APPENDICES

Below follow lists of *Ga* (**Appendix 1**) and *Norwegian* (**Appendix 2**) constructions annotated relative to the principles and methods of the system as laid out in sections I and V, and using the labels defined in sections II, III and IV.

Although in these appendices the glossing is rather compact, most of the examples have been entered in the database TypeCraft (www.typecraft.org), where they can be inspected for more detailed glossing and annotation. Appendix 3 provides a guide to how to access this database, and an example of a search.

What is presented here, through the main text and the appendices, is a system on which research *can be based* – we have refrained from making comparative or other analytic statements about the phenomena covered. Only one point may be made, on the occasion of the construction lists for Ga and Norwegian occurring here juxtaposed:

In any genealogical tree of languages of the world, these languages would be miles (branches) apart. Yet, in the spirit of modern linguistics and conceptions of 'universal grammar', one might expect that despite such distances in genealogy, assemblies of verb construction types in the two languages would show a significant degree of overlap. As a preliminary observation, it is therefore of interest to note that among all the types represented in the following two appendices, only *three* types overlap¹ – all of the other nearly 200 of each language are not shared by the other.

Obviously, comparing the Ga list with a similar list for Akan or Ewe, or other West African languages, would display much overlap, as would a comparison of the Norwegian list with lists for other Germanic languages. What the overlap areas may be, however, up and down branches of genealogical and areal networks, is hopefully what the present system may be of aid in revealing.

¹ Identifying them is left as an exercise for the reader.

Appendix 1: LIST OF GA VERB CONSTRUCTION TYPES

The list given below makes no claims to completeness. It is probably fairly representative of Ga verb constructions, but it does not include interrogative or focus constructions. Nor are the templates as given necessarily final, but they are intended to embody the principles and methods of the system as laid out in sections I and V. Problems and possible alternatives are discussed following particular examples.

For the sake of consistency, and possible so-far unrecognized relevance, the tense-aspect marking of each verb is indicated in the glossing, but this is not always reflected in slot 1 since it is rarely considered a characterising feature of a construction. It is mainly indicated in slot 1 labels for intransitives, since it seems to be in PROPERTY, STATE, and PHENOMENON constructions, which are often intransitive, that it is most likely to be relevant.

It may be noted that for most constructions in which the object is or includes a verb-last nominalization (nomvL) the final label in CAPS is in slot 5 (Aspektionsart), not slot 6. Both 5 and 6 are rarely filled in any of the templates given because it has not normally seemed necessary, although there is no obvious reason why they should not be. The labels for these slots are less well established than most of the others, and so we occasionally comment on them.

Intransitive:

The first four templates below can be considered basic to the language and to intransitive expressions in the language. Other intransitive templates are essentially elaborations of these four.

v-intr-suActivated-ACTIVATION E-tsine 'She sneezed.' 3S.AOR-sneeze v-intr-suAq-COMMUNICATION Ee-fle 3S.PROG-.retort 'He was answering back.' v-intr-suAqmover-MOTION Kofi ba K AOR.come 'Kofi came' v-intr-suTh-ACTIVATION Shikpon le hoso earth DEF AOR.shake 'The earth quaked, there was an earthquake.' v-intr-suTh-PHENOM Nugbo ne 'It rained' heaven AOR.rained v-intr-suTh-PROPTYASCR Te le wa stone DEF AOR.is.hard 'The stone is hard' vAor-intr-suTh-STATE Shinaa le kã door DEF AOR.open 'The door is open.'

vAor-intr-suTh-PROPTYESTABD

E-di

3S.AOR-black

'It is black, became black'

Slot 6 indicates that being black is here regarded as an established property and not a transient state. The same construction could indicate a regularly changing or alternating state, but in that case the slot 6 label would have to be changed to reflect this.

vHab-intr-suTh-PROPTYGEN

La tsu-> blood red-HAB 'Blood is red.'

