (1994: 127). Attested examples of the continuous (*n-ko-VB-a SBJ-V-ní*) with canonical statives include the following in (47):

³³ Here we have a similar situation as Ikoma where a different discourse template yields different situation type interactions. Progressive with statives (continuous) only occurs in more informal discourse and fieldnotes, but not in formal discourse like the Biblical corpus.

- (47)
- | | |
|---------------------------------|-------------------|
| <i>n-ku-mány-a</i> | <i>a-a-ní</i> |
| FOC-CONT-know-FV | 3.SG-V-COP |
| 's/he is knowing, knows' | |
|
<i>n-go-kúm-i</i> |
<i>a-a-ní</i> |
| FOC-CONT-believe-FV | 3.SG-V-COP |
| 's/he is believing, believes' | |
|
<i>n-ku-héékan-a</i> |
<i>a-a-ní</i> |
| FOC-CONT-resemble-FV | 3.SG-V-COP |
| 's/he is resembling, resembles' | |

Note the auxiliary inversion which I discuss more in chapter 6 (see Gibson 2012, Roth 2014).

Another complication in the Ngoreme imperfectives is with the division of labor, i.e. habitual versus continuous. At least part of the complication is due to (not always systematic) differences between the Mwibara and Rogoro dialects. For example, if we look back at some of the examples in Table 4.3, the imperfective *ra-* forms in Ngoreme are used for the iterative, but this appears to be a Mwibara phenomenon, as my Rogoro informant used the progressive/continuous *n-ko-VB-a SBJ-V-ní* form for these sentences. Additional examples in my fieldnotes include a mix of the imperfective *ra-* and progressive/continuous *ko-/ni* for habitual function as well. Thus, unlike Ikoma (and Chisukwa) the division of labor cannot be strictly categorized as individuated versus collective. Ngoreme often patterns with Ikoma, but not always. Let us take a look at a few examples from the durative situation type. First, in (48) we have an example passage where Ngoreme follows the Ikoma pattern:

- (48) Luke 18:36-37
- Ngoreme:
- | | | | | | | |
|----------------|----------------|---------------|---------------|---------------------------|--------------|--------------------|
| <i>Enkaaya</i> | <i>ooyúüre</i> | <i>aβánto</i> | <i>aβaaru</i> | <i>βa-ku-hét-a</i> | <i>hayó,</i> | <i>a-ka-βóóri,</i> |
| when | he heard | people | many | 3.PL-SIT-pass-FV | there | 3.SG-NARR-ask |
-
- | | | | |
|-------------------|---------------------------|----------------------------|----------------------------|
| <i>“Keho ke?”</i> | <i>βa-ka-mu-βóórr-a,</i> | <i>“Yéésu wa Ná sareti</i> | <i>a-ra-hét-a</i> . |
| what happen | 3.PL-NARR-3SG-say/tell-FV | Jesus of Nazareth | 3.SG-IPFV-pass-FV |
-
- Ikoma:
- | | | | | | | | |
|-------------|---------------|---------------|--------------|---------------------------|--------------|--------------------|--------------|
| <i>Hano</i> | <i>óywire</i> | <i>aβááto</i> | <i>βááru</i> | <i>βa-ra-hét-a</i> | <i>háyo,</i> | <i>a-ka-βóóri,</i> | <i>“Neke</i> |
| when | he heard | people | many | 3.PL-PRG-pass-FV | there | 3.SG-NARR-ask | what |
-
- ye-eká-βonek-a?”* *βa-ka-mo-βoorer-a,* *“Yésu ó moyya o Ná sareeti niwé* ***a-ko-hét-a***.
 7-NUCL-happen-FV 3.PL-NARR-3SG-say/tell-FV Jesus of town of Nazareth indeed 3.SG-IPFV-pass-FV
 (As Jesus approached Jericho, a blind man was sitting by the roadside begging). When he heard the crowd **going by**, he asked what was happening. They told him, “Jesus of Nazareth **is passing by**.”

In Ikoma, the form *akohéta* ‘he is passing by’ is considered emphatic because of *niwe*, the reason for the *Vko-* form, and not individuated *ra-* as in the first clause. Ngoreme follows the pattern (*ko-* for *ra-* and *ra-* for *ko-*), but uses the single-verb *ko-* (*βakuhéta*) form in the first

clause, technically a situative³⁴. But if we look at example (49) for Ngoreme and compare it with (45a) in Ikoma, we get the same *ra-* morphology.

- (49) Luke 21:2 (Ngoreme)
- | | | | |
|---------------------|-----------------------------------|--------------------|-------------|
| <i>A-ka-murór-a</i> | <i>ɣwíki omosíno omwé omutóβu</i> | <i>a-ra-tóór-a</i> | <i>muyo</i> |
| 3.SG-NARR-3.SG-see | also widow one poor | 3.SG-IPFV-put-FV | in |
-
- | | | | |
|-------------------|--------------|------------------|-----------|
| <i>chisaraafu</i> | <i>ibére</i> | <i>chensúúhu</i> | <i>tu</i> |
| coins | two | small | only |
- ‘He also saw a poor widow **put** in two very small copper coins’.

We might expect Ngoreme to use a version of *ko-*, as this is definitely an individuated circumstance, but instead get *ra-*. I believe that the deeper reason for the inconsistency in the Ngoreme imperfective division of labor lies in the history of these forms and their relationship to similar forms in Ikoma and Simbiti (see chapter 6). For now, what it means for the division of the imperfective functions (habitual versus progressive/continuous, or collective versus individuated) is that part of the process of the progressive *ra-* in Ngoreme becoming an imperfective was taking on more and more habitual function, while the compound constructions with *ko-* were hybrids — in a way an imperfective category with habitual function, gradually yielding some of it, and becoming progressive/continuous. It also means that in Ngoreme the *ra-* form is definitely an imperfective, and the *ko-* periphrastics are continuous, but they do not have strict boundaries in terms of habitual function, situation type co-occurrence restrictions, or individuated/collective events as in Ikoma.

4.2. Discourse considerations

Determining the register, genre, and style of text types is integral to any form of discourse study (e.g. Biber and Conrad 2009), including any inquiry into how discourse issues affect tense, aspect, and modality choices in a given language. This is especially true for Ikoma. Ikoma has two main discourse templates which depend on the type of register, genre, and style of the discourse. For the study here, I collected both narrative folktales and (informal) casual conversations. I also had access to SIL databases with a variety of genres (but mainly narrative), and the Biblical corpus. The main difference for our purposes is between the template that governs informal stories told orally versus everything else. In the informal oral template, the progressive *ra-* in single constructions is used in the main event line (see Walker 2013: 73-76). In the more formal “everything else” template, the narrative *Vka-* is used in this capacity (see Nurse 2008: 120-123). The use of *ra-* as a narrative in the informal oral template masks the use of progressive *ra-* which is “normally” in contrast in duratives with imperfective *Vko-*. Furthermore, progressive *ra-* can be used with statives and punctives in this template, and

³⁴ I believe that there is a very close relationship in Ikoma and Ngoreme between their progressive and continuous (respectively) and their situative forms. Ikoma has both *ra-* and *ráá-* situative forms, both different tonally from progressive *ra-* (Aunio 2013: 281), but the situative for Ngoreme is segmentally *ko-* just as their progressive as well. I believe this is more than just coincidence, but it needs more research.

so those lexical aspect contrasts are effectively neutralized³⁵. This type of discourse template contrast has also been described for nearby Kabwa and also Malila in southern Tanzania (Nicolle 2015: 45-6). Ngoreme, on the other hand, does not seem to have multiple discourse templates, rather their narrative *ka-* form is employed much more often than in Ikoma (see Rundell 2012).

If we view the situation type (lexical aspect) of a verb as inherent, part of what is left for the speaker is temporal structure: the moment of speech, any additional reference point(s), mental spaces (P- and/or D-domain), and the surrounding discourse. This can be seen as similar to the idea behind Discourse Representation Theory (DRT) (Kamp and Reyle 1993). However, a drawback to DRT is that it does not sufficiently take into account pragmatics, which is often resolved through Relevance Theory (à la Moeschler 2000) or what is called Segmented Discourse Representation Theory (SDRT) (Carruthers 2012: 316-317). For more on SDRT, see Asher 1993, Caudal 2012, Lascarides and Asher 1993.

Discourse can either “override” aspectual choices, or work in concert with them. The lexical aspects contrasts that are neutralized with progressive *ra-* as narrative are an example of the former. Less dramatic examples of the discourse override of aspectual choices can occur because of such concerns as the marking of thematic boundaries, cohesion, coherence, and passages with direct speech (Dooley and Levinsohn 2001). I am less concerned with discourse override issues such as these, and more interested in how pragmatics/discourse and aspect cooperate. One ubiquitous instance of this type of cooperation is the relationship of the perfective as foreground (main event line) and imperfective as background³⁶ — “[a] group of works, pioneered by Hopper (1979) and Hopper and Thompson (1980), initiated a related, *Gestalttheorie*-influenced line of analysis by distinguishing between the so-called foregrounding and backgrounding functions of tense-aspect forms” (Caudal 2012: 281). In a survey of narrative texts in several eastern Bantu languages (including nearby languages Simbiti, Kabwa, Jita, and Kwaya), Nicolle says of this connection:

In the languages in our sample, foreground and background clauses are largely distinguished through tense and aspect. Thus, in addition to their primary grammatical functions of indicating different temporal and aspectual values, verb forms have the important discourse function of guiding the addressee through the chronology of the narrative (2015: 36).

“Guiding the addressee through the chronology of the narrative” is a helpful way of looking at the cooperation of pragmatics/discourse and aspect, and even more specifically, issues of sequentiality and simultaneity (Nicolle 2015: 36ff). Beyond just the narrative genre, “In connected coherent discourse, the contrast between perfective and imperfective acquires another dimension, that of sequential vs. simultaneous, respectively” (Givón 2001: 26). Consider examples (50) and (51) for Ngoreme.

³⁵ What also disguises some lexical aspect contrasts is that progressive *ra-* morphology is used in periphrastics but is really functioning as the imperfective counterpart to the perfective. That way you also end up seeing statives and punctives with *ra-* morphology, not to mention the situative *ráá-* that is also present.

³⁶ A note of clarification: “The term ‘backgrounded’ is distinct from ‘background’ and is used here to refer to events which are presented in iconic temporal order [...] but which are described as if they were non-event-line material” (Nicolle 2015: 36).

- (50) Ngoreme (NH5180908: 15a-f)
βakáβuya, “Wayátooch *abaitiire*, *abategiire* hayó, *amárre*, *aisungire* kó-mote, *atanwére*”.
 ‘And they said, “Hare **has killed** them, **left them** there, **finished**, **swung** in the tree, and **left**”.’
- (51) Ngoreme (NH9200908: 29a-c)
Nigó agiire kumára ígo, *aratókerá rirasóha*.
 ‘When he went to finish this, **he was scared as [the ogre] entered**’.

Example (50) includes a series of sequential events with perfectives, while (51) contains two imperfective *ra-* forms indicating simultaneity. In this example, the subject is scared *because* the ogre enters, and makes less sense of the discourse if interpreted as a sequence (i.e. *he was scared, (and then) the ogre entered).

An important avenue for exploring these types of discourse considerations in Ikoma and Ngoreme is the semantic variation of the subordinating conjunction *hano*. For nearby Simbiti, Nicolle says that *hano* functions as a “thematic development marker (TDM)” as well as a “text-structuring connective”, and as such may be “intermediate between” the two (2015: 12-13). An example of the subordinating conjunction *hano* in Ikoma is included in (52).

- (52) Ikoma (Aunio 2013: 315)
- | | | | | |
|--------------------|------------------------|-------------------------|------------------------|-----------------------|
| <i>Hano</i> | <i>kímariri</i> | <i>bararééta</i> | <i>chanyama</i> | <i>baagayé</i> |
| há-no | ke-mar-iri | ba-ra-rēt-a | cha-nyama | ba-Vka-yē |
| 16-DEM | 7-finish-ANT | 2-PRG-bring-FV | 10-meat | 2-NAR-go |
-
- | | | |
|-----------------------------|--------------------|---------------------|
| <i>báágachetóóra</i> | <i>kure</i> | <i>hááre</i> |
| ba-Vka-che-toor-a | kure | ha-Vre |
| 2-NAR-10-put-FV | far | 16-DEM |
- ‘When it had finished they brought the meat and they went and put them far away there.’

In (52) the perfective *kímariri* is used with *hano* for an English translation approximating “when it (had) finished”. From what we know already about the perfective in both languages, its concern is both viewing the situation/event as complete, and more specifically a nuclear or post-nuclear endpoint. We will see that *hano* can approximate “when, while, as, after” depending on the grammatical aspect of the verb(s) which immediately follow(s). In the main clause, we most often get narrative (*V*)*ka-* forms, so in the case of (52), *baagayé báágachetóóra* ‘and they went and put them’. However, the first verb in the main clause is the progressive *bararééta* ‘they brought’. The progressive here takes its tense cues from the *hano* + perfective construction, so we end up with “they brought (or were bringing)”, rather than “they bring, are bringing”.

In tandem with foreground and background, we often see independent clauses associated with foreground and dependent clauses with background. However, among other issues, this association does not hold as there are a number of counterexamples (Hetterle 2015: xxiii). Thus, we should not expect or assume for *hano* subordinate clauses to always be background. In fact, in both Ikoma and Ngoreme, *hano* occurs most frequently with the

perfective (which we would expect to be foreground), but this is not always the case. There can be a variety of aspectual forms coupled with *hano*.

To see how grammatical aspect “guides the addressee through the chronology of the narrative” especially in the context of *hano* and what it means for sequentiality and simultaneity, I want to take a look at a series of examples from the Luke text corpus in both languages. The last chapter of the book (Luke 24) offers quality opportunities for looking at the range of *hano* as well as the narrative chronology. In addition, the Ikoma evidential perfect is absent from this passage, and so we can give full consideration to the perfective, imperfective, and progressive/continuous. The full discourse (Luke 24:13-53) in Ikoma is available in the Appendix. I have excluded Luke 24: 19-26, 46-49 from the present discussion because those passages are primarily sections of longer speech. While this type of discourse is interesting in its own right, it is easier to get a sense of the flow of the narrative and the usage of *hano* if we exclude those passages from consideration here. Essentially, whatever grammatical aspect is used with *hano* determines whether to interpret the clause as simultaneous (and background) or sequential (and foreground), and hence the appropriate English translation (i.e. ‘while’ vs. ‘after’, ‘when’ and ‘as’ are ambiguous). The English translation used for the examples in Luke 24 is the New Revised Standard Version (NRSV). Again, perfectives yield sequential/foreground interpretations (with an important exception, completive *-mara* constructions), and imperfectives yield simultaneous/background interpretations. As I mentioned in regard to (52) we most often get narrative (*V*)*ka*- forms, and this is true regardless of whether the *hano* clause is functioning as foreground or background. Thus, the *hano* clause can remain in the event-line, or step out of it depending on the grammatical aspect of the following verbs.

The sample text begins with a point of departure “(On) that same Sunday” (v.13), with v. 14 serving as the tail portion of the tail-head linkage with the initial *hano* clause in example (53) (v.15). In (53), Ikoma and Ngoreme both use past imperfectives combined with the persistive *baakeere*.

(53)

I: **Hano** *baaré baakeere barayásiikera*, Yesu omwené *akaacha*, *ayayenda* hayíro hamú naβo.

N: **Hano** *baare baakeere barasumaacha*, Yeesu omwene *ayaacha*, *bakayendani* hamwe.#

E: While they were talking and discussing, Jesus himself came near and went with them,

The main clause in (53) uses forms in the narrative (*V*)*ka*- tense (‘he came’, and ‘he/they walked’). The *hano* subordinate clause in (53) can be considered simultaneous/background, with the sense of “While they were still talking”. Other examples of this type include (54) and (55) from v. 36 and v.51, respectively. These follow the same pattern of past auxiliary, persistive, and imperfective.

(54)

I: *Aḃáanaḃééya ḃáyo ḃa Yésu, **hano** ḃaaré ḃakeere ḃarasííkerera íyoro é ḃayo, hayohayo Yésu omwené akimeerera yaté yaaḃo. Akaḃaḃoorera ákaḃuya. “Omurembe uḃé na nínyu!”*

N: ***Hano** aḃeeya ḃayo ḃa Yeesu, ḃaare ḃakeere ḃarasumaachera amangyana ḃayo, takeere, Yeesu omwene hwa, akimeera hare eḃu. Akaḃaḃoora, “Muḃe no omuremḃe!”#*

E: While they were talking about this, Jesus himself stood among them and said to them, “Peace be with you.”

(55)

I: Na ***hano** aré akeere araḃíítaḃeri, akaḃatiya, ákiimokiḃu yuyé Mwishááro.*

N: Na ***hano** aare akeere araḃanooka, akaḃatiya. Akaimokiḃu koyi mwisaaro.#*

E: While he was blessing them, he withdrew from them and was carried up into heaven.

Example (55) is also another example of tail-head linkage as v.50 ends with the narrative tense forms *akaḃíítaḃeri* (Ikoma) and *akaḃaitaḃeri* (Ngoreme) ‘and he blessed them’. It is unclear why Ngoreme uses a different lexical item here (*araḃanooka* ‘and he gave them grace’), but the function is the same as in Ikoma. In both (54) and (55), the *hano* constructions are followed by narrative tenses.

Example (56) is from v.17, and here we only see *hano* in Ngoreme. However, we get insight into how else Ikoma constructs simultaneous interpretations, still with the imperfective and progressive.

(56)

I: *Akaḃaḃóóri, “Maḃána ke mooyuyenda morasííkerera?” ḃaakimeerera, amashó yaaḃo yá kunyiri yarééréki amacheeche.*

N: *Yeesu akaḃaḃoori, “Kana, n-ke moyosumaachera na **hano** murayenda?” ḃakimeera. ḃaḃaḃaḃayire.#*

E: And he said to them, “What are you discussing with each other while you walk along?” They stood still, looking sad.

The *hano* clause in Ngoreme is followed by the imperfective *murayenda* (‘walk’) and is preceded by the situative *ko-* form *moyosumaachera* (‘talk, discuss, converse’). In Ikoma, as well, we have the imperfective *mooyuyenda*, but followed by the progressive *morasííkerera*. The walking and talking in (56) are simultaneous.

In the rest of the examples here, we look at *hano* in combination with perfectives. As I mentioned previously, in general perfectives yield a sequential/foreground interpretation. In (57) from v.30, *hano* is used in combination with perfectives (*ḃiikéére, ḃaikaire*) and infinitives (*kurááyera*) ‘after they sat down to eat’. (*Iḃeeré* ‘now (temporal discourse marker)’ is also used in the Ikoma example).

(57)

I: ***Iḃeeré hano** ḃiikéére kurááyera, Yesu ákiimoki omuyááte. Akawiitaḃeri, akawosúúra, akaḃaha.*

N: ***Hano** ḃaikaire kuraáyera, Yeesu akaimoki omuyaate. Akaywitaḃeri, akayusoonora, akaḃaha.#*

E: When he was at the table with them, he took bread, blessed and broke it, and gave it to them.

The prior clause at the end of v.29 is another narrative verb: *ayiikara* (Ikoma) / *ayaikara* (Ngoreme) ‘and he stayed with them’. Here then we see *hano* + perfective functioning more as a TDM/text-structuring connective, as it is functioning in a sequential/foreground capacity (but another narrative tense verb is not used). In (58) from v.33, we get a series of narrative verbs

followed by a *hano* + perfective, followed by yet another narrative verb. Verse 50 functions in much the same way as (58) (see Appendix).

(58)

I: Kwo rii**á**ya riyoriyo baaka**β**óóka, baayayarura Yérusareemu. **Hano** βá**h**ikiri βááyatemeerana ná a**β**átómu ikómi na úmu **βá** Yésu βíikomiine hayírohamu ná a**β**ááto a**β**ánde.

N: yo enkaaya iyo iyo, bayatanora, bakayaroka Yerusareemu. **Hano** ba**h**ikire, baka**β**ona a**β**atomu ikomi na omwe **βa** Yeesu, m**β**aikomaine hamwe na a**β**anto a**β**ande.#

E: That same hour they got up and returned to Jerusalem; and [after they arrived] they found the eleven and their companions gathered together.

The narrative verb prior to *hano* is *baayayarura* (Ikoma) / *bakayaroka* (Ngoreme) ‘and they returned (to Jerusalem)’, and the subsequent narrative verb *βááyatemeerana* (Ikoma) / *baka**β**ona* (Ngoreme) translates to ‘they met (together)’. Thus, *hano* + *βá**h**ikiri* / *ba**h**ikire* ‘after they arrived’ again is functioning as sequential/foreground, moving the narrative forward. In both (57) and (58) *hano* + perfective functions in the mainline in this sense, but indicates a larger gap in the time/location (scene).

The next two examples also use the *hano* + perfective construction, but instead of falling under foreground as might be expected, they function as background. In (59) from v.35 for Ikoma (Ngoreme uses a different construction altogether with *hano*) the *hano* clause here is followed by *ábasuuriri omuyááte* ‘when/as/while he broke the bread’. The breaking of the bread and “the recognizing” are simultaneous.

(59)

I: Nihó **β**ayo **βá**βere βááka**β**a**β**oorera á**β**ayéndí yaare yoo**β**é yaak**β**erekíine mónchera. baaka**β**a**β**oorera né ke**β**uno baamúmanyirí Yésu **hano** ábasuuriri omuyááte.

E: Then they told what had happened on the road, and how he had been made known to them in the breaking of the bread.

The difference here in (59) is that instead of occurring initially, the *hano* clause is sentence-final, and thus functions differently because of the syntax. The example in (60) from v.40 is an example of tail-head linkage (and thus background) to indicate continuity, much like (53)-(55).

(60)

I: **Hano** Yésu ámariri kobá**β**oorera yáyo, aka**β**eereki ama**β**oko ná amayoro yááche.

N: **Hano** Yeesu aamare ku**β**a**β**oora yáyo, aka**β**eereki ama**β**oko na amayoro yaache.#

E: And when he had said this, he showed them his hands and his feet.

The prior verse (v.39) is speech, and so the *hano* + *-mara* perfective + infinitive construction *ámariri kobá**β**oorera* (Ikoma) / *aamare ku**β**a**β**oora* (Ngoreme) ‘after he had told them (lit. after he finished telling them)’ is the head within the tail-head linkage. This dependent clause is also followed by the narrative verb *aka**β**eereki* ‘and he showed them’ in the main clause. Thus, the *hano* + *-mara* + infinitive construction often operates as tail-head linkage.

In this section I offered a glimpse of how grammatical aspect functions in the context of discourse to “guid[e] the addressee through the chronology of the narrative”. Perfective and

imperfective categories in Ikoma and Ngoreme generally follow foreground/sequential and background/simultaneous (respectively) typological expectations, and are not at odds with the ideas of completion and incompleteness.

