Future expressions in Nata, a Bantu language

Adriana Osa–Gómez del Campo
University of British Columbia

Abstract: The Tense-Aspect-Mood system of Bantu languages has been characterized as one of the most complex and intricate systems (Botne and Kershner 2008; Crane 2011; Dahl 1985). Bantu languages are famous for their graded tense systems, remoteness distinctions and multiple interactions between tense, aspect, and mood.

The following paper focuses on Nata, or Ekinata, (E45), a Bantu language spoken in Tanzania. This paper has two main aims: first, to describe how Nata refers to the future, and second, to propose an analysis of future reference by means of aspect. Moreover, this research will contribute to the preservation of Nata, a highly endangered and underdescribed language.

1 Introduction

The structure of the paper is the following: in the following sections of the introduction, the Nata verb template and tense-aspect system will be introduced briefly, and will close with the main idea presented in the paper. In the core of the paper the role of aspect in expressing futurity will be discussed: focusing on future reference, the role of both grammatical and lexical aspect in establishing temporal relations will be analyzed. Finally, the last section will summarize the findings and propose future research.

1.1 Nata

Nata, or Ekinata, is a Bantu language spoken in the Mara region, near Lake Victoria, in Tanzania. It is one of the so-called Lacustrine languages, a group of languages that have drawn the attention of Bantuists’ due to its location, that has favoured the influence between Bantu, Nilo-Saharan and Cushitic languages (Batin 2006; Nurse and Muzale 1999). It is an endangered language, spoken by less than 6,000 people; it is becoming stagnant, since young speakers have turned to Swahili as their language. Swahili is the official language of Tanzania and is spoken as a lingua franca by more than 70 million people in East Africa.

I would like to thank my linguistic consultant Joash Gambarage Johannes for his patience, time and enthusiasm. His commitment to his language is inspiring and contagious. I also thank Rose-Marie Déchaine and Hotze Rullman for guidance and feedback, as well as the Field Methods class at UBC and the audience at the 29th NWLC. I have tried to implement the comments and ideas received by the commentators in the special session: Hotze Rullman, Claire Turner, and Lisa Matthewson. Finally, I also would like to thank Erin Guntly for her insightful comments and help, and Natalie Weber for reviewing the script. All errors are my own. Since this is work in progress, some ideas have changed since I wrote this paper.

Contact info: a.osag@alumni.ubc.ca

The template\(^1\) for Bantu verbs, that seems to hold also for Nata, is the following:


**Initial or pre-SM**  In Nata, this position is held by either (a) a homorganic nasal, (b) negation markers, or (c) none of them. Although the nasal in the pre-SM slot is still being studied and under much debate,\(^2\) data suggests that it is linked to assertion (see Cable’s 2013 work on Gikuyu).

**Tense or aspect (T/A)**  The TA(M) system of the Bantu languages are famous for their complexity and richness (Botne and Kershner 2008; Dahl 1985). This is the main slot in which tense or aspect is encoded – only one of them is encoded here. When more than one marker needs to be marked, compound forms are used.

**Final vowel (FV)**  The final vowel in Bantu is one of the many puzzles that these languages have offered. When it comes to TAM, the final vowel in Nata seems to be dedicated only to mood and aspect, but not tense. Moreover, some verb extensions can take the place of the final vowel, such as passive -\textit{u} and causative -\textit{i}, among others\(^3\).

1.2 A quick overview of the Nata tense and aspect system

Still being studied, the tense and aspect system of Nata shows the complexity for which Bantu languages are famous. Although this paper will focus on future expressions, a quick survey of the tense/aspect system in Nata is useful:

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Example</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perfective</td>
<td>\textit{-ire}(^4) \textbf{níbhínire}</td>
<td>‘I (just) danced, I have (just) danced’</td>
</tr>
<tr>
<td>Progressive</td>
<td>\textit{ko-} \textbf{níkbhína}</td>
<td>‘I am dancing’</td>
</tr>
<tr>
<td>Imperfective</td>
<td>\textit{ra-} \textbf{arábhína}</td>
<td>‘He was dancing’(^5)</td>
</tr>
<tr>
<td>Habitual</td>
<td>\textit{ha-} \textbf{níabhína}</td>
<td>‘I dance (regularly)’</td>
</tr>
<tr>
<td>Incipient</td>
<td>\textit{aká-} \textbf{nyaákabhína}</td>
<td>‘I am about to dance’</td>
</tr>
</tbody>
</table>