A generic property is one that is considered inherent in the item, and so represents a normal condition.

vPrf-intr-suTh-PROPTYESTABD

Atade le é-gbi

dress DEF PERF-dry 'The dress is dry'; 'the dress has dried'

Perhaps two templates are necessary for this sentence: the one given above, for an interpretation according to which being dry is considered the normal condition of the dress, not due to a change, and another with STATE in slot 6 to take care of the interpretation according to which it was recently wet but is now dry. It is not clear in what way the aspect of the verb is relevant to this – see 'It is black' above.

vPrf-intr-suAff-ENDSTATE

Nu le e-gbĩ

water DEF PERF-dry

'The water has dried up.'

Notice that in this case 'dryness' is not a property of the argument at all, but of a final state of affairs. In physics, when water dries it changes state from liquid to vapour, but in ordinary thinking it simply disappears, rather than changing state. Therefore, the situation type label ENDSTATE has been used instead of CHANGEOfSTATE, on the assumption that this is what people speaking Ga generally mean.

vPrf-intr-suExp-PSYCHSTATE

Nuu le e-gbe	
man DEF PERF-scatter	'The man is confused.'

vProg-intr-suTh-PROPTYDYN

Wolo mii-yɛ	
book PROG-white	'The book is turning white.'

vAor-intr-suPossp_suBPpec-suTh-EMOTION

E-hiŋmɛi tsu

3SPOSS-eye AOR.red

'He got angry.'

The emotion of being angry is expressed as reddening of the eye of the person who feels the emotion. Thus the experiencer of the emotion appears not as the subject but as the specifier (possessor) of the affected body part, which is the syntactic subject.

v-intr-suPossp_suBPsuSpec-suAg-PSYCHSTATE

Mi-hiɛ mɛ

1S.POSS-face AOR.stay 'I was happy.'

Perhaps the main distinction between this expression, which is labelled a Psychological State, and the preceding lies in the Aktionsart – being angry is normally a dynamic and unstable event (as is being confused, in 'The man is confused' four lines above), The nature of the Ga expression for "happy", employing as it does a verb that basically means 'stay' or 'remain', suggests that it expresses something conceptualized as a maintained, steady state.

v-intr-suPostp-suLocus-PROPTYASCR

E-mli jɔ 3S-inside AOR.cool

'She is kind'.

vHab-intr-suPostp-suLocus-PROPTY

Ŋshɔ lɛ mli jɔ-ɔ

sea DEF inside cool-HAB 'The sea is cool'. It is not really clear why the verb is habitual in this example but not in the preceding one, unless perhaps the sea being cool is regarded as more subject to change than a person being kind.

vPrf-intr-suPostp-suLocus-PROPTYESTABD

E-he é-jə

3S.POSS-self PERF-cool 'It [non-empty] is cool'

vPrf-intr-suPostp_suUnif-suLocus-PROPTYESTABD

Kakla lɛ naa e-ba

knife the edge PERF-come 'The knife is sharp'.

The subject is said to be unified with the verb because the verb ba cannot mean 'be sharp' without an argument that refers to something with an edge. As in many other property constructions displayed this reference is not expressed by the head of the argument (in this case the Subject), but by its specifier.

v-intr-suPostp_suSpecPossp_suSpecBPsuSpecSpec-suLocus-PROPTY

E-tsui naa wa

3S.POSS-heart edge AOR.hard

'He is brave'.

v-intrComp-compDECLbare_suIDcompSu-suAg_obThsit-ABILITY

Mi-nye-> mi-nma-a mi-gbei

1S-able-HAB 1S-write-HAB 1SPOSS-name 'I can write my name.'

v-intrComp-compIRRcmp suIDcompSu-suAq-MOTIONDIRECTED

Yoo lɛ é-tee ní é-yá-hé wolo lɛ

woman1 DEF PERF-go COMP 3S1.SBJV-EGR.SBJV-buy book DEF 'The woman has gone to buy the book'

v-intrComp-compIRRcmp_suIDcompSu-suAgintent-ABILITY

Wo-nye-o ní wó-ba

1P-able-HAB COMP 1P.SBJV-come 'We are able to come'

It seems to be a requirement of the verb meaning 'be able to' that its subject have identical reference with the subject of its Complement clause.

v-intrImpersComp-suExpl_compDECLcmp-NEED

E-hia ake ame-fee

3S.AOR.need COMP 3S.AOR-do

'It is necessary that they do (it).'

