THE VERBAL STATUS OF THE NP-LINKER IN Gà¹

H. M. J. Trutenau
Department of Linguistics
University of Ghana, Legon

0. Kropp Dakubu in a recent paper on the Gà verb lists in her "extended verbal group" (among other verbal items) the "auxiliary verb...kè 'take, be with'" [1970:74], and explains further: "It is treated as a verb (not a particle) mainly for syntactic reasons."

1. Anyone who works on the Gà language has to account, sooner or later, for what on the surface appear to be two homophonous formatives kè: the one mentioned, and another which is used as a linker of NP's, from minimal constructions formed by two simple nouns, as in:

(1) kòfì kè àkù à nà dzù-ìò lè²

Kofi and Akua saw thief the

or its pronominalized version:

(2) è kè lè nà lè

he and she saw him³

to maximally expanded ones like:

(3) nù-mò lè kè à nà-nè-mè-ì ényò nì gbè mf nyè-mf lè nà dzù-ìò lè old-man the and his friends two who killed my brother/sister the saw thief the

'The old man and his two friends who killed my brother (or sister) saw the thief.'

¹An earlier version was presented at a Staff Seminar, Dept. of Linguistics, Univ. of Ghana. I should like to express my special gratitude to K. Ford for his useful comments. My thanks also go to one of my Gà informants, Miss M. Akita.

²In the presentation of examples (—) is used to represent morpheme-boundaries. Underlying forms are written (thus m|li| 'inside', rather than the phonetic realization [mli], see Trutenau [in presa]), in a slight adaptation of current Gà orthography (an exception is the recent loan from English, petrol, which, if native Gà, would have required an underlying form pétólóó), though the transcription is phonological in orientation. Tonemarks indicate the "deep tones": (') deep high; (") deep mid; ("') deep low.

³In some glosses subscripts are used to indicate identity/nonidentity of reference.
1.1. This NP-linker *kè* is quite distinct from the true conjunction 'and', which links VP's and sentences, and the two do not overlap. As an example of the use of the conjunction, consider:

(4) kòff yì ámdá nì òtò yì àkùdá
    'Kofi beat Ama and Oto beat Akua.'

and compare:

(5) kòff kè ámdá yì ámdè-hè
    'Kofi and Ama beat each other.'

To illustrate further the superficially conjunction-like use of the NP-linker *kè*: it can be maintained that for most Ga expressions of the type X *kè* Y 'X and Y' (where X and Y stand for NP's) one can form a parallel expression X (á)ldò Y 'X or Y' (the formative (á)ldò, which stands between alternatives, can be glossed satisfactorily enough by 'or').

In this paper we shall restrict ourselves to a discussion of these two forms *kè* which are characterized in all previous work on the Ga language as "auxiliary verb" and "conjunction" respectively, and shall try to suggest for what reasons their analysis as subclasses of the same general category "verb" may be more appropriate.

The different constructions into which *kè* enters would have to be stated on the lines of subclassification, and it must be pointed out that there are still other uses of (undoubtedly verbal) *kè*, at least one of which will occur in some of the examples to follow. This is the (serial, "dative") construction *kè* X hà Y (where hà 'to give' is the main verb) meaning 'give X to Y'. Other (serial, "directional") constructions like *kè* X bà Y (using bà 'to come' and other semantically related verbs as main verb), meaning 'come to Y with X/bring X to Y', would be similarly treated in terms of subclass membership.

Such an analysis will have a slight advantage in terms of greater overall economy of description, but a more important motivation is that it enables us to get rid of certain anomalies in pronominalization, which would otherwise be unavoidable.

---

4 Note that (in this respect quite different from *kè*) (á)ldò is used not only for connecting NP's, but also for VP's and sentences.
1.2. Having given this brief outline of constructions involving three alternative analyses suggest themselves:

(1) One sets up two separate forms *kt*, one "verbal", the other "conjunctival", and claims that these are accidentally (and trivially) homophonous formatives of the language.
(2) One sets up two separate forms *kt* and postulates that their homophony is not accidental, but rather reflects a common origin (diachronically) of these formatives.
(3) One sets up one form *ke* which functions in the different ways outlined above. In this case an explanation would have to be required to show how the so-called "conjunctival" and "verbal" uses of it are arrived at.

