

A RECONSIDERATION OF LINGALA TEMPORAL INFLECTIONS

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1. Introduction

In the present paper I will propose an alternative analysis of time reference in Lingala. I will approach the subject from the semantic to the surface representation. I hope thus to discover some of the deep principles governing the use of any proper means in Lingala (no matter whether morphological, syntactic or lexical) to locate a situation in time. The approach should allow us to explain how, in time reference, the verbal forms cooperate with the adverbials to the same effect, and to account, alternatively, for the ungrammaticality of some utterances because of the violation of some of the hypothesized combinatorial principles.

My judgements will be based mostly on the creolized Lingala spoken in Kinshasa as well as in many other towns of Zaire. It may be argued, against my position here, that the difference I will point out between the previous analyses and mine are mostly a matter of dialectal divergence. I shall hurriedly note that we should actually feel less concerned here with dialectal differences than with the explanatory adequacy of the analyses in explicitly uncovering the principles underlying time reference. For I feel it is in this respect that almost all of the previous analyses have proven inadequate; such oppositions as aspect vs. tense have been introduced in the analyses without being clearly defined. In some of the analyses the identity of the so-called 'habitual' (my 'generic') is not clear as to whether it should be taken as tense, or as aspect. Many names such as 'passé antérieur, passé historique, passé récent' have been introduced without any clear specification of what they stand for, thus contributing more to the confusion, than to the clarification, of the matter. Their respective concepts have infelicitously been associated with expressions of time reference, the understanding of which conflicts with what the names say.

In general, instead of addressing themselves to questions such as what the various expressions of time reference mean, or what particular temporal inflections¹ any given linguistic device--morphological, syntactic, or lexical--happen to designate in what particular context, students of time reference have limited themselves to finding, in contextless simplex sentences, what particular morphological inflection can be associated with what time reference, and have sometimes assigned inadequate semantic values to them. They have often forgotten that a language can use both morphological inflections and other syntactic combinations altogether, to express time reference productively. And, as may be attested by the descriptions by Guthrie, [1966] Bwantsa [1970] and Redden et al. [1963], analyses of Lingala time reference not only default in depth, but are inexhaustive. Ingressive and terminative temporal inflections, for instance, are not, or are only partially, discussed.

2. Data

Before the above complaints steer us away from our subject, let me present the analysis of Bwantsa, since it, in my opinion, is the most explicit of them all, the most expansive and inclusive, and the one in which we may observe the evidence of most of the weaknesses I have alluded to so far.

Bwantsa distinguishes thirteen forms of time reference, all of which his analysis forces the reader to take as cases of morphological inflections. I will reproduce his own table below [1970:43], which will be interspersed with some of his own examples (marked by "B"), to which I will adjoin a few of my own (marked "M"). Translations are my own (some of which correct his misinterpretations). In the table: "R" stands for root/radical, "V" for vowel, [˘] and [˙] for tone, after Bwantsa's usage. The morphological division in the "Examples" column is mine, while TI in the glosses represents 'time inflection', and VP 'verbal prefix'.

¹I strongly urge my readers not to confuse the concept of temporal inflection introduced here with the one of morphological inflection also used in the text. While the latter refers to the conventional surface morpheme, the former is a semantic concept. It has been inspired by Chafe's Meaning and the Structure of Language, and I use it to designate any of the particular semantic features whose logical function is to locate the described situation in time. Temporal inflections are hypothesized as temporal features and are called 'inflections' (by analogy to surface inflections) because they operate in ways which, as Chafe puts it, "do not limit the choice of a lexical unit" [p.167-8], but simply specify the situation as to the position it occupies on the time vector and as to its internal temporal structure, e.g. in progress, termination, initiation, punctual, etc. Although always present in the logical structure, they can, but do not necessarily have to, surface in the various ways known as affixation, particular syntactic combinations, adverbs, or combinations of some or all of these.

