Tense and Aspect in English and Kiluba: The Role of Suffixation and Prosody

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Abstract
Tense and aspect have been one of the most intriguing language issues when comparison is made in different languages. The reason for this is that languages do not always share the same linguistic background. This is the case of English and Kiluba. Tense and aspect have been widely studied at the morphological and semantic levels and very little or nothing has been discussed with regard to the impact of prosody at the tense and aspectual levels. This article therefore purports to contrast the notion of tense and aspect as seen in these two languages. It has been found that the relationship in the two languages is not one to one and that apart from suffixation which typically is found in both languages, Kiluba has been found to be relying on suprasegmental phonemes to render different meanings bound to the suffixes expressing the present and past perfect and the simple past tenses.

Keywords: tense, aspect, English, Kiluba, prosody

INTRODUCTION
Tense and aspect have been widely discussed in the existing literature in English grammar. Unfortunately, they remain a subject on which all grammarians do not readily find common ground as will be developed later in this article. It is important to note that two languages under discussion do not belong to the same family of languages. In fact, English is an Indo-European language belonging to the Germanic family (Robinson, 1992), and Kiluba is a Bantu language belonging to the African subgroup called Niger-Congo family of languages, classified as L33 (Philipsson, 1999, p. 398). Kiluba is spoken in the Democratic Republic of Congo in the whole province of Haut-Lomami and occupies some territories in the other new provinces of the region that was formerly called Katanga. It is also spoken in the Kasai region in the same country (Hiernaux, 1964 p. 611). Due to this wide area that the Balubakat (speakers of Kiluba) occupy, they speak different varieties of Kiluba. The variety used here is the one spoken in Kabongo territory, Upper Lomami, part of the former Katanga province.

This article argues that prosody is a determining factor in the expression of tense and aspect as is the case in some Bantu languages. It endeavors to show that the description made on the structures of English and other languages (including some BLs) with regard...
to tense and aspect may be, to an extent, different to what happens in other languages as Kiluba for instance.

The objective of the paper is to show one aspect that has been neglected while discussing tense and aspect in general. The description of tense and aspect has always been done in terms of inflectional/derivational affixes as if prosody has nothing to do in the debate. Even prosody that has been discussed in BLs is broadly described without alluding to its semantic role in determining tense and aspect in some languages. Anyanwu, for example, states that “In most African languages, on the other hand, it is pitch that has been described, because tonal systems play a central role in these languages. Intensity has hardly been studied in tone languages because it is largely the slave of the tonal system” (2001 p. 1). This is an interesting research though, but, as it were, it does not tackle the way suprasegmental phonemes affect tense/aspect in certain BLs. There is an interesting investigation made on the Bemba language (Kanwa, 2013), but this research addresses the prosodic features without addressing the influence of these suprasegmental features on the Bemba verb tense.

Given the above, I seek to answer the following questions: Can derivation alone explain tense and aspect in English and Kiluba? If no, what other elements we need in order to describe satisfactorily of tense and aspect? I hypothesize that while derivation alone can alone explain the notion of tense and aspect in English, that is not however the case in Kiluba. The second hypothesis is that beside derivation, suprasegmentals are also needed in Kiluba in instances where segmentals alone do not suffice to explain everything. Before going into further details, let me first say a word on the methodology in this article.

**METHOD**

While the overall framework is contrastive, the descriptive method will apply to show how each language forms and uses tense and aspect. I will briefly give an overview of each language before presenting the literature on the subject. The description of tense and aspect will then be followed by pointing out similarities and differences with reference to affixation and prosody.

With regard to the corpus, I drew material for the discussion from existing books of grammar, and I used my own capacity to build up English and Kiluba sentences. As regards Kiluba of which I am a native speaker, I had three informants to test the sentence structures and meanings that I proposed and, most importantly, to give their opinion on the reading out of the sentences by respecting the tone as indicated. For Kiluba, I worked on 50 verbs. It is important to have an understanding of Affixation and prosody before discussing tense and aspect.