Many Ga speakers feel that there is a close semantic relationship between the *ke* forms we are focusing on: this is reflected in the possible "unified meaning" type of gloss: 'take, join with, together with'.

If this semantic association were to be formally justifiable, our alternative (1) would turn out to provide the least insightful analysis, and alternative (3) the most highly valued hypothesis. If (3) were acceptable, the historical relationship postulated in (2) could be most plausibly incorporated into this hypothesis.

We shall try to show that a case can be made for a transformational relationship to in fact exist between the so-called "conjunctival" and the verbal appearances of one underlying formative *ke*.

2. In order to establish such a relationship we have to discuss in some detail a constraint on pronominalization in Ga.

2.1. In this language, while any and all nominals can be replaced in the "subject" position (which in Ga typically precedes the verb) by the appropriate member of the (subject-) pronoun series, there is a restriction

---

5The "subject" series consists of six "personal" pronouns and an " impersonal" one; for the singular forms "reduced-form" variants differing slightly from the "full" (citation and emphatic) form are used:
on the pronominalization of "object" NP's (which in Ga typically follow the verb). In the latter position only nominals having the feature [+animate] are overtly pronominalized by the appropriate member of the (object-) pronoun series. For obvious semantic reasons this restriction on object pronominalization only comes to the surface in third-person reference, with the result that in objective position English "it" is not overtly expressed in Ga (glosses an and should be made to express this by enclosing the word (it) in parentheses). We shall henceforth refer to this phenomenon briefly as "zero pronominalization" of it and employ the conventional Φ-symbol to mark its occurrence.

<table>
<thead>
<tr>
<th>Personal</th>
<th>Impersonal</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Singular</strong></td>
<td><strong>Plural</strong></td>
</tr>
<tr>
<td>1 mi ~ homorganic nasal</td>
<td>wo</td>
</tr>
<tr>
<td>2 o</td>
<td>nyε</td>
</tr>
<tr>
<td>3 e</td>
<td>amε</td>
</tr>
</tbody>
</table>

(The possessive pronouns have the same form as these, with low tones, except for the first and second person singular, which take high tones.)

6 The "object" pronoun series consists of six ("full-form") personal pronouns:

<table>
<thead>
<tr>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mi</td>
<td>wo</td>
</tr>
<tr>
<td>2 bo</td>
<td>nyε</td>
</tr>
<tr>
<td>3 lε</td>
<td>amε</td>
</tr>
</tbody>
</table>

7 Occasionally the pronominalization of a [-anim] object NP may be heard from Ga speakers; but in all cases I personally came across they corrected themselves, either spontaneously, or when they saw what they had said being written down by me. (One cannot altogether discount some interference from the grammar of English, cf. Wilkie [1930] page v: "the increasing use of an Anglicized-Ga by many of the younger generation which should be discouraged. It is spoiling the beauty of the language, and grates on the ear...")

A similar zero-pronominalization of 'it' was pointed out for Twi by J. M. Stewart [1963]; cf. esp. the discussion on page 149, where it is argued that "one should postulate a zero object pronoun" for the language, as "it is subject to the same restrictions as other objects"; in this language similar restrictions on "specific" objects hold as will be pointed out for Ga. My colleague L. Boadi points out orally to me that in Akan in the environment of an adverb his "pron-3-object deletion" does not take place, which observation covers Ga also. Cf. Boadi [1971] and [forthcoming], neither of which was seen.
To give some examples:

(6) kofi ke a nyɛ-mi-nnu le yi dzu-i3 le
Kofi with his brother the beat thief the
'Kofi and his brother beat the thief.'

can be pronominalized:

(7) e ke le yi le
he1 with him2 beat him3

if the appropriate context of discourse or conversation is established beforehand, making the references clear.  

(8) kofi ke tsɔ yi dzu-i3 le
Kofi with stick beat thief the
'Kofi beat the thief with a stick.'

is pronominalized:

(9) e ke ø yi le
he1 with (it) beat him2
'He beat him with it.'

(10) ọtɔ ke ã na teɛ oso
Oto with his wife went (to) Christiansborg
'Oto went to Christiansborg with his wife.'

is pronominalized:

(11) e ke le teɛ ø
he with her went (there)
'He went there with her.'

