The Syntax of Complement Clauses in Asante Twi

Gregory M. Kobele and Harold Torrence kobele@humnet.ucla.edu torrence@humnet.ucla.edu

1. Introduction

The study of complementation has provided rich and varied data concering the general structure of clauses (Bresnan 1970, etc.) Following along these lines, the goal of this paper is to establish a taxonomy of complement type in Asante Twi, an Akan language spoken in Ghana.(The basic word order of Asante Twi is SVO:

1) Kofi b(-(Yaa	SVO
Kofi hit-Pst Yaa	
"Kofi hit Yaa"	

However, other orders are possible, depending on the construction type:

2) a.	Kof	i de safoa no bue-e apono no	Instr VO
		Kofi de key the open-Pst door the	
		"Kofi opened the door with the key"	
	b.	Yaa na Kofi b(OSV
		Yaa foc Kofi hit	
		"It's Yaa that Kofi hits"	

As the examples show, instrumental objects precede the verb, while in a focus construction, the focused object appears sentence initially.

Boadi 1972 and Osam 1998 looked at the syntax and interpretation of various types of clausal complements in Akan. Using this work as a foundation, we expand the set of complement types examined and explore some of the morpho-syntactic and interpretive properties associated with them.

We look at here three basic complement constructions, which we will refer to as the OV, s(, and ma types, respectively.

3) Me-kyiri nam noa	OV-Type
1sg-hate fish cook	
"I hate cooking fish"	

4) me-p(s(me-noa nam 1sg-like s(1sg-cook fish "I want to cook fish" s(-Type

5) me-hye-e Kofi **ma** (-noa-a nam 1sg-force-Pst Kofi *ma* 3sg-cook-Pst fish "I forced Kofi to cook fish"

Note that in (3) the object of the embedded verb precedes the verb, while in (4) and (5) the object follows the selecting verb.

ma-Type

The paper is organized as follows. First we look at the OV complement type, and related constructions. From this, we move to verbs that alternate and take either OV or s(complements. This leads to a comparison of the control complement-taking verbs with s(and bridge verbs which take s(complements. The final major section examines the properties of *ma* clauses and compares them to serial constructions in Asante Twi.

2. OV-Complement Clauses

There are several verbs which take OV complement clauses. These include *kyiri* 'hate', and *gyae* 'stop', exemplified below:

6) a.	me-twa-a bayer((V 1sg-cut-Pst yam "I cut yams"	0
	 b. me-kyiri bayer(twa 1sg-hate yam cut "I hate cutting yams" 	OV
	c. *me-kyiri twa bayer((1sg-hate cut yam "I like cutting yams"	VO
	d. me-gyaae bayer(twa kyiri 1sg-stop.past yam cut hate "I stopped hating cutting yams"	V [[OV] V]

Comparing (6)a to (6)b and (6)c, it is seen that (6)a has the expected OV order. However, once embedded under *kyiri* 'hate', VO is impossible. The OV construction admits recursion (although it becomes difficult to process), as indicated in (6)d, above.[1]

Examples like (6)b and (6)d do not seem to be instances of noun incorporation simpliciter because, the object nominal can carry numerals, determiners, and demonstratives, for example, unlike canonical cases of noun incorporation (Baker 1988):

OV

7) me-kyiri saa bayer(yi twa 1sg-hate this yam this cut "I hate cutting THIS yam"

Most verbs which select for an OV complement also allow for a *s*(complement clause (with the choice of one excluding the other):

8) me-nim twene b(nim + OV
1sg-know drum hit	
"I know how to play the drum"	
9) me-nim s(me b(twene	nim + s(VO)
1sg-know s(1sg-hit drum	
"I know that I play the drum"	

With some verbs (e.g. '*nim*' know, '*kae*' remember, etc), the choice between the OV or the s(constructions accompanies a regular meaning change (e.g. knowing *how* vs. knowing *that*). When this is the case, the OV complement clause may be substituted for by a manner relative clause introduced by '*s*(*nea*':

