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SOME ASPECTS OF AKAN DEEP SYNTAX

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1.0. In this paper, I shall discuss a number of syntactic relations in Akan with a view to bringing out some of the differences between DEEP and SURFACE structure and showing the necessity to recognize these differences in making descriptive statements. The distinction between deep and surface structure, I believe, is a universal one and should provide students of West African languages interesting insights into the languages that they are studying.

1.1. Looking at descriptions of West African languages I think it is largely true to say that the relation between the two types of structure has hardly been clearly defined. This state of affairs can be attributed to the prevalent view that syntactic analysis is a set of operations whereby abstractions are made from transcribed texts in such a way that the units of abstraction themselves occur linearly in the same sequence as the segments from which the abstraction was made. It is very often argued that a syntactic element cannot exist because there is nothing to correspond to it in audible speech. Those who hold this view have sometimes been led to ask, 'But how do you know that certain kinds of syntactic relation exist when they are not found in objective data?', the assumption being, of course, that there is a one-to-one correspondence between speech utterances and deeper abstract relations. If we took this assumption seriously we would be required to accept the suggestion, for example, that the difference between phonological units and those of syntax was merely that of size. One need not go into the implications of such a view for linguistic descriptions at the moment, but they are certainly serious.[1]

1.2. I shall restrict myself to co-ordination and, to some extent, embedding to exemplify the relationship between the two types of structure. I have chosen co-ordination because it has been studied in detail by students of West African languages.[2]

[1] For the implications of this view, see C. F. Hockett, A MANUAL OF PHONOLOGY, Bloomington, 1955, Linguistic elements and their relations, LANGUAGE, vol. XXXVII; F. R. Palmer, 'Grammatical elements and their phonetic exponents', PROCEEDINGS OF THE NINTH INTERNATIONAL CONGRESS OF LINGUISTICS, ed. H. G. Lunt (Mouton, 1964), pp. 338–45; '"Sequence" and "order"', GEORGETOWN MONOGRAPH SERIES ON LANGUAGES AND LINGUISTICS, ed. C. I. J. M. Stuart, vol. XVII (1964), pp. 123–30.

[2] See, for example, J. M. Stewart, 'Some restrictions on objects in Twi', JOURNAL OF AFRICAN LANGUAGES, vol. II (1963), pp. 145–9; G. Ansre, 'The Verbid—a caveat to "serial verbs",' J.W.A.L. III (1966), pp. 29–32. Ansre's paper is concerned to distinguish between real verbs which participate in serial or co-ordinated verbal constructions, and deceptively verb-like items (his verbids). He is right in pointing out that his 'verbids' are not verbs and that past students of West African languages have confused the two sets of homophonous items. His reason for making the distinction between verbs and 'verbids', however, is not a valid one. We cannot justifiably exclude items from a syntactic class (verbs, in this case) merely because they do not inflect. It is a fact that in a good many of the world's inflectional languages members of the same syntactic class may have different morphological properties. Ansre gives wɔ as the only example of the class of 'verbids' in Twi that he knows of. I, like him, would say wɔ is not a verb. But I would add that wɔ is not a verb not because it does not inflect (as he would argue) but because it lacks the syntactic properties common to all verbs, e.g. participation in serial constructions. If, as he points out, wɔ is the only item in

A common feature of these languages is the frequent occurrences of strings of two or more verb phrases which form a single internally coherent structure. The constituent verb phrases are governed by one noun phrase subject and are separated neither by pauses nor co-ordinators. What joins them together is agreement in mood and between certain pre-verbal affixes (referred to below as PREVS) across the sentence. Thus, all conjoined and certain types of embedded verb phrases are either affirmative or negative, interrogative or declarative, imperative or indicative. Besides, the tenses which occur in these verb phrases are identical.

(1) ɔbɛɛma no baa ha frɛɛ me
the man came here (and) called me

(2) onipa no nntumi mba
the person is not capable not come, i.e. the person is unable to come.