4.3. Conclusion

This chapter provided an introduction to the idea of non-completion of the situation nucleus as the basis for the imperfective and progressive/continuous forms in Ikoma and Ngoreme. I examined the division of labor between individuated (i.e. progressive/continuous) and collective (i.e. imperfective/habitual) categories in both languages, but found that for Ngoreme, unlike Ikoma, the division of labor cannot be so strictly categorized. I also discussed two different discourse templates in use within the Ikoma discourse system, and examined some further discourse considerations in both Ikoma and Ngoreme regarding *hano* clauses. Many questions were left for later discussion in chapter 6, including the history of the Ngoreme imperfective and continuous forms and whether the Ngoreme continuous could actually be better categorized as an infinitive.

Chapter 5

The *Vká-* formative in Ikoma

5.0. Introduction

The *Vká-* formative in Ikoma is something of an enigma. With punctives, *Vká-* functions much like the perfective does, with (a) a past (completed) reading, and (b) a resultative stative reading with the transitional and resultative punctives (while lacking that reading with the inceptive punctive). The major difference is that *Vká-* has a stricter time boundary than the perfective *-iri*, much like an immediate past, i.e. “has (just) V-ed (within the past twenty minutes)”. With duratives, however, we would expect a form with such perfective-like semantics to maintain the same sort of immediate past reading. It *can* have that reading with duratives, as in (61).

(61) H6:2.19

Hano á-mar-iri yó-yá-h-a ishébyara Ishebyara yuyε yó-yá-nyo
 when 3.SG-finish-PFV 15.INF-6-give-FV father-in-law father-in-law go 15.INF-6-drink

hanjú a-ra-βúy-a: “Iḽeére iyé niye, o-yo-kwír-a omúúke wááne.
 in this way 3.SG-PRG-say-FV now you indeed 2.SG-IPFV-marry-FV daughter my

O-ká-n-dæter-a amanché yáno hene n-ga Mashéu’.
 2.SG-NUCL-1SG-bring-FV water this truly it is-6 Masheu

‘When he finished giving the water to his (future) father-in-law, the father-in-law went ahead and drank the water, saying: “Now, you indeed will marry my daughter. You **have brought me** this water. Truly, it is the water of Masheu”.’

Here, the act of bringing the water has occurred in the past, as in the context the future son-in-law has already given his future father-in-law the water, and the future father-in-law has already drunk it. The event of bringing the water occurred in the immediate past. However, the *Vká-* form can also have a “present”, progressive-like meaning, as in (62).

(62) Genesis 37: 18-19

Hano Yúsuβu a-ré a-keéré kúre, báwomooβo bá-aka-mo-riyi,
when Joseph 3.SG-PST.COP 3.SG-PERSIST distant their brother 3.PL-NARR-3SG-see

βa-aya-kor-a ekiína ye komwíta. βa-aya-yamban-a aβeené
3.PL-NARR-made-FV decision of 15.INF-3SG-kill 3.PL-NARR-talk-FV to each other

kwo βééne βa-ra-βúγ-a, “Mumwóhi! Omurwóti o marwóti a-ká-ach-a.
3.PL-SIT-say-FV Look dreamer of dreams 3.SG-NUCL-COME-FV

‘They saw Joseph from afar, and before he came near to them they conspired against him to kill him.’¹⁹
They said to one another, “Look, here the dreamer **is coming**”.

In (62), Joseph is still in the midst of motion/travel at the moment of speech. This combination of perfective/immediate-past with progressive/present semantics also exists in tandem with firsthand/eyewitness evidentiality (§5.2). I examine durative situation types (§5.3) and the range of punctive situation types (§5.4) to determine further how *Vká-* functions. In §5.5, I offer various hypotheses for what might be happening, and come to the conclusion in §5.6 that *Vká-* is functioning as a “nucleative”, a pseudo-perfective/progressive.

5.1. Verbal *ka-* in Bantu

Verbal *ka-* forms are ubiquitous in Bantu and have a range of possible meanings³⁷. The most common are itive (also called distal, see Botne 1999), narrative, future, and past (Nurse 2008: 244). More minor categories include the “if/when/conditional/situative/persistent” along with the negative and habitual³⁸ (Nurse 2008: 241). These segmental *ka* morphemes can also be tonally distinct. “For itive and narrative, *ka* [i]s overwhelmingly L tonally” (Nurse 2008: 244). This fits with the L-toned narrative *Vka-* morpheme in Ikoma (and L narrative *ka-* in Ngoreme). Thus, from these options, the only *ka-* that remotely fits typologically is the past, and this is also problematic. “As a past marker, *ka* occurs in most [Guthrie] zones but not with much frequency [...] In multi-past systems, it refers overwhelmingly to far or the farthest past” (Nurse 2008: 84). Obviously, far past does not fit, however, Nurse does mention the case of Bukusu (JE.31) where “[aaxa], refer[s] to immediate past” (2008: 84, footnote). Furthermore, in addition to Bukusu, Nurse reports that *-(a)ka-/aaxa-* is present in Soga (JE.16) and Gwere (JE.17) (Nurse 2008: 100). The four languages Botne (2010) covers all have *-(a)ka-/aaxa-* as perfects, Luwanga (JE.32), Lusaamia (JE.34), Rutooro (JE.12) and Runyoro (JE.11). Thus, we have a clustering of languages with *-(a)ka-/aaxa-* around Lake Victoria that have perfect and/or immediate past meaning(s).

Nurse translates the immediate past and future meanings in English as “‘have just verb-ed’ and ‘be just about to verb’” (2008: 99). These meanings resemble the past and future

³⁷ See also Botne (1999), Güldemann (1996), and Nurse (2008: 240ff).

³⁸ In regard to the others: Negative *ka* morphemes occur in slot(s) different than T/A. Habitual appears to be from a different source. The ‘if/when/conditional/situative/persistent’ is relatively rare (Nurse 2008: 241, 243). Itive *ka* appears in Gusii (JE. 42) but not in Kuria (JE.43) (Botne 1999: 512, 515). For the surrounding Mara JE.40 languages, both Kabwa and Simbiti have future *ka*, while Ikizu and Zanaki have far past *ka*. All four (Kabwa, Simbiti, Ikizu, and Zanaki) also have narrative *ka* (Walker 2013).

*inceptives*³⁹ that Nurse also references (2008: 161-2). According to Nurse, English translations for the future inceptive include ‘be about to (verb)’, ‘be on the point of (verbing)’, and/or ‘get (verbing)’ (2008: 161). The “past inceptive”, on the other hand, “depicts a state as after its coming-into-being, as subsequent to its beginning” (2008: 161). English translations include ‘have already (verbed), ‘have just (verbed)’, and/or ‘be already (verbing)’ (2008: 161-2). The closest segmental morphemes to *ka-* Nurse lists for inceptive are *-tsa-* for Kete (L.21) and *-cha-* in Shona (S.10) (2008: 162). The problem is that neither the past or future inceptive descriptions Nurse provides align with the traditional meaning of *inceptive* aspect (also known as inchoative or ingressive): “the beginning of a situation, or entrance into a state” (Bybee 1985: 147). Nurse’s “future inceptive” sounds more like the prospective aspect (Comrie 1976: 64), and his “past inceptive” like perfectives, completives, and/or immediate pasts⁴⁰. In sum, none of these Bantu *ka-* forms completely fits the semantics of the *Vká-* formative in Ikoma. The closest are the perfect and/or immediate past meaning(s).

5.2. Evidentiality in Ikoma

Evidentiality can be defined as “the study of sources of information and modes of knowing” (Cornillie 2007: 1). However, no current definition of evidentiality⁴¹ is beyond dispute. The controversy centers around how narrowly or how broadly to define evidentiality, with the relationship between evidentiality and epistemic modality⁴² as the key.

Aikhenvald takes a prototypically narrow view and defines evidentiality as “a linguistic category whose primary meaning is source of information” (2004: 3). Beyond this restricted definition, in Aikhenvald’s view, evidentiality is necessarily grammatical, obligatory, and part of the core semantics (2004: 3-11). Mushin, for example, taking a broader view, initially defines evidentiality as the “speaker’s *attitudes* towards knowledge” or “the speaker’s subjective relationship to the information they express (i.e. the status of their knowledge)” (2001: 18).

Works such as Chafe (1986), Palmer (1986), and Willett (1988) consider evidentiality to be a subcategory of epistemic modality. There are significant issues with the narrow definition of evidentiality that lead to this broader categorization. One claim is that the narrow definition of evidentiality only works for exceptional cases but not for the majority of languages (Mushin 2001: 19). Other issues include how to incorporate “evidentiality strategies” (Aikhenvald 2004) and “conventional implicature”, and analyses of evidential systems which are outside the

³⁹ Nurse calls the past and future inceptives the “state-after-its-coming-into-being set” and the “state-just-before or at-its-inception set”, respectively (2008: 162).

⁴⁰ This idea of the “past inceptive” (a) has absolutely nothing to do with inception, and (b) refers not to the onset, but the post-nucleus or coda. The clincher is from Nurse’s own words: “The state-after-its-coming-into-being set [past inceptives] are often encoded by (inherited suffixal) anteriors, or by (pre-stem) morphemes relatable to verbs meaning ‘finished’ or ‘be finished’: so anterior or near past [...]” (2008: 162). In other words, the lexical sources for the supposed “past inceptive” come from the same sources as the perfective/anterior/completive. Nurse also says that these Bantu inceptives are “relatable to anterior” (2008: 161). Therefore, I conclude that “past inceptive” is an unnecessary category.

⁴¹ Aikhenvald (2018) was published too late for me to incorporate it into this study.

⁴² A traditional definition of epistemic modality: the “evaluation of the chances that a certain hypothetical state of affairs under consideration (or some aspect of it) will occur, is occurring or has occurred in a possible world” (Nuyts 2001: 21).

bounds of “source of information”, e.g. Friedman (1986) and Balkan Slavic (Mushin 2001: 19-21). Equally significant issues exist in broader views in which evidentiality is incorporated into the domain of epistemic modality. Problems include the overlap in meaning between proposed categories in both Palmer (1986) and Willett (1988), and the direct mapping of “source(s) of knowledge” to “mode(s) of knowing” in Chafe’s (1986) framework (Mushin 2001: 25-30).

It is not within the scope of this dissertation to make any firm theoretical claims about the relationship of evidentiality and epistemic modality. I direct the reader, for instance, to Cornillie (2009) in which the notion of “reliability” is used to connect the two categories, while still keeping them distinct. While acknowledging the deficiencies in works which regard evidentiality as a subcategory of epistemic modality, at the same time I also consider Aikhenvald’s (2004) perspective on evidentiality to be overly restrictive. This type of narrow perspective ignores pragmatics and discourse contexts, functional usage, and “mismatches between source of information and evidential coding” (Mushin 2001: 51-58).

Mushin’s solution to these concerns is the notion of “epistemological stance”, or “the construal of information with respect to a speaker’s assessment of their epistemological status” (2001: 58). Examples include personal experience (both private experience and witness), inferential, reportive, factual, and imaginative epistemological stances (Mushin 2001: 58ff, 79). As we see later in this chapter, the majority of examples of evidential *Vká-* in Ikoma deal with sensory-evidence information source without difficulty. Nevertheless, there are also a minority of examples which still have a connection to sensory witness, but can be considered inference based on direct evidence, or lean towards a reportative (but not hearsay) category.

Aikhenvald claims that approximately 25% of languages in the world have evidentiality (2004: 1, 17). Evidentiality is most common “in South American and North American Indian languages, in the languages of the Caucasus, and in the languages of the Tibeto-Burman family” (Aikhenvald 2004: 17). There is a dramatic lack of evidentiality attested in Africa. “Very few evidentiality systems have been described for African languages” (Aikhenvald 2004: 291). As of this writing, I have uncovered seven African languages⁴³ with evidentiality⁴⁴: **Acooli** [W. Nilotic, *Uganda/S. Sudan*, Hieda 2012]; **Beja** [Cushitic, mainly *Sudan*, WALs/Dahl 1984: 95-6]; **Lega** [Bantu, *DRC*, Botne 1997, 2003b]; **Logooli** [Bantu, *Kenya*, Bowler and Gluckman 2016]; **Luwo** [W. Nilotic, *S. Sudan*, Storch 2006, 2014]; **Shilluk** [W. Nilotic, *S. Sudan*, Miller and Gilley 2007]; **Sissala** [Gur, *Ghana/Burkina Faso*, Aikhenvald 2004: 291; **Sukuma** [Bantu, *Tanzania*, Nurse 2008b]⁴⁵.

⁴³ Botne (1997) has the following note: “The only sub-Saharan African languages that I am aware of in which evidentials have been noted are Kinyarwanda (Bantu; Givón 1974), Luvale [Lwena] (Bantu; Horton 1949), Mupun (Chadic; Frajzyngier 1985), and Nama (Khoisan; Heine et al. 1993). Epistemic modalities concerned with doubt and uncertainty have been noted in other languages such as Hausa (Myers 1974 and Dimmendaal 1989), but these lack any explicit encoding of the source of knowledge or mode of knowing” (23). Without having examined the sources, It is unclear whether these languages have actual evidentiality or epistemic modality.

⁴⁴ Metadata on some of these languages was gathered from the Ethnologue (Simons and Fennig 2018).

⁴⁵ WALs online includes Afrikaans as a language with evidentiality, but does not list a source. F de Haan is listed on the WALs site for the evidentiality pages. Aikhenvald calls de Haan’s (1997) claim of evidentiality in

Aikhenvald's typology of evidentiality centers around two factors, (1) how many information sources are marked, and (2) how they are marked. Evidential systems are able to encode visual, sensory, inference, assumption, hearsay, and quotative sources of information. The contrasts between the sources of information can range from one (two choices) to five or more, and each of these combinations have variations in how they are marked (Aikhenvald 2004: 23, 64). Ikoma has one contrast (two choices), and the two-choice evidential typology involves five different options, as in (63):

(63) Evidentiality systems with two choices (Aikhenvald 2004: 25):

- A1. Firsthand and Non-firsthand;
- A2. Non-firsthand versus 'everything else';
- A3. Reported (or 'hearsay') versus 'everything else';
- A4. Sensory evidence and Reported (or 'hearsay');
- A5. Auditory (acquired through hearing) versus 'everything else'.

Which one of Aikhenvald's (2004) typological options fits? Let us first look at some examples in (64).

(64) (Fieldwork 2016, 2018)

Context: A child is taking a nap in the bedroom of a house.

- a. *a-ká-βook-a*
3.SG-PRF-wake up-FV
S/he is waking up/has just woken up.
Further context: Speaker is in the same room and can see the child.
- b. *a-ká-βook-a*
3.SG-PRF-wake up-FV
S/he is waking up/has just woken up.
Further context: Speaker is in an adjacent room but can hear the child.
- c. *n-a-βook-iri*
FOC-3.SG-wake up-PFV
S/he has just woken up (is awake).
Further context: Speaker is outside the house and cannot see or hear the child.

From these examples, we can see that *Vká-* indicates that the speaker has witnessed the event either by visual or auditory confirmation. If the speaker is outside of the house and therefore unable to see or hear the child wake up, the speaker is unable to use *Vká-* in this case, and must use the perfective. For the speaker to know the child woke up within a relatively short period of time afterwards, that information would almost certainly have come from a secondhand source (someone who was in the house, witnessed the child waking up, and went outside to tell the speaker). In that case, the witness from inside the house can report the information to the speaker using *Vká-*, but if the speaker walks down the path and tells his friend, he must use the

Dutch into question (2004: 17). Because of Afrikaans' relationship with Dutch and the lack of citation, I exclude it from the list here.

perfective and not *Vká-*. Therefore, the *Vká-* form involves firsthand information, while the perfective is used most often as the non-firsthand form.

Let us now work through Aikhenvald's typology of two-choice evidentiality systems and try and identify the system in Ikoma. I begin with the "everything else" options A2, A3, and A5. A5 (auditory versus 'everything else') can be eliminated outright because the system in Ikoma includes visually-acquired information with the perfect, not just auditory information. In A2 systems (non-firsthand versus 'everything else'), inference, hearsay, and report pattern together (Aikhenvald 2004: 29-31). This is not the case for Ikoma, where inference patterns with sensory-acquired information, not hearsay and report (see below). This means that A3 (reported vs. 'everything else') could be an option for Ikoma. I discuss this below in tandem with A1. The A4 option (sensory evidence versus reported) can most likely be eliminated by the fact that Ikoma does not use sensory-acquired information other than visual and auditory (Aikhenvald 2004: 34-37). However, Aikhenvald makes it clear that "the typological validity of type A4 remains doubtful", as it describes very few languages, which are all severely endangered or near extinction (2004: 36). This does not characterize Ikoma, as language endangerment to this degree is known to affect grammatical structures to a degree where grammatical information is "used sporadically" (2004: 36, see also Sands 2017).

Aikhenvald defines the A1 evidential 'firsthand' as "information acquired through vision (or hearing, or other senses)" (2004: 26). The 'non-firsthand', however, "may refer to an action not seen by the speaker and in which they did not participate" and also includes hearsay and inference (Aikhenvald 2004: 154-55). These definitions fit the data, except for the inclusion of inference with the non-firsthand category. Ikoma marks these with *Vká-* (see below). This brings us back to A3 (reported vs. 'everything else'). The main issue with A3 is that in these systems "the reported term is marked, and the non-reported ('everything else') term is not marked" (Aikhenvald 2004: 31). Thus, the question for Ikoma is, can we consider the perfective *-iri* to be marked even though it is not always the non-firsthand form (rarely the non-past consecutive or the progressive functions in this role, see example (67) below)?

What does Aikhenvald mean by *marked* and *unmarked* in this context? First, she distinguishes formal and functional markedness:

A formally unmarked term will be the only one in its system to have zero realization (or a zero allomorph). Functional markedness relates to the context of use — the marked term(s) may be used in a restricted, specifiable context, with the unmarked term being used in all other circumstances. Formal and functional markedness do not necessarily coincide — a term from a system that is functionally unmarked need not be formally unmarked, and vice versa (2004: 70).

From this explanation, we can conclude that neither the perfective *-iri* nor *Vká-* are formally unmarked, as neither have "zero realization" (although the perfective does have null marking in the formative slot, distinguishing it from the simple past). In terms of formal markedness (see discussion in Aikhenvald 2004: 72-75), DeLancey argues that "the unmarked form in an evidential system typically represents information which the speaker knows from firsthand, visual perception" (2001: 379). Thus, typologically, if anything, we should expect the *Vká-* form in Ikoma to manifest with zero-realization, not the perfective. Another tendency is for the perfective to be the non-eyewitness marker (Aikhenvald 2003: 3, 20; 2004: 28; Bybee et al.

1994: 95ff). Aikhenvald says that “typically a perfective or perfect-like tense carries an inferential or noneyewitness specification” (Aikhenvald 2003: 20). Because *Vká-* functions as a pseudo-perfective, this does not carry as much weight as it would otherwise, but is still important to consider. Aikhenvald’s “functional markedness” only serves to repeat what we already knew from the A3 explanation: “the marked term(s) may be used in a restricted, specifiable context, with the unmarked term being used in all other circumstances” (2014: 31, 70). However, we can essentially eliminate formal markedness as a factor in the Ikoma situation. For more on the criteria for morphological markedness, see Greenberg (1966), Croft (1990 [2003]), and Bale et al. (2011).

As we will see, if anything, functionally, it seems that in Ikoma the perfective *-iri* operates as the default form with *Vká-* being used in specific contexts where information is acquired visually, auditorily, or through inference. In other words, *Vká-* is functionally marked. Thus, within Aikhenvald’s typology it is difficult to discern whether Ikoma should be classified as A1 or A3.⁴⁶ If we want to make an exception to A1 for inference based on direct evidence, this fits better with *Vká-* being functionally marked. Otherwise, if we insist on taking a narrower stance in regard to inference based on direct evidence patterning with report and hearsay, the A3 classification is more in order. However, then we face issues with markedness. I take the former view, and believe that inference based on direct evidence can pattern with sensory-acquired evidence, in line with works such as Anderson (1986) which offer similar categories such as “evidence plus inference”, “inference (evidence unspecified)”, and “reasoned expectation from logic and other facts” (1986: 274-275). This is the case, for example, in Lega where Botne says the following about the firsthand evidential: “In contrast, *ampó* indicates not only that the speaker has evidence to support the proposition being asserted, but also that s/he believes that evidence to be particularly robust or COGENT. This evidence is of three general types: 1) direct sensory evidence, particularly from sight or hearing; 2) strong inferential evidence; and 3) second person declaration when the individual’s integrity is known and trusted. Direct sensory experience is, perhaps, the most common evidence for justifying claims (1997: 10)”.

This brings us to another key point of typology regarding how evidentiality is marked, that “evidentiality may be fused with a tense-aspect marker” (Aikhenvald 2003: 2). Aikhenvald identifies three main ways that evidentiality can interact with tense/aspect, including (1) independently, (2) selectively, or (3) mutually. In independent systems, evidentiality and TAM are completely separate. In selective systems, evidentiality applies in some TAM categories but not others, while in mutual systems sets of evidentials can have their own tense distinctions (2004: 261-267, see especially the summary table). The interaction between evidentiality and aspect in Ikoma can then be characterized as a selective system.

⁴⁶ Geographic-typological considerations do not help much here either. As I mention earlier in this section, there is a lack of evidentiality attested in Africa. “Very few evidentiality systems have been described for African languages” (Aikhenvald 2004: 291). A1 systems are found primarily in Native American (both North and South America), Northeast Caucasian, and Finno-Ugric languages (Aikhenvald 2004: 28). A3 systems are “widespread all over the world” (Aikhenvald 2004: 31). However, until more African evidentiality systems are documented, these geographic tendencies do not aid in making a typological determination.

The eyewitness-evidential component of *Vká-* appears to be obligatory, with their functions having completely fused. (I have not been able to elicit or find any textual counterexamples where *Vká-* is definitely used without any evidential meaning attached). From its likely source as an evidential strategy based on the ever shrinking timeframe around UT in which *Vká-* could be used, this level of fusion is not surprising (see chapter 6). However, the perfective can be best seen as a default with the most probability of occurring when the information is non-firsthand (and the temporal circumstance matches), but also when no statement on the source of information is being made.

The eyewitness evidential occurs frequently in contexts around verbs such as *-shóómi* ‘look’, *-ríyi* ‘see’, *-óyu* ‘hear’, and *-sóma* ‘observe, study’. Consider the examples in Table 5.1. I have tried to include examples in context and from a variety of genres and registers: folktale, casual conversation, and Biblical texts. What we see from several of these examples is that multiple verbs at a time can act as “triggers” (e.g. Luke 7:22 w/‘see’ & ‘hear’), and that “trigger” verbs do not have to occur pre-*Vká-*, they can occur post-*Vká-* as well (e.g. S8: 4.1 w/ ‘see’).