**AFFIXATION AND PROSODY**

**Affixation**

Varga states that “One of the major word-forming processes is derivation (= affixation), i.e. creating a new lexeme by means of adding a derivational prefix or suffix to an old existing lexeme. For instance, the lexeme kingdom? is derived from” (2010:52-53). There is zero affixation or conversion when there is no change in the word at the morphological
level, but the word becomes assigned to another part of speech. The definition, as provided by Varga, is incomplete since it reduces affixation to derivation excluding inflection. In fact, affixes, mainly suffixes may be derivational or inflectional. The distinction is made clear by Hudson (2000 pp. 62-64) who supports that

The affixal forms of lexical morphemes are termed derivational affixes. Derivational affixes have three characteristics: a. function change ... b. Nonproductivity ... c. suffixability. The derivational suffixes may be followed by other suffixes ... the bound forms of grammatical morphemes are known as inflectional affixes. Like derivational affixes, inflectional affixes have three general characteristics: a. No function change ... b. productivity ... c. Nonsuffixability. The English inflectional may not ordinarily be followed by other suffixes.

This quotation explains how affixes should be viewed and sheds light on the difference between an inflectional morpheme and a derivational one. It becomes clear from the quotation above when it comes to describing the morphemes used for tense and aspect. In the same line, Dostert asserts that

Bound morphemes which carry grammatical (or functional) meaning are called inflectional affixes and their function is to create new forms of existing lexemes. In English these are always suffixes, i.e. there are no inflectional prefixes in English. It is generally claimed that there are only eight such inflectional affixes left in English, making Modern English an analytic language” (2009 p. 18).

Prosody

There exists abundant literature on ‘prosody’. For instance, Cristal (1969, p. 393) notes that prosody is a term used in suprasegmental phonetics and phonology to refer collectively to variations in pitch, loudness, tempo, and rhythm. Sometimes it is used loosely as a synonym for ‘suprasegmental’, but in a narrower sense it refers only to the above variables, the remaining suprasegmental features being labelled paralinguistic ... The term prosodic feature is preferred in linguistics, partly to enable a distinction to be drawn with the traditional use. In some approaches to phonology, the term sentence prosody is used to group together intonation, phrasal rhythmic patterning and more general features of prosodic phrasing. The above use treats ‘prosody’ as a mass noun.

This view matches that of Nádasdy, who argues in these words:

Prosody in linguistics means the study of stress, rhythm and intonation in units larger than the word. The elements of prosody are also called suprasegmentals because they appear “above” the segments. Prosody in linguistics means the study of stress, rhythm and intonation in units larger than the word. The elements of prosody are also called suprasegmentals because they appear “above” the segments (2013, p. 2).

The definition of prosody by Crary and Tallman according to which “suprasegmental features of fundamental frequency, duration and intensity that contribute to...the melody of speech production (1993, p. 245)” is incomplete in that it does not take into account the semantic value of intonation including that of tone in tone languages. Let us
summarise the table of terminology summarizing the linguistic function of prosody and the reference point of view as provided on http://etd.fcla.edu/SF/SPE0000002/ch1.pdf by saying that suprasegmentals have three types of features that are quantity, tonal and stress features. As far as the linguistic function is concerned, it can be at the word or sentence levels respectively for quantity, tone and word stress at word level and tempo, intonation and sentence-level stress at the sentence level.

In this paper I am interested in the linguistic view of prosody. While discussing the different functions of prosody, Lehiste (1970) has commented that suprasegmental features communicate linguistic and non-linguistic information from speaker and listener. Linguistic stress differentiates noun-verb pairs and emphasizes new or important information within an utterance. Intonation functions syntactically to signal question or statements. Pragmatically, intonation may also help a speaker hold the conversational floor, by signaling “unfinished business” with a high, terminal fundamental frequency.