\(^1\)The abbreviations follow the Leipzig Glossing Conventions whenever possible, and are the following (in alphabetical order): 1 = first person; 2 = second person; \textit{C} = noun class; \textit{FV} = final vowel; \textit{INC} = incipient; \textit{IPFV} = imperfective; \textit{N} = initial nasal; \textit{NAR} = narrative; \textit{OM} = object marker; \textit{PFV} = perfective; \textit{PL} = plural; \textit{PPF} = pre-prefix; \textit{PROG} = progressive; \textit{SBJV} = subjunctive; \textit{SG} = singular; \textit{SM} = subject marker.

\(^2\)See Francis (2013) for research on the initial nasal and uncertainty and Brown (2013) for research on the role this nasal has in focus marking.

\(^3\)See Ma (2013).

\(^4\)There are some discrepancies as to how to classify \textit{-ire} and its variants in Bantu. I will refer to it as ‘perfective’ for consistency, but in some cases in Bantu literature it is referred to as anterior or perfect.

\(^5\)There is a change in tense because this marker only appears in non-present contexts.
1.3 The hypothesis: Aspect and futurity in Nata

This last list of TA-markers in Nata suggests that Nata’s main temporal organizer is aspect. This type of organization is typical in Niger-Congo languages: in many of them it is not tense, but aspect, adverbials, or both that carry time reference (Ameka and Dakubu 2008; Nurse 2008). In order to organize eventualities in time, Nata relies primarily on two concepts: lexical and grammatical aspect.

This means that Nata has no future tense per se, but relies on futurates: verb forms with no overt future morphology that nonetheless have future reading. The most frequent of these futurate forms, formed with the progressive ko-, marks the incompletion of the eventuality, which triggers ambiguity between present/future readings in the case of activities, or non-inchoative verbs, and a non-ambiguous future reading in inchoative verbs (changes-of-state and achievements).

This paper will have four main goals: (i) give a description of future expressions in Nata; (ii) support the idea that aspect is the main temporal organizer through an analysis of the data; (iii) explain how this marking of non-completion triggers future readings in Nata; and (iv) contribute to the study and preservation of Nata.

2 Futurity in Nata

This section describes the main four constructions have been attested to convey futurity in Nata:

1. Incipient aká-: can be either simple (a) or compound (b):
   (a) nyaakábhina ‘I am about to dance’
   (b) nyaakánogha nibhiné ‘I am about/ready to dance’
2. Progressive ko-: neekobhína ‘I am dancing, I will dance’
3. Periphrastic constructions: constructed with an auxiliary and the main verb. There are two such constructions:
   (a) kuchá ‘to come’ plus infinitive: naakúcha kuyáara ‘I will run’
   (b) kubhá ‘to be’ plus imperfective ra-: bhakubhá bharayíara ‘They will run (everyday)’
4. ‘Subordinate Future’: turáaso˙me eghítabho. . . ‘If/when we read a book. . .’

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6This form has not been attested without -ire.
7The role of modality is not investigated in this paper, but is by no means less important. It is, unfortunately, outside of the scope of the present paper.
This paper will focus on the first two, paying special attention to the futurates formed with the progressive marker ko-.

2.1 A quick word on the “other” futures

In this paper I will focus on simple forms, especially those that bear aspectual markers. However, I will attempt to give a simple description of the uses of periphrastic constructions so as to give a general perspective of how Nata speaks about the future.

2.1.1 Periphrastic constructions: structure, examples and puzzles

(2) **SM-kúcha** C15(Infinitive)-Verb Root-FV

Context: You are telling me what you will do once you retire. You tell me that you and your wife will run the NYC marathon once, just to prove yourselves:

n-to-kúcha ku-yáar-a
N-1PL.SM-come C15-run-FV

‘We will run.’