This is the only construction so far in which there is nothing to put in slot 4 – the subject is 'expletive' and so not an argument, and the complement clause is not an object, since it cannot be pronominalized, although perhaps it could be said to have a role of some sort such as 'Thematic situation abstract'.

vPrf-intrScpr-scResIncrm scAdj-suTh-PROPTYESTABD

Mano le e-tsu heluu

mango DEF PERF-redden red 'The mango is ripe, red'.

The secondary predicate, the adjective **heluu**, expresses the idea that the ripeness of the mango is the result of incremental change.

v-intrScpr-scAdj-suAq-PROPTYDYN

E-fe-> dioo 3S-make-HAB quiet

'He became quiet-mannered'

v-intrScpr-scAdj-suLocus-PROPTY E-yɛ blɛoo				
•	'It is slow'			
v-intrScpr-scAdv-suAg-PROPTY				
E-fee diŋŋ 3S-AOR.do quietly	'He became quiet'			
v-intrScpr-scAdj-suAg-PROPTYESTABD				
E-nane é-fee bɔŋkuu 3S.POSS-leg PERF-do huge	'His leg is huge'			
vPrf-intrScpr-suPostp_scResIncrm_scAdj-suLocus-PROPTYESTABD				
Koo lɛ mli é-jɔ tiŋkoŋŋ forest DEF inside PERF-calm silent	'The forest is dead quiet.'			
v-intrVid-suTh_vidObTrgt-COMPARISONCOMPARATIVE E-da fe mi				
3S-AOR.grow surpass 1S 'He is bigger than me.' In comparative constructions in this language the relation that is expressed in English by a preposition is expressed by a subtype of verb known as a 'verbid' (see Dakubu 2004b).				
v-intrVid-suTh_vidObTrgt-COMPARISONEQU	ATIVE			
E-tale tsu-ɔ tamɔ la 3S.POSS-dress red-HAB resemble blood 'Her dress is as red as blood'.				
v-intrScprVid-scAdj_vidObPostp-suTh_vidObLoc-PROPTY Atade le fee papii ye e-he dress DEF AOR.do tight be.at 3S.POSS-self 'The dress is tight on her.' This is another kind of situation where an oblique relation is introduced by a verbid, as is the next.				
v-intrVid-vidObPostp-suAg_vidObLocus-				
A-bɛɛti yɛ e-he				
3-bet be.at 3S.POSS-self	'They bet on him.'			
Transitive:				
v-tr-suAg_obMover-EJECTION				
Kofi fə bəəlu le K AOR.throw ball DEF	'Kofi threw the ball.'			
v-tr-suAg_obLoc-MAINTAINPOSITION Ame-da shi 3P-AOR.stand down	'They stood, posed.'			
v-tr-suAgmover_obEndpt-MOTIONDIRECTED Kofi ba biɛ				
K AOR.came here	'Kofi came here'			
v-tr-suAg_obTh-ASKING E-ba nii				
3S-AOR.beg things	'She begged for things'			
v-tr-suEff_obExp-EXPER				
Wonu le ŋɔɔ mi Soup the is.tasty.to 1S The soup is what effects my experience of pleasant taste.	'The soup tastes good to me'			

vProg-tr-suEff_obAffincrm-EXPER

Fɛi mii-ye lɛ

cold PROG-eat him

'He is cold'

Of course the person who is cold is not being literally devoured, but the use of the verb meaning 'eat' indicates that the effect of cold on the experiencer is incremental.