TABLE 1

| "ASPECTS" | "STRUCTURE" | | | "EXAMPLES" |
|---|-------------|---|--|---|
| I. passé antérieur | + | + | R + | + \checkmark ba + b \checkmark y + á 'refuse' |
| B: (1) Ngáf Marí nzóto e - béb - á Me Mary body VP - spoil - TI 'I (Mary) am out of luck.' | | | (2) Mbísi ya ofelé e - záng - á ntálo fish free VP - lack - TI price 'You cannot evaluate the price of free fish.' | |
| (3) Mwăna mwăsí a - ték - á molímo child female VP - sell - TI soul 'The girl has sold her soul.' | | | | |
| M: (4) Pŏlo ndé a - ling - á mizíki Paul intens. VP - like - TI music 'As you (may) know, Paul likes music!' | | | | |
| II. passé antérieur habituel | - | + | R + \checkmark k + \checkmark | ba + b \checkmark y + ák + á |
| B: (5) E - zal - ák - á mokolo mókó... VP - be - TI day one 'There was a day.../Once upon a time...' | | | (6) To - mŏn - ák - á yŏ (...) VP - see - TI you 'We saw you in Kisangani.' | Kisangáni Kisangani |
| M: (7) Mikolo - wăná e - zal - ák - á bísó mĭbalé, leló to - kóm - í bato mĭngi days - those VP - be - TI us two , today VP - arrive - TI people many 'By then there were only two of us, now we are numerous.' | | | | |
| III. passé historique | - | + | R + \checkmark k + í | ba + b \checkmark y + ák + í |
| B: (8) Ba - bót - ák - í yŏ - mokolo mwa - yenga VP - deliver - TI you - day Sunday 'You were born on a Sunday.' | | | | |
| M: (9) To - mŏn - ák - í yŏ (...) 'We saw you in Kisangani.' | | | | |

TABLE 1, cont.

| "ASPECTS" | "STRUCTURE" | "EXAMPLES" |
|---|---|------------------------|
| IV. passé récent | _ + + R + + í | ba + bóy + í |
| B: (10) A - zal - í 'he is' | (11) Na - yé - í/nayé 'I've come/here I am' | |
| M: (12) Pólo ndé alingí mizíki 'Paul likes music (as you may know).' | (13) ...nzóto e-béb-í 'I'm out of luck.' | |
| V. présent général | _ + + R + Vk + V | ba + bóy + ak + a |
| B: (14) ...na - swán - ak - a té, na - bund - ak - a ré VP - quarrel - TI neg., VP -fight - TI neg 'I do not quarrel, nor fight.' | | |
| (15) Na - sál - ak - a áwa VP - work - TI here 'I work here.' | | |
| VI. présent général habituel | _ + ko + R + Vk + V | ba + ko + bóy + ak + a |
| B: (16) Mokili e - ko - zal - ak - a bōngó world VP - TI - be - TI like that 'The world is/will (always) be like that.' | | |
| VII. présent continuatif | ~ + ko + R + Vk + V | ? b + á + ko + bóy + a |
| B: (17) N - á - ko - bfn - a (< Na - zal - í ko - bfn - a) VP - TI - inf. - dance VP - be - TI Inf. - dance - Ending 'I am dancing.' | | |
| (18) T - ǒ - ko -kend- e yó epái wápi?(< to - zal í ko - kende...) VP - TI - Inf. - go - End. you place where 'Where are we going with you?/ Where shall we go with you?' | | |
| M: (19) N - á - ko - sal - a áwa mikolo {oyo work nyónso } (< Na-zal-í ko-sal-a áwa mikolo {oyo 'I've been working here {these days } every day | | |

TABLE 1, cont.