Table 5.1. Eyewitness evidentiality triggers in Ikoma

Eyewitness evidential triggers	Examples	References
-shóómi ‘look’	<i>Egesúsu kerayáara kerage kerashóómi. Hano géshoomiri keráácha kerakúúra kerabúga “Uú! Masaaní wááne, Waka akáácha!; Uú! Masaaní wááne, Waka akáácha!”.</i> ‘The hare is running, and it goes and looks . When it has looked , it comes and cries out, saying, “Whoa! My friend, lion is coming !; My friend, lion is coming !”	Erigano re Gesusu na Aka: 7.2
-ríyi ‘see’	<i>Iḃeeré (Moseḃoká) araḃóóka, araḃúya “Wóri eni chaasíko cheene cheeyásuuha. Ndiyi iḃeeré Aḃííkoma bá wiito ndaacha gokú [...]”</i> <i>Iḃeeré Moseḃoká araḃóóka, arakú.</i> ‘Now Moseboka wakes up and says, “I say, for me my days have just decreased . I see now, Ikoma of our homeland, that I will still die”. Now Moseboka wakes up, and dies’.	S8:4.1
-óyu ‘hear’	<i>Niho, Yésu akaḃayarokeri, “Muḃende momoḃóórere Yohána ḃoosé yáno mórooche, na ḃoyóóyu. Kuḃá, aḃahúku ḃakáriyi, na aḃaḃeeru ḃayáyenda, na aḃaḃáḃaru ḃa mḃiti ḃakáhora, na aḃakiro ḃakóóyu, na aḃáku ḃakáryoka, na aḃahaḃe, ḃakárayaneru Aḃana Anchómí e Eryóḃa.</i> ‘And he answered them, “Go and tell John what you have seen and heard : the blind receive their sight , the lame walk , lepers are cleansed , and the deaf hear , the dead are raised up , the poor have good news preached to them’.	Luke 7:22

-sóma 'observe, study	<i>Iyé oriḡi néke rehatotoori háno okábooka oḡásoma awanyu?</i> 'What do you see as the benefit [context: of living near the Serengeti] that we have received [lit. woken up to], as you have observed your home area?'	Ikoma convo 2014
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However, eyewitness evidentials can also be triggered without any of the aforementioned lexical verbs, but when direct observation is only implied. Consider (65) where the midwife has obviously seen the baby and knows that it is a boy.

- (65) Genesis 35:17
Hano a-ré a-ra-nýák-a chwée no oḡosóngo βúyo,
when 3.SG-PST.COP 3.SG-PRG-bother-FV very with birth pains those
omotúúti waache á-ka-mo-ḡoorer-a á-ka-ḡuy-a, "O-ta-tiin-a, ḡó kuḡá
midwife her 3.SG-NARR-3.SG-tell-FV 3.SG-NARR-say-FV 2.SG-NEG-fear-FV because
o-ká-ḡon-a wiikí omóóna owónde o ḡesúḡe."
2.SG-NUCL-get-FV again child another of male
'And when her labor was at its hardest, the midwife said to her, "Do not fear, for you **have gotten** another son.'

In (66) below it is also assumed from the evidential marking that the speaker has seen agriculture fail in their region, even though no verb "triggers" happen to be present.

- (66) Ikoma (Conversation 2014)
Kana niḡu ḡa-akw-íheḡ-a to-taku-mény-a βúyo?
why 3.PL-IPFV-think-FV 1.PL-NEG-know-FV those things
Kani riírema re-eyá-tam-a?
why agriculture 5-NUCL-fail-FV
Why do they think we don't know those things? Why **has** agriculture **failed**?

The *Vká-* form is also able to occur with direct eyewitness report/hearing, but not hearsay. In a scenario proposed to native speakers, *Vká-* is used for direct report, but not indirect report through another party:

- (67) Ikoma scenario (Fieldnotes 2016)

Context: The old men are having a village meeting. You have to step away from the meeting for a few minutes. When you come back your friend is able to whisper to you, "The old men *ḡakáḡuya* '**have just said**'..."

Context: The old men are having a village meeting. You have to step away from the meeting for a few minutes, but regrettably so did your friend. The old men must have said something important, and so right after the meeting your friend's friend reports to him what they said. Your friend then tells you, "The old men *ḡaḡuya*⁴⁷ '**say**'..."

⁴⁷ Non-past consecutive form, see §2.2.

In some instances, this can seem to approach the line of a non-firsthand hearsay or reportative, but the following examples help to clarify more exactly the limits of the eyewitness evidential. In (68), there are two main considerations: (1) the fact that indeed “Jacob has taken” is able to be directly observed by the sons of Laban, whether or not Jacob actually took “all that was [their] father’s”, and (2) Jacob was close by enough to hear this report, whether or not it was completely accurate.

- (68) Genesis 31:1
Mbe Yakóβo a-kó-óγu amanána kúβa, abáána βa Ráβaani m-ba-akw-irerééri
 So Jacob 3.SG-NARR-hear words that sons of Laban FOC-3.PL-IPFV-grumble

γo koβúγa, “Yakóβo a-γá-γγ-a eβeyíro βyosé βe táata wiito,
 saying Jacob 3.SG-NUCL-take-FV things many of father our

niβyó βe-eka-mw-ámihi hanú.”
 indeed 8-NARR-3SG-enrich in this way
 ‘Now Jacob heard that the sons of Laban were saying, “Jacob **has taken** all that was our father’s, and from what was our father’s he has gained all this wealth.”’

If actually reportative/hearsay, the perfective *nayeyiri* would be used here.

Ikoma can also use the direct eyewitness evidential for inference, whether deductive or inductive logic. We see this in two other Biblical passages from the book of Genesis, in examples (69) and (70). The context of (69) is the familiar story of Noah and the flood. Here the direct evidential is used because Noah observes the dove and the olive leaf, but the evidential is not marked in that sentence, but in the next one where it is used as evidence for Noah that the waters had subsided. There is a cognitive link between Noah’s observation of the dove, and proof that the flood had indeed receded.

- (69) Genesis 8:11
Asárarí íyo e-γa-γaruk-a oNúhu omuyɔɔβá, enyí ne eriito
 dove that 9-NARR-return-FV to-Noah in evening and indeed with leaf

iβése re musayitúúni momonu wááche. Nihó Núhu
 raw of olive tree in mouth her So Noah

a-ka-meny-a kuβá amánche ya-ayá-tiβok-a mose.
 3SG-NARR-come to know-FV that waters 6-NUCL-decrease-FV on land
 ‘And the dove came back to him in the evening, and behold, in her mouth was a freshly plucked olive leaf. So Noah knew that the waters **had subsided** from the earth’.

In (70), the context is that Joseph’s brothers are remorseful for how they mistreated him in the past, due to the fact that unbeknownst to them Joseph is testing them by accusing them of being spies.

(70) Genesis 42:21

Nihó, ßa-aya-yamban-a, “Mmaheene n-to-mu-tasiiri omonyí
 then 3.PL-NARR-CONVERSE-FV it is true FOC-1.PL-3SG-wrong-FV younger brother

wiito Yúsußu. Ntorooche kinya ítumatiri momótémá waache, na
 our Joseph we saw how be grieved heart his and

kinya a-ré a-ra-tú-sasaam-a korú totoywiré. Kiyo nikyó
 how 3.SG-PST.COP 3.SG-PRG-1.PL-beg-FV until we did not listen Indeed in this way

ye-eyá-yeri anyáko íno yoose e-yá-tuβon-a.”
 7-NUCL-cause sufferings these all 7-NUCL-1PL-come upon

‘Then they said to one another, “In truth we are guilty concerning our brother, in that we saw the distress of his soul, when he begged us and we did not listen. That is what **has caused** all these sufferings (that) **have come upon** us.”’

Here again, we have the normal trigger verb ‘to see’ (‘we saw the distress [...]’) and would perhaps expect direct evidentials on ‘he begged’ and/or ‘we did not listen’. Instead we get them on ‘has caused’ and ‘have come upon’. Again, direct evidentials are being used to establish the cognitive link between their guilt and what they are now experiencing.

Unlike the examples towards the beginning of this section, *Vká* is being marked not on what is being directly observed or obtained through direct report, but the *result* of deductive or abductive reasoning. In fact, the logic in (69) is deductive, while the logic in (70) is abductive, as below in (71):

(71) *Deductive* Logic of Genesis 8:11

Plants can only grow when the earth is not flooded.
 The dove came back with a plant.
 Therefore, the earth must no longer be flooded.

Abductive Logic of Genesis 42:21

We did something bad (we are guilty).
 When we are guilty, God brings along bad things that happen.
 Therefore, bad things are happening because we are guilty.

The *Vká*- form is in some sense marking the conclusions of these arguments. Aikhenvald does indicate that “the firsthand evidential can be extended to visible results if the verb describes something that cannot be seen; for instance, feelings or cognitive processes” (2004: 155). However, as we saw earlier, Aikhenvald’s definition and conceptualization of evidentiality can be overly restrictive. Rather, Mushin’s view of “epistemological stance”, includes personal experience (both private experience and witness), inferential, reportive, factual, and imaginative epistemological stances (2001: 58ff, 79). This seems to better encompass what we see in Ikoma.

5.3. *Vká-* hypotheses

How should we classify the *Vká-* formative in Ikoma? The prior characterization of the *Vká-* form has been as an “incipient” (Higgins 2012) or “inceptive” (Aunio 2013, Walker 2013). Walker says that “[t]he [past inceptive] indicates that an action has just started and carries current relevance” (2013: 111). And Aunio says that “[t]he notion of beginning is often seen in translations of the inceptive form, either with or without the auxiliary verb *-seema* ‘to begin’” (2013: 297). or initial phase of the nucleus. Ikoma uses a periphrastic construction with *-seema* ‘begin, start’ (inceptive) to highlight the initial nuclear phase.

First, in examining the translations for *Vká-* in Aunio (2013) many of the verbs marked inceptive have simple perfective-like translations (2013: 298-303). Of the ones with included translations like *begin* or *start* are transitional punctives in Ikoma such as “they have got angry” and “they started to agree” (Aunio 2013: 299, 303). The remaining examples appear to be duratives, e.g. “they began to eat”, “they started to sow” (Aunio 2013: 298, 303). I believe the inceptive analysis may stem from a particular application of the *Vká-* marker. As we have seen so far and will see again in the next section (§5.4), Ikoma transitional punctives have dynamic, inchoative meaning (e.g. “to get angry”), and so when the *Vká-* marker applies, available readings include “have (just) gotten angry” and “be angry” (but not “be getting angry”). However, the dynamic inchoative meaning comes from the lexical semantics of the verb itself, not the *Vká-* marker. Duratives like “to eat” and “to sow” do not have any inherent inchoative meaning, but perhaps the semantics of the transitional punctives were extended to duratives as well.

As we saw in §4.2, Ikoma uses the single progressive *ra-* construction in the informal oral discourse template as a narrative marker for the main event line. This use of *ra-* masks the use of progressive *ra-* “normally” in contrast in duratives with imperfective *Vko-*. Furthermore, progressive *ra-* can be used with punctives in this template, and so that lexical aspect contrast is effectively neutralized. The *Vká-* fits into the overall Ikoma aspectual system with a progressive-like meaning perhaps in part because the single progressive *ra-* construction is rarely used (see Aunio 2013: 288), and is then in competition with (1) the narrative use of *ra-*, (2) situative *ra-* (segmentally the same, but toneless), and (3) situative *ráá-* (segmentally and tonally different, but similar).

The semantics of *Vká-* also certainly resemble the perfect in several ways. Perfects are typically considered to have four different uses: recent past, result, continuation, and experience (e.g. Bybee et al. 1994, Comrie 1976, Dahl 1985). However, “[n]ot all languages that have forms with perfect meaning have the full range of [...] meanings [...], while in some languages there are distinct forms for some of these meanings” (Comrie 1976: 56). In chapter 3, I determined that the Ikoma *-Ø-...-iri* form was not functioning as a perfect, but as a perfective, because it does not impose an “evaluative temporal frame” (Botne 2010: 3). We saw that the perfective instead marks the completion of the situation nucleus.

The traditional idea of the perfect⁴⁸ aspect is that it “refers to an earlier action which produced a state which either lives on, or whose consequences or relevance live on” (Nurse 2003: 96). On the surface, this definition would seem to fit the semantics of *Vká-*. Take one of the examples from the beginning of the chapter, for instance, example (61), here as (72).

(72) H6:2.19

Hano á-mar-iri yó-yá-h-a ishébyara Ishebyara yuyé yó-yá-nyo
when 3.SG-finish-PFV 15.INF-6-give-FV father-in-law father-in-law go 15.INF-6-drink

hanú a-ra-βúy-a: “Ipéére iyé niye, o-yo-kwír-a omúúke wááne.
in this way 3.SG-PRG-say-FV now you indeed 2.SG-IPFV-marry-FV daughter my

O-ká-n-deeter-a amanché yáno hene n-ga Mashéu”.
2.SG-NUCL-1SG-bring-FV water this truly it is-6 Masheu

‘When he finished giving the water to his (future) father-in-law, the father-in-law went ahead and drank the water, saying: “Now, you indeed will marry my daughter. You **have brought me** this water. Truly, it is the water of Masheu”.’

The verb *okándeetera* ‘you have (just) brought’ cannot have a progressive reading (“you are bringing”) here. The action is complete, the giving of the water is already finished (*ámariri yoyáha*), and the future father-in-law has already drunk the water at the time of the utterance. The event has happened in the immediate past, but the “consequences or relevance live on” (Nurse 2003: 96). This example would seem to qualify as a perfect of recent past, where “recentness may be a sufficient condition for present relevance” (Comrie 1976: 60).

The *Vká-* construction also seems to invoke the perfect of result. Comrie (1976: 57), for instance, describes the Swahili *me-* form as a perfect, with examples like what we saw for the perfective in chapter 3, a present (stative, resultative) reading coming from the inference that if entry into the state took place in the past it holds “now” in the present (Bybee et al. 1994: 73ff.; Nurse 2008: 97). Consider (73) below for Ikoma.

(73) Ruth 3:7b

Hano Rúútu aróóche a-ká-misi, a-ya-ye kííhóro a-ka-βushur-a
when Ruth sees 3.SG-NUCL-sleep 3.SG-NARR-go slowly 3.SG-NARR-uncover-FV

ángiβo mó-mayoro yááche a-ki-ráári woose háyo.
cloth on-legs his 3.SG-NARR-lay down with him there

When Ruth saw **he has (just) fallen asleep (he is asleep)**, then she came softly and uncovered his feet and lay down.

This would seem to fit the perfect of result, wherein “the present state of affairs differs from the background one by the event’s taking place” (Dahl 1985: 134).

One test we can apply to the *Vká-* constructions as well as perfective *-iri* has to do with the Bantu persistive (“still V-ing”). Dahl points out that there is a “contradiction between the semantics of the ‘perfect of result’ and that of words like *still* [which] would explain why they

⁴⁸ There is substantial discussion among linguists as to whether the perfect should be considered tense or aspect (see Ritz 2012).

do not occur together” (Dahl 1985: 134). The **persistive** in Bantu “affirms that a situation has held continuously since an implicit or explicit point in the past up to the time of speaking” (Nurse 2008: 145). In many Bantu languages this form occurs in single verb constructions with a formative based on reflexes of *kí-*, while others occur in periphrastic constructions where the form is “the old anterior/stative form of ‘be, sit, remain, live’, followed by what was presumably once a locative or verbal noun” (Nurse 2008: 147). Ikoma and Ngoreme both are examples of the latter case, although in both languages it is not just infinitives which follow the persistive auxiliary (segmentally *SBJ-keere*, Ikoma and Ngoreme have different tonal patterns with the persistive), but other forms like the imperfective as well. In Ikoma, both *Vká-* and perfective *-iri* can occur with the persistive, as in (74).

- (74) Fieldnotes (2014, 2018)
- | | |
|----------------------------|---------------------------|
| <i>akeéré akáhika</i> | ‘s/he is still arriving’ |
| <i>akeéré akámanya</i> | ‘s/he still knows’ |
|
<i>akeéré akariire</i> |
‘s/he is still angry’ |
| <i>akeéré namanyiri</i> | ‘s/he still knows’ |

The concept of *still* is at odds with the perfect of result because *still* “presuppose[s] a background state of affairs but [is] used precisely to indicate the lack of a difference between that state-of-affairs and the actual one” (Dahl 1985: 134). On the same subject, Bybee et al. indicate that “the resultative points to the state resulting from the action while the anterior points to the action itself” (1994: 65). Thus, we can be reasonably confident that we are not dealing with a perfect, but with resultative usage (see also Crane 2011: 280-281). Bybee et al. claim that “[a] resultative sense is only compatible with a predicate that indicates a change of state or an action that produces a change of state” (1994: 65). This is in line with what we have seen so far with both the *Vká-* form and the perfective *-iri* constructions as they apply to punctives, but it does not necessarily help towards explaining why we see a progressive reading in duratives with *Vká-*.

The first cluster of possibilities is that the progressive usage of *Vká-* in Ikoma could be similar to certain uses of the Totela *-a-* marker, as in (75).

- (75) Totela (Crane 2011: 141)
- | | |
|----------------------------------|--|
| <i>ndàkèzà</i> | |
| <i>nda-ka-iz-a</i> | |
| 1SG.CMPL-DIST-come-FV | |
| ‘I’m coming’ (common expression) | |

Crane analyzes the Totela *-a-* marker as a completive, and so its use in a progressive-like role is “troublesome” (2011: 141). Ikoma has similar examples with the same verb, as in (76) and (77) (both repeated from earlier in this chapter).

(76) Genesis 37: 18-19

Hano Yúsuβu a-ré a-keéré kúre, βáwomooβo βá-aka-mo-riyi,
when Joseph 3.SG-PST.COP 3.SG-PERSIST distant their brother 3.PL-NARR-3SG-see

βa-aya-kor-a ekiína ye komwíta. βa-aya-yamban-a aβeené
3.PL-NARR-made-FV decision of 15.INF-3SG-kill 3.PL-NARR-talk-FV

kwo βééne βa-ra-βúy-a, “Mumɔɔhi! Omurɔɔti o marɔɔto a-ká-ach-a.
to each other 3.PL-SIT-say-FV Look dreamer of dreams 3.SG-NUCL-Come-FV
‘They saw Joseph from afar, and before he came near to them they conspired against him to kill him.’¹⁹
They said to one another, “Look, here the dreamer **is coming**”.

(77) Erigano re Gesusu na Aka: 7.2

Eyesúsu ke-ra-yáár-a ke-ra-ye ke-ra-shóómi. Hano ye-shoom-iri
hare 7-PRG-run-FV 7-PRG-go-FV 7-PRG-look-FV when 7-look-PFV

ke-rá-ách-a ke-ra-kúúr-a ke-ra-βúy-a “Uú! Musaání wááne, Waka
7-PRG-Come-FV 7-PRG-go-FV 7-PRG-say-FV woah friend my lion

a-ká-ách-a!; Uú! Musaání wááne, Waka a-ká-ách-a!”
3.SG-NUCL-Come-FV woah friend my lion 3.SG-NUCL-Come-FV

‘The hare is running, and it goes and looks. When it has looked, it comes and cries out, saying, “Whoa! My friend, lion **is coming**!; My friend, lion **is coming**!”

Crane offers two possible explanations for how “[e]vents described with *-a-* need not be finished in the actual world at the time of utterance: *-a-* may also be used with events that are “as good as finished” (2011: 141). One explanation is that the “utterance time does not play a role” and that “the speaker appears to be asserting that *at the perspective time that matters for the speaker and hearer* the situation’s completion has transpired” (2011: 141). Nurse describes a related phenomenon for Temi (Sonjo) whereby a perfect form “rests on the speaker’s certainty that the decision has been taken (in the past), and that the future action is as good as taken, because the consequences of the past decision are felt through the present and into the future” (2008: 163). The second explanation is that it may be possible that for motion verbs “the salient fact at utterance time, and hence the situation nucleus, is that the path has been started upon; the journey itself is a result “state” of starting” (2011: 142). Smith reports something similar for Navajo (Athabaskan, United States) (1997: 308).

While it appears at first glance as though these could be explanations for *Vká-*, neither of these solutions is consistent with the eyewitness evidentiality component of the *Vká-* form. In regard to the first explanation, utterance time certainly matters, as firsthand observation by seeing or hearing (or inference based on these observations) is integral to the semantics of *Vká-*. This means that the speaker was present and witnessing the situation, or was there within twenty minutes of its conclusion and seeing or hearing the effects, at utterance time. It is not enough for the speaker to be certain that the situation is as good as finished, s/he has to witness it. The second explanation is limited in that it only applies to motion verbs, or at very least certain semantic classes of durative verbs. In addition, if we look at the Ikoma examples in (76) and (77) again, the pragmatic context is different than what Crane describes for Totela. In the

Ikoma examples, the salient point is not that he/she/it has begun the journey and happens to be “on the way”. The point in these examples is that the speaker/observer(s) see Joseph (76) and the lion (77) coming, their arrival is imminent, and there is some sort of dramatic tension attached to that imminent arrival.

Moreover, in other examples involving the progressive use of *Vká-* both the immediate past and progressive readings at least appear to be available at the same time, as in (78).

(78) Ikoma conversation (2014)

<i>Iyé</i>	<i>oriyi</i>	<i>néke</i>	<i>rehatotoori</i>	<i>háno</i>	<i>o-ká-βook-a</i>	<i>o-yá-som-a</i>
you	see	what	benefit	that	1.PL-NUCL-receive-FV	2.SG-NUCL-observe-FV

awanyu?

your home (area)

What do you see as the benefit [context: of living near the Serengeti] that we have received, as you **have observed/are observing** your home area?

In this particular discourse, the informal conversation took place in Musoma, several hours travel outside the participants’ home area. The progressive “are observing” reading is probably more likely, as the *Vká-* form is typically confined to the strict time boundary of twenty minutes or so after completion. However, this interpretation also requires that the “observing the home area” event be conceived as continuing. The presumed reason being that even though the participants happened to be out-of-town for a few days, their residence (“living near the Serengeti”) still had not changed. This is quite possible. However, there are instances where the twenty-minute time boundary (and therefore the time boundaries for the perfective and simple past) appear to flex. Of course we know so far that *Vká-* is subject to the pragmatic/discourse context in the sense that, say, utterance time in a written story (e.g. Biblical texts) is different than utterance time in the real world of the here-and-now. However, in examples like (79) a much different kind of flexibility is a possibility.