(3) **SM-kubhá** SM-ra-Verb Root-FV

Context: You are telling me what you will do once you retire. You tell me that you and your wife will run everyday to be healthy:

n-to-kubhá tu-ra-yáar-a
N-1PL.SM-be 1PL.SM-IPFV-run-FV

‘We will run.’

What these examples share is their remoteness: both refer to a distant future. Their difference is aspectual: whereas (2) refers to a unique action, (3) refers to repeated actions. In other words, ‘to come’ is perfective, whereas ‘to be’ is imperfective.

There are, however, uses of the ‘to come’+infinitive construction that do not encode remoteness, rather quite the contrary:

(4) nee-kúcha ko-mís-i
1SG.SM-come C15-sleep-FV

‘I will sleep.’

JJ: I could say this if someone had invited me to sleep at their place, and I agreed to do it but they doubt my words. I would say this to reassure what I am saying.

The consultant also said that in examples (2) and (3) the speaker is transmitting some sort of hope that that day will come, since life expectancy is not too high in Tanzania. This variable use of this construction can be found throughout the interlacustrine group of Bantu languages (Nurse and Muzale 1999). This, according to the same authors, reflects the innovative character of this construction.
Another example that challenges the classification of this construction as “distant future” is the fact that examples such as (3) above or (5) below can be used with present reading:

(5) n-a-kúbhá a-ra-yáar-a
    N-SM.1-be SM.1-IPFV-run-FV
    ‘He must be running.’
    JJ: This is like a prediction. You know his schedule, and so you can guess what he is doing now.

This example shows that modality, and most importantly epistemic modality, also needs to be taken into account. It is, for now, outside the scope of this paper.

2.1.2 When relative tense meets mood: subordinate future

SM–ráa– Verb Root –e

As was already mentioned, this construction has only been attested in if/when clauses, and never in a matrix clause. It combines a relative tense, more specifically a future narrative ráa-, and the subjunctive -e:

(6) i-ri-óobha ri-ráa-bhar-e Joash n-a-ku-gh-i o-mw-físe
    PPF-C5-sun SM.5-NAR-shine-SBJV Joash N-SM.1-PROG-go-FV PPF-C1-noon
    ‘If the sun shines, Joash is leaving at noon (tomorrow).’

This construction cannot co-occur with the homorganic nasal. The consultant’s comments suggest that this has to do with the inherent uncertainty that this construction conveys, that seems to go against the certainty that the nasal might encode. This source of uncertainty comes from the subjunctive, marked here by the change in the final vowel. This same marker is used, for example, in polite imperatives.

A relative tense? Remarks on the narrative

I assume here the distinction made by, among others, Comrie (1985) between absolute and relative tenses. Whereas absolute tenses use the time of utterance – UT henceforth– relative tenses relate the situation to some other temporal framework previously established. According to Nurse (2008), Bantu has only one such relative tense, namely the narrative.

In Nata, there are two such narrative tenses:

- **Narrative ka.** It is one of the most common markers in Bantu. Its use as narrative is not its only function. This marker can appear both in past and future environments, since it only encodes subsequence, either from speech time or another temporal framework already set.

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8In this paper I will gloss this final -e as subjunctive and not as final vowel in order to highlight the fact that it encodes mood.

9It is my belief that there are two ka- prefixes in Nata: a remote past; that is, an absolute tense, and another ka- that can only appear once the temporal framework is set by a previous event.

10See Botne (1999) for a survey of the many functions of ka-.
• **Narrative ríra-** Just as ka- marks that other eventualities precede, it has been proposed for a similar marker in Eke-Gusi (E42) that it marks that other eventualities are to follow (Nurse 2007). It is important to notice that this marker resembles the proposed ProtoBantu future form *laa* (Nurse 2008), but the fact that it has not been attested in main clauses suggests that it needs anchoring to another event to convey this futurity.

