Clausal Identity Types

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Departing from the main theme of the conference, namely that "Agreement and Government are two types of featural dependency which link linguistic elements making up a clause", we will explore clausal constructions in Akan.
As a working hypothesis we assume that government and agreement are basic attributes, which allows us to derive a matrix of clausal types.

We use this matrix to explore clausal dependencies.

<table>
<thead>
<tr>
<th>ID</th>
<th>binary feature matrix</th>
<th>label</th>
</tr>
</thead>
<tbody>
<tr>
<td>CI-1</td>
<td>[government +]</td>
<td>[agreement - ]</td>
</tr>
<tr>
<td>CI-2</td>
<td>[government –]</td>
<td>[agreement +]</td>
</tr>
<tr>
<td>CI-3</td>
<td>[government +]</td>
<td>[agreement +]</td>
</tr>
<tr>
<td>CI-4</td>
<td>[government - ]</td>
<td>[agreement - ]</td>
</tr>
</tbody>
</table>
Issues...

Consecutive marking in serial verb constructions. Are we looking at V1-V2 agreement or infinitive adjunction?

If we are right, at least some SVCs need to be re-analysed as single predicate clauses of the form $\text{VP[V ... VP-inf[V ...]]}$

**Clause-spanning TAM and Polarity agreement**

not only in SVCs, but also across subordinate clauses, complement clauses and look-like SVCs

Clausal identity through **Tone marking**
Akan is one of the official languages of Ghana (20 million speakers).


I also make use of a small annotated corpus of Akan consisting of 2980 words and 3935 annotated morphemes which has been compiled by native speakers of Akan as part of their own work on TypeCraft (a collaborative linguistic database).

The Akan corpus is freely available under www.typecraft.org where you also find all the examples used in this work.
1. Consecutive agreement or phrasal "deranking"?

Let us look at what has been called the Consecutive since Christaller (1875)¹. A consecutive marker, sometimes called Consecutive Tense or Consecutive Aspect occurs on all but the initial verb of an Akan SVC, independent of its type. In an Akan SVC, verbs must agree in Tense and Aspect, as well as in Polarity and Mood. The consecutive occurs only when following a V1 in the progressive aspect or in the future tense, and only in the latter case it is obligatory. Using a progressive V1 we illustrate this fact in (1), but instead of glossing the prefix on V2 as CONS we gloss it as INF and refer to it as A-form.²

(1) ṭretrá hɔádì gúₐ
“He is staying there to trade”
ôrè trá hɔ́ádì gúa s
ô rè trá hɔ́ádì gúa
he.3SG PROG stay INF engage.in trade.V>N
PRO V ADV V V

(2) àmfá bí ánkýèr é
“He did not take any to show us”
ô àm fá bí á `n kyèrɛ́
SG PAST NEG take some PAST NEG show
PRO V QUANT V

(3) rémfá bí ákyèr é yén
“He is not taking any to show us”
ô ré m fá bí á kyèrɛ́ yén
he.SBJ.3SG PROG NEG take some INF show us.OBJ2
PRO V QUANT V PRON

(2) is a negated past tense construction where V1 and V2 agree in tense and polarity. To negate à-kyèrɛ́ in (3), however, (as à-n-kyèrɛ́), would make it ungrammatical. Since Akan scholars unanimously agree that verbs in an SVC share TAM features, as well as Polarity, it is even more remarkable that polarity agreement in (3) leads to ungrammatically. Boadi (2008) uses this fact to claim that sentences like (1) and (3) are not SVCs since the clause headed by ’V2’ "falls outside of the domain of that (SVC) construction”, as he puts it. Although it is widely agreed upon that in

¹ For more references and discussion see Boadi (2008, p.45)
² All examples are taken from Boadi’s work if not indicated otherwise. MORE IGT from Akan can be found at www.typecraft.org
constructions such as (1) and (3), V2 expresses the purpose or the goal of the event denoted by V1, no agreement has been reached concerning the syntactic nature of this construction. In (4) and (5) we make use of the fact that in progressive constructions A-form V2s are optional, that is, V2 either carries a re-prefix or it is marked by the a-prefix. While (4) denotes two sequential events, the V2 in (5) expresses the purpose of the event introduced by V1. TAM agreement and A-forms thus introduces two different clausal meanings.