| "ASPECTS" | "STRUCTURE" | "EXAMPLES" |
|--|---|---|
| VIII. présent contin. habituel | $\checkmark + ko + R + Vk + \checkmark$ | ? b + \checkmark + ko + bóy + \checkmark + \checkmark |
| B: (20) B- \checkmark -ko -y -âk-a sima (<i><Bazali koyâka sima></i>) | $\checkmark + ko + R + Vk + V$ | ? b + \checkmark + ko + bóy + ak + a |
| VP-TI-inf.-come-TI | behind/after | 'They are following us.' |
| IX. présent momentané | $\dot{\checkmark} + ko + R + + V$ | ? b + $\dot{\checkmark}$ + ko + bóy + a |
| B: (21) N- $\dot{\checkmark}$ -ko-béng-a nání, yó té? (<i><Nazali kobénga...></i>) | | |
| call who | | 'Am I not calling you?' |
| X. présent momentané habituel | $\dot{\checkmark} + ko + R + Vk + V$ | ? b + $\dot{\checkmark}$ + ko + bóy + ak + a |
| B: (22) Ó - ko -fún-ak-a ngái? (<i><Ozali kotunaka ngái?></i>) | | |
| VP&TI-inf.-ask-TI me | | 'Are you questioning/asking me?' |
| (23) Ó - ko -béng-a -béng-ak-a ngái mpó níni? | | |
| -Redup.-call me because what | | 'Why are you repeatedly calling me?' |
| XI. futur immédiat | -+ + R + + V | ba + bóy + a |
| B: (24) Na-y-â té na ndáko na bíńó (25) Na-lob-a elóko té | | |
| house you-pl. | | say thing |
| 'I am not coming to your house.' | | 'I will say nothing.' |
| XII. futur éloigné | -+ ko + R + + V | ba + ko + bóy + a |
| B: (26) O-ko-banda mosálá na yó lóbí | | |
| TI-start work(N) tomorrow | | 'You will start your work/job tomorrow.' |
| M: (27) O-ko banda mosálá na yó sika óyo | | |
| 'You will start your work/job right now.' | | |
| XIII. futur éloigné habituel | -+ ko + R + Vk + V | ba + ko + bóy + ak + a |
| B: (28) Na-ko-tíndel-ak-a yó nsango na ngái | | |
| VP-TI-send -TI news me | | 'I will be writing to you/sending you my news.' |
| (29) Na-ko-báte! -ak-a mwána na bísó | | |
| look after us | | 'I will be looking after our child.' |

3. Criticism and Suggestions

Bwantsa's analysis differs from Guthrie's mostly in the names and number of particular expressions for time reference. For instance, Guthrie's "passé indéfini" and "passé défini" correspond to Bwantsa's "passé récent" and "passé historique" respectively. Guthrie also mentions a set of two "compound tenses" [1966:30] which I fail to see in Bwantsa's analysis:

(30) Na-jal-ák-á kosála (= Na-zal-ák-á kosála)
I was working

(31) Na-síl-í kokoma
finish writing 'I've finished writing.'

(30) is in fact the past counterpart of Bwantsa's (VII), which the latter may have misplaced as a case of morphological inflection, because of its present tense contraction. Neither of them has, though, considered the productive time references with -fík- 'abandon, stop', and -kóm- 'arrive' as auxiliaries which designate, respectively, volitional terminative and ingressive temporal inflections, as in:

(32) Na-fík-í ko-koma (33) Na-kóm-f ko-koma
'I've stopped writing/ 'I've (just) started to write.'
I'm no longer writing.'

(34)a. A-kóm-f ko-lela-lela b. A-kóm-á ko-yíb-ak-a
'He's got into the habit of crying.' 'He's got into the habit of
stealing/He's become a thief.'

(35) Mwana a-fík-á kolfa mabelé
'The child {no longer eats }dirt.'
has given up the habit of eating

Both Bwantsa and Guthrie subordinate aspect to tense; their primary division of time reference is in terms of past, present and future. Unfortunately, this position has regrettable consequences. In Bwantsa's analysis the "continuatif"='durative', for instance, seems to be typical of present alone. And, actually, both Bwantsa and Guthrie fail to present the future counterpart of the durative in (30)/(VII)--which, by the way, Bwantsa does not signal as contracted from -zal- + infinitive. See (36):

(36) To-ko-zala ko -bín-a ntángo yó o-ko-kóm-a/o-kóm-í
VP-TI-be inf.-dance time you VP-TI-arrive
'We'll be dancing when you arrive.'

Again, because of the subordination of aspect to tense, as well as of too much concern with morphological isomorphism, Bwantsa may also be criticized for failing to realize that while his "passé antérieur habituel" without -zal- expresses "habit" in a very dubious way (see examples (5)-(6)), it is, instead, the use of the past counterpart for the durative, in conjunction with the time adverbial specifying a long period of time or repetition, which is the common practice for designation of past habits

- (39) Na-zal-f kosála áwa leló 'I am working here today.' (non-habit.)
 (40) *Na-sál-ak-a áwa leló ?I work (Habit.) here today.

When is a present general enough to be a habit? And when does a (present) durative qualify to express a habit?