The following example illustrates both markers:

(7) tu-ríra-so m-e tu-ka-mény-a n-tuu-kw-égmb-a
    1PL.SM-NAR-read-SBJV PPF-C5-book 1PL.SM-NAR-know-FV N-1PL.SM-PROG-sing-FV

‘When we read the book and know, we will sing.’
JJ: The knowledge comes from reading the book.

In this example, the time of knowledge depends on and follows the time of reading, and the time of reading depends on and precedes the time of singing.

### 2.2 Inner Aspect: Bantuists’ new perspective on Vendlerian classes

My proposal is that futurates are derived from the interaction of grammatical and lexical aspect. In this section I first define lexical aspect before discussing its interaction with Nata grammatical aspect.

The following are the canonical event type classes, as categorized by Vendler. The examples are extracted from Dowty (1979), and the templates from Rothstein (2004):

**States** know, believe, desire, love: λe · P(e)

**Activities** run, walk, swim: λe · (DO (P)) (e)

**Achievements** recognize, find, lose, reach, die: λe · (BECOME (P))(e)

**Accomplishments** paint a picture: λe · ∃e1 ∃e2 [e=(e1 ⊔ e2) ∧ (DO(P)) (e1) ∧ (CUL(P)) (e2)]

The universality of this categorization has been questioned, and recently this examination has been applied to Bantu. New classifications have been proposed by some authors, among others Botne and Kershner (2008), Seidel (2008), and Crane (2011). In general, what they propose is a division between durative and punctive events, in Kershner (2002) terms; that is, between inchoative and non-inchoative verbs. The first ones relate to achievements and change-of-state verbs, whereas the second group encompasses Vendler’s activities and accomplishments. Crucially, what are held as canonical states, such as ‘love’, ‘hate’, ‘be hungry’, etc. behave like change-of-state verbs, and can be better translated as ‘come to love’, ‘come to hate’ etc. Evidence from the behavior grammatical-lexical aspect will serve, I believe, as proof for this new classification. Evidence of this will be discussed in Section 2.4. It is important to keep in mind that in changes of state there is a source state and a target state – and the same can be said of achievements such as ‘to fall’ and ‘to die’, where the change from one to the other is instantaneous (hence the BECOME operator in Rothstein’s template). This will be important in the next section.
2.3 Grammatical aspect: Evidence from the incipient

In the next two sections, I will discuss how grammatical aspect is used in conjunction with lexical aspect to convey futurity. First, I will discuss incipient aspect, and then I will focus on the progressive marker -ko-.

Incipient aspect is used to mark the close beginning of an eventuality, that is, the eventuality is set to start on the future. In Nata, this aspect is marked by aká-. There are two constructions that bear this marker: a simple form, and a compound form, where the marker is applied to the verb nógha ‘be ripe’. They differ in the immediateness of the event they describe, as is illustrated by the comments in (8a) and (8b):

(8) Context: A dying man calls his family.
   a. a-aká-nogh-a aa-kw-é
      SM.1-INC-be.ripe-FV SM.1-die-SBJV
      ‘He is about to die.’
      JJ: He is very sick, but his death does not have to be imminent.
   b. a-aghá-kw-a
      SM.1-INC-die-FV
      ‘He is about to die.’
      JJ: I see him gasping, his death is very near.

The reading that this aspect triggers when it appears in the simple form depends on the event type. More specifically, it depends on whether the verb belongs to the ‘inchoative’ group (i.e. achievements or change-of-state) or to the ‘durative’ group (i.e. activity or accomplishment). When asked to give a warning that could prevent a child from falling from a chair, the speaker discarded the use of the incipient, since what is set in the future is the target state of being on the floor, whereas the source state has already taken place:

(9) #a-aká-gw-a
    SM.1-INC-die-FV
    ‘She is about to fall’
    JJ: This is not a warning. She hasn’t reached down yet. The chair may have broken. You could still catch her, but in the air. (*She* is *the child.*)

This contrasts with (10), where the act of singing has not yet started, and could be used as a warning – if the singer is terrible:

(10) a-ak-émb-a
    SM.1-INC-sing-FV
    ‘She is about to sing’
With change-of-state verbs, that in other instances behave like achievements, it is unusual to use the simple form with the incipient aspect:

(11) #a-aká-mu-ṣeègh-a
    SM.1-INC-OM.1-like-FV
    'He is about to like her.'
    JJ: Only in very strange contexts could I use it, I would rather use aakánogha amuṣeèghé.