(4) ó rètó bi rèkò
“He is buying some and goes.”

<table>
<thead>
<tr>
<th>3SG.SBJ</th>
<th>PROG</th>
<th>buy</th>
<th>some.INDEF</th>
<th>PROG</th>
<th>go</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRON</td>
<td>V</td>
<td>QUANT</td>
<td>V</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(5) ó rètó bi àkò
“He is buying some to take away”

<table>
<thead>
<tr>
<th>3SG.SBJ</th>
<th>PROG</th>
<th>buy</th>
<th>some.INDEF</th>
<th>INF</th>
<th>go</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRON</td>
<td>V1</td>
<td>QUANT</td>
<td>V2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A-forms are by no means restricted to constructions like the ones we have seen so far, yet, whatever they do, they may not occur as main verbs, which is in fact surprising if /a/ marks a tense or an aspect. Boadi argues that A-form verbs head subordinate clauses throughout the grammar. An illustration of an A-form subordinate clause is given in (6) where a chain of such A-form clauses follows the conjunctive particle nà:
(6) **nà ŋàny Ėₘé áns Ėₑ mé ná àmánfò ān séré mé**

"...in order for him not to insult me and destroy me and for the citizens to laugh at me"

nà ɔ ànyé mé ánsé e mé ná
na ɔ àn yé mé án sée mé ná

so.that he.3SG INF NEG insult me.OBJ INF NEG destroy me.OBJ and

CONJ PRON V PRON V PRON CONJ

àmánfò ān séré mé
àmánfò án séré mé
citizens.SBJ INF NEG laugh.at me.OBJ
N V PRON

Notice en passant that the conjunctive particle *nà*, unlike English conjunctions, has many different readings, such as 'but', 'and' 'in order to' or 'before'. It in fact appears as if it is the constructions that determines the particles specific meaning rather than the other way around.

(6) shows that clauses headed by an A-form verb can be strung together. They may be internally complex, that is, they may be composed of several A-form verbs and their clauses. (6) further shows that within this complex structure all verbs need to agree in Polarity. Notice also that the second occurrence of the conjunctive particle, translated as 'and' does not function as a barrier for polarity agreement. Important to notice is also that A-forms in construction with conjunctive particles allow pronominal subjects, as shown in (6). We know already that this is not the case in SVCs where they share a subject with V1. Also when they combine with a complement taking verb, they do not allow a subject (10). Whether the latter construction is also an SVC does not need to be decided at this point, what matters is that A-forms do not take subjects in V1-V2 constructions but that they do so when combining with conjunctive particles to form a subordinate clause.

(10) **me repɛ Kofi akɔ**

“intended meaning: I want Kofi to go.”

me repɛ Kofi akɔ
me rè pe kofi a kɔ
Digression - the Future SVC

Let us now look at SVCs where the first verb, V1, is a future verb and then V2 necessarily becomes an A-form. We will call this construction an V1asp-V2inf-construction. Bɛ[HT] is the Future marker in Akan, yet, it can only mark the first verb of a multi-headed construction and then is necessarily followed by A-forms (7).

(7) Esther bɛfa oslo akɔ Germany

“Esther will pass through Oslo to go to Germany”

Bɛ[HT] is by most Akan scholars classified as a preverb which is derived from the verb ba ‘to go’. Kropp Dakubu (2007) has shown that preverbs in Ga, also a Kwa language spoken in Ghana, carry aspect markers. It might therefore be reasonable to assume that also in Akan preverbs can host verbal inflection. Still, given the Ga pattern, we might want to assume that bɛ[HT] is not an inflectional prefix, such as re is, and therefore does not occur as an agreement marker on a V2.

Let us note in passing that bɛ[HT] can combine with the progressive prefix re to form rebɛ. This complex prefix expresses the immediate future and can appear in SVC TAM agreement also on consecutive verbs. Although it seems as if we have found a plausible explanation for why we do not find bɛ as future marker under TAM agreement, we have not explained why A-forms are used instead.

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3 If Future is an aspect or a tense in Akan is a matter of debate. For labeling purposes we treat the Future as an aspect in Akan.
We have seen that A-forms
nen neither inflect for Tense and Aspect nor head main clauses.
allow subjects when in construction with a conjunctive particle but not when in construction with a V1.
can be juxtaposed forming a complex “deranked” clause, and if so, agree in Polarity.
We suggest to categorise what as been classified as consecutive SVCs as an **V1asp-V2inf construction**

We suggest to treat **V2infs** as **infinitival adjuncts** when in direct construction with a verbal predicate.