10) me-nim s(nea y(-b(twene 1sg-know s(nea 1pl-hit drum "I know how to play the drums"

There are several facts which suggest that the OV type complement clauses above are 'smaller' than a full clause, and, possibly are some species of nominal. First, OV complements cannot contain tense or negation morphemes (10), although they may contain adverbs (11):

- 11) me-nim twene (*b(/re/a/m-) b((*-(() 1sg-know drum (fut./prog./perf./neg.) hit (-Pst) "I know how to play the drums"
- 12) me-nim twene b(**br(oo** 1sg-know drum hit slowly "I know how to play the drums slowly"

Second, Asante Twi has a set of Negative Polarity Items (NPI), which must occur with clausemate negation:

13) wo-*(n)-y(hwee	Matrix CP
2sg-(neg)-do anything	
"you do (not) do anything"	
14) a. me-dwene s(wo-*(n)-y(hwee 1sg-think that 2sg-neg-do anthing "I think that you don't do anything"	Embedded CP
b.*me- n -dwene s(wo-y(hwee	Embedded CP
1sg-neg-think that 2sg-do	anything

"I don't think that you do anything"

The examples in (13) show that matrix negation does not license the NPI *hwee* 'anything' in an embedded clause. However, the negation on the matrix verb in an OV complement construction licenses an NPI:

15) me-**n**-nim **hwee** b(1sg-neg-know anything hit "I don't know how to hit anything"

The fact that negation on the main verb in an OV construction licenses '*hwee*' in the OV complement suggests that the OV constructions are mono-clausal.

Finally, the OV type patterns with nominals with respect to conjunction. Asante Twi has two conjunctions, one for clauses, *na* and another for everything smaller, *ne*:[2]

16) a. me-hu-u Kofi ne/na Ama		DP Coordination
1sg-s	ee-Pst Kofi and am	a
"I sav	w Kofi and Ama"	
	ne/na wo-b(-(Yaa	CP Coordination
1sg-see-Pst	Kofi and 2sg-hit-Ps	st yaa
"I saw Kofi	and you hit Yaa"	

Coordination of OV complements allows the DP coordinator, ne:

17) me-p(bayer(twa **ne/na** nam noa OV Coordination 1sg-like yam cut and fish fry "I like cutting yams and frying fish"

OV complements can also be coordinated with manner relative clauses (17):

18) me-reefi s(nea y(-twa bayer(ne nam noa 1sg-forgot s(nea 1pl-cut yam and fish cook "I forgot how to cut yams and cook fish"

Consider now the pattern with Wh questions. Asante Twi allows non-subject Whs to be fronted or in situ (Saah 1994):[3]

19) wo-noa-a nam no 2sg-cook-Pst fish the "you cooked the fish"

20) a. wo-noa-a **den**?

Matrix In-Situ Wh

2sg-cook-Pst what

b.	den	na wo-noa-e?	Matrix Raised Wh
		what foc 2sg-cook-Pst	
		"What did you cook?"	

However, if a Wh is embedded in a DP, then it cannot be in situ and be a matrix question, instead, it is an echo question:

21) a. wo-noa-a Kofi nam no Possessed DP 2sg-cook-Pst Kofi fish the "You cooked Kofi's fish" Wh inside of in situ DP b. *wo-noa-a [hena nam no] 2sg-cook-Pst who fish the (echo only) "Whose fish did you cook?" Wh inside of raised DP c. [hena nam no] na wo-noa-e(who fish the foc 2sg-cook-Pst "Whose fish did you cook?" Tellingly, OV complements pattern with nominals in that a Wh contained in an OV complement must be raised yield an interrogative interpretation (21). Interestingly, the entire OV complement can pied-pipe with the wh-word (22): 22) a. *wo-p(**den** nua In-Situ Wh 2sg-like what cook (echo only) "What do you like to cook?" b. den na wo-p(nua Raised Wh what foc 2sg-like cook "what do you like to cook?"