(79) Ikoma conversation 2014

<i>níṣeere</i>	<i>neróóche</i>	<i>aβatááki</i>	<i>βa-ayá-twaang-á</i>	<i>βatááki</i>
now	I have seen	government	3.PL-NUCL-refuse-FV	government

βa-ta-yotótori

3.PL-NEG-help

Now, I have seen the government **has refused** to help us; the government does not help.

An alternate English translation for (79) could use the progressive sense: “Now, I have seen that the government is refusing to help us; the government is not helping”. However, if we do take the past sense, it is not within a twenty-minute frame. The government-refusal is still witnessed (“now, I have seen”), but it is witnessed over the course of an unknown period of time. Thus, it is currently unclear how flexible *Vká-* is in relation to what Crane (2011: 38) calls “perspective time” (see also Condoravdi 2002 and Cover 2010). In regard to the flexibility or rigidity of Bantu time systems, I point the reader to the discussions in Crane (2011: 213) and

Nurse (2008: 93). This is certainly an area for further research, and requires more data from natural conversations.

The next cluster of possibilities I believe can account for the different readings in examples like (78) and (79). In Totela (Crane 2011), there is another form that resembles the usages of *Vká-* in Ikoma including the progressive function, the tense/aspect suffix *-ite*. Consider the examples in (80) below.

(80) Totela (Crane 2011: 250)

a. *ndilìnèngètè*

ndi-li-neng-ete

1SG-PRES.STAT-dance-STAT

'I am dancing'

b. *ndilìnèngètè*

ndi-li-neng-ete

1SG-PRES.STAT-dance-STAT

'I have danced'

The core idea of Crane's analysis of the *-ite* suffix is that it is a stativizer, "that *-ite* selects a phase from a situation's event structure and presents it as an undifferentiated state, associated with the subject". Crucially for our purposes here, the selected phase can come from the nucleus or the coda (2011: 264).

Here we need to understand more about the connection between statives, progressives, and resultatives. All three point to a stable situation. "Statives do so by virtue of inherent lexical properties, while in progressive and perfect or resultative aspects, a subpart of a predicate's event structure is presented as stable and ongoing" (Crane 2011: 257). In other words, while acknowledging the connection, it is important to remember that statives are a lexical aspect category, and progressives and resultatives are grammatical aspect categories. Thus, the *-ite* suffix as stativizer is different than the *-ka* stative (neuter) suffix in Swahili, for instance, which changes only the lexical composition (Ashton 1944: 226-229). (At this time, I believe the segmental resemblance of the Bantu stative/neuter extension to *Vká-* is merely coincidence).

Could this type of analysis make sense of the various functions of *Vká-* and take appropriate account of the evidentiality component? The main evidence in Crane's argument for the purposes here is the distribution of the form and its resulting temporal readings (2011: 258-262). With duratives, as we have seen, *Vká-* can have both immediate past and progressive readings, dependent on the pragmatic context. For example, the verb *ɣáyákɔrɛka* in (81) can have both readings.

- (81) Luke 21:31
Haŋu háŋu mo-ra-riyi yáyo ya-aýá-kɔrɛk-a, mumenye
 In this way 2.PL-SIT-see these (things) 6-NUCL-happen-FV you know
- kúβa oβutemi βo Ryóβa βo-oýá-tiŋi.*
 that kingdom of God 14-NUCL-close/near
 ‘So also, when you see these things **taking place/happening OR have (just) taken place**, you know that the kingdom of God is near’.

Consider Figure 5.1. below, one possible stativizer model of this immediate past function of *Vká-* with duratives alongside the perfective and completive.

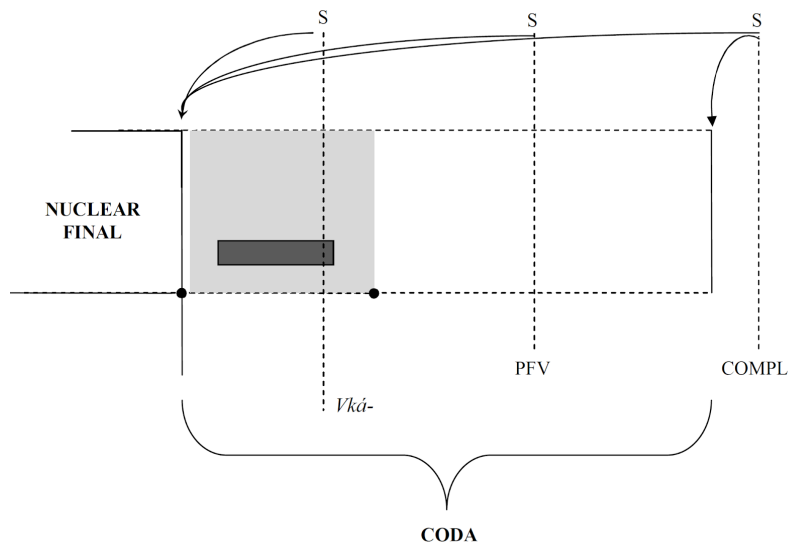


Figure 5.1. Possible model for *Vká-* in relation to perfective and completive with Ikoma duratives

If we take the view of *Vká-* as a stativizer instead of a perfective, the difference is that it selects a *state* from the coda. One possibility looks like Figure 5.1 where for *Vká-* the selection (dark grey box above) from the coda is taken from the time period of about 20 minutes (light grey above) after the completion of the situation nucleus. Another possibility could be that instead the stativized selection is (nearly) always the extent of the time constraint in the coda, post nuclear-final, i.e. that they are one and the same. In that case, unlike Totela *-ite*, the stativizer would not have the freedom to select from anywhere in the coda, but the *Vká-* result state would always be the same subset of the coda.

Again, the stativizer “may select either the nuclear phase or a post-nuclear coda phase” (Crane 2011: 264). If it selects a part of the coda, as we just saw, the resultative reading (for (81), “have (just) happened”) follows. If it selects a part of the nuclear phase, we get a progressive reading (for (81), “are happening”). A possible model of the selection from the nucleus of a durative verb with *Vká-* is included below (Figure 5.2).

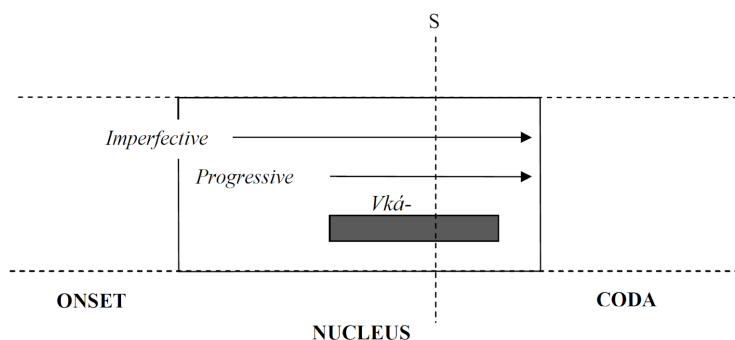


Figure 5.2. Possible model for *Vká-* in relation to the progressive with *Ikoma* duratives

Here the selection of the state can come from anywhere in the nucleus. Thus far these models might seem to adequately account for the functions of *Vká-* with durative verbs. However, as Crane describes, the difference between this reading and the actual progressive is that “this ongoing state does not refer directly to the action depicted by the predicate, which requires energy to maintain, but to the subject’s related state – here, the state of participating in an activity. The state would require outside impetus – here, the cessation of the activity – to change it” (2011: 266). This is a subtle difference that would seem to be at odds with the evidential function of *Vká-* which does seem to “refer directly to the action depicted by the predicate”, not “the state of participating in an activity” (Crane 2011: 266).

Once we look at punctive verbs, the stativizer account for *Ikoma* starts to break down further. In brief, only transitional punctives could be argued to have an encoded result state, while inceptive and resultative punctives do not. This is not surprising for the inceptive punctive which does not encode a coda phase at all. However, the absence of a clear encoded result state in the resultative punctives with *Vká-* would appear to be the nail in the coffin for the stativizer analysis, although it maintains appeal in other respects. I now want to offer an account for *Vká-* as a “nucleative”, beginning with how punctive verbs interact with *Vká-* in *Ikoma*.

5.4. *Vká-* as “nucleative”

With punctives, *Vká-* can function much like the perfective. It has a past (completed) reading, and a resultative stative reading with transitional and resultative punctives. Like the perfective, it does not have a resultative stative reading with the inceptive punctive (because the inceptive has no coda). However, the *Vká-* form behaves differently in some ways from the perfective. I begin here with how *Vká-* interacts with the inceptive punctive situation type.

Inceptive

Consider the examples below in (82) as I examine how *Vká-* interacts with the inceptive punctive situation type along with other grammatical aspects.

(82) Ikoma inceptive punctives

- | | | |
|----|------------------------|---|
| a. | <i>akáhika</i> | ‘S/he is arriving (right now), has (just) arrived’ |
| b. | <i>nahíkiri</i> | ‘S/he has arrived’ PFV |
| c. | <i>namariri kohika</i> | ‘S/he has already arrived, has finished arriving’ COMPL |
| d. | <i>naakohika</i> | ‘S/he is (close to) arriving, will arrive’ IPFV |
| e. | <i>ayáku</i> | ‘S/he is dying (right now), has (just) died’ |
| f. | <i>nakuure</i> | ‘S/he has died’ PFV |
| g. | <i>naayókú</i> | ‘S/he is (close to) dying, will die’ IPFV |

I use the verbs *-hík-* ‘arrive’ (82a-d) and *-kú* ‘die’ (82e-g) to represent the inceptive punctives here (see Botne (2001, 2003) for more on the verb “to die” in African languages). Like the transitional, the onset is covered by the imperfective, here *naayókú* ‘s/he is dying’. Consider example (83) from the biblical corpus:

- (83) Luke 15:17
 [...] *Amare éni háno, n-e-eyo-kú yo nchera.*
 but me here FOC-1.SG-IPFV-die of hunger
 ‘And here **I am dying** of hunger!’

The imperfective here with inceptive punctives can also have the sense of a prospective “close to, about to” (‘s/he is close to arriving’, 82d). As we saw in §2.2, the presence or absence of the nasal focus marker can result in issues with epistemic modality, so that its presence with the imperfective can yield the certain future reading ‘s/he *will* die’ and its absence (*ayókú*) yields the uncertain reading “s/he *may/might* die” (see Bybee et al. 1994: 243ff for the connection between modality and futures). More research is needed in this area.

Since there is no coda, the periphrastic completive (82c) still marks the end of the entire situation (which corresponds with the situation nucleus in this case), but can supply the coda, if needed, as in (84), along with other idiomatic (in this case euphemistic) constructions, as in (85).

- (84) Luke 8:53
n-a-a-ré a-mar-iri yo-kú
 FOC-3.SG-PST-COP 3.SG-finish-PFV 15.INF-die
 ‘s/he had already died (was dead)’

- (85) Luke 8:49
a-ká-mar-a yuyé mo-bááru
 3.SG-NUCL-finish-FV gone with many
 ‘s/he has already gone with many (is dead)’

With the perfective *nakuure* (82f), the absence of the focus marker yields a verbal adjective, *akuuré* ‘dead’ (which also can supply the lacking coda).

The *Vká-* form (82a, e) has an immediate past reading (‘has just died’), but also encodes the very moment of death (‘is dying (right now)’). Botne posits that for punctive verbs the onset and coda phases (if available) can also encode commencement and/or denouement subphases, respectively (2001: 2). However, taken together the commencement, pivot, and denouement

can be seen conceptually as a “dynamic transition” (2001: 2). For the verb “die”, the commencement can be seen as “a more dynamic stage representing a relatively rapid decline when death is imminent”, while the denouement “represents entry into the state of death, a stage at which one still thinks of the deceased not as a corpse, but as a sentient person” (Botne 2001: 2).

If we want to maintain that these punctive verbs are truly inceptive and do not have codas, then it is odd for the immediate past with *Vká-* (‘has just died’) to essentially encode the denouement but not the stative coda. This is easiest to see with “die” because the “need” to supply a coda for this verb results in various means of doing so, e.g. with idiomatic constructions like (85), and verbal adjectives like *akuuré* ‘dead’. The stative “is dead” implicature is present with the perfective, completive, and *Vká-*, but it is not *encoded*.

If instead we view the denouement as part of the nucleus (parallel to the nuclear final for duratives) in Ikoma, I believe this begins to make more sense of how *Vká-* is actually functioning. Under this scenario, for the punctive situation type Ikoma *Vká-* encodes the pivot and the denouement, as in Figure 5.5. (S) is the moment-of-speech.

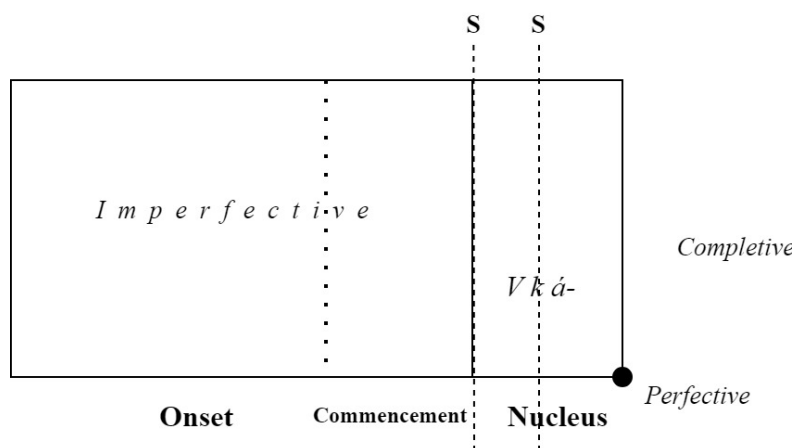


Figure 5.5. Model for Ikoma inceptive punctives

In Figure 5.5, the imperfective can be seen as encoding the commencement as part of the onset. The *Vká-* construction encodes the pivot and denouement, considered a part of the nucleus. The perfective and completive encode the completion of the situation nucleus. Since the *Vká-* form encodes both the moment of transition and the denouement, *Vká-* encodes the completion of the pivot itself, e.g. the person “has (just) died”. Moreover, the time of the denouement corresponds very well to the 20-minute time constraint—for the “die” verb, the “stage at which one still thinks of the deceased not as a corpse, but as a sentient person” (Botne 2001: 2). How might this view of *Vká-* as nucleative work with the other punctive situation types? Next I look at the resultative.

Resultative

Consider the examples below in (86) as I examine how *Vká-* interacts with the resultative punctive situation type and other grammatical aspects.

(86) Ikoma resultative punctives

- | | |
|----------------------------|---|
| a. <i>naβookiri</i> | ‘s/he has woken up, s/he is awake’ PFV |
| b. <i>namariri koβóoka</i> | ‘s/he has finished waking up, is wide awake’ COMPL |
| c. <i>akáβooka</i> | ‘s/he is waking up (right now), has (just) woken up’ |
| d. <i>naakoβóoka</i> | ‘s/he wakes up (habitual), will wake up’ IPFV |
| e. <i>noγwire</i> | ‘(the tree) has fallen down, is fallen’ PFV |
| f. <i>oγáγo</i> | ‘(the tree) is falling (right now), has (just) fallen down’ |
| g. <i>nomariri γuyó</i> | ‘(the tree) has finished falling, has already fallen’ COMPL |
| h. <i>nooγuyó</i> | ‘(the tree) falls (habitual)*, will fall’ IPFV |

I use the verb *-βóók-* ‘wake up’ (86a-d) and *-γó* ‘to fall down (large objects)’ (86e-h) to represent the resultative punctives here. There is no onset for resultative punctives, and so the imperfective can only have a habitual or future reading, as in (86d, h). A periphrastic construction with *-σεεμα* ‘begin, start’ is needed to supply an onset. Again, the completive marks termination (‘s/he is wide awake’, 86b) and the end of the whole situation (‘(the tree) has finished falling’, 86g).

For resultative punctives *Vká-* (86c, f) does not encode an atelic result state like the perfective (86a, e), but maintains the immediate past reading (‘s/he has just woken up’) *and* encodes the pivot (‘s/he is waking up right now’). Here, differently than the inceptive punctive where the perfective and completive did not encode an atelic result state coda, the perfective and completive do encode the coda, but *Vká-* does not. The “is awake” implicature is there but is not encoded. Consider Figure 5.5.

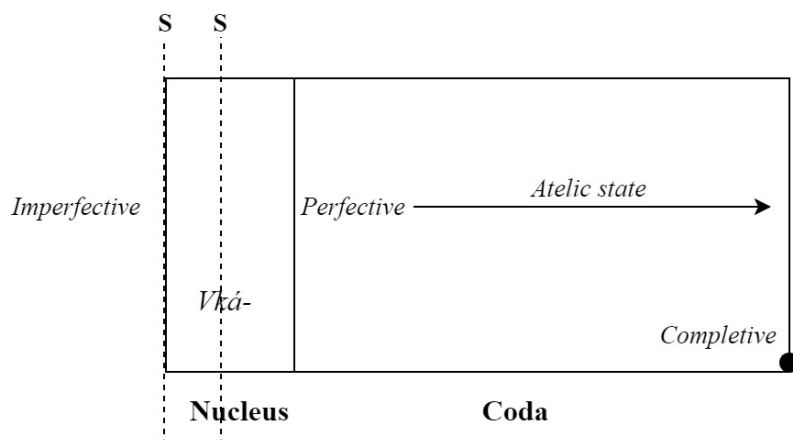


Figure 5.4. Model for Ikoma resultative punctives

The *Vká-* construction encodes the pivot (‘is awakening (right now)’), the completion of the pivot (culmination), and the denouement (‘has (just) woken up’). The perfective encodes the completion of the situation nucleus, and the completive marks the completion of the entire situation (termination). Let us now examine transitional punctives.

Transitional

Consider the examples below in (87) as I examine how *Vká-* interacts with the transitional punctive situation type and other grammatical aspects.

(87) Ikoma transitional punctives

- | | |
|-----------------------------|--|
| a. <i>nakariire</i> | ‘s/he has become angry (is angry)’ PFV |
| b. <i>ayákarara</i> | ‘s/he has (just) become angry, is angry’ |
| c. <i>namariri yukárara</i> | ‘s/he is already angry, is furious’ COMPL |
| d. <i>namanyiri</i> | ‘s/he has come to know (knows)’ PFV |
| e. <i>akámanya</i> | ‘s/he has (just) come to know, knows’ |
| f. <i>naakumánya</i> | ‘s/he is coming to know’ (also ‘s/he will understand, is learning’) IPFV |

I use the verbs *-kárar-* ‘become angry’ (87a-c) and *-many-* ‘come to know’ (87d-f) to represent the transitional punctives here. For transitional punctives in Ikoma, the imperfective has a dynamic inchoative reading, as well as a future reading. In 87f, the imperfective *naakumánya* can mean ‘s/he is coming to know, is learning’ or ‘s/he will (come to) know, understand’. The imperfective can be used throughout the onset, until the culmination point, or pivot. The completive *namariri yukárara* ‘s/he is already angry, is furious’ (87c) is used for the termination point in the coda phase. Consider Figure 5.3.

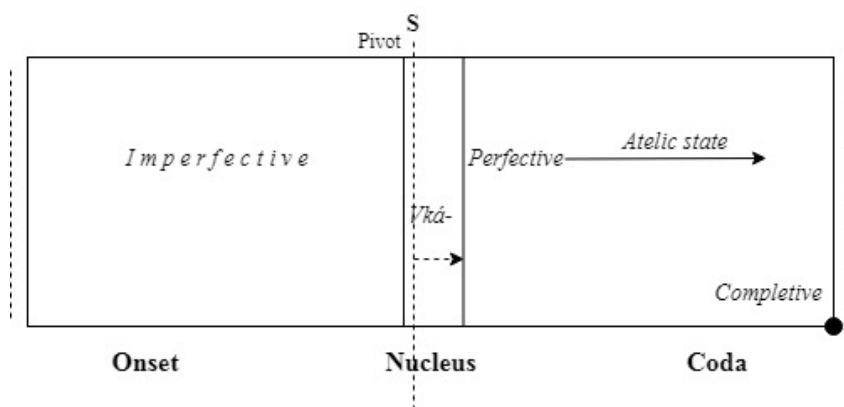


Figure 5.3. Model for Ikoma transitional punctives

The perfective (87a, d) again marks the completion of the situation nucleus (‘has become angry, has come to know’) and encodes an atelic result state (‘is angry, knows’). This result state with the perfective can continue until termination (i.e. s/he is angry, but could still become even more

angry), while *Vká-* (59b, e) encodes a telic result state (i.e. s/he is angry, but cannot become more angry) within the denouement (perhaps a better English translation “s/he is (recently) angered”). Thus, unlike the Ngoreme perfective and continuous, it is the Ikoma perfective that encodes the atelic result state while the *Vká-* form encodes the telic result state.

Duratives

We have talked in the previous sections about how the duratives with *Vká-* yield an expected immediate past reading, but also receive an unexpected “present” progressive reading. But what if the present progressive reading is thought of as *expected*, and the immediate past reading as *unexpected* to some degree? I explore this here, but also in the next chapter. With the punctives, *Vká-* can be seen as marking the pivot and the denouement of the nucleus. If we translate that to the durative terminology from Freed (1979) (initial, middle, and final), could we think of *Vká-* as marking the middle and the final? One hangup is that as we saw in chapter 3, Freed conceived of each of the nuclear subphases as “indistinguishable in character from the rest of the nucleus” (1979: 35). Of course, we encountered a similar problem with the punctives and Botne’s theory where the denouement is normally considered part of the coda. (Again, I am only claiming that Ikoma conceptualizes and encodes these differently. I am not making any sort of cross-linguistic argument). Consider Figure 5.7.