I will conjecture that while there do seem to be habits confined to past, present and future (as illustrated in (37-38), (19), (VI), and (XIII)), we may consider (V) as a universal generic, which transcends the division of time into the above three major categories. This alternative position will allow us to account for the actual difference in the understandings of (19) and (15') which we may try to explain in terms of scope difference. We may assume a metalanguage where "x" represents the described situation, "t" the time and CONTINUOUS can be interpreted as 'lasting in time', and DURING as the predicate for the time period which lasts. We could thus represent the situations in (19) and (15') as:

- (19b) ($\exists t$: DURING t) AT(x,t)
 'there is a period, t, during which x (as a habit) occurs, where the habit is necessarily confined to the period'
 (15'b) ($\exists x$: CONTINUOUS x) AT(x,t)
 'there is a generic/continuous situation x, such that it occurs at time t, where the occurrence of x in t is contingent.'

This enables us to account for two kinds of generics in Lingala; the one is bound to a specific time portion, and the other, more universal one, is open-ended and transcends the specified period of time.

We cannot yet forget the question of the interaction between the time adverbial in (19) and the durative, to express habit; while in (15') the time adverbial also specifies a time portion of that habit, but does not contribute to the specification of the described situation as a habit. It is just as though in (19) the time adverbial extends the time long enough to make the CONTINUOUS situation mean a habit, whereas in (39-40) the time adverbial limits the time span seriously enough to make the CONTINUOUS void of any habitual interpretation, and thus introduces the apparent clash of features in (40).

Does this suggest that generic is but an expansion of durative in time, to the point where it transcends past or present and becomes almost predictable for the future? Or does this show (as I hypothesize) that durative and generic belong to the same category, of which the durative is unmarked and the generic marked?

Whatever the case here, I would also like to draw attention to the fact that the ungrammaticality of (41) below does call for a reconsideration of the interaction of both verbal inflectional or syntactic combinatorial time reference on the one hand, and time adverbials on the other, to locate a situation in time. There is at least a need to understand

why the combination of some adverbials with some other morphological or syntactic-combinatorial inflection leads to ungrammatical utterances.

(41) *Ba-kang-ák-á ngáf lóbí 'I was arrested yesterday.'

yet (42) is quite correct:

(42) Ba-kang-ák-f ngáf lóbí 'I was arrested yesterday.'

This may become clearer after we reconsider Bwantsa's discussion of (I) vs. (IV) and (II) vs. (III). A look at examples (1-13) seems to show that not only the names may have been misgiven to these expressions, but also that: (1,4, 6) receive translations similar to (13, 12, 9) respectively. These sentences differ, however, in implicatures. Indeed the latter group, which is less marked, conversationally implies a recent situation/event. There is evidence that whenever a time reference expression (II) can be used, (III) can also be used, but not vice versa. I will show this with more examples, where time adverbials are used concomitantly with verbal forms as either supplementary or complementary temporal inflections:

(43) a. To-món-ák-f yǒ mbóla e-lek-f na Kisangáni

see you year pass

'We saw you last year in Kisangani.'

b. Tomónáká yǒ mbóla elekí na Kisangani

'We saw you last year in Kisangani.'

(44) Tomónákí/Tomónáká yo ntǎngo {^{tozalí}tozalákí} bana miké
time be children

'We saw you when we were young children.'

(45) Tomónákí/*Tomónáká yo {leló na ntóngó} 'We saw you {this morning}
sika óyo just now

Although the forms with -ák-á and -ák-f translate quite identically into English, they correspond to quite different subjective attitudes towards the points of time referred to in relation to the speech event time or another landmark in the discourse. The form with -ák-á refers to a point considered as remote in the past, hence the ungrammaticality of (45).

In the case of (9), by opposition to (6), we may assume that since (6) refers to a point of time considered only as remote, were the speaker more cooperative he would have said (6)--since it is unambiguous--if he had meant to refer to the remote past. Since he used (9), it must have been by necessity, to refer to recent past. Thus, the meaning of the form with -ák-f is specializing, because of its coexistence with the delimiting -ák-á. But because it still has not ceased to have the remote meaning, we say it designates recent past by implicature.

Bwantsa calls (II) 'anterior', almost the equivalent of past perfect. Undeniably, in some cases it works that way. But I will show,

after discussion of the opposition between (I) and (IV), that it does so mostly by virtue of its designating perfective anteriority, and that, as he must have noticed, the expression of anteriority is not limited to (II), since (I) has the same effect. But first we must understand how (I) differs from (IV).