---

8 This is of course a condition on all pronominalization and must always be kept in mind when trying to elicit forms: failure to elicit certain forms has often been found to be due to the linguist's not taking the trouble to outline a plausible situation (in which that form would be appropriate) to the native-speaker informant, and can easily result in false statements about non-occurrence of forms. We shall henceforth take this condition for granted and not repeat it with every example.
Kofi with his load went (to) Christiansborg
'Kofi went to Christiansborg with his load.'
is pronominalized:

(13) ète kò tè tòn
he with (it) went (there)
'He went there with it.'

2.2. Now let us compare these examples featuring supposedly "con­
junctival" kò with cases where traditional Gā grammar would call
the kò an auxiliary verb.

To begin we shall take a simple transitive verb with two objects:

(14) òtò hò bò lë kò bi
Oto gave his child the (a) wood-child
'Oto gave his child a doll.'

As long as the second ([animate]) object is also [-specific] (not
being followed by the "article" lë), the Gā sentence is quite similar
in surface structure to the English translation. But as soon as one
makes the [-anim] object [+spec] by referring to a particular doll,
known to the interlocutors, or referred to earlier in the conversation
or discourse, one finds that the language will not permit an object
which is both [-anim] and [+spec] to follow the main verb. This will
have to be introduced by means of a serial verbal construction, employing
kò as the (introducer-) verb, to precede the (main) verb, as follows:

9The two verbal elements can indicate comitative ('(together) with'),
instrumental ('with/by means of'), and directional ('to') etc. relation­
ships. Usually the context makes clear which "reading" is appropriate.
Extensive tests made on this point show that Gā speakers readily tolerate
ambiguities, but when an ambiguity is undesirable, an alternative expres­
sion will (in the form of some kind of paraphrase) be employed.
Thus mī kò yòdë lë tè tò nzò would usually be understood to mean
'I with the woman went to market.' If one needed to make quite clear that
one did not go there together, one might say: mī òtë dżà wò nì yòdë lë
(hú) bà dżé-mèf 'I went to market and the woman (also) came there', or use
still other alternatives.
(15) ơtọ kê tsọ-bf le h'a è bf le
Oto took doll the gave his child the
'Oto gave the doll to his child.'

(16) è kê Ø h'a le
he gave (it [doll]) (to) it [child])

Topicalizing the two object NP's we were focusing on we obtain:

(17a) tsọ-bf le dzf nọ-nf è kê Ø h'a è bf le
doll the was what, he took (it) gave his child the
'It was the doll that he gave to his child.'

By pronominalizing the object NP of (17a) one obtains:

(17aa) tsọ-bf le dzf nọ-nf è kê Ø h'a le
doll the was what, he took (it) [doll] gave (to) it [child])
'It was the doll that he gave it.'

(17b) è bf le dzf mọ-nf è kê tsọ-bf le h'a le
his child the was (to) whom he took doll the gave
'His child was the person he gave the doll to.'

By pronominalizing the "thing-object" NP of (17b) one obtains:

(17bb) è bf le dzf mọ-nf è kê Ø h'a le
his child the was (to) whom he took (it [doll]) gave
'His child was the person he gave it to.'

We see that the topicalization necessarily implies "specificness"
of the topicalized constituent; this is attested by the fact that the
serial verbal construction which we saw to be required to introduce
[-anim, +spec] objects is retained in topicalization.

2.3. After this excursion into the importance of the feature of
specificity, let us return to verbs with two objects.10 These are by no
means restricted to cases of "person-object" followed by "thing-object".

10Pace J. Zimmerman [1858], Volume I, p. 49: "The language generally
does not connect two objects with one verb"; the facts are by no means
as simple as that, and it is most unlikely that it has changed in this
respect since his day.
Consider the following examples:

(20) Ṇ kē pētrōl lē wō ṭsōnē lē mllf
    he took petrol the put of machine the inside
    'He put the petrol in the machine.'

(The verb here is followed by a "completive" NP. Pronominalization produces, as expected:

(21) Ṇ kē wō ṭ mllf
    he took (it [the petrol]) put (of-it [of-machine]) inside
    'He put it in.'