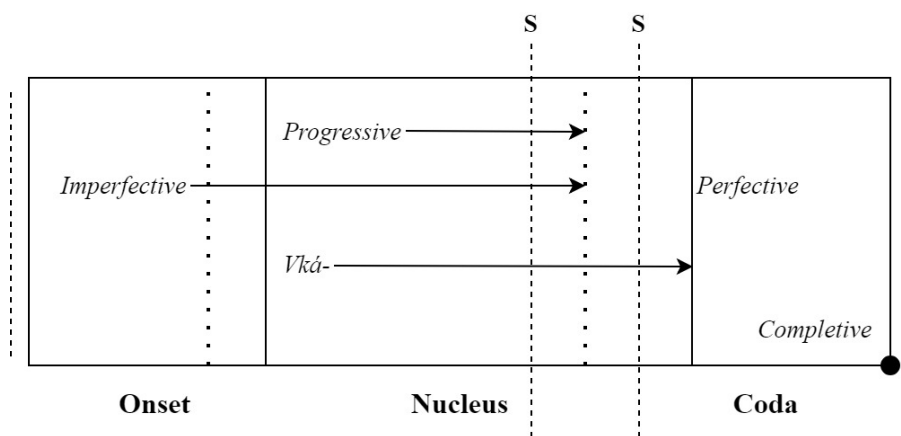


Figure 5.7. Possible nucleative model for *Vká-* with Ikoma duratives

Under this analysis, the initial is taken as part of the onset, encoded with the imperfective, or highlighted with periphrastic *-seema* ‘begin, start’ (inceptive). (Remember that the onset and coda are optional for durative verbs, and that they are typically punctive. That optionality is indicated by the vertical dashed lines at either end of the diagram). The final is still a part of the nucleus, but unlike for Freed, it is distinguishable “in character from the rest of the nucleus” (1979: 35). It is distinguishable in the sense that *Vká-* marks the completion of the *interior* of the event (before the nuclear final), while the completion of the event nucleus is marked by the perfective. Within the middle of the nucleus (or the interior of the event), the progressive, imperfective, and *Vká-* can all be used but with different senses. The progressive and

imperfective, as we already saw in chapter 4, mark individuated versus collective events, respectively. The *Vká-* form is also used for individuated events, but carries eyewitness evidentiality. The progressive and imperfective cannot be used to encode the nuclear final. The immediate past reading results from the moment-of-speech occurring after the perceived completion of the nuclear middle. Most ambiguity between immediate past and progressive readings can be resolved through pragmatic context. However, theoretically, if the perceived line between the nuclear middle and final is unclear, ambiguity could result.

5.6. Conclusion

In this chapter, we have seen examples of how the Ikoma *Vká-* formative functions. Generally, *Vká-* functions like a pseudo-perfective/progressive. The progressive reading with durative verbs can be thought of as unusual, and I offered some different hypotheses for why this might be happening. I came to the conclusion that the best analysis for *Vká-* is as a marker of the nuclear middle and final (for duratives) and the nuclear pivot and denouement (for punctives). I put forward the term *nucleative* to label this form and its function. The nucleative analysis also harmonizes well with the firsthand/eyewitness evidentiality that plays such a crucial role within the semantics of *Vká-*.

Chapter 6

History

6.0. Introduction

In this chapter I want to turn towards diachronic considerations including grammaticalization and language contact. How did Ikoma and Ngoreme end up with the TAM systems they have currently? Where might they have begun, and what subsequent path(s) did they take? Both languages have very common pieces of Bantu tense/aspect morphology (*ra-*, *ko-*, *-ire*, *a-*, *ka-*). However, the way that the systems are organized around aspect (e.g. perfective versus imperfective) while only operating in the role of tense as an emergent function, is relatively unusual. That makes the diachronic questions all the more interesting.

Also important for this study are questions regarding the broader genetic classification of Western Serengeti and any possible genetic connections to groups outside Mara. The most likely candidates (in no particular order) are Temi (E.46) (and E.50 Central Kenya by association), Logooli (JE.41), and the Masaba-Luhya group (JE.30)⁴⁹. However, it is outside the scope of this project to examine evidence outside of TAM and evidentiality, i.e. lexicostatistics, (most) phonology. Rather, I rely on the conclusions of previous studies for these pieces.

In chapter 1, I provided some general context for genetic relationships and sociohistory within the Mara languages, focusing on Ikoma and Ngoreme. Figures 6.1 and 6.2 provide further visual context for the historical/comparative discussion in this chapter. No time depth is intended for either figure. Figure 6.2 provides a visual representation of my current hypothesis for South Mara based on the current study, Aunio et al (2019), and Walker (2013). (North Mara includes at least Kuria, Simbiti, and Gusii). It is currently unclear whether North and South Mara can be united under a broader Mara subgroup or not (Walker 2013). Although Figure 6.2. includes Ikizu and Zanaki (Southwest Mara), it is also possible they constitute a subgroup of their own apart from South Mara. More work is needed in this area. I include them here because they have similar reduced-tense features, which could theoretically be a shared innovation which unites South Mara. (It could also be shared retention, in which case other shared innovations would need to be found to establish this grouping).

⁴⁹ As in previous chapters, Guthrie codes are from Maho (2009), as are most names, labels, and spellings for languages and groupings.

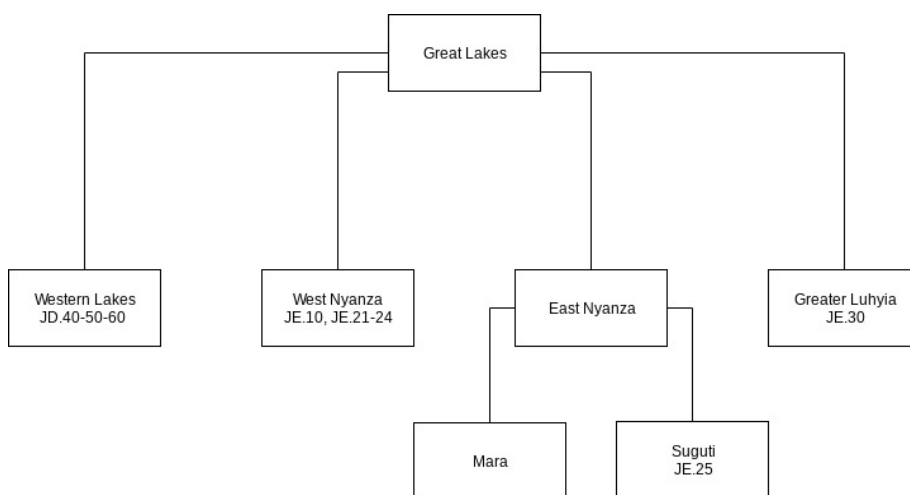


Figure 6.1. Great Lakes stammbaum diagram (based on outline in Schoenbrun 1997: 12-13)

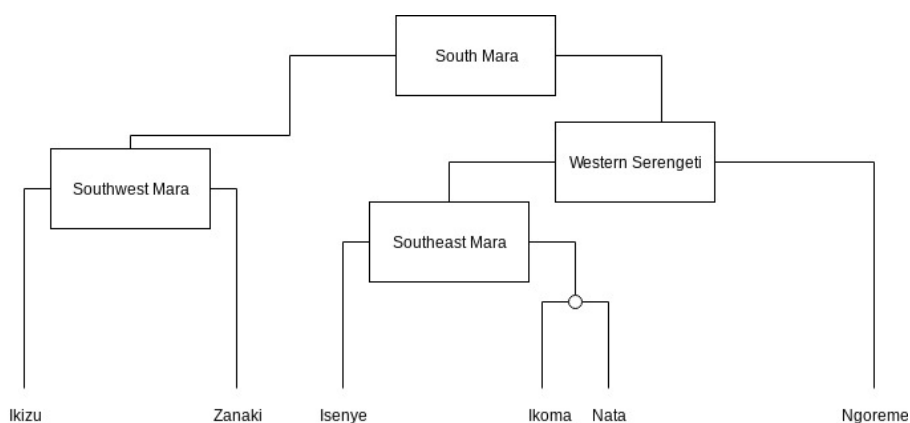


Figure 6.2. South Mara stammbaum diagram

On the subject of shared retention, Nurse and Muzale make the important point that TAM forms outside of main clause affirmatives (MCAs) can play a role in our understanding of the historical TAM systems. “There is a suggestion that change tends to occur in MCAs rather than in the other structures so, if the forms of MCAs differed from those in [main clause negatives], [relative clause affirmatives], and [relative clause negatives], the latter may represent retention” (1999: 521). The reason I have chosen not to discuss negatives or relatives is that for Ikoma there is minimal difference (see also Aunio et al. 2019 and Walker 2013: 174-175). For Ngorome, that difference is primarily the single-verb *ko-* form, which can be analyzed as a situative or relative non-past.

Figure 6.1. shows the stammbaum diagram for Great Lakes, of which the Mara group is theoretically a part. It is unclear whether the Great Lakes subgroup as a whole can be maintained (Nurse 1999: 9). The diagram is based on Schoenbrun’s (1997) outline, but I use

the label *Masaba-Luhya* instead of *Greater Luhya*. (For more on these issues with Great Lakes, see also Bastin 2003). However, my concern is not with the unity of Great Lakes, but with the languages and language groups mentioned above (Temi, Central Kenya, Logooli, and Masaba-Luhya) and their possible genetic connections with Ikoma and Ngoreme (and by implication, Western Serengeti as a whole). Nurse and Philippson, for instance, put Masaba-Luhya with Logooli⁵⁰ and Mara (JE.40 without Logooli) with Temi in their local groupings (2003: 170). These are the groupings I use as a framework throughout our discussion.

6.1. Pre-/Proto-Bantu, reduced-tense, and grammaticalization

As I discussed in chapter 2, Nurse defines reduced-tense Bantu languages as those with “reduction to a single past tense” (2008: 102). We saw that Ikoma and Ngoreme go even further beyond this requirement by not having a morphological distinction between “present” and “future” tense. For the other few languages where this occurs it seems to be fulfilled by having a non-past tense, but Ikoma and Ngoreme use the imperfective.

We must entertain at least two possibilities for reduced-tense. One possibility is that a reduced-tense system was inherited from Niger-Congo early on in Bantu, and as such is a matter of retention by the Western Serengeti (WS) languages. Under this scenario, they would then be extremely conservative. (Of course, that does not mean nothing whatsoever has changed in the T/A systems. Morphemes cycling through, grammaticalization, etc. has certainly continued. Rather, despite this the perfective/imperfective distinction has remained intact with little tense added). Furthermore, this would have significant ramifications for our understanding of early Bantu, both in terms of the morphosyntactic details of Proto-Bantu itself but also the Bantu expansion. The other possibility is that such a system arose after a period of having more tense distinctions, and became truncated due to natural language change processes or language contact. This second possibility of having had more tense distinctions is the one favored by Nurse, for the reasons below:

The languages with a single past today might have retained the earlier situation, or they might have initially multiplied and later reduced their past tense contrast. Without careful and lengthy examination that is hard to judge. If many of the languages with a single past today showed the past tense morphology posited for Proto-Bantu I would be inclined to think they had retained it, but that is not the case. I am therefore more disposed to assume that past tense reference multiplied everywhere and that subsequently those few languages with one past today underwent a reduction from this intermediate multiple past situation (2008: 103).

It is difficult to know what exactly the processes were that would have driven Proto-South Mara to these languages to undergo a reduction of this sort, from tense to aspect. I specify Proto-South Mara here because a hypothetical tense expansion would have taken place post-Bantu expansion and prior to the split of Southwest Mara from South Mara, and certainly before Ngoreme’s split from WS, otherwise we have several languages reducing tense independently from one another. We also can be reasonably confident that Proto-Bantu had the habitual/imperfective suffix **-a(n)ga* (Nurse 2008, see below), and that if so this must have

⁵⁰ See also Mould (1976, 1981).

been lost in Proto-South Mara. The T/A systems of the Southwest Mara languages Ikizu and Zanki share a fair amount of resemblance to the reduced-tense systems of Ikoma and Ngoreme. Ikizu and Zanki both have similar <-Ø-...-ile> and <-a(a)-...-ile> morphology for the perfective/immediate past and past perfect, respectively. Both also have imperfective (“present/future”) *ra-* morphology (Walker 2013: 176-179). Both Ikizu and Zanki have a (non-narrative) past tense form *-ka-...-a*, and Ikizu has a vast present form *-aa-...-a* (Walker 2013: 176-179).

Tense to aspect would be slightly unusual, as the opposite direction (aspect to tense) is established cross-linguistically, and for Niger-Congo specifically (Nicolle 2012: 380; Nurse 2008: 281). However, it is certainly possible. A couple different possible scenarios follow underneath the banner of expanded-tense-to-aspect. I refer to the first one as *minimally-expanded* tense, and the second as *maximally-expanded* tense. Minimally-expanded tense is a scenario in which the T/A system of Proto-South Mara could be characterized as past/non-past with perhaps a (non-narrative) past *ka-* form in addition to *-a(a)-...-ile*. Since Ikizu and Zanki retain past *ka-* while WS does not, this could potentially be the source for (V)*ká-* in Ikoma, Nata, and Ishenyi. Maximally-expanded tense, on the other hand, has many more unknowns in terms of morphology and the extent of remoteness distinctions. However, it would most likely involve variations in the grammatical tone of the *-ile* constructions and vowel length (*a-* or *aa-*). This scenario would include something like *-aa-...-a* as a full-fledged present tense, and also a dedicated future of some sort. This type of system would resemble what we find in North Mara (see Walker 2013). None of the specifics are particularly important. The point in this scenario is that nearly the only way Proto-South Mara could have had a vibrant tense system that eventually collapsed would be through contact, specifically contact with non-Bantu sources.

The non-Bantu languages in the area are Nilotic (e.g. Datooga, Maasai) or Cushitic (e.g. Alagwa, Burunge) languages. The original Nilotic and Cushitic peoples of the area were most likely gradually incorporated into the local Mara Bantu groups over a thousand years ago (Shetler 2003: 9ff). However, we can glean what we can from the current Nilotic and Cushitic groups in the area. Alagwa and Burunge have a foundational perfective and imperfective contrast, but such a contrast manifests itself suffixally (Mous 2006). In this scenario, if the early Bantu imperfective suffix (*-a(n)ga*) was still present in Proto-South Mara, it is difficult to see how or why they dropped this suffix and replaced it with a formative prefix.

Nilotic is aspect-prominent (Heine and Kuteva 2005: 144) and so might be a clearer pathway, which deserves a bit more discussion. There is already plenty of evidence that Ikoma was in lengthy contact with neighboring Datooga (Aunio 2013b). Instead of suffixes like in Alagwa and Burunge (and Maasai to a large extent, Wallace 1981), Datooga has its TAM slot before the subject prefix (Rottland 1982). (In Bantu, the subject prefix most often comes before the T/A slot). TAM *prefixes* are at least closer to typical Bantu than the Cushitic suffixes.

The language contact situation between Kalenjin and Luo (Nilotic) on the one hand, and Bantu languages in the area (e.g. Luyia) is well-documented (Heine and Kuteva 2005: 144ff.; Dimmendaal 2011: 190ff). In the case of Kalenjin and Luo, they have borrowed tense distinctions from the nearby Bantu languages, the direction of contact (Bantu to Nilotic, adding

contrasts) is the opposite of our hypothetical situation with the Western Serengeti languages (Nilotic to Bantu, deleting contrasts). Even so, the main point is that in this parallel contact situation there are traces of the contact left behind. For instance, the TAM markers vary between prefixes and clitics in Kalenjin and Luo, the prefixes are not cognate in Kalenjin and Luo nor are they borrowed from Bantu (i.e. the categories are borrowed but not the forms themselves), and vowel harmony has affected the prefixes in the former but not the latter (Heine and Kuteva 2005: 144ff). Having examined the evidence in Datooga (Rottland 1982) and Maasai (Wallace 1981), none of these types of clues seem to be present in Western Serengeti. Thus, the scenario that presents itself would have to involve the Nilotic and/or Cushitic groups that were incorporated into the Mara Bantu groups, and reduction in tense took place due to substrate influence. The problem with this storyline is how the North Mara groups avoided this same fate. Therefore, I believe we can safely eliminate a scenario of maximally-expanded tense with non-Bantu substrate. Instead, non-Bantu substrate influence could be added to the minimally-expanded tense option.

By looking at modern-day non-Bantu Niger-Congo (West Africa), we can be extremely confident that proto-Niger-Congo was aspect-prominent (Nurse 2008: 281-285). As Nurse says:

Most Niger-Congo languages can be analysed in terms of aspect alone, having no tense distinctions. They show a classic basic division between perfective and imperfective, with additional aspects [...] A minority of Niger-Congo languages and families have introduced tense beside aspect. (2008: 281)

The conclusion then is that “pre- and early Bantu was poor in tenses and rich in aspects” (Nurse 2008: 281). From his survey of hundreds of Bantu languages, Nurse also presents a fairly comprehensive summary of what these early Bantu systems would have looked like (2008: 226ff). Consider Table 6.1. which illustrates the main results from that summary adapted from Nurse’s own table (2008: 279).

Table 6.1. Tense and aspect in early Bantu (adapted from Nurse 2008: 279)

<i>Tense/ Aspect</i>	Perfective	Imperfective	Habitual/ Iterative	Perfect
Past	<i>SBJ-a-vb-a</i>	<i>compound?</i>	<i>SBJ-a-vb-ag-a</i>	<i>SBJ-a-vb-i(le)</i>
Present	<i>SBJ-Ø-vb-a</i>	<i>SBJ-Ø-kí-vb-a</i>	<i>SBJ-Ø-vb-ag-a</i>	<i>SBJ-Ø-vb-i(le)</i>
Future?	<i>SBJ-laa-vb-a</i>	<i>compound?</i>	<i>SBJ-laa-vb-ag-a</i>	<i>compound?</i>

Table 6.1 is a tense/aspect matrix with past, present, and future tenses combined with perfective, imperfective, habitual/iterative, and perfect aspects. The past, present, and future tenses are encoded as prefixes (*a-*, *Ø-*, *laa-*, respectively), while the aspects are encoded as suffixes (habitual/iterative *-ag* and perfect *-i(le)*) and as a prefix in the case of the imperfective *kí-*. The perfective aspect is left unmarked.

Of note is that Nurse is unsure of the status of the future tense in Proto-Bantu (2008: 279, see also 2008: 253ff.), and whether or not the Proto-Bantu verb was synthetic or analytic

(2008: 280). The cells which have “compound?” are likely candidates to have had compound constructions in those slots, and not single-word forms (2008: 280). Furthermore, Nurse does not include the “locative-based” progressive construction in his chart, even though it was present in Proto-Bantu, because it would have “remained extra-systemic” (2008: 280). Nurse also mentions that “early *ka* probably had itive or narrative function and followed other TA morphemes”, and was not included in his chart because it would have not been “a regular part of the tense-aspect system” (2008: 279, see also 240ff.). Thus, Proto-Bantu likely had a TAM system that looked something like Table 6.1. but also had locative-based progressive constructions and narrative/itive **ka-* extra-systemically, separate but still important to the overall system.

How do Ikoma and Ngoreme compare? Here again below is the chart summary of the Ikoma and Ngoreme systems repeated in Table 6.2 for convenience.

Table 6.2. Overview of T/A systems in Ngoreme and Ikoma

	Ngoreme	Ikoma
Perfective	⁴ (n)-SBJ-VB-ire	n-SBJ-VB-iri
Imperfective	¹ SBJ-ra-VB-a	¹ (n)-SBJ-Vko-VB-a
Perfect	— —	² SBJ-Vká-VB-a
Simple past	¹ (n)-SBJ-a-VB-ire	³ n-SBJ-V-VB-iri
Non-past consecutive	— —	SBJ-VB-a
Narrative	¹ SBJ-Vka-VB-a	² SBJ-Vka-VB-a
Progressive/Continuous	¹ n-ko-VB-a SBJ-V-ní	¹ SBJ-ra-VB-a
	¹ n-ko-VB-a SBJ-áre	n-SBJ-V-ré ¹ SBJ-ra-VB-a
Habitual	n-SBJ-háá-VB-a	n-SBJ-háá-VB-a
	n-SBJ-ráá-VB-a	
Persistive	SBJ-kéére ¹ SBJ-ra-VB-a	(n)-SBJ-keeré ¹ SBJ-ra-VB-a
	SBJ-kéére ko-VB-a	(n)-SBJ-keeré ¹ ko-VB-a
	SBJ-kéére ⁴ (n)-SBJ-VB-ire	(n)-SBJ-keeré ³ n-SBJ-V-VB-iri
Situative	¹ SBJ-ko-VB-a	SBJ-ráá-VB-a

H on σ1 of the macrostem (stem in Ngoreme): ¹

H on final σ: ²

H on σ1 of the macrostem + final H: ³

H on SBJ: ⁴

By comparing these tables, we find many more differences than similarities. The Ikoma and Ngoreme systems have perfective, imperfective, and habitual categories. The starkest difference is the absence of **ag-a* morphology (see below). The strongest similarity is between the morphology of the simple past and perfective in Ikoma and Ngoreme with Nurse’s perfect (anterior) column. If the future even existed in proto-Bantu, the future **laa-* is possibly connected to the Ikoma progressive and Ngoreme imperfective *ra-* (Nurse 2008: 87), but more likely Ikoma and Ngoreme *ra-* morphology is related to the disjunctive/verbal focus marker (Nurse 2008: 206). Future **laa-* most likely is connected instead with the Ngoreme habitual and Ikoma conditional *ráá-*. The **kí-* imperfective is connected to the modern persistive (Nurse

2008: 145ff, 246ff), but the persistence in both Ikoma and Ngoreme more likely comes from another source altogether (Nurse 2008: 147).

Thus, Nurse's proposal provides a solid baseline, but because of some major differences we need to make a few different assumptions to begin with. One, we have already seen in chapter 3 that Botne (2010) examines the Bantu *-ile* suffix and concludes that it is a marker of *perfective* and not perfect. This conclusion is at odds with Bybee et al (1994) and Nurse (2008) (as can be seen in Table 6.1 where the Bantu *-ile* suffix is considered a perfect). These sources conclude that resultatives and completives evolve into perfects, and these perfects evolve into perfectives/simple pasts (Bybee et al 1994: 105; Nurse 2008: 301-302). However, Nurse (2008) had a separate problem with Bantu linguistic history and considering the *-ile* suffix as a perfect. The issue was that if perfect (anterior) > perfective is the standard grammaticalization path (Nurse 2008: 276, 302), and the perfective/imperfective distinction was cemented in early Niger-Congo (Nurse 2008: 275-276), in this scenario perfectives are leading to perfects (anterior) and not the other way around. And under that view that is certainly a problem. But Botne's hypothesis bypasses that problem altogether by viewing perfects as on their own grammatical path apart from perfectives (2010: 26). Combined with the idea that in Bantu the *-ile* suffix is indicative of perfective, and not perfect, we already need to start in a completely different place than Nurse (2008) does with the data in Table 6.1.

If we assume the reduced-tense systems in Ikoma and Ngoreme are conservative holdovers from early Bantu (albeit with some different morphology), there is no reason to suppose that early Bantu had future tense. Coupled with the doubts Nurse expresses about the future tense in Proto-Bantu we can safely exclude it from the discussion (2008: 253ff, 279). Concerning the past versus present then in Table 6.1, the only place where we have *a-* marking the past tense is with what I consider the past perfective which later developed into a simple past (*-a-...-ile*⁵¹). (In the "perfective" column in Table 6.1, only *SBJ-Ø-VB-a* shows up as a non-past consecutive in Ikoma).