The co-occurrence restrictions exemplified in (1) and (2) are of the simplest type and have been pointed out by students who have been interested in this type of co-ordination.

The real problem comes when different kinds of agreement merge, thus making it impossible by mere inspection to delimit their domains. As an example, consider the following sentence:

(3) (a) (b) (c) (d) (e)
ɔkaae sɛ ɔbaae no ɔfaa attadeɛ no hyɛɛe bɔɔ
(f) (g)
mmɔdeŋ kyerɛkyerɛɛ mu sɛ ɛfataa no.
he said that when he came he took the dress, wore it,
tried to explain that it fitted him.

The tenses (marked a–g) are all past. It is obvious that the agreement between (a) and (b) is merely accidental; (a) need not agree with (c) although there is a dependency between (b) and (c). There are overt signals which lead the analyst to make such conclusions. Consider, however, the agreements between (a) and (e), (a) and (f). These may or may not be accidental. That is, (e) and (f) are multiply related to (a). Needless to say, merely abstracting grammatical patterns from speech and arranging the units in a left-to-right fashion to correspond vertically to parts of the corpus under study will fail to relate constituents multiply in this way.

1.3. The discussion will centre on the verb phrase. However, if we are to be able to bring out clearly certain structural relations in the deep syntax we should relate co-ordination in the verb phrase to other types. Given a set of ordered rules and the conditions under which they operate it should be possible to enumerate all the following sentences and similar others progressively:

(4) Kofi kɔɔe na Amma baae
Kofi went and Amma came

(5) Kofi kɔɔe na ɔbaae
Kofi went and (he) came (back)

(6) Kofi kɔɔe baae
Kofi went (and) came back

Twi which satisfies his description of 'verbid' and if it can easily be proved SYNTACTICALLY (by not relying on MORPHOLOGICAL criteria) that wɔ is not a verb, then one wonders whether the term 'verbid' is a useful classificatory category in Twi at all. This, however, is not to say that it may not be useful in a typological description of West African languages.

(7) Kofi ne Amma kɔɔe
Kofi and Amma went

(8) Kofi daadaa Amma kɔɔe
Kofi tricked Amma and went away, or
Kofi tricked Amma into going away

(9) Kofi de Amma kɔɔe
Kofi took Amma away, lit. Kofi with Amma went

(10) Kofi de sika tɔɔ ntoma
Kofi bought a cloth with money, lit. Kofi with money bought a cloth

(11) Kofi de tumi de sika no tɔɔ ntoma
Kofi forcibly used the money in buying a cloth;
lit. Kofi with force with money bought a cloth

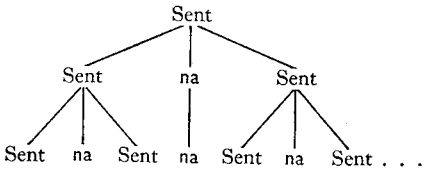
2.0. Following Chomsky[3] two sets of syntactic rules are given: base rules and transformational rules (T-rules). The base rules specify deep structures which contain the information necessary for the semantic interpretation of sentences. The T-rules operate on deep structures and convert them into surface structures—abstract strings underlying the actually occurring sentences.

2.1. For our purposes the following base rules are enough:

B 1	$S \rightarrow (Q)$ Sent	Sentence
B 2	Sent → Sent (na Sent)	Question
B 3	Sent → NP Pred Phrase	Noun phrase, predicate phrase
B 4	Pred phrase → VP (ADVERB)	Verb phrase
B 5	$VP \rightarrow \text{PREV} \begin{Bmatrix} \text{de VP NP} \\ \text{V complement} \end{Bmatrix}$	Preverbal affix
B 6	$\text{PREV} \rightarrow \begin{Bmatrix} \text{TSE} \\ \text{Imp} \end{Bmatrix}$ (Neg)	Tense, imperative negative
B 7	$V \rightarrow CS/\text{PREV}\text{——}\alpha$ (where α is an NP, ADVERB)	
B 8	$\text{Complement} \rightarrow \begin{Bmatrix} \text{NP} \\ \text{ADJECTIVE} \\ \text{NUMERAL} \end{Bmatrix}$	
B 9	NP → N (MODIFIER)	
B 10	N → CS	
B 11	+V, +——NP → [± reciprocal, ± activity, ± motion...]	