The literature above has discussed ‘prosody’ in the English language and in other languages but has hardly tackled the problem of tone, a suprasegmental feature, in determining tense or aspect in Bantu languages. Even in the African languages where tense and aspect have been discussed, there is not enough literature to substantiate the use of pitch to determine different tenses and aspects. Nancy C Kula & Maxwell Kadenge write that within Bantu, experimental and phonetic work has traditionally been aimed at establishing new and less well understood phonetic categories and has in this respect been restricted to the segmental level, e.g. establishing categories like clicks and their attested manners and places of articulation. In recent times, in line with cross-linguistic trends, we have begun to see more investigation of phonological questions relying on phonetic and experimental techniques and also importantly focusing on areas larger than the segment including prosody, intonation, phonological knowledge and phonological processing. (2015, p. iii)

The present research is therefore a contribution to the gap felt in the understanding of tense and aspect in Kiluba. Before going any further in this discussion, I will briefly present the state of affair of tense and aspect in the English language.

**TENSE AND ASPECT IN THE ENGLISH LANGUAGE**

**Tense**

In the introduction, I argued that there is no common ground for all the grammarians; one of the points of disagreement is the number of tenses in English. On this account, Bublitz (1995, p. 135) asserts that these “dissenting views are reflected by the fact that linguists have yet to agree on the number of tenses [...] in English, which vary according to whether formal or semantic criteria or a combination of both are recognized. In particular, the present perfect, the past perfect and the future perfect defy easy categorization.” Linguists’ different views on the number of English tenses can be grouped into four different approaches.
We read from http://www.glottopedia.org/index.php?title=Tenses_of_English&action=edit that there are four approaches to tense. The first approach, also called the two-tense approach, asserts that there are two tenses in English by the fact that tense is reflected in inflectional morphology; that is to say past and non-past tenses. The reason for this argument is that inflectional morphemes –s and -ed (as in he works and he worked) constitute the only criterion on which analysis can be based. The second approach, the three-tense, states that there are three tenses in English and that will indicates tense rather than a different verb (Klein, 1994, p. 155). He therefore claims that the tenses are present tense, past tense and future tense. The third approach claims that there are six tenses. This classification is based on the Latin model, which has now been rejected by most linguists. And the last approach claims that there are eight tenses (Declerck, 1991). I will simply stick to the definition of tense as provided by Sintes (2014), who discusses the theory as claimed by Cristal that

tense is a grammatical category used in the description of verbs, namely, those variations in the morphological form of the verb, such as the inflection of third person singular in present indicative, as in example (1), the past of regular verbs, as in example (2) and the past of irregular verbs, which involves a change in the stem, that is, vowel alternation, as in example (3). Tense is used to convey time, so that tense is connected with the concept of time. In some cases, there is no simple relationship between both concepts since the present tense can refer to future or past time (historic present) depending on context, as in examples (4) and (5), respectively (Crystal 2008: 479-480).

My discussion of tense will focus on the present and past perfects and simple past as will be demonstrated later in the work, since it is here that prosody interferes in Kiluba.

**Aspect in English**

Cristal describes aspect as “A category used in the grammatical description of verbs (along with tense and mood), referring primarily to the way the grammar marks the duration or type of temporal activity denoted by the verb.” (Crystal, op. cit: 38). Aspects can be combined into perfective progressive.

While discussing the progressive, Haboňová argues that “Progressive aspect expresses the temporary action or the process which is in progress. The attention is focused on the duration perceived by the speaker. Therefore, the progressiveness is the issue of the subjective interpretation of speaker mostly applicable to the past and future progressive aspect” (2014, p. 22). With reference to the perfective aspect, he goes on saying that

the aspect in English can be either perfective or progressive. As it is mentioned in the above statement it may clarify whether the action was completed (perfective) or was in progress (progressive). In order to structure such sentence in perfective aspect it is necessary to combine the verb [Have] (depending on number and tense with the main verb in past participle form, as (1) for regular verbs and (2) for irregular verbs. On the other hand, the progressive form is created by the verb [BE] in conjunction with the -ing form of the main verb as shown in (3) (Haboňová, op. cit, p. 14).
This notion of perfective is important because, as will be seen later in this article, the way the notion of present and past perfect and simple past is explained in English does not match with that of Kiluba in particular, and that of many Bantu languages, in general. Since tense and aspect have already been discussed about English, it is important to give a brief account on how these two notions are viewed in African languages. But prior to this, it is also worth describing synthetic and analytic languages, since it is obvious that Kiluba, as will be seen, mixes many morphemes while English has tendency to isolate them in many circumstances.