The language has no "prepositions" like English; its equivalents of these we shall call "postpositional relational" items, a subclass of nouns (e.g. mllf in the preceding pair of sentences). Like other nouns they enter into a genitival relationship (always with the noun preceding them), as in (20) above. And because of their relational function the members of this subclass of nouns are not allowed to be pronominalized (see (21), for example). Topicalization of the objects in the same sentence results in:

(22a) ṭsōnē lē dzī nō-nf Ṇ kē pētrōl lē wō ṭ mllf lē
    machine the was what he took petrol the put (of-it) inside the
    'It was the machine that he put the petrol into.'

Pronominalized, this gives us:

(22b) nō dzī nō-nf Ṇ kē wō ṭ mllf lē
    that [the machine] inside the
    'That was what he put it into.'

\[11\] For more detail on the "completive" (or "genitival") noun phrase, see Trutenau [1970:166ff.].

\[12\] Note that in Ṇ kē wō ṭ mllf the ṭ mllf literally means "his inside"; the sentence means (idiomatically): 'he kept (it) [eg. sorrow, or anger] to (ie. within) himself.'
(22c) pɛtrɔl ɛdz nɔ-ŋf ɛ kɛ ɔ wɔ tɔŋnɛ ɛ mɪlɛ lɛ
petrol the was what, he took (it [the petrol]) put of-machine inside the
'It was the petrol that he put in the machine.'

Pronominalized this gives us exactly the same sentence as (22b), this being ambiguous; the appropriate reading now is:

that [the petrol] was what, he took (it [the petrol]) put (of-it
[machine]) inside the
'That was what he put into it.'

3. From the examples it emerges clearly that (on the surface) our "zero-pronominalization" usually brings the verbal kɛ next to the immediately following (main) verb. Combined with the fact that kɛ is one of the small number of Ga verbs that are never inflected, this may be assumed to have first earned it the label of "auxiliary verb", which kɛ has had ever since the days of Basel missionary J. Zimmermann, over a century ago. Other minimally inflected verbs are found, for instance,

13 A long list of Ga verb sequences might be drawn up, which occur with the uninflected kɛ immediately preceding a main verb, as if they were expressions "with a meaning of their own". This makes them appear like a distinct set of verbal idioms (thus kɛ ɔ bɔ (lit. 'join/ with come') = 'bring') deserving the status of distinct lexical items. This is the treatment that Zimmermann appears to have had in mind when in his Vocabulary (1858, Volume II) he gives approximately one hundred such entries.

We hope to have made clear that these sequences do not in fact deserve a separate listing as so many distinct verbal idioms, as they regularly have a transformational origin from pronominalization of inanimate object nominals.

14 Cf. Kropp Dakubu [1970:74]; "It is not marked for any of the systems of the simple [verbal: H. T.] group."

15 See his Vocabulary [1958, Volume II] under "ke". Note also that he joins "ke" (our kɛ) by a hyphen to the immediately following verb (eg. in Volume I, p. 48), a practice which has characterized Ga orthography for a long time, but which must be firmly rejected as overmuch surface-oriented and misleading about the underlying syntactic structure involved.
'dzf 'to be' (which has one other form, the negative dzéé), ye 'to be (somewhere)' with its habitual form yédé, and its negative form bé(e).

That kër is a verb is brought out by its parallel use to an undoubted full verb nő 'to take', which is not in any way "defective". Consider the following sentences:

(23) à kër nèkér sükà nèc : o mî nyömô
    he with certain money this pay me debt
    'He paid me with this money.'

(24) à nô nèkè sükà nèc (à kër ø) wô mî nyômô
    he take/handle certain money this (he with it) pay me debt
    'He used (handled) this money to pay me.'

The difference between these two lies in the first verb and hinges on kër being a much more predictable and "colorless" verb here than the (nowadays) less usual nô, which more "concretely" indicates the handling or carrying of the money.

4. Having examined the verbal status of kër, we shall now turn our attention to the supposedly "conjunctival" use of kër, to try and

---

Further examples can be found in Wilkie [1930], where a whole section (§ 131ff., pp. 70-75) is devoted to parallels in the use of the verbs kër and nô; though it must be pointed out here that in modern (contemporary) Ga a semantic differentiation of the two verbs is in evidence which appears to be greater than it may have been in the past. Also, Wilkie was not a native speaker of the language, and may have emphasized similarities at the expense of nuances of semantic difference apparent to Ga's.