Bwantsa and Guthrie call the verbal forms (I) and (IV) "past". My translations of examples (1-4) and (10-14) alternate, as in Bwantsa's own analysis, between the English simple present and present perfect tenses. I can even provide more cases which seem to argue against assuming (I) and (IV) as referring to past time. Observe (46):

- | | | | |
|---------|---|----|---|
| (46) a. | a a -{ $\begin{smallmatrix} f \\ g \end{smallmatrix}$ } | b. | alamuk-{{ $\begin{smallmatrix} f \\ g \end{smallmatrix}$ }} |
| | 'he is asleep' | | 'he is awake' |
| c. | abal-{{ $\begin{smallmatrix} f \\ g \end{smallmatrix}$ }} | d. | akof-{{ $\begin{smallmatrix} f \\ g \end{smallmatrix}$ }} |
| | 'he is/got married' | | 'he is dead' |
| e. | abósan-{{ $\begin{smallmatrix} f \\ g \end{smallmatrix}$ }} | f. | asilik-{{ $\begin{smallmatrix} f \\ g \end{smallmatrix}$ }} |
| | 'he {has forgotten does not remember}' | | 'he is angry' |

That the English present tense fits best in translating these expressions would seem to suggest that these verbal forms are time-inflected in the present rather than in the past. For cases like (3) and (11), it seems plausible to interpret the lexical meaning of the verb as specifying the beginning of the present state. If this is correct, it seems to me that we may just as well call these two forms PERFECT, in the sense defined by Comrie [1976], after McCawley [1971] and Huddleston [1969]: that this temporal inflection specifies the present relevance of a past event/situation. We could alternatively interpret them in the way suggested by Guthrie, that is, as a form of grammatical stative. (However, it seems to me that Guthrie's interpretation and the PRESENT RELEVANCE one converge rather than contradict one another.)

As with verbal forms in $-\acute{a}k-í$ vs $-\acute{a}k-á$, I will assume that the verbal forms with $-R+í\#$ and $-R+á\#$ of the hypothesized perfect also differ by conversational implicature, at least the former from the latter. Let us consider (47-48):

- (47) {A-kend-é/A-ke-í}, kala wǎná 'He has left a long time ago.'
 A-kend-á
 a long that
 go time ago (demons.)
- (48) {(A-kend-é)/Á-ke-í} káka sika óyo 'He left very recently.'
 *A-kend-á

The above examples (47-48) have an opposition similar to that between the forms with $-\acute{a}k-í$ and $-\acute{a}k-á$. The $-R+á\#$ is marked for the remote origin of the state, while the construction $-R+í\#$ designates recent origin by conversational implicature, although it may be used arbitrarily to refer to any sort of origin for the state.

The following examples show that these perfects may also refer to past or future states:

(49) Ntǎngo {boyákí, bokoyá} ba-ke-í 'When you {cAme, they had left. come, they will have left.}'

(50) Ntǎngo {boyákí, bokoyá} ba-kend-á
'When you {cAme, they had left (a long time ago) come, they will have left (a long time ago)}'

Both (49) and (50) show that the state of being away was already in effect when the situation of arriving took place. Thus it even becomes questionable to say that this perfect is present or designates PRESENT RELEVANCE. It would seem more plausible to hypothesize that the perfect is neutral with respect to the opposition past, present and future, and that it designates a specific time by contextual implicature. Thus it should be added that contextual implicature has compelled a translation of (1-4), (10-13), and (46) as well as (47) in terms of PRESENT RELEVANCE. Were (46) to be substituted for *bakef/bakendá* in (49-50), their translations by the English present perfect would be ungrammatical. It seems plausible to me to assume that the absence of a more specifically asserted time reference to match the perfect compels us to interpret it in relation to the time of the speech event, the present (by implicature).

The next question I want to mention concerns the place of present tenses. Forms like (24-25) may refer to future too. And in (51) we observe that the perfect with *-R+f#*, as well as the present durative, may refer to future:

- (51) a. Na-ke-í leló/lobí
b. Na-zal-í kokende leló/lobí > Nǎkokende leló/lobí
'I am leaving/will leave today/tomorrow.'