**Synthetic and analytic languages**

It is important to note that the English language is largely analytic though showing that it is synthetic because its inflection denotes past and present tenses. Manker (2016) observes that synthetic languages allow affixation such that words may (though are not required to) include two or more morphemes. These languages have bound morphemes, meaning they must be attached to another word (whereas analytic languages only have free morphemes. He later on remarks that synthetic languages include three subcategories: agglutinative, fusional, and polysynthetic.

On his part, Cristal (opt. cit., p. 472) supports that in synthetic languages, words typically contain more than one morpheme (as opposed to analytic languages, where words are typically monomorphemic). Two types of synthetic language are usually recognized: agglutinative and inflecting – with polysynthetic sometimes additionally distinguished.

From the above quotations I may say that English is partly synthetic fusional while Kiluba is totally synthetic fusional given that it morphologically behaves like Kiswahili (a Bantu Language) which has been identified to be agglutinative. For example:

English: I saw you yesterday.

Kiluba: Nakumwene kensha.

Kwahili: Nilikuona jana

The string *nakumwene* or *Nilikuona* (both meaning I saw you yesterday) includes the subject, the verb, the tense, the aspect, and the object at the same time. If such compounding of morphemes does not happen in English, we note, however, that in the sentence like *they arrived yesterday*, ‘arrived’ combines the verb and the past morpheme, which makes it to some extend synthetic.

**Tense and aspect in Bantu languages**

The notion of tense and aspect has also been debated on in the frame of African linguistics. For example, Brisard and Meeuwis (2009) discuss tense and aspect, contrasting the notion of perfect and present in Lingala. They conclude that the so-called anterior referring “to a past action with current relevance […] or to a state that started in the past and continues into the present” (Rose et al. 2002, p. 8) is nothing more than a completed action in the past.

Sebastian Dom and Koen, in their attempt to classify the Kikongo cluster, examined the expression of the notion of tense/aspect and argue that we will sometimes state that ‘one’
marker (i.e., circumfix) expresses both tense and aspect (e.g. ‘present habitual’). However, we are fully aware that a more detailed analysis of the TA paradigms for each of all the 26 varieties should make a distinction between those morphemes dedicated to the expression of tense and those specifically used to convey aspect (2015, p. 167).

This idea can be well understood when we relate it to the findings of Rieger, whose conclusion is more edifying:

Hence, aspect describes the structure of an event depending on the speaker’s perspective of it or on the aktionsart (lexical aspect) of the verb. The event is structured into a foreground and a background (and possibly defined by other secondary features such as being in progress, being frequent or repetitive, being concluded, being a common occurrence, etc.). Consequently, aspectuality may be assessed by a so called “incidence matrix”: if by opposition of two verbal markers an event is structured into a foreground and a background, then we may speak of aspect markers and of grammatical aspectuality in a given language (2011, p. 218)

This notion of tense and aspect in Kiluba will be more exemplified in the section on Kiluba tenses that will come immediately after the section on the use of tenses in English.

**USE OF PRESENT AND PAST PERFECT ASPECTS AND SIMPLE PAST IN ENGLISH**

Wren and Martin (2000, pp. 81-84) have provided an interesting review of the use of the present and past perfect and simple past tenses in English.