What then happened with the imperfective **kí-* and habitual/iterative **a-ga* in Table 6.1? The imperfective **kí-* often took a situative to persistent path (Bybee et al. 1994: 125ff; Nurse 2008: 246ff, 295), while the habitual/iterative **a-ga* often adopted more general imperfective semantics (2008: 144, 262). Nearby Kabwa and Simbiti (North Mara) have suffixal **a-ga* reflexes, as do the Suguti languages (Walker 2013). In fact, Nurse and Muzale believe habitual/iterative **a-ga* goes back to at least proto-Great Lakes (1999: 524-525). However, there are not even traces in South Mara, except for one of the languages, Ishenyi. This deserves some extra comment.

First, from Walker (2013) and my own fieldwork, all of South Mara (including Ishenyi) appears to have the form *nga-* (usually translated with "would") at T/A for what is variously called a hypothetical (in Walker 2013) or potential (Nurse 2008: 251). Nurse says that the origin of this form is most likely a non-verbal particle *nga* with meanings such as "as", "like", and "though" (2008: 252). This T/A hypothetical/potential also occurs in Swahili (c.f. *nge-*, *nga-li*) along with *nga-* as a concessive) (Ashton 1944: 186ff). This is not the form under

⁵¹ Eventually *-V-...-iri* in Ikoma. I discuss these underspecified vowels later in this section.

concern here in Ishenyi. Rather, Ishenyi has a suffixal *-ang-a* form (88a), a past auxiliary suffix *ng-e* (88b-c), and a related past existential copula *ng-e* (88d).

(88) Ishenyi (Fieldwork 2014)

- a. *Isa éyo βa-tém-ang-a embéra, n-to-βin-áng-a.*
 every time 3.PL-play-?-FV drums FOC-1.PL-dance-?-FV
 ‘Every time **they played** the drums, **we danced**’.
- b. *Hano βa-tem-ang-a embéra, n-to-ré-ng-e to-kú-βin-a.*
 when 3.PL-play-?-FV drums FOC-1.PL-PST.COP-?-FV 1.PL-IPFV-dance-FV
 ‘When they played the drums, **we were dancing**’.
- c. *N-to-ré-ng-e to-βin-ire*
 FOC-1.PL-PST.COP-?-FV 1.PL-dance-PFV
 ‘**We had danced**’
- d. *N-to-ré-ng-e aβeyi koriβáya réru.*
 FOC-1.PL-PST.COP-?-FV teachers for many years
 ‘**We were** teachers for many years’.

Ishenyi currently borders Ikizu, Nata, Datooga, and Ngoreme, none of which have this suffixal (originally) imperfective/habitual *-(a)ng-* form. Two possibilities present themselves. One, the Ishenyi situation is retention, and *-(a)ng-* has been lost elsewhere in South Mara. The other possibility is that Ishenyi lost it along with South Mara, and borrowed it again from either North Mara or Temi (see Table 2.2). Nurse does note that there is quite a bit of variation in its attestation even within groups, however (2008: 262). What we can still presume is that South Mara always had the imperfective category but cycled through progressive morphology — “progressives readily widen into general presents and imperfectives cross-linguistically” (Nurse 2008: 294). How suffixal **a-ga* engaged in this cycle, if at all, is difficult to know.

The imperfective categories in question can be considered to be on the same grammaticalization path, i.e. progressive > continuous > imperfective (Bybee et al. 1994: 139). “Progressives and presents are often extended to future reference, so they would cover non-past, thus: verb focus > progressive > present > non-past (or just future)” (Nurse 2008: 209). The (V)*ko-* and *ra-* morphology aligns with expectations for these imperfective categories in the area around Lake Victoria. For (V)*ko*, Nurse offers the following:

Across Niger-Congo and Bantu, for example, the commonest form of progressive is based on a structure which is or was of the shape *be+locative+infinitive* (*li-mu-ku*). Over time this reduces to a CV shape, most often *ku* or *ko*, and it is likely that most general presents of that reduced shape today originated as progressives (2008: 209).

The *ra-* formative can take on “Simple, Progressive, and even Near Future” meanings (Nurse and Muzale 1999: 522). This form also appears to derive from an early disjunctive/verbal focus marker:

This explanation of Güldemann's [1996, 2003; disjunctive/verb focus] would also provide a link from *ra* elsewhere in Lacustrine languages to this 'present' in E40 (e.g. Ngurimi). That is, as with the Zone M languages, there are Lacustrine languages with focal *ra* (D60, Ha), the original meaning, and these others with progressive/present *ra* (E40, e.g. Ngurimi), the derived meaning" (Nurse 2008: 206).

Thus, the (V)*ko*- and *ra*- morphology is not typologically unusual for the area. What is intriguing about these categories in Ikoma and Ngoreme is their inverted relationship, whereby *ra*- indicates progressive in Ikoma, but imperfective in Ngoreme, and (V)*ko*- indicates continuous in Ngoreme, but imperfective in Ikoma. A scenario, in which, for instance, the imperfective and progressive forms in Ikoma were inverted from their present-day positions in the TAM system is possible. In other words, it would be possible to have Western Serengeti perpetually recycling *ko*- and *ra*- forms in various iterations (long vowel/short vowel; H tone/L tone), i.e. progressive > imperfective and imperfective > progressive.

The imperfective *Vko*- in Ikoma and *ra*- in Ngoreme also have ties to progressive morphology. Progressive constructions in Proto-Bantu likely derived from locatives (Bybee et al. 1994: 129; Nurse 2008: 249, 293). The locative noun classes in Bantu are classes 16, 17, and 18 and the prefixes for those classes can be reconstructed as **pa*-, **kɔ*-, and **mɔ*-, respectively (Maho 1999:247-248). Nurse says regarding Bantu progressives:

Locative-based progressives are amazingly productive in African languages in general, including in Bantu. In not all languages with such a progressive today does it necessarily go back to Proto-Bantu. New locative-based progressives are constantly being thrown up. As older progressives shrink in shape or move semantically to another role, they are often replaced by a new locative-based progressive (2008: 293).

In other words, the progressive category is generally a vibrant and innovative semantic position in the language, with new forms moving in and older forms moving on or moving out. If progressives move on, they tend to become general presents or imperfectives via continuous or habitual aspect (Bybee et al. 1994: 139-141). As Nurse says, "almost always it [general present of progressive origin] has the shape [ku] or [ko], that is, it is very eroded phonologically, older **li+mu+ku* having given *ku*" (2008: 294). Thus, we can hypothesize that as **kí*- departed the imperfective slot, a locative-based progressive (or continuous or habitual) was ready to take its place. The *Vko*- morphology did not necessarily have to be the first to do so, but eventually cycled in and remained. In fact, taking into consideration Nata and Ishenyi, the two varieties most closely related to Ikoma, Ishenyi does not use progressive *ra*- at all, but uses the imperfective *Vko*- in places where the progressive is used in both Ikoma and Nata.

The other intriguing piece of the puzzle is the auxiliary inversion in the Ngoreme past and present continuous constructions. Nearby Simbiti also attests auxiliary inversion, and has the following forms of interest in terms of our present discussion (from Walker 2013: 171-172):

Basic present: *SBJ-ra-VB-a*

Near past progressive: *(n)-SBJ-á-re kɔ-VB-a*

Present progressive: *n-kɔ-VB-a SBJ-re*

Present habitual progressive: *n-kɔ-VB-anga SM-re*

There are a few things to note here. One, like Ngoreme, Simbiti has a single-verb construction using *ra-* and it has similar semantics. And secondly, Simbiti has a present habitual progressive form, and both this form and the regular present progressive are examples of auxiliary inversion. Thirdly, Simbiti is a known contact language with Ngoreme, and the direction of contact is from Simbiti to Ngoreme (Roth 2014).

For the sake of argument let us assume that Ngoreme originally had progressive *ra-* and imperfective *Vko-* like Ikoma⁵², along with the same accompanying past progressive periphrastic construction⁵³, thus:

Imperfective: *(n)-SBJ-Vko-VB-a*

Progressive: *SBJ-ra-VB-a*

Past progressive: *n-SBJ-V-re SBJ-ra-VB-a*

My argument is that Ngoreme borrowed the Simbiti near past progressive, gradually replaced their original past progressive with it, and set off a chain of further linguistic events. The forms are extremely similar, and it is quite possible the Ngoreme may have interpreted the Simbiti infinitive *kɔ* in the lexical verb as a T/A marker (imperfective). The H-toned *-á-* from the Simbiti form slots in the past auxiliary. The single verb form *ra-* in both Ngoreme and Simbiti is the anchor for these changes. This is the first stage.

Modified early Ngoreme system (Stage 1)

Imperfective: *(n)-SBJ-Vko-VB-a*

Progressive: *SBJ-ra-VB-a*

Past progressive: ~~*n-SBJ-V-re SBJ-ra-VB-a*~~ *(n)-SBJ-á-re (SBJ?)-ko-VB-a*

In the second stage, the Simbiti present progressive aux-inverted form competes with the newer past progressive in Ngoreme. The past progressive is again replaced. (This could very well have been a companion stage with the first). The end result is Ngoreme's borrowing of aux-inversion. Part of the evidence for these stages is the identical grammatical tone (H-toned *-á-*) in the Simbiti near-past progressive and the Ngoreme (general) past progressive, but with the Simbiti present progressive ordering.

Modified early Ngoreme system (Stage 2)

Imperfective: *(n)-SBJ-Vko-VB-a*

Progressive: *SBJ-ra-VB-a*

Past progressive: ~~*(n)-SBJ-á-re (SBJ?)-ko-VB-a*~~ *n-ko-VB-a SBJ-(á)-re*

⁵² Let's presume for the sake of argument that the Ikoma system is conservative and largely reflective of the way the TAM system has been for quite some time. Put another way, changes to the Ikoma TAM system have been characterized by long-term subtle semantic shifts and more development in the areas of modality and evidentiality. Let's further assume that the Western Serengeti cluster is Ngoreme's closest genetic affiliation, and that when Ngoreme split off its TAM system closely resembled that of Ikoma. Both of these assumptions fit the data, and neither require much of a stretch of imagination. Presumably there would also be a very similar division of labor between individuated and collective categories (see §4.2) in the imperfectives in early Ngoreme, resembling that of Ikoma.

⁵³ I assume here that the future compounds did not exist yet, including the future progressive *(n-SBJ-Vku-βa SBJ-ra-VB-a)*. It does not significantly impact the argument here either way.

In the third stage, the Ngoreme single-verb *ra-* gets competition from a new construction created by analogy with the aux-inverted past progressive. This new construction used the already existent present copula *-ni*.

Modified early Ngoreme system (Stage 3)

Imperfective> Situative?: ~~(n)-SBJ-Vko-VB-a~~

Progressive> Imperfective: *SBJ-ra-VB-a*

Past progressive: *n-ko-VB-a SBJ-(á)-re*

Present progressive: *n-ko-VB-a SBJ-V-ni*

Stage 3 would have resulted in full-out competition and confusion between the “imperfective” and “progressive”. This eventually led to the disappearance (or change in function) of the single-verb imperfective *Vko-* form in Ngoreme, with the old progressive *ra-* form taking its place. It is quite possible the single verb imperfective **(V)ko-* became the situative in Ngoreme. There is definitely a connection between the situative and the imperfective: “The situative stresses the ongoing, totally incomplete nature of a situation. The speaker wants to highlight an open-ended situation which has continued or could continue for a long while” (Nurse 2008: 247-248). The grammatical tone is the same (H on $\sigma 1$ of the macrostem (Ikoma)/stem (Ngoreme)), although the extra vowel in the formative is lost.

So, should the *ko-* in the Ngoreme past and present continuous forms be considered infinitival? After all, infinitives function in periphrastic constructions in Bantu with semantics not unlike the progressive or continuous (see §2.1). So regardless, the function of the constructions is the same, the question is about the label(s) for the form. Additionally, there is no denying that diachronically the source for the forms in question was most likely the infinitive (although the class 17 locative is also a possibility) (Nurse 2008: 139-141). As we saw above, the Simbiti near-past progressive is constructed with the infinitive form of the verb after the auxiliary, and it is quite possible that the Ngoreme forms in question may have been derived in part from this construction. As I mentioned before, if the Ngoreme did have an older imperfective *(V)ko-* form in line with the present-day Ikoma imperfective, they may have interpreted the Simbiti infinitive *kɔ-* in the near-past progressive as an imperfective T/A marker.

Even if they did not, or this Simbiti borrowing narrative is at odds with what actually happened — reframed, the question becomes: how far along the grammaticalization path from infinitive to T/A marker is the *ko-* form in the Ngoreme past and present continuous constructions? Or, in other words, is the reanalysis complete? The strongest indication that the reanalysis is most likely complete is the obligatory presence of the focus marker, although it is not conclusive. The focus marker appears on other constructions (perfective, habitual) in Ngoreme, but never the infinitive. This is not surprising in itself. We would expect if auxiliary inversion were not a part of the equation, that instead we would end up with forms such as *n-SBJ-V-ni ko-VB-a* and *n-SBJ-are ko-VB-a* where the focus marker would occur in the same position but in front of the subject marker, as it does in single verb constructions like the perfective and habitual, and in the Ikoma progressive (although Ikoma repeats the subject marker in the main verb).

Here we begin to get into issues of whether we should consider the focus marker to be an affix or a clitic, as well as wordhood and prosody. This is outside the scope of this study. For now, I want to examine some of the persistive constructions to offer some further perspective. In Ikoma, these constructions occur with the focus marker as optional in front of the auxiliary, while in Ngoreme if the focus marker occurs at all it occurs in front of the main verb. So for the Ngoreme infinitive form of the persistive, as expected we get *SBJ-kéére ko-VB-a* and not **SBJ-kéére (n)-ko-VB-a*. However, in addition to *SBJ-kéére ko-VB-a*, we get attestations⁵⁴ of *SBJ-keere n-ko-VB-a* *SBJ-V-ni* where the focus marker is obligatory, the present continuous construction is in contrast with the infinitival construction, and the present continuous construction seems to be functioning as a unit. This area needs more research, but for the current study, I have referred to the auxiliary-inverted *ko*-forms as continuous while fully recognizing the probable historical connection to the infinitive, and that the process of grammaticalization might not be fully complete.

And what of the additional unspecified vowel in the simple past, imperfective, narrative, and perfect forms in Ikoma? Higgins discusses the unspecified vowel for Ikoma this way:

Finally, note that some prefixes [...] such as IMPF /ako-/ , NAR /aka-/ and INCP /aká-/ , could perhaps be broken down into two morphemes, at least historically [...] Also, note that the initial /a/ vowel in these three prefixes has unusual behavior in situations of vowel hiatus. A subject agreement prefix always precedes these TA prefixes, but the initial /a/ of the TA prefixes never causes glide formation of the preceding subject prefix. If the initial vowel of the TA prefix was really /a/, we would expect glide formation of preceding non-low vowels, since this process occurs when these same vowels meet at other morpheme boundaries. Instead, the vowel of the subject prefix is always lengthened, so it appears that the initial vowel of the TA prefix always conforms to the preceding vowel. This suggests that the initial vowel of the IMPF, NAR and INCP prefixes is likely unspecified, or an “empty mora” (2013: 43-44).

Ikoma ended up with “a vocalic mora without features” in these forms (Nurse and Muzale 1999: 537, see also Hyman and Katamba 1999: 379). I explore my current hypothesis here with a special focus on *Vká-* and narrative *Vkà-*, since we have explored the origin of (V)*ko*-already. In §5.1, I discussed how verbal morphemes involving *ka* are pervasive in Bantu, and have a wide range of potential semantics. We also saw that these different *ka* morphemes can vary in tone, and that the “narrative, *ka* [i]s overwhelmingly L tonally” (Nurse 2008: 244). In addition, we saw that there is a language cluster around Lake Victoria with *-(a)ka/-aaxa-* morphemes with perfect and/or immediate past meaning(s). This partly matches the case in Ikoma. But we still need to try to explain the unspecified vowel(s) and explore any possible lexical sources for *Vka-*.

The first piece of information we need to reckon with regarding the history of these *ka*-forms is the fact that “the variety of morphemes which co-occur with *-ka-* (*-Ø-ka-*, *a-ka*, *ri-ka*, *na-ka*, etc.) [...] suggest that *ka* was tacked onto existing tense markers, giving a compound marker” (Nurse 2008: 245). Thus, it is not unusual that *ka* has some sort of additional segment(s) associated with it. What is unusual is the unspecified vowel where we might expect

⁵⁴ At the time of writing, the tonal pattern for the following Ngoreme persistive/present-continuous construction is unclear.

a null morpheme or *a-*. Although, in Ngoreme we do have the null morpheme before the narrative *ka-*, and in Nata we get *a-* before *ká-*. This variation is quite interesting, especially given the fact that Nata's closest genetic affiliation is with Ikoma (see Figure 6.2). And further, in both Nata and Ishenyi, there is vowel length variation before narrative *ka-*, with either a null morpheme or the unspecified vowel possible, but not *a-* (SIL survey notes 2009). Essentially, the variation in the interaction of the subject prefix and any of the options before the *ka-* morphemes (unspecified vowel, *a-*, or null morpheme) manifests as palatalization (Cy)/labialization (Cw) and/or a variety of possible vowel length contrasts.

In terms of lexical sources, Nurse posits verbs such as **-yikala* 'be, live, stay' or **-yika* 'come/go (down)' (2008: 240ff). The latter especially may be an older source for an itive that eventually became the (past) narrative tense (2008: 245-246). Another related piece of the puzzle is the non-past consecutive in Ikoma (*SBJ-Ø-VB-a*). While it occurs a vast present in many Bantu languages, it can also function as a narrative tense (Nurse 2008: 117-119, 122, 236). The companion form (*SBJ-a-VB-a*) in Table 6.1, however, does not occur in any of the Western Serengeti languages. This was likely a perfect, "older anterior *-a-*", and "occurs in at least 84 percent of the matrix languages and in all zones, although less commonly in Forest languages" (Nurse 2008: 237). The Forest Bantu languages are in the Central African Republic and northwestern Democratic Republic of the Congo (see Grégoire 2003). Thus, it is fairly unusual that Western Serengeti does not have a reflex for this form. Be reminded as well that in Ikoma, even the simple past with *-iri* uses an unspecified vowel (V) in the T/A position, while Ngoreme has *a-*.

My current hypothesis is this: Proto-Southeast Mara (Ikoma, Nata, and Ishenyi) did not have *a-* in the T/A position anywhere. The strategy for distinguishing segmental forms that resembled each other was through vowel length and grammatical tone. Either **-yikala* 'be, live, stay' or **-yika* 'come/go (down)' (perhaps both, but likely the latter) was the source for narrative *V-kâ-*. The "empty mora" is a result of the gradual erosion of the *-yi* in **-yikala* or **-yika*. In other languages this only left *-ka-*. Imperfective *Vko-* either followed the same sort of scenario with the erosion of *-li-mu-* before *ku-* (perhaps as a progressive), or patterned itself after the past perfective (now simple past) and/or the *ka-* forms. Thus, Proto-Southeast Mara likely already had the following in (89):

(89)	<i>SBJ-Ø-VB-a</i>	non-past consecutive
	<i>SBJ-V-kâ-VB-a</i>	past narrative
	<i>SBJ-V-ká-VB-a</i>	?
	<i>SBJ-Ø-VB-iri</i>	perfective
	<i>SBJ-V-VB-iri</i>	past perfective
	<i>SBJ-V-ko-VB-a</i>	imperfective

It is also possible that an earlier stage *Vká-* originated from a time where there was a contrast between *SBJ-Ø-VB-a* ('vast present') and *SBJ-V-VB-a* ('perfect'), a difference of vowel length and probably grammatical tone. As the vast present began taking on more narrative function and partnering with the existing itive/narrative *ka-*, the companion perfect form also took on *ka-* morphology, but with a H tone.

This scenario explains the variation we see if we also assume that at a later point the unspecified vowel was reinterpreted as *a*-, or reduced to a null morpheme (effectively long vowel reduction, optionally in Nata) in the relevant forms in Nata and Ngoreme. Thus, Ngoreme (part of proto-Western Serengeti, but not proto-Southeast Mara) does not have *Vká*, has *-Ø-kà-* (narrative), and *-a-...-ire* (simple past). Nata has *-Ø-kà-* or *-V-kà* (narrative) and *a-ká*. The most likely reason for this major difference between Nata and Ikoma is that Nata is closer geographically to Ngoreme, which has been in contact with Simbiti (Roth 2014). Simbiti has two past tense forms (*-aa-* and *-a-* along with the *-ile* reflex), *-aa-...-a* as an untimed past anterior, and *-aka-* as the intermediate future formative (Walker 2013: 171-172). Nearby Temi also has clear past *-a-* morphology (see §2.1). Not only is Nata closer geographically in the present-day (see Map 1.1), but this appears to have been in the case even in history, subsequent to the split of Ikoma/Nata (Shetler 2003: 17).

Before I make any conclusions between the minimally-expanded tense option and the nearly straight line from Proto-Bantu option, I want to discuss the origin of the *Vká-* evidential in Southeast Mara.

6.2. Origin of *Vká-* as nucleative and evidential in Southeast Mara

In chapter 3, we discussed Botne's (2010) conception of resultative and completive perfectives, and touched on their relation to historical Bantu forms. Now that I have covered the *Vká-* form in Ikoma in chapter 5, I can offer a more cohesive theory about the origin of both the perfective and *Vká-*. The pathway for the Bantu languages in Botne (2010) is described as follows:

I suggest that this is how *-ire* functioned originally, as a resultative perfective with change-of-state verbs. Crucially, though, this was a SP-centered perspective. This use spread to dynamic action verbs. Bybee et al. claim that this generalization of use "forces an interpretation ... of an action with some lasting relevance." As we have seen, this was not the case in these Bantu languages. Rather, subsequently, these constructions developed a SIT-centered interpretation, eventually innovating new morphology leading to distinctions in perfective and past readings (Botne 2010: 26).

Essentially, I believe that at some point *Vká-* and *-ire* were both perfectives, with *Vká-* as a resultative perfective and *-ire* as a completive perfective. Immediately above, Botne argues that "*-ire* functioned originally, as a resultative perfective with change-of-state verbs" (2010: 26). He says earlier in the paper that "Initially, *-ire* did not distinguish situation-centered vs. speaker-centered readings; these were contextually determined. Both, then, were denotations of the simple *-ire* construction" (Botne 2010: 23). (Remember that situation-centered = completive, and speaker-centered = resultative). Thus, at some point, perhaps even originally, *Vká-* was used as a resultative perfective with only change-of-state verbs, and then expanded to "dynamic action verbs" (Botne 2010: 26). However, just as with the Bantu languages in Botne (2010), this did not result in a perfect (anterior) form. Further confirmation is that Sasse's statement that "the progressive reading is [in most cases] due to a reinterpretation of an erstwhile resultative form" (2002: 242).