(The case of the perfect may strengthen the suspicion that *-R+f#*, *-R+á#* forms are neutral with regard to the opposition past vs. present vs. future.) The whole set (24-25) and (51) seems to lead to the hypothesis that there may be a broad (non-punctual) concept of present, which steps already into the future. And in the absence of a time adverbial to specify the future, the present is contextually implied (if it felicitously corresponds to a concomitant situation).

The designation of some specific temporal inflections by implicature seems to be quite a generalized practice in Lingala.

4. Synthesis and Conclusion

Now let's put everything together and fill in some of the gaps in my hypotheses.

DURATIVE and GENERIC can both refer to habits. The latter is marked and can do it without the use of a complementary time adverbial while the

DURATIVE, being the unmarked form of CONTINUITY (of a state or activity) over a long period of time, designates a habit only if complemented with a time adverbial specifying a span of time long enough to signify a habitual/generic extension of a situation (?through recurrence). These two time reference expressions, with the third which I will subordinate to GENERIC in my table below, and which I will call PROSPECTIVE GENERIC (equivalent to Bwantsa's (VI) and (XIII)), will constitute a special class of temporal inflections which I suggest should be called CONTINUOUS. They all share the characteristic of expansion in time. The difference between the habits expressed with the durative and those expressed with the generic--besides the issue of scope discussed above--is the fact that the generic somehow commits the speaker to a prediction of the future, while the durative does not. We may also add that the extra presence of the time adverbial in (15') reduces this commitment.

A second group of temporal inflections consists of those that may be referred to as [-CONTINUOUS]. They subdivide into two subgroups: (i) I will call the first subgroup PERFECT or STATIVE by virtue of the fact that these forms specify (a) a state which results from an asserted situation. This consists of the RESULTATIVES with -R+f# and -R+á#. (b) the end of a previous situation and implication of a new state, as in the expressions with -tík- and -síl- illustrated in (31-32). A VOLITIONAL TERMINATIVE temporal inflection is designated in (32), while (31) expresses a TERMINATION unmarked with regard to volition. (The unmarked expression is more commonly used and I do not know of any conversational implicature applying here which would subject -síl- expressions to designate non-volition.) (c) the beginning of a new situation or state, the INGRESSIVE expression, with the auxiliary -kóm-, as illustrated in (33).

Here I would like to state explicitly as per the tree below, but not illustrated, that the auxiliaries -síl-, -tík- and -kóm- (like the auxiliary -za|- for the durative) are time-inflected RESULTATIVE (COINCIDENT-relevant) or SUBSEQUENT. This in fact goes together with the discussion of the questioned PRESENT-relevance above. This not only leaves an unsolved branching problem for the PERFECT in the tree, but also raises the question of what combinatorial principles are at play here. I leave the question for future investigation.

(ii) The second subgroup of [-CONTINUOUS] inflections will be referred to as PERFECTIVE by virtue of their locating the described situations without any concern for their internal temporal structures. They divide into PRIOR to, COINCIDENT with and SUBSEQUENT to the time of either the speech event or another situation specified in the utterance

(by contextual implicature).² (The PERFECTIVE COINCIDENT with -a# steps apparently into the future. Probably it should be derived from an intermediary node common with SUBSEQUENT, contrary to what is given in the tree. I leave the question unresolved for the present.)

I also observe (after Bwantsa) that something seems to be common with the dichotomy REMOTE vs. RECENT/NEAR for anything either referring to past or suggesting the past origin of a state: there is always the presence of an -á# or -í# associated with the particular case. We may thus safely dissociate these morphemes from the high tone -ák- of PERFECTIVE (PRIOR) and consider -ák- as corresponding to this PERFECTIVE (PRIOR) while the pair -á/-í helps to implicate NEARNESS. I am not sure I have enough evidence yet to analogize the same treatment to the UNIVERSAL GENERIC; viz. whether -aka# or -ak+a# should be the proper morphological division. Right now I do not see what explanatory impacts the choice of either of them would have on the theory developed here.

The table/tree on the next page summarizes my theory of Lingala temporal inflections. It is my belief that such a representation opens the way to explanation of certain oddities, particularly the selectional constraints holding between the verbal forms and the time adverbials, as seen in (40, 41, 45 and 48). A verb temporally inflected as CONTINUOUS can co-occur in the same utterance with an adverbial designating an extended span of time. A verb temporally inflected as PRIOR (REMOTE) selects an adverbial that designates a relatively remote priority/anteriority in time.