An even closer relationship between the two verbs was postulated by Zimmerman [1858]. In Vol. II, p. 143 he writes "kê, auxiliary verb,...without inflection...originally to take, to hold =nô, with which it changes [does he mean 'alternates'? H. T.] and which must be used, if an inflection of the auxiliary is necessary...It expresses generally the relation of connection, instrumentality, etc. as the prepositions 'with, by, through' or the conjunction 'and' as far as the latter connects subjects and objects, but not verbs (for these see 'ni'...)."

Note that the last remark anticipates the hypothesis of this paper! It is Zimmerman's own examples (Vol. I, p. 49) of parallel use of the two verbs (note that he gives one and the same gloss for both sentences!) that we have adapted (in its modern form) to illustrate the semantic difference between kër and nô.
demonstrate in what way the restriction on pronominalization outlined in section 2 can be said to be relevant to its interpretation.

4.1. We have already mentioned in passing (cf. footnote 4) that while (à)dò (which is used to express alternatives and can—herein superficially like ke—stand between NP's) can link not only NP's, but also VP's and sentences, ke on the other hand is interestingly restricted to the linking of NP's. We shall try to argue that this is not a trivial observation, but a significant fact which has to do with the inherent verbal nature of ke.

When one pronominalizes the NP's preceding and following ke (in its supposedly "conjunctival" use as NP-linker), an interesting fact comes to light. Consider some examples:

(25) kòfì ke àkúdé é-dzo\(^{17}\) fö Kotì and Akua have run away.'

may be pronominalized:

(26) è ke lè é-dzo fö He and she have run away.'

On the other hand if the second NP is [-anim]

(27) kòfì ke wòló é-dzo fö Kofi with book has run away

is pronominalized

(28) è ke Ø é-dzo fö he with (it) has run away

(Note that this will be pronounced: [èkédzò fö], due to the total (tonal and segmental) "fusion" of ke with the é following.)

\(^{17}\) The high-tone é-prefix is the past-marker of the verb and has nothing to do with the third person singular subject pronoun.
4.2. Examples like these (which could readily be multiplied) show that though superficially $k$ may appear to act as a conjunction, whenever a [-anim] NP follows the $k$ and we pronominalize, this NP is given the same "zero pronominalization" that it would have had if it were the inanimate object of a verb, resulting in the structures familiar from the preceding sections.

The power to cause the tell-tale "zero pronominalization" gives the $k$ away as a verb even in its "conjunctival" disguise as an NP-linker.

Not only does its interpretation as a conjunction fail to explain its peculiar restriction to liking NP's, and NP's only (while $n^1$, the "true conjunction", must be used to conjoin VP's and sentences); but it further creates an (unnecessary) exception to the rules of pronominalization: if both the NP's which are linked by a $k$ were to be "subject" NP's why should the one following the $k$ be subject to "zero pronominalization" (like all "object" NP's) whenever it had the feature [-anim], rather than being pronominalized (unaffected by this feature) like all other "subject" NP's?

By assigning the $k$ verbal status throughout, such "anomalies" are removed from the grammar and explained insightfully as the regularities they are.

5. Rather than following the phrase structure rule hypothesis for generating conjunction structures we shall (with Tai [1969]) adopt the transformational hypothesis.

5.1. We propose to derive our input phrase marker in accordance with Ross' rule schema for conjunction (see e.g. Ross [1968] 4.2.2, which we slightly modify):

$$S \rightarrow \text{Link} \circ^n$$

where $n \geq 2$

This generates:

```
S \rightarrow Link \circ^n
```

```
Link
  \rightarrow S_0
  \rightarrow S_1 \quad S_2 \quad S_3 \quad \ldots \quad S_n
```
Through a (universal) principle of Conjunction Copying this becomes:

```
S
  /\  /\  /\ ...
S  S  S  S
Link S  Link S  Link S
```

and if the Link element has been rewritten as a "true conjunction", its first instance (in Ga as in English) will be deleted. When the link element is rewritten as "serial", the Conjunction Copying principle is not applied.