**Clause-spanning verbal agreement**

**Tone and clausal identity**
2. Agreement throughout

Complement taking verbs such as *hwehwɛ́ 'seek' and bɔ́ 'try' can enter into two clausal pattern, as discussed by Boadi (2005):

(8a) **me rehwehwɛ́ əfi hánɔ́m**

“I intend to leave the neighborhood”

<table>
<thead>
<tr>
<th>me</th>
<th>rehwehwɛ́</th>
<th>əfi</th>
<th>hánɔ́m</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG</td>
<td>PROG</td>
<td>seek</td>
<td>INF</td>
</tr>
</tbody>
</table>

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(8b) **me rhwehwɛ́ sɛ mɛ əbɛfi hánɔ́m**

“I am seeking to leave this neighborhood.”

<table>
<thead>
<tr>
<th>me</th>
<th>hwehwɛ́</th>
<th>sɛ</th>
<th>mɛ</th>
<th>əbɛfi</th>
<th>hánɔ́m</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG</td>
<td>seek</td>
<td>STAT.</td>
<td>I.1SG</td>
<td>FUT</td>
<td>leave</td>
</tr>
</tbody>
</table>

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(9a) **me rebɔ́ mbɔ́dem awiɛ́ adwùma yi ánsa**

“I am trying to finish this work first.”

<table>
<thead>
<tr>
<th>me</th>
<th>rebɔ́</th>
<th>mbɔ́dem</th>
<th>awiɛ́</th>
<th>adwùma</th>
<th>yi</th>
<th>ánsa</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG</td>
<td>PROG</td>
<td>try</td>
<td>INF</td>
<td>finish</td>
<td>work</td>
<td>this.DEF</td>
</tr>
</tbody>
</table>

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While in the (b) sentences above the main predicate selects a complement clause, the (a) sentences show the same verbs in construction with an A-form clause. This makes clear that these clauses cannot only play the role of adjuncts but also occur in selected positions.

Akan complement taking verbs behave as expected. They select subordinate clauses, and subtypes thereof such as the V1asp-V2inf-clauses (A-clauses for short) that we have identified. Coming back to the conference theme, we see that government is, perhaps not very surprisingly so, also a factor in Akan, yet, we would be seriously mistaken to assume that Akan complement verbs are restricted to one clausal pattern. To be of a certain subcategorization frame is for an Akan verb rather a soft constraint than a categorical one. Take the verb *bisá 'ask'*. It enters into a $\text{vp[V COMP]}$ sentence schema in (11a). The conjunctive particle $\text{sè}$ may mean many things, a fact about particles that we observed before, and in the context of *bisá 'ask' it means 'whether'. Yet, *bisá* may also enter into a different type of construction which is shown in (11b).

(9b) **me rebó mbødем sè me bë wié adwùma yi ánśa**

“I am trying to finish this job first.”

<table>
<thead>
<tr>
<th>me rebó mbødем sè me bë wié adwùma yi</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG PROG try 1SG FUT finish work this.DEF</td>
</tr>
</tbody>
</table>

ánśa

before

ADV

“Kofi asked whether he came or not”

(11a) **obisáà sè obae aná**

<table>
<thead>
<tr>
<th>obisáà sè obae aná</th>
</tr>
</thead>
<tbody>
<tr>
<td>3SG ask PAST 3SG come PAST Wh</td>
</tr>
</tbody>
</table>

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(11b) **Kofi bisáá nó màa ṣ maa no bi**

“Kofi asked him to give him some, and he did”

