



NTNU

Innovation and Creativity



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.

ID	binary feature matrix		label
CI-1	[government +]	[agreement -]	reaktion
CI-2	[government -]	[agreement +]	concord
CI-3	[government +]	[agreement +]	head marking
CI-4	[government -]	[agreement -]	adjunction

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 $_{VP}[V \dots _{VP-inf}[V \dots]]$

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 mainly use data from Twi and rely heavily Boadi's work (2005, 2008) and work by Abakah (2004) and Abakah & Koranteng on Tone in Akan (2006).

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) òrètrá h́ óádì gúá

"He is staying there to trade"

ò	rètrá	h́	ádì	gúá	s
ò	rè	trá	h́	á	dì gúá
he.3SG	PROG	stay	INF	engage.in	trade.V>N
PRO	V	ADV	V	V	

(2) òàm fá bí á`nkyèr é

"He did not take any to show us"

ò	à	m	fá	bí	á	`n	kyèr é
SG	PAST	NEG	take	some	PAST	NEG	show
PRO	V		QUANT	V			

(3) òrémfá bí àkyèr é` yén

"He is not taking any to show us"

ò	ré	m	fá	bí	à	kyèr é	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-kyèr é* in (3), however, (as *à-n-kyèr é*), 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 ungrammaticality. 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) òrètó bi rẹ̀kò

“*He is buying some and goes.*”

ò	rètó	bi	rẹ̀kò
ò	rè	tó bi	rè kò
3SG.SBJ	PROG	buy some.INDEF	PROG go
PRON	V	QUANT	V

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(5) òrètó bi àkò

“*He is buying some to take away*”

ò	rètó	bi	àkò
ò	rè	tó bi	à kò
3SG.SBJ	PROG	buy some.INDEF	INF go
PRON	V1	QUANT	V2

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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 ǝ̀ ànyé mé ánsé'e mé ná àmánfò ǝ̀ ánséré mé

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

nà ǝ̀ ànyé mé ánsé'e mé ná
na ǝ̀ à n yé mé á n sɛ́ 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 ánséré mé
àmánfò á n séré mé
citizens.SBJ INF NEG laugh.at me.OBJ
N V PRON

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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 pɛ kofi a kɔ

1SG PROG *want kofi* INF *go*
 PRON V PN V

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**³. *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*”

Esther	bɛfa	Oslo	akɔ	Germany		
esther	bɛ	fa	Oslo	a	kɔ	germany
SBJ	FUT	<i>pass</i>	OBJ2	INF	<i>go</i>	OBJ
PN	V		PN	V		PN

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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 *rɛ* 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 *rɛ* to form *rɛbɛ*. 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.

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

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 has 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 *hwehwɛ* 'seek' and *bɔ* 'try' can enter into two clausal pattern, as discussed by Boadi (2005):

(8a) me rehwehwé a fi hánòm

"I intend to leave the neighborhood"

me	rehwehwé	afi	hánòm
me	re	hwehwé a	fi hánòm
1SG	PROG	<i>seek</i>	INF <i>come.out here-and-about</i>
PRON	V	V	N

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(8b) me rhwehwés ɛ mè bɛfi hánòm

"I am seeking to leave this neighborhood."

me	hwehwé	sɛ	mè	bɛfi	hánòm
me	hwehwé	sɛ	mè	bé	fi hánòm
1SG	<i>seek.STAT</i>		I.1SG	FUT	<i>leave here-and-about</i>
PRON	V	CONJ	PRON	V	N

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(9a) me rebɔ mbɔdem awié adwùma yi ánsa

"I am trying to finish this work first."

me	rebɔ	mbɔdem	awié	adwùma	yi	ánsa
me	re	bɔ	mbɔdem	a	wié	adwùma yi ánsa
1SG	PROG	<i>try</i>	INF	<i>finish work</i>	<i>this.DEF</i>	<i>before</i>
PRON	V		V	N	DEM	ADV

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(9b) **me rebó mbɔdem sɛ me bɛ́ wié adwùma yi ánsa**

“I am trying to finish this job first.”

me	rebó	mbɔdem	sɛ	me	bɛ́	wié	adwùma	yi	
me	rè	bó	mbɔdem	sɛ	me	bɛ́	wié	adwùma	yi
1SG	PROG	try		1SG	FUT	finish	work	this.DEF	
PRON	V		CONJ	PRON	V		N	DEM	

ánsa

ánsa

before

ADV

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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 $_{vp}[V COMP]$ sentence schema in (11a). The conjunctive particle *sɛ* 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).

(11a) **ɔbisáà sɛ́ ɔbae aná**

“Kofi asked whether he came or not”

ɔbisáà	sɛ́	ɔbae	aná				
ɔ	bisá	à	sɛ́	ɔ	ba	e	aná
3SG	ask	PAST		3SG	come	PAST	
V		CONJ	V			Wh	

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(11b) **Kofi bisáà nó màa ɔ maa no bi**

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

Kofi	bisáà	nó	màa	ɔ	maa	no			
kofi	bisá	à	nó	mà	a	ɔ	ma	a	no
<i>kofi</i>	<i>ask</i>	PAST	3SG	CAUSE	PAST	3SG.SBJ	<i>give</i>	PAST	3SG
PN		PRON	V		PRON	V		PRON	

bi

bi

some.INDEF

QUANT

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(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 *nó* and the particle *ná* (the latter is distinguished from the conjunctive particle *nà* by Tone). Also in this construction type coherency is established by tense/aspect agreement.

(12a) **wó báè nó ná ɔ̀ túrù nè bá**

“When you came she used to carry her child”

wó	báè	nó	ná	ɔ̀	túrù	nè	bá	
wó	bá	è	nó	ná	ɔ̀	túrù	nè	bá
<i>You</i> .2SG	<i>come</i>	PAST		PAST	3SG	<i>carry</i> .HAB	POSS	<i>baby</i>
N	V		ADVtemp	PART	PRON	V	PRON	N

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(12b) wó bɛ́á nó ná ɔ̀ túrù nè bá

“When you will come she will be caring her child”

wó	bɛ́á	nó	ná	ɔ̀	túrù	nè	bá	
wó	bɛ́	bá	nó	ná	ɔ̀	túrù	nè	bá
You.2SG	FUT	come		FUT	3SG	carry.HAB	POSS	baby
N	V	ADVtemp	PART	PRON	V	PRON	N	

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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) ɔ̀ faa adar no ara

“S/he picked up the machete.”

ɔ̀	faa	adar	no	ara
ɔ̀	fa	adar	no	ara
3SG	take	machete	DEF	FOC
PRON	Vtr		DET	PART

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(13b) ɔ́ faa adar no ara

“While s/he picked up the machete...”

ɔ́	faa	adar	no	ara	
ɔ́	fa	a	adar	no	ara

(14a) **Ètɔɔn ekutu no wiei**

“S/he was selling the oranges”

Ètɔɔn ekutu no wiei
è tɔ ɔn 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
é tɔ ɔn ekutu no wiei
2SG *sell* PAST *orange* DEF
V N DET

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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 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.