v-tr-suExper_obEndpt-COGNITION

	Beni mi-ya-hɛle shi lɛ when 1S.AOR-EGR.AOR-realize down TOP	'Before I realized'	
v-tr-	suPoss_obThAbst-PROPTY		
	E-yɛ hewalɛ		
	3S-AOR.have health	'He is healthy.'	
v-tr-	suPossAbst_obLoc-PROPTY		
	Sane le ye mli		
	matter DEF AOR.have inside	'The story is true'	
v-tr-	suSens_obPercpt-PERCPT		
	Mi-na wolo lɛ		
	1S-AOR.see book DEF	'I saw the book'	
v-tr-	suTh_obEndpt-REDUCTION		
	Kofi ba shi		
	K AOR.come down	'Kofi lost weight'	
v-tr-	suIDobSpec_obPossp_obBPobSpec-suAg_obA	Aff-PSYCHSTATE	
	Kofi mii-ye e-tsui		
	K. PROG-eat 3S.POSS-heart	'Kofi is worried.'	
v-tr-	suIDobSpec_obPostp-suAg_obLoc-WASHING		
	E-baa-bule e-he		
	3S ₁ -INGR.FUT-purify 3S ₁ .POSS-self	'She will purify herself.'	
v-tr-	suIDobSpecSpec_obPostp_obSpecPostp-suA	Ag_obLocus-COLLECT	
	Amε-bua amε-he naa		
	3P ₁ -AOR.assemble 3P ₁ -self edge	'They assembled.'	
v-tr-	suPossp_suBPsuSpec_obIDsuSpec-suLocus_	_obExp-EXPER	
	Mí-hie di mi		
	$1S_1$.POSS-face black $1S_1$	'I am dizzy.'	
v-tr-	suPostp-suLocus_obThAbst-PROPTY		
	E-he ye feo		
	3S.POSS-self AOR.have beauty	'She is beautiful'	
v-tr-	suPostp-suLocus_obLoc-PROPTYDYN		
	E-naa ba shi		
	3S.POSS-edge AOR.come down	'It lessened, was reduced'	
v-tr-suPostp_obIDsuSpec-suLocus_obExp-EXPER			
	E-he ŋɔɔ lɛ	/ ** • • • • • • • •	
	$3S_1$.POSS-self AOR.sweet $3S_1$	'He is ticklish'	