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Kofi    bisáá    nó    màa    ṣ    maa    no
kofi    bisá́    à    nó    màà    a    ṣ    maa    a    no
kofi    ask    PAST    3SG    CAUSE    PAST    3SG.SBJ    give    PAST    3SG
PN      PRON    V      PRON    V      PRON
```

bi

bi

some.INDEF

QUANT

(11b) is not an SVC since the verbs do not share one subject, yet it is also not a subordinating structure. Sentential consistency is again achieved through the agreement between the V1 which is the complement taking verb, and the verb *ma* as V2 and V3. *Ma*, like the majority of Akan verbs, stands for cluster of meanings only one of which corresponds to the English ditransitive verb 'give'. In (11b) *ma* appears twice, as V2 it marks causation while as verb V3 it conveys transfer.

We now turn to the expression of parallel events. The data is taken from Boadi (2008). Parallel events in English are prototypically combined with conjunctions such as 'when' or 'by the time'. Akan uses the temporal adverb *né* and the particle *ná* (the latter is distinguished from the conjunctive particle *ná* by Tone). Also in this construction type coherency is established by tense/aspect agreement.

(12a) **wó bàè nó ná ò ndùrù nè bà**

“When you came she used to carry her child”

```
wó    bàè    nó    ná    ó    ndùrù    nè    bà
wó    bàè    è    nó    ná    ó    ndùrù    nè    bà
You.2SG    come    PAST    PAST    3SG    carry.HAB    POSS    baby
N      V      ADVtemp    PART    PRON    V      PRON    N
```

Generated in TypeCraft.
(12b) wó bëbá nó ná ṣtűrù nè bá
“When you will come she will be caring her child”

wó bëbá nó ná ṣtűrù nè bá
wó bë bá nó ná ṣ tűrù nè bá
You.2SG FUT come FUT 3SG carry.HAB POSS baby
N V ADVtemp PART PRON V PRON N

Ná expresses tense in (12) while the V2 carries the aspect. Notice that ná is perceived by Akan grammarians as particle rather than as a verb. Which tense ná expresses is determined by V1, alias clause spanning agreement. It is Future when the first verb is Future (12b) and it is Past when the first verb is Past (12a). Note incidentally, that (12) is not a symmetric construction, it is V1 that determines the tense of the clause - against what we would expect if we were to categorise nó as subordinating conjunction, and the clause that is headed by V1 as a subordinate clause.

4 Tone
Last but not least let us point out the crucial role that Tone plays in the identification of clauses. Abakah & Koranteng show that in the absence of conjunctive particles, a subordinate clause can only be distinguished from a main clause by an initial vocalic Tone Bearing Unit leading to minimal pairs like the following, taken from Abakah's & Koranteng's work:

(13a) ṣfaa adar no ara
“S/he picked up the machete.”

ṣ faa adar no ara
ṣ fa a dar no ara
3SG take machete DEF FOC
PRON Vtr DET PART

(13b) ṣfaa adar no ara
“While s/he picked up the machete...”

ṣ faa adar no ara
ṣ fa a adar no ara
(14a) Étɔɔn ekutu no wiei

“S/he was selling the oranges”

Étɔɔn  ekutu no wiei
è  to  on  ekutu no wiei
2SG  sell  PAST  orange  DEF
V  N

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(14b) Étɔɔn ekutu no wiei

“When you finish selling the oranges”

Étɔɔn  ekutu no wiei
è  to  on  ekutu no wiei
2SG  sell  PAST  orange  DEF
V  N  DET

Generated in TypeCraft.

References

Let us summarise.

Akan clausal identity is established by clause-spanning verbal TAM and Polarity agreement Tone, that is, "prosodification" of the clausal structure (Hyman 2000).

We observed Construction driven rather than government driven dependencies: even complement verbs may enter into constructions with several juxtaposed verbs.
We would like to call the type of agreement described for Akan *grammaticalisation of event flows*.

Akan verbs can be grouped into different subcategorisation classes with arguments that need to be realised, yet, Akan seems to treat subcategorisation like a soft constraint rather than a categorical one.
Our findings confirm Hyman (2000) who compares Kwa verbs with Bantu verbs concluding that:

**Kwa verbs**
- lost their extension morphology
- preserved Aspect/Tense inflection
- are isolating and use serial verb constructions and adpositional constructions to form coherent clausal units.
- standardly support only one argument

We would like to add here that argument licensing might be more a clausal construct than a lexical specification and subcategorisation rather than a soft constraint than hardwired.
Future research ...

More in-depth annotated data is needed.

Improved (in terms of depth and consistency) morph-level annotation, as well as consistent annotation of sentence prosody. Important is the labeling of dialects. At present it is hard to distinguish noisy data from data that reflects dialect variation.

Naturally occurring language

The classification of Akan constructions will have to go along with a better overview of how often and in which context these constructions occur.