**The present perfect**

The present perfect is used:

1. To indicate completed activities in the immediate past (with just), as in:
   - He has just gone out
2. To express past actions whose time is not given and definite, as in:
   - I have never known him to be angry.
3. To describe past events when we think more of their effect in the present than of action itself, as in:
   - I have finished my work (now I am free)
4. To denote an action beginning at some time in the continuing up to the present moment
   - I have known him for a long time

As may be seen, the present perfect tense is formed following the structure below

Subject + have/has + Verb (past participle)

It is to be noted that a free morpheme (*have*) has been used and a bound morpheme added to the verb.
The past perfect tense

The structure of the past perfect is:
Subject + had + verb (past participle)

Alexander provides an interesting description of the use of the past perfect. He argues that when there are two past references, it does not necessarily mean that the past perfect must be used. If it is a sequence of actions, still the simple past can be used like in the following example:

After I finished work, I went home.

But we often need the past perfect for the event that happened first to avoid ambiguity:
When I arrived, Ann left (i.e. at that moment)
When I arrived, Ann had left. (i.e. before I got there)

We use the past perfect to refer to 'an earlier past', that is to describe the first of two or more actions: First the patient died. Then the doctor arrived.

The patient had died when the doctor arrived.

We often introduce the past perfect with conjunctions like when, after, as soon as, by the time [...] (Alexander, 1990, p. 132)

Downing and Locke (1992, p. 361-362) have provided a good summary with regard the comparison between the present perfect and past perfect:

1. Both tense and aspect have to do with time relations expressed by the verb, but from different perspectives. While tense basically situates an event or state in present or past time, aspect is concerned with such notions as duration and completion or incompletion of the process expressed by the verb. English has two aspects, the Perfect and the Progressive. We first consider the **Perfect aspect**, noticing how it differs from the simple tenses [...] 

2. The **Present Perfect** is a retrospective aspect which views a state or event as occurring at some indefinite time within a time-frame that leads up to speech time.

3. The event is viewed as psychologically relevant to the present. By contrast, an event encoded in the Past tense is viewed as disconnected from the present.

4. Consequently, the Perfect is not normally interchangeable in English with the Past tense. For the same reason, the time adjuncts accompanying them are normally different.

5. Implications of recency, completion and result, derived from the combination of Present Perfect and verb type, are all manifestations of **current relevance**.

6. The Past Perfect is used to refer to events previous to those expressed by a past tense or by a present perfect.

In the same line, they draw a comparison between past tense and present perfect aspect state that the perfect construction in English relates a state or event to a relevant time
(R), which they call speech time for the present perfect and that some point in time prior
to speech time is related to the past perfect. They then come to the following conclusion:

Table 1. borrowed from Downing and Locke (1992, p. 362)

<table>
<thead>
<tr>
<th>Present perfect</th>
<th>Past tense</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Its time-frame is the extended now, a period of time which extends up to speech time.</td>
<td>Its time frame is in the past, which is viewed as a separate time-frame from that of the present.</td>
</tr>
<tr>
<td>b. The event occurs at some indefinite and unspecified time within the extended now. The Perfect is non-deictic – it doesn’t ‘point’ to a specific time but relates to a relevant time.</td>
<td>The event is located at a specific and definite time in the past.</td>
</tr>
<tr>
<td>c. The event has ‘current relevance’ that is, it is viewed as psychologically connected to the moment of speaking</td>
<td>The event is seen as psychologically disconnected from the moment of speaking.</td>
</tr>
</tbody>
</table>

PRESENT AND PAST PERFECT ASPECTS AND SIMPLE PAST IN KILUBA

Introduction

The description made by Dom and Bostoen (op. cit) on the notion of tense and aspect in classifying the Kikongo Language Cluster is an important tool in this discussion, though as will be discussed later, Kikongo and Kiluba do not always share the same morphological properties in verb conjugation, and the authors do not clearly show the extent to which tones are used in their tense and aspect analysis. In the present article, tense and aspect will be discussed with regard to the following sentences taken from a long list of fifty verbs for the corpus.

Function of derivation and prosody in the Kiluba verb.

In this section, I will provide will use the following examples to illustrate the function of suffix and most importantly that of prosody in marking of tense and aspect in Kiluba, though as mentioned above, this function of suffix in verb tense and aspect has been tested against fifty verbs.