Ross interestingly says [1968:92]: "the semantic interpretation of conjunctions, under this analysis, is much more in line with the traditional logical analysis of conjunctions, which treats them as n-place predicates."

In contrast to Bamgbose [1972] we consider the underlying structures we are concerned with here to be of the following kind, closely akin to coordination (the relationship with which may be further documented by the shared requirement of Equi-NP deletion), except that the link element is identified as "serial" and associated with \( k \), and will not have any surface-structure mapping apart from the latter:

```
S_0
  \( \text{Link (serial)} \)
  /\  /\  /\ ...
S_1  S_2
  /\  /\  /\ ...
NP_1 VP_1  NP_3 VP_2
  /\  /\  /\ ...
NP_2  NP_4
     /\  /\  /\ ...
V  NP Y  V  NP Z
     /\  /\  /\ ...
X  \( k \)  Y  X  \( \text{main verb} \)
```

5.2. \( NP_1 \) and \( NP_3 \) in the tree must have a common reference, which brings about (obligatory) Equi-NP deletion, which erases the \( NP_3 \) in \( S_2 \) (the directionality of deletion is as postulated by Ross in his Gapping Hypothesis, and by Wang [1967]: namely that in VP-conjunction if NP's have identity of reference we delete all but the first one).
After deletion Ross' metarule which prunes a labelled node \( S \) whenever no branching takes place any more is invoked to prune \( S_2 \) (cf. Ross [1969]). Following this \( V P_2 \) is attached to \( V P_1 \) by Chomsky-adjunction, an elementary transformation, by the creation of a new node \( V P \) to dominate both \( V P_1 \) and \( V P_2 \), giving the following structure:

\[
\begin{array}{c}
S_0 \\
\text{Link (serial)} \\
S_1 \\
NP_1 \rightarrow V \rightarrow VP_1 \rightarrow V \rightarrow NP_2 \\
X \rightarrow kɛ \rightarrow Y \rightarrow \text{main} \rightarrow Z \\
\end{array}
\]

As nothing depends from the node \textbf{Link (serial)} in serial verbal constructions, this will be pruned, and then the non-branching node \( S_0 \). We thus obtain the following surface structure (for a possible example):

\[
\begin{array}{c}
S \\
\text{NP} \\
\text{VP} \\
\text{VP} \\
\text{VP} \\
\text{VP} \\
\text{VP} \\
\text{NP} \\
\text{NP} \\
\text{NP} \\
\end{array}
\]

Kofi with his brother beat them
5.3. As has been mentioned above, kè is marked in respect of its inflective potential (cf. footnote 14). We suggest that it is also marked in involving particular semantic interpretation rules to account for different readings of \( X \text{kè} Y \text{vb} Z \) as (a): 'X together with Y vb Z', (b): 'X vb Z in presence of Y', (c): 'X use Y to vb Z', etc.

6. To conclude: there were two possible solutions to the third alternative interpretation outlined in Section 1.

Solution (3a) would have to re-interpret the "conjunctival" use of kè as verbal: the interpretation we have attempted to motivate in this paper.

Solution (3b) would have to re-interpret the verbal use of kè as being, in fact, "conjunctival". Nobody has ever attempted to show this for Ga, and we hope to have made clear that this would indeed be an improper interpretation. The form kè is not inflected, to be sure, but neither are several other frequently used verbs. And the fact that kè "causes" pronominalization in all its uses makes its interpretation as a verb much more plausible, as this is something that conjunctions "do not do".

18 George Clements points out [personal communication] that in the Anglo dialect of Ewe (another language of the "Western Kwa" group) kpi6, the NP-linker, takes pronouns from the object series and can be shown to have verbal characteristics (though it cannot be used as a main verb).
REFERENCES


Wang, W. S-Y. 1967. "Conjoining and deletion in Mandarin syntax". In Project on Linguistic Analysis Reports, 2nd series, no. 3, University of California, Berkeley, Phonology Laboratory.


Zimmermann, J. 1858. A Grammatical Sketch of the Akra- or Ga-Language, with some Specimens of it from the Mouth of the Natives and a Vocabulary of the same. Stuttgart (in two volumes). Reprint, Farnborough, Hants (1972).