The evidence strongly points toward eyewitness evidentiality involving the *Vká-* formative as independent innovation from this progressive reading in tandem with increasingly

tighter time restrictions on its recent past semantics. There are several questions I would like to try and answer in this section:

- Did Proto-Southeast Mara borrow this evidential meaning for *Vká*, or can it be attributed to independent innovation?
- Did the perfective develop its non-eyewitness evidentiality before or after *Vká*- developed its eyewitness evidentiality? Or did they arise together?
- Other Bantu languages have perfectives and various forms of *ka-*. If the evidential grammaticalization process occurred so “easily” in Proto-Southeast Mara, why not in other Bantu languages? What might be unique about the situation in Proto-Southeast Mara?

A point on terminology: Ikoma, Nata, and Ishenyi all have the *Vká*- eyewitness evidential contrasting with the non-eyewitness perfective. Therefore, when we talk about origins, since Ngoreme does not have it, I am referring to Proto-Southeast Mara. However, in the remainder of this section, unless I note otherwise, because this project specifically concerns Ikoma, I only refer to Ikoma.

Regarding the first question concerning borrowing and independent innovation: There is documented evidentiality in a few African languages relatively close geographically to Ikoma in northwest Tanzania. Aikhenvald says, “Evidentials easily diffuse from one language to another. Having evidentiality is a property of quite a few linguistic areas” (2004: 271). Essentially, in an ‘imperfect bilingual’ situation where one language has evidentials and the other does not, the nature of the contact situation leads to the spread of evidentiality due to the necessity of the additional information being present (Joseph 2003: 314-15). Is it possible that Ikoma came into contact with any of these languages somehow?

There are two moderately close connections and two very close connections among the African languages attesting evidentiality. The first moderate connection might be the West Nilotic languages Acooli, Luwo, and Shilluk spoken in South Sudan and northern Uganda (Hieda 2012; Miller & Gilley 2007; Storch 2006, 2014). The distinct but closely related West Nilotic language Dholuo is spoken in the Mara Region (Tanzania) as well as Kenya (Dimmendaal 2011: 191; Tucker 1994), although evidentiality is not attested in this variety. But because of the ease of evidentiality spreading by contact I examine briefly the types of evidentiality present in these West Nilotic languages.

Hieda argues that Acooli uses the interaction of syntax and lexical means to express evidentiality: “Acooli does not have any special morpheme to express evidentiality, but makes use of two types of complements, ‘paratactic’ and hypotactic complement[s], to distinguish characteristics of information sources” (2012: 93). From this statement and others (talk of “truth values”), it seems that evidentiality in Acooli is expressed solely by lexical means, rather than grammatically, and may have more to do with epistemic modality. As Aikhenvald says, “Every language has some way of referring to the source of information, but not every language has grammatical evidentiality” (2004: 10).

Luwo and Shilluk, on the other hand, have grammatical evidentiality. “Luwo has a means of expressing evidentiality in the perfective aspect. The more marked form is the one which indicates that the speaker has no first-hand information on the event, or cannot refer to

the source of information. The grammatical element *náà* indicates NON-FIRSTHAND and stands after the aspect marker and before the verb” (Storch 2014: 38). The examples in (90) are from Luwo and exhibit eyewitness versus non-eyewitness evidentiality.

- (90) Luwo (Storch 2014: 161-2)
- à-cʼmɔ̀*
 PFV-eat:AP
 ‘s/he ate/has eaten’
 (speaker as a witness who is sure that the action was completed)
- à-náà-cʼmɔ̀*
 PFV-N,EVID-eat:AP
 ‘s/he ate/has eaten’
 (speaker has not witnessed that the action was completed)

Note that both sentences are in the perfective and that any overt evidential element is absent from the first example. The *náà* evidential is present in the second example and indicates non-eyewitness information source. The evidential semantics are expressed alongside the normal aspectual role of the perfective.

Shilluk has a more elaborate evidential system, with a three-way contrast (Miller and Gilley 2007; Storch 2006: 399). Shilluk is considered to be a B1 system with the following options: ‘direct (or visual)’, ‘inferred’, and ‘reported’ (Aikhenvald 2004: 42-44). The following sentences in (91) demonstrate these evidentials in that order.

- (91) Shilluk (Storch 2014: 163)
- dhyàng’ á-kwal`yi cul*
 cow PST-steal ERG Col
 ‘Col stole the cow’
- dhyàng’ ú-kwalɔ̀`yi cul*
 cow PFV-steal ERG Col
 ‘Col stole the cow (I’m sure he did)’
- í dhyàng’ ú-kwalɔ̀`yi cul*
 hear cow PFV-steal ERG Col
 ‘it is reported that Col stole the cow’

The direct (*á-*) and inferred (*ú-...ɔ̀*) evidentials are verbal affixes, and the reported evidential is a particle (*í*). Aikhenvald says that Shilluk “is the only language in Africa with a similar [B1] three-fold evidentiality system” (2004: 43). Thus, none of the West Nilotic languages with reported evidentiality have systems or forms like Ikoma. The closest parallel is Shilluk’s direct evidential *á-* in opposition to perfectives with additional evidential morphology. This, however, is not nearly enough of a connection to be evidence of borrowing.

The other moderate connection is a well-documented Bantu language with evidentiality, Lega [D.25], spoken in the Democratic Republic of the Congo (Botne 1997, 2003b). Lega has two independent particles which “indicate the speaker’s evidence for and extent of confidence

in the proposition asserted in an utterance” (Botne 2003: 448). The particles, *ampó* and *ámbo*, mark firsthand and non-firsthand sources of information, respectively, as in examples (92)-(93) below (Botne 1997: 2-3, 10).

- Lega (Botne 1997: 3, 10)
- (92) *ampó namóníné bafalánsa bekuzilya*
 EV 1s-see-PS 2-Frenchman 3P-PR-4-eat
 ‘[In fact] I saw Frenchmen eat them (frogs)’

ampó ékurúra momponge
 EV 3S-PR-pound-FV 3-rice
 ‘She’s assuredly pounding rice [I can hear it].’

- (93) *Másudí ékosámba*
 M. 3S-PR-be sick-FV
 ‘Masudi is sick.’

ámbo Másudi ékosámba
 EV M. 3S-PR-be sick-FV
 ‘[I’ve heard/I am told (that)] Masudi is sick.’

A third particle, *émbé*, “indicates possibility, which may be translated into English by various terms: maybe, perhaps, possibly” (Botne 1997: 7). Therefore, the *émbé* particle is related to epistemic modality (and not evidentiality). As far as the overall use of evidentials in Lega is concerned, they are optional (not obligatory) and are used infrequently (Botne 1997: 3). With the contrast then between firsthand and non-firsthand choices, Lega can also be considered an A1 evidential system like Ikoma. Even though Lega and Ikoma are both A1 systems, the major difference is still that evidentiality is fused with tense/aspect in Ikoma and part of the inflectional morphology. The forms themselves also have no segmental relationship to *Vká-*. Thus, I believe we can safely claim beyond a reasonable doubt that evidentiality in Ikoma did not arise due to contact with either Lega or the West Nilotic languages discussed above.

The close connection I discuss first and the one that should be taken the most seriously as an option for evidentiality in Ikoma resulting from language contact is that of Sukuma (F.21), specifically the Kiny dialect (also called East Sukuma). Sukuma is definitely the larger of the groups population-wise at over seven million (Simons and Fennig 2018). In the modern-day, Sukuma borders the Jita and Sizaki language areas, but at their closest points the Ishenyi and Sukuma areas are at most approximately 75km apart. Nurse reports the following in 2008b (first appendix, which includes T/A matrices for his corpus languages):

Two remote Past PFVs: *d-áá-gɔlá*, *dɔ-ga-gɔla* ‘We bought’. Masele explains the former as an Evidential – knowledge of the buying is based on personal experience, such a form could be used in court, whereas the latter is an Inferential – speaker not present but infers the buying from what he has heard (*italics mine*).

Sukuma appears to have an A1 system that applies only in the past tense, with evidentials fused with tense/aspect marking. Consider Table 6.3 below (Nurse 2008b, Sukuma-Kɪɪya), without negatives included:

Table 6.3. Sukuma evidentials (adapted from Nurse 2008b)

	(+) Direct evidence (personal experience)	(-) Direct evidence (report, inference)
P ₄	<i>d-áá-gəl-ǎ</i> we bought	<i>də-ga-gəl-a</i> we bought
P ₃	<i>d-aa-gəl-ilě</i> we bought	<i>as above</i>
P ₂	<i>d-aa-gəl-agǎ</i> we bought	<i>d-aa-lí d-áá-gəl-agǎ</i> we (had) bought
P ₁	<i>d-aa-gəl-ǎ</i> n/a	<i>d-aa-lí d-áá-gəl-ǎ</i> we (had) just bought

The evidential distinction is clearest in P₃ and P₄, which is where I focus attention here. (The contrast with the periphrastic constructions in P₁ and P₂ is not clearly an evidential contrast, see Nurse 2008: 172). Nurse considers both sets of forms (P₁ - P₄) perfectives, although only the P₃ direct evidential has the *-ile* suffix. The marker *ga-* in the P₃ and P₄ (-) category is definitely reminiscent of the *Vká-* marker in Ikoma and Ngoreme (remember that *k/g* frequently have a special relationship phonologically in Bantu due to Dahl's Law). Sukuma *ga-* has two important differences in that it marks inference/report (non-eyewitness) evidentiality and lacks H tone and V. However, none of these differences preclude there having been some kind of contact between Sukuma and Ikoma in regard to these evidential markers. But because of these differences, I am skeptical about Ikoma and Ngoreme having borrowed the *ga-* form and the semantics of the opposing perfective form from Sukuma. First, let us explore evidential grammaticalization, and then I offer further reasoning why I think the Sukuma scenario is highly unlikely.

Evidentiality can also arise independently through grammaticalization—how exactly might this have occurred in Ikoma? In terms of the grammaticalization process for evidentials, there are a wide variety of pathways. The possible known grammaticalization pathways are as follows (Aikhenvald 2004: 271ff):

(94)

- (a) *grammaticalized verbs (likely verbs of speech & perception)*
- (b) *deictic/locative markers*
- (c) *evidentiality strategies*
- (d) *de-subordination of speech complements*
- (e) *reanalysis of copula*
- (f) *miscellaneous or multiple sources*

Evidential strategies are “categories and forms which acquire secondary meanings somehow related with information source” (Aikhenvald 2004: 105). Because in Ikoma evidentiality is fused with tense/aspect and part of the inflectional morphology, option (c) is the most likely pathway candidate as “small evidentiality systems often have their roots in the reinterpretation

of evidentiality strategies” (Aikhenvald 2004: 287). There are two prongs to my argument for Ikoma evidentials, one for the *Vká-* eyewitness evidential, and the other for the perfective non-eyewitness evidential. I start with the latter.

There are three main sources for evidentiality strategies: (1) modalities; (2) perfect, resultative, and past tense/aspect(s); and (3) nominalizations (Aikhenvald 2004: 76). Remember from chapter 5 that eyewitness/non-eyewitness evidentiality frequently “applies just in the past tense” and more specifically that “a perfective or perfect-like tense carries an inferential or noneyewitness specification” (Aikhenvald 2003: 3, 20)⁵⁵. However, it is also possible that the perfective *-ire* is not where evidentiality entered Ikoma, but was an indirect result of the evidential overtones coming from *Vká-*. Under this scenario, the perfective would have just been a natural receptor for non-eyewitness evidential semantics, as it is typologically wont to do, with *Vká-* taking on the evidential strategies.

What would the evidentiality strategy-grammaticalization process have looked like for *Vká-*? Currently in Ikoma the immediate past time requirement is twenty minutes or so after the event is complete. To fulfill this narrow time requirement, a visual and/or auditory component would become necessary. The visual/auditory (eyewitness) requirement would then be an extremely natural outcome. Or perhaps the visual/auditory component came from the progressive reading. The narrow time requirement for the immediate past in Ikoma may explain why more evidentials have not resulted in other Bantu languages. If the time requirement for an immediate or recent past is longer, say even an hour or two, that would not necessitate a visual or auditory component to fulfill the time requirement.

Returning to the issue of Sukuma, the evidential grammaticalization story for *Vká-* in Ikoma should give us pause, despite the ease with which evidentiality is borrowed and Sukuma being the larger, more dominant contact language in the southern Mara Region. Some reasons I have already discussed against the idea of evidentiality having originated in Sukuma and subsequently diffused to Ikoma are as follows: Sukuma *ga-* marks inference/report (non-eyewitness) evidentiality, and lacks both H tone and the unspecified V. Add to these reasons the (albeit subjective) elegance of the grammaticalization of the evidential from the time requirement of the recent or immediate past, and the fact that *ka-* forms are ubiquitous in Bantu.

There is, however, circumstantial evidence in the opposite direction, i.e. that Sukuma may have borrowed evidentiality from Ikoma. First, it is theorized that “changes tend to occur in MCAs [main clause affirmatives] earlier than in other clause types” (Nurse and Muzale 1999: 539). The companion to that proposal is that verbs in negatives and relative clauses are more likely to be indicative of older forms. The negatives in both the direct- and indirect-evidence Sukuma perfectives are a mix of *dɔ-da-gɔl-ile* and *d-aa-lí dɔ-da-gɔl-ile* with *da-* as the negative marker in both. These forms would indicate traditional Bantu perfective morphology with the suffix *-ile* (with or without the past prefix *a-*). This would further indicate that the *ga-* perfective marking indirect evidence is a relatively newer form. If evidentiality arose in Sukuma through independent innovation, we might expect to see indirect evidence markers in one of the older forms, *-ile*, or even perhaps *aa-...-a* or *aa-...-aga*. At the same time,

⁵⁵ “At what stage each of these develop evidential connotations depends on the language (and establishing any relative chronology of changes is a daunting task)” (Aikhenvald 2004: 276).

however, it is of course possible that evidentiality arose independently much later with the *ga-* perfective.

Another piece of circumstantial evidence is related to Dahl's Law. As we saw earlier, the examples from Nurse (2008a) use the verb stem *-gɔla* 'to buy'. Dahl's Law was once fully active and productive in Sukuma, but has a lot of variation in this area of its phonology (Batibo 1985, 2000; Roth 2013). For active and productive Dahl's Law, we would expect the Sukuma *ga-* to have a *ka-* morph in this situation, i.e. *dɔ-ka-gɔla*, but the form is *dɔ-ga-gɔla*. These allomorphs (*ka-* and *ya-*) are present in Ikoma, but with the added peculiarity that in Ikoma and Ishenyi /y/ occurs in prefixes before voiced /y/, and not just in front of voiceless consonants, just like Sukuma in this instance. There are many possible reasons for this, one of which is that it is an indication that Sukuma borrowed the *ga-* form from Ikoma or Ishenyi. At very least, Sukuma is harmonious with Ikoma and Ishenyi in this manifestation of Dahl's Law.

The last piece of circumstantial evidence is that evidential diffusion from Ikoma to Sukuma would explain the interference evident in the fact that Sukuma *ga-* marks inference/report (non-eyewitness) evidentiality and not eyewitness evidentiality, as it lacks both the H tone and the unspecified V. This is only speculation though, as there are still many more possible explanations for evidentiality in Sukuma that do not have anything to do with Ikoma, and the evidence in this case is nowhere near conclusive. However, I do think there is enough evidence to say that evidentiality in Ikoma did not originate from language contact with Sukuma.

The next closest connection geographically is with Logooli (JE.41) in western Kenya. Logooli has direct versus indirect evidentiality, and uses noun class concords to do so. These are *ga-* (class 6) and *e-* (class 9), respectively (Bowler and Gluckman 2016). Consider examples (95) and (96) from Bowler and Gluckman (2016: 4).

(95) Context: It's flu season, and Imali didn't come to school.

- a. *e-fan-a kuresa Imali a-saal-a*
9-seem-FV like 1Imali 1-be.sick-FV
'It seems like Imali is sick'
- b. *# ga-fan-a kuresa Imali a-saal-a*
6-seem-FV like 1Imali 1-be.sick-FV
'It seems like Imali is sick'

(96) Context: You see Imali coughing and sneezing.

- a. *? e-fan-a kuresa Imali a-saal-a*
9-seem-FV like 1Imali 1-be.sick-FV
'It seems like Imali is sick'
- b. *ga-fan-a kuresa Imali a-saal-a*
6-seem-FV like 1Imali 1-be.sick-FV
'It seems like Imali is sick'

In example (96), the context is that the speaker directly witnesses/experiences Imali being sick, i.e. coughing and sneezing. This allows the use of *ga-* in (96b), whereas the use *ga-* was restricted in (95b) as Imali not coming to school is only indirect evidence that s/he may be sick.

Obviously, the use of a *ga-* direct evidential in Logooli should give us some pause in relation to Ikoma and the *Vká-* evidential. However, there are also several key differences which, like Sukuma, make it unlikely that the source of *Vká-* evidentiality in southeast Mara is due to contact with Logooli. One key difference is that the evidentials in Logooli come from noun class concords, and are used in the subject prefix slot, having nothing to do with tense/aspect. Another major difference is that despite a clear overlap with verbs of perception, the semantics of Logooli *e-/ga-* are much more restricted in some ways (expletive constructions), and more expansive (in that they even extend to modal force) (Bowler and Gluckman 2016).

6.3. Conclusion

As we have seen in this chapter, the historical scenario for Ikoma and Ngoreme as part of South Mara boils down to whether South Mara had minimally-expanded tense or an aspectual system even more in line with Proto-Bantu and perhaps even pre-Bantu. Regardless, this is particularly interesting because the area around Lake Victoria is crucial to our understanding of the Bantu expansion. The Bantu expansion refers to the migration of Bantu peoples from around what is now the Nigeria/Cameroon border area approximately five thousand years ago (~3000 B.C.) to being *in situ* across much of sub-Saharan Africa by the beginning of our era A.D. (Nurse 2008: 226-7; Grollemund et al. 2015; Pakendorf et al. 2011).

Currently there are two main competing hypotheses regarding the potential routes the Bantu groups took: (1) “east separate from west”, and (2) “east out of west” (Pakendorf et al. 2011: 57). Both models have the Proto-Bantu nucleus originating in the Nigeria/Cameroon area, and the subsequent spread of (at least a subset of) Bantu peoples southward. In the first hypothesis, an East-Bantu nucleus arises directly from a migration from Nigeria/Cameroon, with Bantu peoples settling on the west side of Lake Victoria and subsequently spreading southward (and around the east side of the lake). As Nurse says:

[...] the archaeological, palaeoecological [sic], cultural, and other evidence suggests a unified and steady peopling of this area [Great Lakes] by a population likely Bantu-speaking, starting in the last half of the first millenium BC at the forest edge and spreading to the western side of Lake Victoria, then around it to the east by the early centuries of our era. This working hypothesis has led to really fruitful historical work. (1999: 9)

The second hypothesis, however, an East-Bantu nucleus results only indirectly from Nigeria/Cameroon, with East-Bantu arising out of the West-Bantu nucleus. One of the conclusions of this project is that there is a strong chance that the reduced-tense systems in South Mara represent a conservative aspectual-prominence reflective of very early Bantu, thus lending support to the first hypothesis and potentially reorganizing Bantuist thinking on Proto-Bantu TAM systems. Grammatical aspect was foundational in the system, the perfective versus imperfective distinction being paramount. The analysis of Ikoma and Ngoreme as having reduced-tense systems, and Ikoma having *Vká-* as an evidential has implications for wider Bantu sociohistory as well as the more local sociohistory of the Lake Victoria region.

Chapter 7

Conclusion

7.0. Introduction

The main objective of this study on Ikoma and Ngoreme has been to provide a comparative description of aspect and verbal semantics in these two Tanzanian Bantu languages. The study is not meant to be comprehensive, but rather the focus has been placed on the core grammatical aspects: perfective, imperfective, progressive/continuous and nucleative. Form *and* function have been in view, and so documenting actual contextual usage has been of paramount importance. The motivating research question underpinning the study has been how and why speakers make choices between aspectual forms in languages with multiple options for communicating similar temporal relations. Thus, the “present” in Ikoma and Ngoreme has been of particular interest, and the exploration of lexical aspect (situation type) has led to a better understanding of verbal semantics in Bantu, especially the division between punctive and durative. Teasing out the differences between the use of the perfective and nucleative in Ikoma (apart from evidentiality) also has led to a better understanding of this semantic space in Bantu.

Theory has also not been the focus, but I have used insights from works such as Botne (2010), Botne and Kershner (2008), Crane (2011), and Kershner (2002) to supplement the descriptive material. Of considerable interest has been the typologically unusual features that show up in Ikoma and Ngoreme, namely reduced-tense and evidentiality (for Ikoma). The comparative portion of the study, examining very closely related languages (not dialects), has revealed some very intriguing issues regarding microvariation, chiefly among them the impression that despite this close genetic relationship, Ikoma and Ngoreme are still very different from each other. Ngoreme has auxiliary inversion, and flipped imperfective and continuous morphology as compared to Ikoma. Ikoma has an eyewitness evidential nucleative form which Ngoreme does not.

In the remaining sections here in this chapter, I summarize this study chapter-by-chapter, offer some ideas for further research, and then get into some implications.

7.1. Summary of chapters

In chapters 1 and 2, I provided an introduction and context to Ikoma and Ngoreme in terms of geography, sociolinguistics, genetic relationships, sociohistory, phonology, and morphology. For the non-Bantuist reader, I gave an overview of nominal and verbal morphology. I discussed my methodology for the study, set the scope and format, and introduced some of the theoretical background necessary for the rest of the study. This included situation types, particularly punctives as well as the domains framework (P- and D-domains) from Botne and Kershner (2008). I also introduced Ikoma and Ngoreme as having reduced-tense systems.

In chapter 3, I covered the forms normally associated with the “past” tense: the perfective and simple past. This process included distinguishing the perfective from the simple past, but also the perfective from the perfect. The framework in Botne (2010) was one of the keys to untangling the perfective semantic space. Looking at the interaction of grammatical aspect with situation types in Ngoreme was also part of this untangling.

In chapter 4, I examined the imperfective categories including the progressive in Ikoma and the continuous in Ngoreme in addition to the general imperfectives. I also examined discourse considerations such as foreground and background, and temporal relationships of sequentiality and simultaneity that make use of grammatical aspect concerns.

In chapter 5, we saw examples of how the Ikoma *Vká-* formative functions. Generally, *Vká-* was seen to function like a pseudo-perfective/progressive. I came to the conclusion that the best analysis for *Vká-* was as a marker of the nuclear middle and final (for duratives) and the nuclear pivot and denouement (for punctives). I put forward the term *nucleative* to label this form and its function. The nucleative analysis also harmonizes well with the firsthand/eyewitness evidentiality component within the semantics of *Vká-*.