1.a Nalānga = I have thought
1.b Nálanga = I thought
1.c Nālangilé = I thought
1.d Nalângile = I had thought (literally)
2.a Nālala = I have slept
2.b Nälâlá = I slept
2.c Nâlelé = I slept
2.d Nâlele = I had slept
3.a Abaenda = They have gone
3.b Baendá = They went
3.c Baendélé = They went
3.d Baéndele = They had gone (literally)
4.a Tûbaingila = We have worked
4.b Twaingîlå = We worked
4.c Twáingîlé = We worked
4.d Twáiingile = We had worked (literally)
From the above sentences, I have to the conclusion that Kiluba has the following aspects: immediate past, recent past, remote past, and very remote past, whose structures can be shown as follows:

\[ \text{e.g. kulala} = \text{to sleep} \]

While the verb is not affected at the segmental level, 2.a \textit{Nālala} shows that aspect and tense are rendered with a suprasegmental phoneme; i.e. falling-rising tone affecting the tone of the root verb vowel changing it into the present perfect or immediate past. 2.b \textit{Nālālā} expresses remote past, but mainly used as narrative past. Tone affects every single vowel, be it part of root (rising tone) or suffix (with the falling-rising and rising tones respectively) without bringing about morphonological changes in the verb at the segmental level. 2.c \textit{Nālēlē} expresses the remote past but not narrative, while 2.d \textit{Nālele} denotes a very remote past. It is worth noting that in 2.c and 2.d the suffix \textit{-ile}, for some morphonological reasons changes into \textit{-ele}. These morphonological changes will not be dealt with here as they are beyond the scope of the present study. With regard to prosody, 2.c has a rising tone in the root, falling-rising tone and rising tone in the suffix to denote remote past that is not narrative, and 2.d has falling rising tone in the root and low tone in the suffix.

The examples case of 2. help understand the rest of the examples in the corpus and can be generalized to almost all the Kiluba verb. The past perfect has not been discussed here as it is used in English in reference to another action.

The above findings can be summarized as follows if go from the standpoint of Kiluba:

<table>
<thead>
<tr>
<th>Tense/Aspect</th>
<th>Kiluba</th>
<th>English</th>
<th>Remarks in kiluba</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immediate past</td>
<td>Suffix and suprasegmental</td>
<td>Present perfect</td>
<td>The suffix -a with the falling-rising tone on one of the root vowels if the root has more than one vowel.</td>
</tr>
<tr>
<td></td>
<td>affecting one vowel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recent past</td>
<td>Suffix and two suprasegmental</td>
<td>Simple past</td>
<td>The suffix -e with two tones affecting the stem and the suffix</td>
</tr>
<tr>
<td></td>
<td>affecting one vowel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remote past, narrative</td>
<td>Suffix and suprasegmental</td>
<td>Simple past</td>
<td>The suffix -a with the rising tone on the radical vowel</td>
</tr>
<tr>
<td></td>
<td>affecting one vowel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very remote past</td>
<td>Suffix and suprasegmental</td>
<td>Simple past</td>
<td>The suffix -e with one rising affecting the stem</td>
</tr>
<tr>
<td></td>
<td>affecting one vowel</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### CONCLUSION

Throughout this study, I have shown that tense and aspect are marked only by derivation in English and the notion of immediateness, remoteness, and very remoteness of action is not otherwise expressed but uses the same ‘past suffix’ to express the different aspects. The past perfect expresses anteriority of action only in reference to another action be it in the immediate past, remote past or very remote past. Such notions are, however,
clearly expressed in Kiluba by using suffixation and mostly importantly, prosodic features that are not present in the English language and other BLs like Swahili, to name only this. This article has shown that tones play a key role to distinguish tense and mostly in Kiluba, which may make me hypothesize that this difference can be interfering in English language learning by the native Kiluba speakers. Such confirmation can come only from sustained studies on the subject, which beyond these finds, however.

REFERENCES