23) a. *wo-nim hena b(In	Situ Wh
2sg-k	now who hit	(echo only)
"you know h	now to hit who?"	
	no b(foc 2sg-know him know how to hit hi	
c. hena b (na wo-nim who h "who do you know l	it foc 2sg-know (Raised Wh + V him) hit

3. S(Complements

There are four types of s(complements: alternating VO/OV complement verbs, s(control clauses, bridge verbs, and optative s(clauses. All s(clauses have a number of properties in common with main clauses that distinguish them from the OV complement construction discussed above. First, they occur with overt subjects[4], unlike the OV nominal complements. Second, s(clauses are always inflected for tense, mood, and polarity. Third, negation on a matrix verb does not license an NPI inside of a s(complement clause (cf. (13)b and (13)c), unlike OV complements (23). Finally, s(clauses take na as the coordinator (24):

24) a. Kofi j	pene-e so s(o- n -nua hwee [5] Kofi agree-Pst Prt that 3sg-neg-cook anything "Kofi agreed to not cook anything"
	b. *Kofi a- m -pene so s(o-nua hwee Kofi past-neg-agree Prt that 3sg-cook anything "Kofi did not agree to cook anything"
25) mi-reefi	s((m(-twa bayer(na /* ne m(-kan nhoma no 1sg-forget that 1sg.fut-cut yam and 1sg.fut-read book the "I forgot that I will fry the yam and read the book"

It will now be useful to briefly compare complements of bridge verbs, which occur with *s*(and the control type of *s*((complements. It is clear from the similarities that all *s*(complements share that they are likely to be closely related from a morpho-syntactic perspective. However, we have found one striking difference between *s*(complements of bridge verbs and *s*(complements of control verbs. This concerns the distribution of wh-words. Wh-in-situ yields an appropriate question only for bridge verbs like *dwene* 'think', and is only acceptable with an echo interpretation on control-type verbs (25). The left dislocation question formation strategy is acceptable for both kinds of verb :

26) a.	wo-dwene s(me-y(-((den	Bridg	e with s(Complement
		2sg-think that 1sg-do-Pst what		
		"What do you	think that I did?"	
	b.	*wo-kyiri s(wo-y(-((den	Control with s(Complement
		2sg-hate that 2sg-do	o-Pst what	(echo only)
		"What do you	hate that you did?"	

Here we briefly describe another subset of s(complements. These are embedded optative clauses, which only occur under a very restricted set of matrix predicates, such as *tea mu* (*gu so*)'shout (at)', and *ka kyer*('tell'. Optative clauses are characterized by the presence of a high toned *n* in the affirmative and a high toned *ma* in the negative.

27) a. (- n -noa	nam no	Affirmative Optative		
	3sg-opt-cook fish the "He should cook the fish!"			
b.	ma (- n -noa nam no opt 3sg-neg-cook fish the "He should not cook the fish!	Negative Optative		
с.	noa nam no cook fish the "cook the fish!"	Imperative		

When embedded under one of the above verbs, the optative s(clause expresses the content of the shouting/telling. When the object of the verb is the second person singular, the special second person singular imperative form of the verb is used:[6]

28) a. me-ka kyer(-(Kofi s((-n-noa nam no s(+ Optative 1sg-say show-Pst Kofi s(3sg-opt-cook fish the "I told Kofi, 'cook the fish!'"
b. me-ka kyer((wo s(noa nam no 1sg-say show 2sg s(cook fish the "I told you, 'cook the fish!'")