2.2 A few comments on the base rules are in order. B 1 expands the initial symbol S into a question formative (Q) and a simple base sentence (Sent). B 2 provides for the coordination of an infinite number of 'Sents, as represented by (12).

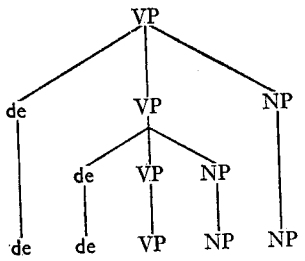
(12)



B 5 provides for recursive self-embedded agentivized verb phrases as in (13).

[3] See ASPECTS OF THE THEORY OF SYNTAX. For a different approach to deep structure, see M. A. K. Halliday, 'Notes on "deep" grammar', JOURNAL OF LINGUISTICS, vol. II (1966), pp. 57–67.

(13)



3.0. Transformational rules.

3.1. The first T-rule operates on base Phrase-markers like (12) to derive abstract strings underlying sentences like

(14) Kofi ne Amma baa ɛnora
Kofi and Amma came yesterday

(15) ɔbɛɛma no ne ne nuanom amba
The man and his brothers did not come

provided that the Predicate Phrases of the conjoined Sents are identical and the Noun Phrase subjects different, referentially.

T 1. SD: X—NP—Pred Phrase—na NP′—W
SC: 1 — 2 — 4 — 3 — 5
Conditions: (1) NP = NP′, (2) Pred Phrase = Pred Phrase in W.

(16) Kofi baae ɛnora na Amma baa ɛnora →
Kofi came yesterday and Amma came yesterday
Kofi ne Amma baa ɛnora
Kofi and Amma came yesterday

3.11. Now, compare the final string of (16) with

(17) Kofi ne Amma hyiae
Kofi and Amma met (each other)

Viewed superficially, these two sentences are similar. There are, however, deep syntactic relations which are hidden in (17). The semantic interpretation of (17) requires us to analyse it as

(18) Kofi hyiaa Amma na Amma hyiaa Kofi
Kofi passed Amma and Amma passed Kofi

(17), like (16), is derived from Sent na Sent; but in order to arrive at the surface structure underlying (17) we have to impose certain restrictions which are irrelevant to the derivation of (16). For example, not only do the Predicate Phrases in the conjoined Sents have to be identical but also the verbs must have the feature [+reciprocal]. Note also that the co-ordinated subject NP's in (18) are subjects as well as complements in the deep syntax. This important structural relation is obscured in (17). T 2 generates (17) and similar conjoined sentences containing Reciprocal verbs.

T 2. SD = X — NP — Y [+V, + —— NP, +Reciprocal] — NP
— na — NP — W — NP — Z.
Conditions: 2 = 8, 4 = 6, 3 = 7
SC: 1 — 2 — 5 — 6 — 7.

(19) Kofi bɛŋ Amma na Amma bɛŋ Kofi →
Kofi is near Amma and Amma is near Kofi

(20) Kofi ne Amma bɛŋ
Kofi and Amma are near (each other)

3.12. The next two rules produce strings in which different verb phrases are co-ordinated (see (7)). As pointed out earlier, no co-ordinating particle appears in the final derived marker. The first of the two rules operates on a Sent na Sent... provided that (1) the NP subjects in the Sents are referentially identical and (2) the PREVS of the Predicate Phrases are identical.

(21) Kofi sraa me na ɔkɔɔ fie →
Kofi visited me and (he) went home
Kofi sraa me kɔɔ fie
Kofi visited me went home

T 3. SD: X — NP — PREV V Y — NP′ — PREV′ V′ Z
Conditions: (1) PREV = PREV′, (2) 2 = 4, (3) V = V′.
SC: 1 — 2 — 3 — 5.