To summarize: The readings that the incipient triggers differ from event type to event type. More specifically, incipient aspect refers to an immediate eventuality in the case of activities and accomplishments, which have been called ‘durative’ or ‘non-inchoative’ event types by some Bantuists. On the other hand, the incipient aspect seems to push into the future the target state in achievements, members of the so-called ‘inchoative’ or ‘punctive’ verbs, but not the source state. With verbs such as ṣeègha ‘to like, to love’, simple forms with the incipient are not acceptable, although they are not ungrammatical.

2.4 Grammatical aspect: Futurates with -ko-

2.4.1 Observations

Futurates, as define by Copley (2009), are “a reading of a sentence with no obvious means of future reference, which nevertheless has a future-oriented eventuality”. Crucially in her analysis, they need a plan and a director. This poses no problem for the next example:

(12) Context: I am telling you my boyfriend’s plans for next month, and I tell you that he is going to run the marathon.
    n-aa-ku-yáar-a márathon
    N-SM.1-PROG-run-FV marathon
    ‘He will run the marathon’

Without any context (linguistic or extra-linguistic), the primary reading of this sentence would be the present progressive: ‘He is running the marathon’. This is also the case when the verb is an accomplishment, such as ‘He is building a house’:

(13) n-aa-kw-oobhók-a a-nyúumba
    N-SM.1-PROG-build-FV PPF-house
    ‘He is building a house.’
    JJ: It can be ‘He will build a house’ if you add tabhóori (tomorrow).

In both examples (12) and (13), both a plan and a director can be distinguished: in (12) the director is my boyfriend and the plan is to run the marathon, whereas in (13) the director is ‘he’ and plans to build a house. However, Nata also allows unplannable events to have future reading with
the progressive. The next example shows how séecha, ‘to win, to overpower’ can appear with the futurate, which should not be possible according to Copley:

(14) a-timú yee-ghu-séech-a eyende tabhóori
SM.1-team SM.9-PROG-overpower-FV other tomorrow

‘The team will win tomorrow’

These constructions encode more certainty than other future constructions, as the comparison between examples (15) and (16) illustrates:

(15) Context: A friend of mine has eaten a mushroom, and you know that it is poisonous. I ask you what will happen to him, and you tell me that he will die.

n-aa-ghu-kw-á
N-SM.1-PROG-die-FV

‘He will die’
JJ: I could add “certainly”. You are certain, you may even see him die.

This example contrasts with (16): the friend’s death will occur, but not immediately:

(16) n-aa-kuchá ghu-kw-á
N-SM.1-come C15-die-FV

‘He will die.’
JJ: You are saying that he will live a little longer, but he will eventually die. You are giving him more days.

All these generalizations do not hold, however, for achievements and change-of-state verbs. These types of verbs do not get an ambiguous reading between the present progressive and the future: only the latter is available. Therefore, achievements with ko- can be used as warnings, as (17) shows. Using the same context as in (9), where a child is playing in a chair and the speaker wants to warn someone else of the child’s fall, (17) can be felicitously uttered:

(17) n-aa-ku-ghw-á
N-SM.1-PROG-fall-FV

‘She is going to fall!’
JJ: Future very near. The chair is fine.

The same reading happens with verbs such as ‘love’ and ‘hate’, where ko- can co-occur but triggers only future reading:

(18) n-o-ko-i-séegh-a
N-2SG.SM-PROG-OM.1-love-FV

‘You will love it.’ (*You are loving it. / *You love it.)’
A note about the possible origin of -ko- The idea that the aspectual marker ko- derives from the locative class 18 ku- is clearly stated in Nurse and Muzale’s description of the tense and aspect systems of the Great Lakes area:

…the Present form is typically a single word form …containing an aspect marker which rather obviously derives from an older or underlying two word construction ‘be(locative)+verbal noun=infinitive /-li+ku-’ …in a few [languages] it is reduced to -ku-

(Nurse and Muzale 1999)

2.4.2 Analysis: non-completion

According to Crane (2011), two prominent TAM-markers in Totela (a Bantu language spoken in Zambia) should be better characterized as markers of completion and non-completion. This would explain, according to her, the different readings that these markers trigger, according to which event type they were applied to.