In chapter 6 the focus was on the history of Ikoma and Ngoreme, and how they fit in genetically with the rest of the Mara languages, as well as nearby languages outside of Mara, such as Temi. This included Stammbaum diagrams and matters of subgrouping, but was even more concerned with the origins of reduced-tense and evidentiality. The discussion of the origins of evidentiality in Ikoma included evidence from other nearby African languages (Bantu included) that could have had an impact on Ikoma evidentiality. I determined that evidentiality in Ikoma is most likely due to independent innovation, but the connections with evidentiality in Sukuma and Logooli are extremely interesting nonetheless. Additional focus was placed on various processes of grammaticalization and potential pathways from the Ikoma and Ngoreme data. I offered an historical explanation for some of the variation between Ikoma and Ngoreme in this area, and concluded that contact between Ngoreme and Simbiti was a major historical factor.

7.2. Brief synthesis

In order to synthesize some of the material from this study, I would like to take a step back and revisit some of the underlying reasons native speakers in Ikoma and Ngoreme are choosing certain grammatical aspects. To do so, I use decision trees⁵⁶ to represent these choices. Consider Figure 7.1 for Ngoreme.

⁵⁶ Many thanks to Stefan Savić for sparking this idea in his presentation on Xhosa at SemVerbMorph 1 in Gothenburg, Sweden (2017).

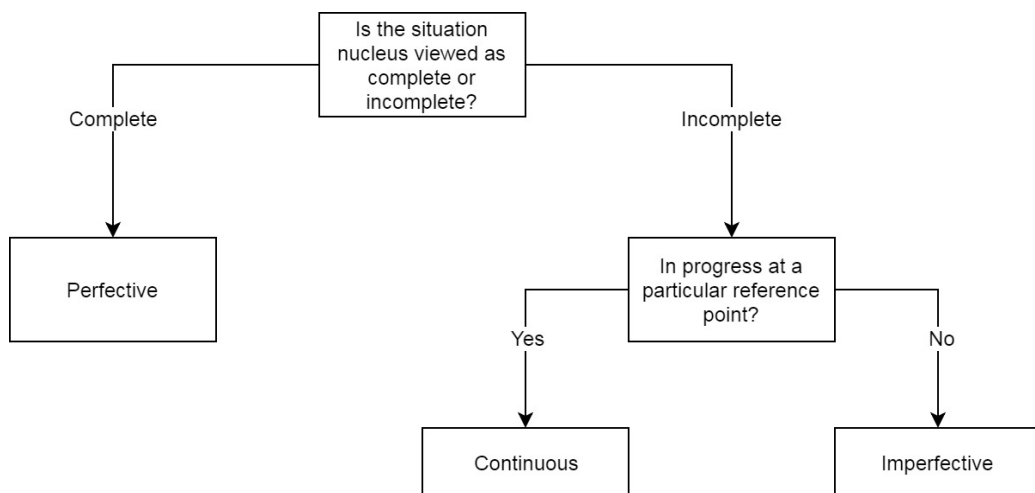


Figure 7.1. Aspectual decision tree for Ngoreme

Here in Ngoreme the decision tree is relatively simple, with a basic choice between viewing the situation nucleus as complete or incomplete. If the situation nucleus is viewed as incomplete, the next choice is whether or not the situation is understood to be in progress at a particular reference point, usually the moment-of-speech. This is the difference between the imperfective and the continuous. The aspectual decision tree for Ikoma is included below in Figure 7.2.

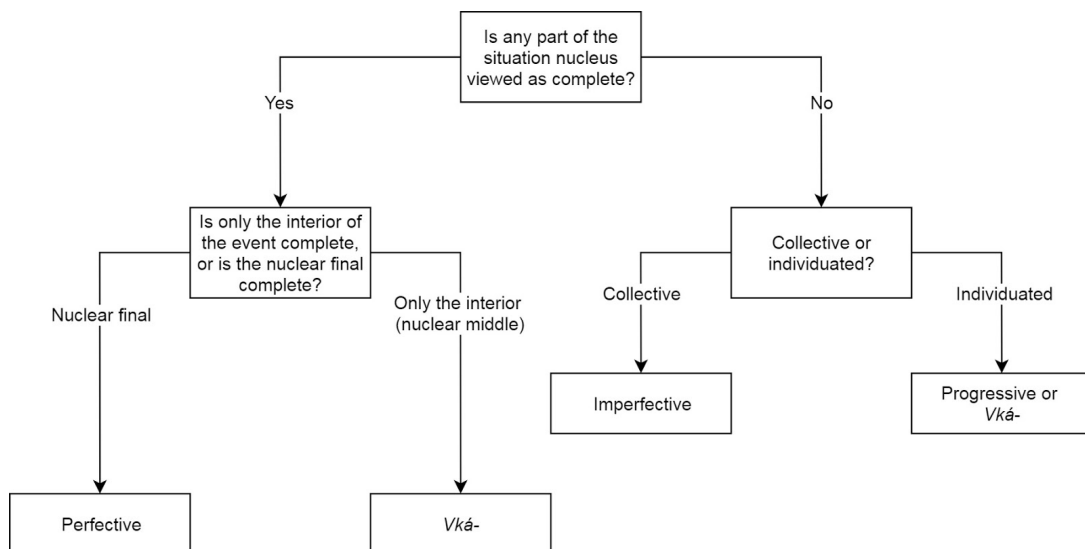


Figure 7.2. Aspectual decision tree for Ikoma

The Ikoma decision tree is similar to Ngoreme in that the central question is related to whether the situation nucleus is viewed as complete or incomplete. However, for Ikoma, that

consideration is more refined — *is any part of the situation nucleus viewed as complete?* If no part of the situation nucleus is viewed as complete, the next choice is whether or not the situation is understood to be individuated or collective. If any part the situation nucleus is viewed as complete, the question is at what level, the nuclear middle or the nuclear final as well. At its core then, this foundational split between the perfective and imperfective manifests as completion and non-completion, respectively. Crane (2011) highlights this fact in her analysis of Totela (K.41), and extends the idea Bantu-wide:

Completion semantics also seem likely to be at play in other Bantu languages where “anterior” marking is associated with vagueness or ambiguity between past situations and present states. The stability of the categories, despite constantly evolving means of morphological expression, suggests that the notion of nucleus completion is basic to Bantu tense and aspect; this is likely closely related to the prevalence of change-of-state verbs (2011: 152).

Not included in the aspectual decision trees is the **emergent** connection to tense. *Emergence* is “the arising of novel and coherent structures, patterns, and properties during the process of self-organization in complex systems” (Goldstein 1999: 49). I believe that tense in Ikoma and Ngoreme is an emergent phenomenon, and can be seen in Table 7.1.

Table 7.1. Emergent tense in the Ikoma and Ngoreme P-domain

Progressive (Ikoma)	Continuous (Ngoreme)	Imperfective	Perfective	Vká- (Ikoma)
<i>present</i>	<i>present</i>	<i>non-past</i>	<i>non-future</i>	<i>non-future</i>

The table shows how the “present tense” is at the intersection of all of these grammatical aspects, and also demonstrates how difficult it is in reality to make Ikoma and Ngoreme fit into a coherent tense system.

7.3. Ideas for further research

At the top of the list for further research is exploring the modality systems in Ikoma and Ngoreme. The interaction of evidentiality and epistemic modality in Ikoma, in particular, would be extremely interesting. The nasal focus markers and their presence or absence seem to be a good research avenue to follow. Ritualized conversational expressions which take advantage of that presence or absence, or the same back and forth with the perfective and perfect in Ikoma are very intriguing. More work on grammatical aspect in conversations, rather than folktales or Biblical narrative is important. Developing a working corpus for conversational analysis would take time, but could be very fruitful. Further work in pragmatics and discourse would surely be enlightening.

This project is not fully comprehensive, and so an analysis of more “minor” aspects in Ikoma and Ngoreme, going beyond the work in Walker (2013), could be very beneficial as well. Although the research I have done on Nata and Ishenyi supports the idea of them being much closer in their TAME systems than even Ngoreme, supplying data from Nata and Ishenyi, especially more texts could give more insight into the microvariation in situation types.

More research could definitely be done on evidentiality in Ikoma, Nata, and Ishenyi. Lastly, the genetic connections of Ikoma and Ngoreme (and the rest of Western Serengeti) to Bantu languages on the northeastern side of Lake Victoria in Uganda and Kenya (Logooli (JE.41), and the Masaba-Luhya group (JE.30)), along with languages such as Kikuyu, would be very interesting.

As I mentioned in chapter 1, the Mara project (<https://blogs.helsinki.fi/mara-project/>) through the Kone Foundation will continue through the end of 2019, with the anticipated output of a comparative grammar of Ikoma, Nata, Ishenyi, and Ngoreme. Thus, having set aside Nata and Ishenyi somewhat up until now, the hope is to have that data and analysis incorporated into the future grammar (already in progress) with the help of the team. And in addition, it gives us a wonderful opportunity to follow up on these lines of inquiry. At the time of writing, we are particularly excited about doing more with modality and the focus markers in these languages.

7.4. Implications

The implications of this study go well-beyond just Ikoma and Ngoreme. I believe there are at several major implications from this study, which mostly concern Bantu, but also apply to the study of TAME in general.

Many of the implications of this study revolve around the unusual nature of the Ikoma *Vká-* nucleative form. This of course includes the study of evidentiality in Bantu and in African languages in general. However, even more importantly *Vká-* was seen as not conforming to any of the inceptive, performative, or perfect grammatical aspect categories. Other solutions for reconciling the progressive reading with the immediate past/perfective reading (e.g. Crane 2011) were also seen to be inadequate. Thus, it was necessary to use a new term (nucleative) to adequately describe how the *Vká-* form is actually functioning. It was also necessary to tweak certain parameters in regard to phasal models, as in Freed (1979), Botne (1983), and others. Further cross-linguistic study will hopefully yield more on problematic forms such as this one.

This study further confirmed notions about Bantu tense/aspect put forward in works like Botne (2010), Crane (2011), and Kershner (2002). The *-ire* form in both languages was seen as being perfective rather than perfect, as in Botne (2010). Completion and non-completion of the situation nucleus was seen to be a better fit for explaining the perfective and imperfective than viewpoint semantics, as Crane (2011) also concludes. The split between punctive (change-of-state) and durative situation types in Bantu was also apparent, as in both Crane (2011) and Kershner (2002).

Practical implications for fieldwork in this area include collecting conversations as oral texts, and even doing conversational analysis as a central way of analyzing verbal semantics. This also includes the need for research into pragmatics and discourse. Speakers make temporal aspectual choices largely in line with their discourse goals, but they are two sides of the same coin. Closely-related Bantu languages are not a monolith, and the study of microvariation is extremely important. It is also important to ensure that tense is analyzed as tense, and aspect as

aspect, as the case may be in different Bantu languages. There may be languages in which aspect has been analyzed as tense, and those conclusions need to be refined.

The central implication for Bantu history is that these Western Serengeti languages may lead to further insights into the Bantu expansion. These languages are geographically proximate to Lake Victoria and so may even represent conservative takes on the Proto-Bantu tense/aspect system. Regardless, Ikoma and Ngoreme are Bantu languages that are counter-expectational in many ways and represent the rich diversity and variations on a theme we see in Bantu linguistic studies. Ikoma and Ngoreme offer fascinating Bantu typological puzzles involving tense, aspect, modality, and evidentiality.

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Appendix

Luke 24:13-53

Ikoma: SIL International Uganda-Tanzania Branch; Musoma, Tanzania

¹³ Kwo rosíko rúyo ró chumaβíiri, aβayendí βaβere yaté e βáánaβééya βá Yésu mbaaré moruyendo ró yuyé mokyáro ké Emááu. Ekyáro kíyo, nkeeré no oβure bó masá aβere korú Yérusareemu.

¹⁴ Hano baaré moncherá βaakaβa βarasíikera aβeené iyoro e mańána yoosé yano yaakɔrekíine Yérusareemu.

¹⁵ Hano baaré βakeere βarayásiikera, Yesu omwené akaacha, ayayenda hayíro hamú naβo.

¹⁶ Mbaamórooche amare Eryóβa réekaβakɔra βangé kumánya áriβa niwé.

¹⁷ Akaβaβóori, “Mańána ke mooyuyenda morasíikerera?” βaakimeerera, amashó yaaβo yá kunyiri yaréereki amacheeche.

¹⁸ Umu ó Bayo, eríina reeche Kiróóβa, akamuyarokeri, “Moβááto βoosé βano bámenyiri Yérusareemu ná aβayeni βoosé, kana iyé niye otooɔwíre yoosé yano yaakɔrekíine Yérusareemu chaasiko chíno?”

¹⁹ Yesu náwe akaβóori, “Mańána ke yáyó?” βaakamuyarokeri, “Ítu ntooyosíikera iyoro é yano yaakɔrekíine oYésu o Nasareeti. Eryóβa na βááto βoosé mbaaróóche kúβa, iwé murɔɔti aré, wiiki naaré no oβotóro βo yukɔra na yosíikera.

²⁰ Amare, aβakóro βa βachááma, na aβakángati βíito, βaakamuháána kwo βakángati βá Kerúumi, kuβá aténérú ekiína yokú, βaakamumámba momusaráβa.

²¹ Itu ntooré toríiteɽera kúβa iwé niwé ayotóóri Ísiraeeri. Iβeeré, korwéra háyo yaakɔrekíine, reeró norosiko ró yatato.

²² “Wiikí, aβakári aβánde βá wiito mbaatútakirí yo kuβá reeró atáβóorí chúri, mbaayíire mombehéra,

²³ βataaβwíne erihundúyu re Yésumu. Mbiichíri yotóboorera kúβa mbarweriiru ná bámarayiká βaakaβaβoorera kúβa Yésu muhɔru.

²⁴ “βaakamara, áβayendí βiito βááyaye mombehéra, βáákaβona yoosé yaanyí kinya aβakári báyo batóbooríire, amare erihundúyu βatarérooche.”

²⁵ Yesu ákaβaβoorera, “Aa! Inyú mbaɔɔɔɔ moonyí! Neke moonyí bakóɽu móchaakɔɔ cheenyu yokúmi korú yano yaasíkiiru ná aβarɔɔti?

²⁶ Kána yendíiru Kirísito aβne anyááko ino, akeere kuβona oβokúmi booche”

²⁷ Nihó, Yésu akaβeerekereri amang’ána yoosé yano yánde kuru iyoro yááche, korwéra mó máánde ko yá Músa, na mó máánde ko yoosé ya βarɔɔti.

²⁸ Hano baaré βáyating’i mókyáro kino baaré yúye, Yesu áyiikɔri kinya akeeré moruyendo.

²⁹ Amare, βáakamusasaama chwee, “Nwikáre hayírohamu ná níitu! Kaná βookíira, ne keńjúuri yeekáácha.”

Nihó, Yésu ayasɔha monyúmba, ayiikara hayírohamu naβó.

³⁰ Iβeeré hano βiikéere kurááyera, Yesu ákiimoki omuyááte. Akawiitaβeri, akawosúúra, akaβaha.

³¹ Hayoháyo, Eryóβa réekaβahunyura amíísho, βáákariyi kúβa nYesu. Nawé hayoháyo akaruhó.

³² BaakaBoorani, “Aa! Hano asíikiire ná nítu mónchera, yo yotóBoorera yááre yaanyí moMáándeke Amatɔɔbiyu, kána totachómiiru yó yano aré aratóBoorera?”

³³ Kwo riibáɣa riyoriyo baakaBóóka, baayayarura Yérusareemu. Hano báhikiri bááyatemeerana ná aBatómu ikómi na úmu bá Yésu bíikomiine hayírohamu ná aBááto aBánde.

³⁴ A Bááto báyo baaré baakómiine, bakaaBaBoorera, “Mmaheene kúba Omutemi wiito naryokiri! Naamorweriire Símiyooni!”

³⁵ Nihó Bayo bábere báákaBaBoorera ábayendí yaare yooosé yaakɔrekíine mónchera. BaakaBaBoorera né keɓuno baamúmanyiri Yésu hano ábasuuriri omuyááte.

³⁶ A BáánaBééɣa báyo ba Yésu, hano baaré baakeere Barasíikera íyoro é yayo, hayohayo Yésu omwené akimeerera yaté yaaBo. AkaBaBoorera ákaɓuɣa, “Omurembe uBé na nínyu!”

³⁷ Baayitaki, baayatiína chwee, baakiheɛBa kúba mbarooche ekehú.

³⁸ Amare, Yésu akaBaBoorera, “Neke mooyítumatera hanú? Wiikí mookáhaha chwee móchaakɔɔ cheenyu?”

³⁹ Mumɔɔhi amaɓɔko yaane ná amaɣoro yááne, nihó mumanyé kúba neni mwené! MumbááBaate moriyí, yo kúba ekehú yetaanyíni iyúha nó omobere, kinya búúre mookoríyi neenyí nawé.”

⁴⁰ Hano Yésu ámariri koBáBoorera yáyo, akaBeereki amaɓɔko ná amaɣoro yááche.

⁴¹ A BáánaBééɣa baache, baayasiiyasíiɣa na koróyoora chwee, korú bataakúmiri ariɓa heene. IBeeré akaBáBóori, “Moonyí ne ekíinyakure yókyósé hanó?”

⁴² Baakamuha eyitámúnyú yeesú yyekiri.

⁴³ Ayakiimoki, ayakire ámbere yááBo.

⁴⁴ Akamara ákaBaBoorera, “Eriibáɣa neeré nekeere neenyí hayírohamu ná nínyu, yano, niyó amanána yaane yanó mbáBooríire, kuBá yooosé yano yándeKuru íyoro yaane ngakwénderu yahikéérane. Ibé momeyiro yé Músa, na momáándeke ɣa Barɔɔti, na momáándeke ɣá SaBúri.”

⁴⁵ Mbe, Yésu akaBakɔra bamanyé Amáándeke Amatɔɔbiyu yooosé.

⁴⁶ Wiikí akaBaBoorera, “Yandekuru kúba Kirísito naakunyáákiɓu ná ywitu, no orosiko ró yatato, naakoryóka koru moBáku.

⁴⁷ Na aBááto bá matɔngɔ yooosé, korwéra Yérusareemu, mbaakwéyiɓu kwó ríina reeché kúba batúúkuunere amasari yaaBo, baabéru.

⁴⁸ Inyú niinyú mooróóche amang’ána yáyo yaakɔrekíine wiikí niinyu mooyoyásiikera kwo Bánde.”

⁴⁹ “Muteyeerere! NeekoBáreetera íyoro yáányu eriiráyano ré taata waane, eriiráyano ríyo na Akɔɔ Ahɔreeru. Amaré, muyanyé momoyya háno Yérusareemu kúba mookuhááɓu oBotóro koru Mwishááro.”

⁵⁰ Akamara Yésu akaBakangata aBáánaBééɣa baache mbaɣá mokyáro ke Betaníya. Hano báhikiri hááre, aɣayɔɔɔɔki amaɓɔko yaache íyoro, akaBíitaɓeri.

⁵¹ Na hano aré akeere araBíitaɓeri, akaBatiya, ákiimokiɓu yuyé Mwishááro.

⁵² Háyo, baakamusengera. Baakamara bááyayarura Yérusareemu, Barasíiyasiyi chwee.

⁵³ Baayikara háyo Mwisengero, Barayóngi EryóBa.

¹³ Now on that same day two of them were going to a village called Emmaus, about seven miles from Jerusalem,

¹⁴ and talking with each other about all these things that had happened.

¹⁵ While they were talking and discussing, Jesus himself came near and went with them,

¹⁶ but their eyes were kept from recognizing him.

¹⁷ And he said to them, "What are you discussing with each other while you walk along?"

They stood still, looking sad.

¹⁸ Then one of them, whose name was Cleopas, answered him, "Are you the only stranger in Jerusalem who does not know the things that have taken place there in these days?"

¹⁹ He asked them, "What things?" They replied, "The things about Jesus of Nazareth, who was a prophet mighty in deed and word before God and all the people,

²⁰ and how our chief priests and leaders handed him over to be condemned to death and crucified him.

²¹ But we had hoped that he was the one to redeem Israel. Yes, and besides all this, it is now the third day since these things took place.

²² Moreover, some women of our group astounded us. They were at the tomb early this morning,

²³ and when they did not find his body there, they came back and told us that they had indeed seen a vision of angels who said that he was alive.

²⁴ Some of those who were with us went to the tomb and found it just as the women had said; but they did not see him."

²⁵ Then he said to them, "Oh, how foolish you are, and how slow of heart to believe all that the prophets have declared!

²⁶ Was it not necessary that the Messiah should suffer these things and then enter into his glory?"

²⁷ Then beginning with Moses and all the prophets, he interpreted to them the things about himself in all the scriptures.

²⁸ As they came near the village to which they were going, he walked ahead as if he were going on.

²⁹ But they urged him strongly, saying, "Stay with us, because it is almost evening and the day is now nearly over." So he went in to stay with them.

³⁰ When he was at the table with them, he took bread, blessed and broke it, and gave it to them.

³¹ Then their eyes were opened, and they recognized him; and he vanished from their sight.

³² They said to each other, “Were not our hearts burning within us while he was talking to us on the road, while he was opening the scriptures to us?”

³³ That same hour they got up and returned to Jerusalem; and they found the eleven and their companions gathered together.

³⁴ They were saying, “The Lord has risen indeed, and he has appeared to Simon!”

³⁵ Then they told what had happened on the road, and how he had been made known to them in the breaking of the bread.

³⁶ While they were talking about this, Jesus himself stood among them and said to them, “Peace be with you.”

³⁷ They were startled and terrified, and thought that they were seeing a ghost.

³⁸ He said to them, “Why are you frightened, and why do doubts arise in your hearts?

³⁹ Look at my hands and my feet; see that it is I myself. Touch me and see; for a ghost does not have flesh and bones as you see that I have.”

⁴⁰ And when he had said this, he showed them his hands and his feet.

⁴¹ While in their joy they were disbelieving and still wondering, he said to them, “Have you anything here to eat?”

⁴² They gave him a piece of broiled fish,

⁴³ and he took it and ate in their presence.

⁴⁴ Then he said to them, “These are my words that I spoke to you while I was still with you—that everything written about me in the law of Moses, the prophets, and the psalms must be fulfilled.”

⁴⁵ Then he opened their minds to understand the scriptures,

⁴⁶ and he said to them, “Thus it is written, that the Messiah is to suffer and to rise from the dead on the third day,

⁴⁷ and that repentance and forgiveness of sins is to be proclaimed in his name to all nations, beginning from Jerusalem.

⁴⁸ You are witnesses of these things.

⁴⁹ And see, I am sending upon you what my Father promised; so stay here in the city until you have been clothed with power from on high.”

⁵⁰ Then he led them out as far as Bethany, and, lifting up his hands, he blessed them.

⁵¹ While he was blessing them, he withdrew from them and was carried up into heaven.

⁵² And they worshiped him, and returned to Jerusalem with great joy;

⁵³ and they were continually in the temple blessing God.