(22) Kofi baa ha na ɔkɔɔ sukuu →
Kofi came here and (he) went to school
Kofi baa ha kɔɔ sukuu
Kofi came here (and) went to school

Note that none of the conditions we have imposed on T 3 excludes the derivation of abstract strings underlying sentences like

(23) Kofi frɛɛ me kɔɔ fie
Kofi called me (and) went home, or
Kofi called me and I went home

(24) ɔbɛɛma no adaadaa Kofi aba
The man has tricked Kofi and has come, or
The man has tricked Kofi into coming

All such sentences have two semantic interpretations. According to one interpretation the object NP of the first conjoined Sent and the subject NP of the second Conjoined Sent are referentially different. According to a second interpretation they are identical. If we put the first interpretation on (23) and (24) then they are generated by T 3. If the second interpretation is meant, they are generated by T 4.

T 4. SD: X [+V, + —— NP, +Activity] — NP — Y — NP′ — Z
[+V, —— NP, +Motion] W
Condition: 2 = 4
SC: 1 — 3 — 4 — 5.

(25) ɔbɛɛma no daadaa Amma na Amma kɔɔ fie →
the man tricked Amma and Amma went home
ɔbɛɛma no daadaa Amma kɔɔ fie
the man tricked Amma into going home

3.2. The agentive verb de: the verb de expresses the notion of agency and accompaniment and may be translated into English as 'use something to do something', 'act with something'.

(26) ɔ de sika tɔɔ ntoma
he with money bought a cloth, i.e. he bought a cloth with money

(27) ɔ de sika baae
he came with money

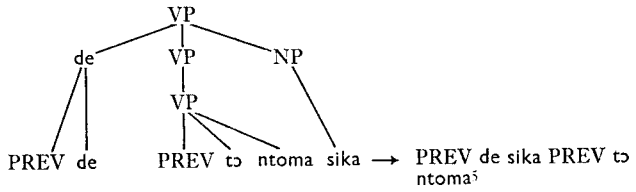
There are strong reasons for interpreting sentences like (26)–(27) and similar others as cases of embedding rather than co-ordination in the deep structure.[4] de and the next verb which occurs in the string are discontinuous in the surface structure. Thus in the deep structure, these strings are analysed as

(28) ɔ de tɔɔ ntoma sika

(29) ɔ de baae sika

A later obligatory rule shifts the rightmost noun to the immediate right of de as represented by (30).

(30)



3.21. The rule informally sketched above can apply more than once, embedding an already agentivized string into a de–VP string.

(31) ɔ de anitɛɛ de sika no tɔɔ ntoma
he cleverly used the money in buying a cloth

(31) is analysed as

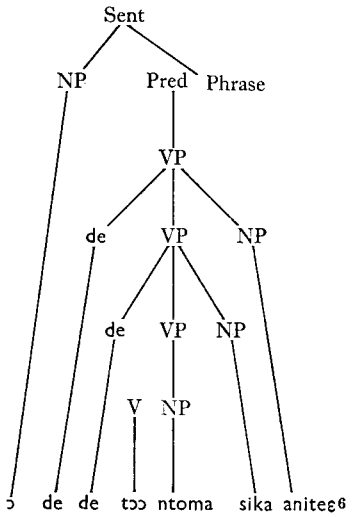
(32) ɔ de de tɔɔ ntoma sika anitɛɛ.

(33) represents this deep structure.

[4] de does not occur by itself as a full verb in unabbreviated sentences and thus cannot be conjoined. That is, sentences like *ɔ de sika na ɔbaae (he with money and he came) do not occur. On the other hand, sentences like ɔ de sika baae na ɔ kɔɔe (he came with money and he went back) occur. It is reasonable to regard de as a verb which always combines with other verbs to form a compound with, by and large, the same distributional properties as any other single verb. This analysis is supported by structures elsewhere in the language. There are verb + verb combinations like to kyene (throw away), hwie gu (pour out) gye di (believe). I think that it would be counterintuitive to analyse sentences like ɔ too me kyenee (he abandoned me), ɔ gyee me dii (he believed me), etc., as ɔ too me na ɔkyenee me, ɔ gyee me na odii me.