4. Ma Complement Clauses

Some verbs may select for the factive complementizer, *ma* (Osam 1998). Roughly, when factive *ma* occurs, the speaker persupposes the truth or certainty of the complement clause:

29) me-tea-a mu gu-u Kofi so **ma** (-da-a(1sg-shout-Pst Prt drip-Pst Kofi on *ma* 3sg-sleep-Pst "I shouted at Kofi to sleep (and he did sleep)"

The factivity of the complement clause in (28) can be seen by contrasting possible continuations to clauses with s(and those with ma:

30) me-bisa-a	Kofi s((-n-k(,	nanso (-a-n-k(
	1sg-ask-Pst Kofi s(3sg-opt-go, but	3sg-Pst-neg-go		
	"I asked Kofi to go, b	out he didn't go"			
31) #me-bisa-a	. Kofi ma (-k(-((,	nanso (-a-n-k(
	1sg-ask-Pst Kofi ma	<i>i</i> 3sg-go-Pst, but	3sg-Pst-neg-go		
"I asked Kofi to go, but he didn't go"					

The continuations show that only the *s*(clause is compatible with a continuation which contradicts

the proposition expressed in the *s*(clause.

Ma clauses allow for either nominative or genitive subjects. This can be seen by looking at the 3sg subjects, which distinguish nominative and genitive pronouns.

32) a. o -didi	3sg-eat "He ate"	Nominative in Matrix CP		
b. * ne -di	idi	Genitive in Matrix CP		
	3sg-eat "He ate"			
33) a. *o nhoma	3sg book "his book"	Nominative in DP		
b. ne nł	noma 3sg book "his book"	Genitive in DP		
34) a. me-bisa-a Kofi ma	ne -noa-a nam no 1sg-ask-Pst Kofi <i>ma</i> "I asked Kofi to cook t	-		
b. me-bis	sa-a Kofi ma o -noa-a 1sg-ask-Pst Kofi <i>ma</i> 3 "I asked Kofi to cook t	3sg-cook-Pst fish the		
Note that in both of the examples above the embedded ma clause is tensed. It is specifically a property of ma that it allows genitive subjects, not a property of the verb. Consider the following contrast with <i>pene so</i> 'agree (to)', which takes either $s($ or ma :				
		nam no t 3sg _{nom} /3sg _{gen} -cook-Pst fish the (and may or may not have done so)"		
b. Kofi pene-e	so ma o/ne -noa-a Kofi agree-Pst Prt <i>ma</i> "Kofi agreed to cook th	nam no a $3sg_{nom}/3sg_{gen}$ -cook-Pst fish the he fish (and he did)"		

One of the most striking features of *ma* complement clauses is a set of morphologically encoded tense/aspect dependencies between the verb in the matrix clause and the verb in the embedded

clause. Put simply, tense and aspect in *ma* complement clauses have the same distribution as in serial verb constructions. Within a *ma* complement clause, the tense and aspect of the matrix verb determines the spellout of morphological tense and aspect in the embedded clause:

36) a. Kofi b(-pene so (a-)ma ne-*(a-)k(Future Matrix Kofi fut-agree Prt <i>a- ma</i> 3sg- <i>a</i> -go	
"Kofi will agree to go"	
b. Kofi (-pene so (*a-)ma ne-(-k(Present M	Iatrix
Kofi (-agree Prt <i>ma</i> 3sg-(-go	
"Kofi agrees to go (and he does go)"	
c. Kofi a -pene so (a -)ma ne-*(a -)k(Pe	erfect Matrix
Kofi perf-agree Prt a-ma 3sg-a-go	
"Kofi has agreed to go (and has gone)"	
d. Kofi pene- e so ma ne-k(*(- e) Past Matri	iv
Kofi agree-Pst Prt ma 3sg-go-Pst	1X
"Kofi agreed to go (and he went)"	

The examples above show that when a particular tense/aspect appears in the matrix, it corresponds to a distinct tense/aspect morpheme in the embedded clause. Other seemingly logical combinations are not possible:

37) a. *Kofi b (-pene so (b (-)ma ne- b (-k(Future Matrix Kofi fut-agree Prt fut- ma 3sg-fut-go "Kofi will agree to go (and he will go)"	
b. *Kofi pene-e so ma ne-a-k(Kofi agree-Pst Prt ma 3sg-a-go "Kofi agreed to go (and he has gone)"	Past Matrix
c. *Kofi a -pene so ma ne-*(b (-)k(Kofi perf-agree Prt ma 3sg-fut-go "Kofi has agreed to go (and he will go)"	Perfect Matrix