My analysis seems to give primacy to the features traditionally associated with aspect over those associated with tense, which reverses the position assigned to them in the previous analyses. First, I do not think the dichotomy "aspect vs. tense" needs to be maintained. Second,

²There may be a problem as to what specifies the time of the situation taken as the landmark. By the very fact that there is nothing else that can specify it, the situation is to be understood in relation to the time of the speech event. This explains how the understandings of (49-50) work.

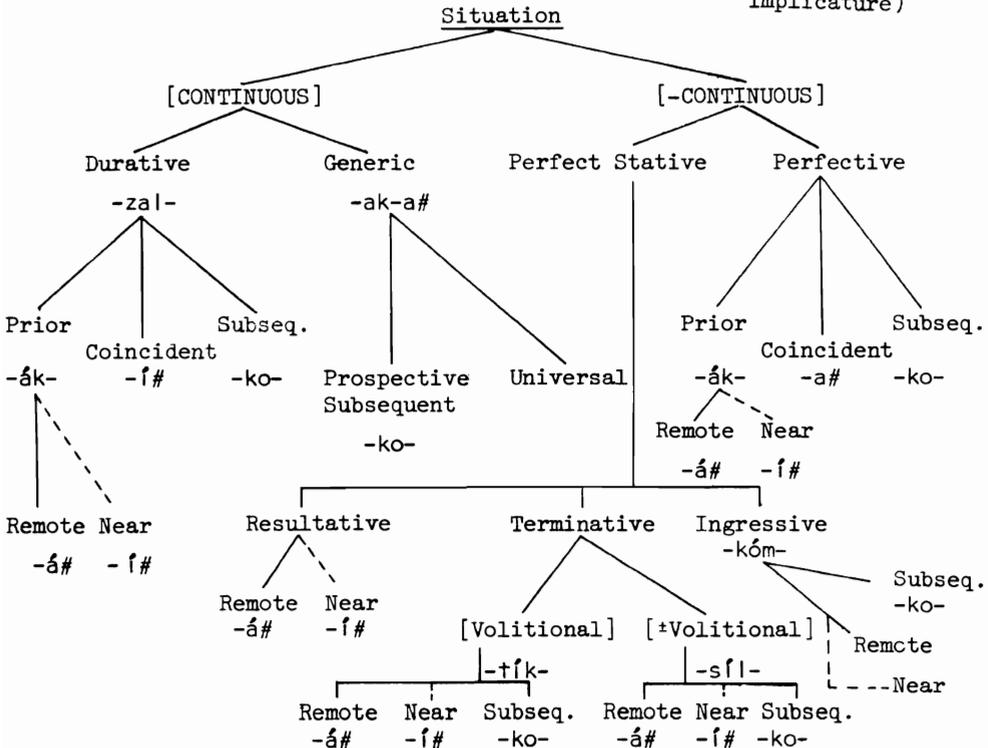
There might be an alternative interpretation of maintaining the features PAST, PRESENT and FUTURE, but this calls for an additional artificial problem of embedding either PRESENT and FUTURE into PAST or PAST and PRESENT into FUTURE, etc., as suggested by McCawley. I say "artificial" in this case because it seems to me that in (49-50) there does not apply any grammatical time reorientation, which characterizes the English taxis--about which McCawley comments as inflected in relation to both the speech event and the related situation.

the analysis does not seem to conflict with other diachronic and comparative evidence: (a) according to Miller/Johnson-Laird [1976:449], aspectual rather than tense oppositions between situations are acquired first by the child. (b) According to Comrie [1976:83] in Indo-European, aspect distinctions seem to have occurred before tense distinctions. He also reports [op. cit.: 82] that Yoruba and Igbo seem to have primacy of aspect features over tense features. Then Lingala would not be an isolated case, but would, instead, conform to a universal principle.

Many other questions need to be considered. One such may concern the hierarchy of the inflectional features I have proposed and their representation in the logical structure of sentences. Another question may specifically concern how the features which surface as adverbials and those that surface as inflectional morphemes and/or other combinations of morphemes are distributed in the logical structure. The latter question is in fact related to the one raised by Chafe [1970:168], viz., whether temporal inflection modifies the verb or the whole event described by the sentence. The limitation of time and space do not allow me to discuss these questions here.

TABLE 2

--- (by conversational implicature)



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