[5] There are two nouns: ntoma interpretable as the object of the embedded VP and sika the object of the de–VP complex. To form a surface structure it is the object of the whole complex verb that is shifted.

(33)



An obligatory T-rule which operates on (32) successively shifts nouns to the immediate right of the verbs they are governed by, giving

(34) ɔ de anitɛɛ de sika tɔɔ ntɔma
he employed trickery in using the money to buy a cloth

Other examples are:

(35) ɔ de ahoɔdeŋ de nnɛɛma baae
he made use of strength in bringing the money

(36) ɔ de anuonyam de ŋkra baae
he with glory with message came, i.e. he brought the message in glory

When an agentivized string is embedded in another agentivized string and the appropriate permutations made, the resulting surface structure is always ambiguous since it may be interpreted not as the product of embedding at all but of co-ordination. Thus (34) is interpretable as:

(37) ɔ de anitɛɛ tɔɔ ntoma na ɔde sika tɔɔ ntoma
he bought a cloth with trickery and he bought a cloth with money

The type of co-ordination in (37) is provided for by T 3, but here, in addition to deleting the co-ordinator na and the identical subject NP of the second Sent, the first occurrence of the two identical verbs is optionally deletable. Thus (37) gives

[6] The rule producing the type of self-embedded construction briefly sketched here can be repeatedly applied, theoretically, although the resulting sentences do not occur in actual practice for a number of reasons, e.g. memory limitation. This fact, however, should not prevent a grammar from making provision for such structures; a grammar seeks to go beyond what actually occurs. The speakers of a language make use of only a subpart of the structures which their internalized abstract mechanism can potentially produce. Between the abstract mechanism (what the speakers know) and usage (sentences that actually occur in everyday life) are variable factors which act as filters. Usage is distilled, so to speak, from what is theoretically possible.

(38) ɔ de anitɛɛ tɔɔ ntoma de sika tɔɔ ntoma

and finally

(39) ɔ de anitɛɛ de sika tɔɔ ntoma.

(34) and (39), which are identical surface structures, are traceable back to uniquely different deep syntactic relations and are subject to two different semantic interpretations.

3.22. Two rules are required to map base de-strings into surface structures. The first progressively shifts NP objects of de–VP strings to the immediate right of de (see 30). The rule applies to both co-ordinated and embedded de-strings. Thus, embedded

(32) ɔ de de tɔɔ ntoma sika anitɛɛ →
ɔ de anitɛɛ de sika tɔɔ ntoma

and co-ordinated

ɔ de tɔɔ ntoma sika na ɔ de tɔɔ ntoma anitɛɛ →
(37) ɔ de anitɛɛ tɔɔ ntoma na ɔ de sika tɔɔ ntoma

The second rule operates on strings like (37) and deletes all identical VP's except the final one. Thus (37) gives

(39) ɔ de anitɛɛ de sika tɔɔ ntoma

which has the same surface structure as the final string of (32).

T 5. SD: X de — VP — NP — Y
SC: 1 — 3 — 2 — 4
T 6. SD: X de — VP — Y de — VP — NP — NP Z
Condition: 2 = 4
SC: 1 — 3 — 4 — 5.

4.0. In the foregoing our concern has been to show that deep and surface structures are different. A full syntactic description should have something to say about both types of structure. There is little doubt, however, that studies into the deeper aspects of structure are likely to be more revealing and interesting. One would go further to urge students of West African languages to show greater interest in the deeper aspects since one needs information from the deep grammar to interpret surface structures. The very few examples given above clearly show that vital structural information can be obscured on the surface. This is one sense in which preoccupation with surface structures can be a hindrance. Add to this the fact that because such studies fail to capture deep-seated regularities in the language they are only able to reveal generalities of a trivial kind. Hence, very often in such studies every sentence pattern is presented in the description as being in a class by itself, unrelated to others.