These dependencies in *ma* clauses do not occur in *s*(clauses, where the embedded tense/aspect/polarity is not strictly determined by the matrix. Contrast the following with the examples in (36) above:

38) a.	Kofi b (-pene	so	s(o- b(-k((Future Matrix	, •
				Kofi fut-agree Prt that 3sg-f	ut-go	(cf. (36)a)
				"Kofi will agree that he will go"		

b. Kofi **a**-pene so s(o-**b**(-k((Perfect Matrix Kofi perf-agree Prt that 3sg-fut-go (cf. (36)c) "Kofi has agreed that he will go"

Serial constructions are very common in Asante Twi and other Akan dialects and their properties are well-known (see, Dolphyne 1987, Dolphyne 1988, Campbell 1989, Forson 1990, Osam 1997, Bodomo 1998)). The relevant property of the serial construction is the set of dependencies between the matrix tense/aspect and the embedded tense/aspect, which are identical to those in *ma* clauses:

39) a. Kofi b (-di *(a-)k(Future Matrix			
	Kofi fut-eat <i>a</i> -go "Kofi will eat and go"			
b. Kofi	(-di (-k(Kofi (-eat (-go "Kofi eats and goes"	Present Matrix		
c. Kofi	a -di *(a -)k(Kofi perf-eat <i>a</i> -go "Kofi has eaten and go	Perfect Matrix		

While ma and *s*(never occur within the same clause (i.e. CP), both a *ma* clause and a *s*(clause can co-occur in a triclausal configuration. In this case, the *s*(clause always appears to the left of the *ma* clause.

40) a. me-tea	mu gu Kofi so s((-n-da	ma ne-da s(ma	
	1sg-shout Prt drip Kofi on s	s(3sg-opt-sleep ma 3sg-sleep	
	"I shout at Kofi to sleep"		

b. *me-tea mu gu Kofi so ma ne-da s((-n-da *ma...s(1sg-shout Prt drip Kofi on ma 3sg-sleep s(3sg-opt-sleep "I shout at Kofi to sleep"

Despite being separated from the main clause tense by the s(clause, the verbal morphology in the *ma* clause is still that of the serial construction. However, the polarity of the *ma* clause is identical to that of the s(clause.

41) m(-tea mu e-gu Kofi so s((-n-da (a-)ma ne-a-da 1sg.fut-shout Prt a-drip Kofi on s(3sg-opt-sleep a- ma 3sg-fut-sleep "I will shout at Kofi to sleep"
42) me-teaa mu guu Kofi so s(ma[7] (-n-da ma ne-a-n-da 1sg-shout.past Prt drip-Pst Kofi on s(opt 3sg-neg-sleep ma 3sg-Pst-neg-sleep "I shouted at Kofi not to sleep"

The categorial nature of factive *ma* is not clear. This is because there are both significant similarities and differences between factive and optative *ma*, for example. Optative *ma* and factive *ma* are distinguished in at least three ways. First, they differ in tone, with optative *ma* being high toned and factive *ma* being low toned. Given that Asante Twi is a tone language, this is readily analyzable as a lexical difference. That is, factive *ma* and optative *ma* may be distinct lexical entries. Second, optative *ma* may co-occur with the complementizer *s(*, while factive *ma* is in complementary distribution with *s(*. This is readily explained if factive *ma* and s(impose incompatible selectional restrictions on their sentential complements (witness the serial tense/mood in the complement of ma clauses, which is not possible in a s(clause), while optative *ma* is something else; the spellout of a mood head, for example.

Finally, in terms of interpretation, factive *ma* can be said to presuppose the truth of the proprosition that it embeds, while optative *ma*, expresses something like deontic or boulomaic mood.