This analysis would explain the readings that ko- triggers in Nata: when used with activities, that do not possess the BECOME operator, the main reading is that the eventuality is not completed at the time of speech11. When another reference point is set, through the context or through temporal adverbials, then the non-completion is set in the future.

Activities run, walk, swim: λe · (DO (P)) (e)

On the other hand, the members of the group of ‘punctive’ or inchoative verbs do posses this BECOME operator. Therefore, when this non-completion is encoded, it is the whole process of changing of state that is set in the future, and the result – the target state – is, hence, pushed forward into the future.

Achievements recognize, find, lose, reach, die: λe · (BECOME (P)) (e)

The opposite effect is observed when the aspectual marker is the perfective -ire. If ko- marks non-completion, -ire encodes the completion of the eventuality. And this produces other readings, as we have observed in example (19) and in (20) below:

(19) né-chi-regh-ire
    1SG.SM-OM.10-hate-PFV
    ‘I hate them (vegetables).’ / ‘*I have hated them.’

It is important to notice that the main TA slot is empty: ne-∅-chi-regh-ire. This construction, when applied to activities, refers to a past action: since the action is completed, the whole eventuality is set in the past. As with the English present perfect, current relevance is also encoded.

11I am assuming that the default point of reference is UT when no other is specified.
Again, the different past/present readings depend on the event type: with inchoative verbs, what we are saying is that the completion of the change is done, and hence, the target state is present. On the other hand, with non-inchoatives the reading is that the activity is completed, and is, consequently, in the past. That is, in both ko- and -ire examples we see the effect of grammatical aspect on the operators DO and BECOME that define lexical aspect.

3 Conclusions and future research

The following is a chart summarizing the readings that the selected aspctual markers trigger depending on the Aktionsart. Both Vendlerian and “Bantuist-friendly” classification are applied, the latter signalled by a (B) for Bantu.

<table>
<thead>
<tr>
<th>Table 1: Temporal readings depending on aspect.</th>
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<tbody>
<tr>
<td>Grammatical Aspect</td>
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<tr>
<td>PROG ko-</td>
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<tr>
<td>Duratives (B) Activity</td>
</tr>
<tr>
<td>Duratives (B) Accomplishments</td>
</tr>
<tr>
<td>Punctives (B) Achievements</td>
</tr>
<tr>
<td>Punctives (B) Statives (Change-of-state)</td>
</tr>
</tbody>
</table>

This paper has focused on Nata future expressions in order to study the interaction between aspect and futurity. Moreover, the main idea that led this study was that futurity is encoded through aspect, and not through tense. The conclusions can be divided into two:

Futurity, time, and aspect The data so far hints at the prominent rule that aspect, both grammatical and lexical, play in the organization of time in Nata. With respect to future reference in simple forms, the data shows that it is the combination of lexical and grammatical aspect that constructs future reference. The marker ko- signals the non-completion of the eventuality, and this triggers different temporal readings in non-inchoatives and inchoative verbs.

Event types It is also clear that there are parallelism between Vendler’s achievements and statives, and between Vendler’s activities and accomplishments, as Table 1 shows. This seems to go in line with previous work on Bantu languages (most notably Kershner 2002; Seidel 2008). More research needs to be done in this area.

In general, a more in-depth, formal study of the tense and aspect system of Nata should be developed. Bantu UA systems in general have not been the center of formal study, but work such as Cable (2013), in which he proposes that the graded tense system in Gikuyu is organized by what
he calls Temporal Remoteness Markers, shows how a formal approach can help explain the many puzzles that Bantu systems propose.

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