At the same time, there are properties that factive *ma* and opatative *ma* share, which are unlikely to be coincidental. First, opatative *ma* and factive *ma* both allow nominative or genitive subjects:

43) a.	Kofi pene-e	so	ma o/	' ne -noa-a	nam no	Factive <i>ma</i>	
			Kofi	agree-Pst Prt ma	$3sg_{nom}/3sg_{gg}$	en-cook-Pst fish	the
			"Kof	i agreed to cook the	e fish (and he	e did)"	
	b.	ma	o/ne-n-	noa na	m no		Optative <i>ma</i>
			та	3sg _{nom} /3sg _{gen} -neg-c	cook fish the		

"He should not cook the fish!"

5. Conclusion

We have described three types of clausal complement construction in Asante Twi; the OV construction, the s(construction, and the ma construction. We showed that the OV construction patterns with nominals with respect to conjunction and wh-extraction, and gave arguments to the effect that the OV construction is mono-clausal. We showed that verbs which may select either a VO, or a s(complement do not allow a wh-phrase to remain in-situ in their s(complement, in contrast to bridge verbs. We examined finally the ma clause first recognized by (Osam, 1998). This clause type allows for both nominative and genitive subjects, and allows as well the same tense/aspect marking found in serial constructions. We have also noticed peculiar symmetries in the behaviour of factive and optative ma, in particular the licensing of both nominative and genitive subjects.

References

Baker, Mark. 1988. Incorporation: A Theory of Grammatical Function Changing. Chicago: The University of Chicago Press.

Boadi, L. A. 1972. Sentential Complements in Akan. Lingua, 29:128-172

Bodomo, A. B. 1998. Serial verbs as complex predicates in Dagaare and Akan. In: I. Maddieson and T. Hinnebusch, *Trends in African Linguistics, vol. 2, Language History and Linguistics Description in Africa,* 195-204. Africa World Press

Bresnan, Joan W. 1970. On complementizers: Toward a syntactic theory of complement types. *Foundations of Language*, 6:297-321

Campbell, Richard. 1989. The Grammatical Structure of Verbal Predicates. Ph.D. dissertation, UCLA (available as *UCLA Dissertations in Linguistics*, vol. 13)

Dolphyne, Florence A. 1987. On Negating the Consecutive Verb in Akan. *The Journal* of West African Languages, 17(2):70-80.

Dolphyne, Florence A. 1988. *The Akan (Twi-Fante) Language: Its Sound Systems and* Tonal Structure. Accra, Ghana: Ghana Universities Press.

Forson, Barnabas. 1990. "On the Morphology of Akan Serial Constructions". In: J.P. Hutchison & V. Manfredi, *Current Approaches to African Linguistics* vol. 7. Dordrecht: Foris. 63-66

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- Osam, E. Kweku. 1997. "Serial Verbs and Grammatical Relations in Akan". In: T. Givón (ed.), *Grammatical Relations, A Functionalist Perspective*. Amsterdam: John Benjamins. 253-279
- Osam, E. Kweku. 1998. "Complementation in Akan". In, *Journal of African* Languages and Linguistics, 19:21-43

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[1] Apparently distributionally identical to OV clauses is the verbal relative clause:

44) me-gyaae b(aa me-b(-(Kofi

1sg-stop.past hit Rel 1sg-hit-Pst Kofi

"I stopped hitting Kofi"

[literally: "I stopped hitting that I hit Kofi"]

For reasons of space, we will not describe the verbal relative construction here. See (Kobele & Torrence, forthcoming) for a treatment of verbal relatives in Twi.

[2] There may in fact be four coordinators in total. In addition to *ne* and *na* (which seem to differ subtly in meaning), one also finds *ene* and *ena*. Interestingly, these all seem to have different distributions. We leave thorough examination of these forms for future research.

[3] It appears that the situation is more complex. First, some Wh words, s(n 'how' and aden'why' cannot be in-situ. (Campbell, 89) offers the generalization that wh-words are allowed insitu only in theta-governed positions.

[4] When an overt subject would be required in a main clause, that is.

[5] Prt = particle

[6] The negative optative functions as the negative imperative.

[7] Note that this the *ma* that appears in negative opative clauses. It is not the factive *ma*.