v-tr-suPostp_obPostp-suActivated_obThloc-S	SUCCEEDING			
E-naa e-homə niŋmaa lɛ nə				
3S.POSS-edge PERF-master writing DEF surface				
'She has mastered the art of writing.'				
v-tr-suPostp_obUnif-suLocus_obEndstate-PRO	DPTYESTABD			
E-he e-bɔ ŋkanale				
3S.POSS-self PERF-create rust	'It has got rusty, is rusty.'			
v-tr-suSpecIDobSpec_suBPsuSpec-suTh_obEndpt-PSYCHSTATE				
E-mii é-she e-he	(TT · 1)			
3S ₁ .POSS-throat PERF-reach 3S ₁ .POSS-self	'He is happy'			
v-tr-obBPsu-suPoss_obTh-PROPTY				
E-ye tsui				
3S-AOR.have heart	'He is patient'			
v-tr-obPostp-suAg_obTh-CARETAKING				
E-baa ame-yi	'Che muste etc. i the end'			
3S-protect 3P.POSS-head	'She protected them'			
v-tr-obPostp-suAg-obLocus-CONTINUATION				
Wo-hie gbi le mli				
1P.AOR-hold day DEF inside 'We are managing for the day.'				
Note that if the specifier of the postposition is unexpressed, as	s in the common response to the greeting			
Te tenn? 'how is it going?' – Wohie mli – a relevant period				
v-tr-obPostp-sulamover obEndpt-MOTIONDIRE(ЧТ. П.			
v-tr-obPostp-suAgmover_obEndpt-MOTIONDIREC	CTED			
Kofi tee yara nə	CTED 'Kofi went to the funeral'			
Kofi tee yara no K AOR.go funeral on				
Kofi tee yara nə				
Kofi tee yara no K AOR.go funeral on v-tr-obPostp-suAgsens_obLocus-COGNITION				
Kofi tee yara no K AOR.go funeral on v-tr-obPostp-suAgsens_obLocus-COGNITION E-nu sane lɛ shishi 3S-AOR.sense matter DEF underneath	'Kofi went to the funeral'			
Kofi tee yara no K AOR.go funeral on v-tr-obPostp-suAgsens_obLocus-COGNITION E-nu sane lɛ shishi 3S-AOR.sense matter DEF underneath v-tr-obPostp-suAgeff_obLocus-	'Kofi went to the funeral'			
Kofi tee yara no K AOR.go funeral on v-tr-obPostp-suAgsens_obLocus-COGNITION E-nu sane lɛ shishi 3S-AOR.sense matter DEF underneath	'Kofi went to the funeral'			
Kofi tee yara no K AOR.go funeral on v-tr-obPostp-suAgsens_obLocus-COGNITION E-nu sane lɛ shishi 3S-AOR.sense matter DEF underneath v-tr-obPostp-suAgeff_obLocus- Gbekɛ lɛ gbe kakla lɛ naa child DEF AOR.kill knife DEF edge	'Kofi went to the funeral' 'She understood the problem'			
Kofi tee yara noK AOR.go funeral onv-tr-obPostp-suAgsens_obLocus-COGNITIONE-nu sane lɛ shishi3S-AOR.sense matter DEF underneathv-tr-obPostp-suAgeff_obLocus-Gbekɛ lɛ gbe kakla lɛ naachild DEF AOR.kill knife DEF edgev-tr-obPostp-suEff_obLocus-EXPER	'Kofi went to the funeral' 'She understood the problem'			
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Kofi tee yara no K AOR.go funeral onv-tr-obPostp-suAgsens_obLocus-COGNITIONE-nu sane lɛ shishi 3S-AOR.sense matter DEF underneathv-tr-obPostp-suAgeff_obLocus- Gbekɛ lɛ gbe kakla lɛ naa child DEF AOR.kill knife DEF edgev-tr-obPostp-suEff_obLocus-EXPER E-ŋɔɔ mi-naa	'Kofi went to the funeral' 'She understood the problem' 'The child made the knife blunt.'			
Kofi tee yara no K AOR.go funeral onv-tr-obPostp-suAgsens_obLocus-COGNITIONE-nu sane le shishi 3S-AOR.sense matter DEF underneathv-tr-obPostp-suAgeff_obLocus- Gbeke le gbe kakla le naa child DEF AOR.kill knife DEF edgev-tr-obPostp-suEff_obLocus-EXPER E-ŋoo mi-naa 3S-AOR.tasty 1S.POSS-edgev-tr-obPostp-suSens_obLocus-PERCPT	'Kofi went to the funeral' 'She understood the problem' 'The child made the knife blunt.'			
Kofi tee yara no K AOR.go funeral onv-tr-obPostp-suAgsens_obLocus-COGNITIONE-nu sane le shishi 3S-AOR.sense matter DEF underneathv-tr-obPostp-suAgeff_obLocus- Gbeke le gbe kakla le naa child DEF AOR.kill knife DEF edgev-tr-obPostp-suEff_obLocus-EXPER E-ŋoo mi-naa 3S-AOR.tasty 1S.POSS-edgev-tr-obPostp-suSens_obLocus-PERCPT E-nu o-he	 'Kofi went to the funeral' 'She understood the problem' 'The child made the knife blunt.' 'It pleased me' 'He heard about you' 			
Kofi tee yara no K AOR.go funeral onv-tr-obPostp-suAgsens_obLocus-COGNITIONE-nu sane le shishi 3S-AOR.sense matter DEF underneathv-tr-obPostp-suAgeff_obLocus- Gbeke le gbe kakla le naa child DEF AOR.kill knife DEF edgev-tr-obPostp-suEff_obLocus-EXPER E-ŋoo mi-naa 3S-AOR.tasty 1S.POSS-edgev-tr-obPostp-suSens_obLocus-PERCPT E-nu o-he 3S-AOR.sense 2S.POSS-self	 'Kofi went to the funeral' 'She understood the problem' 'The child made the knife blunt.' 'It pleased me' 'He heard about you' 			
Kofi tee yara no K AOR.go funeral on V-tr-obPostp-suAgsens_obLocus-COGNITION E-nu sane lɛ shishi 3S-AOR.sense matter DEF underneath V-tr-obPostp-suAgeff_obLocus- Gbekɛ lɛ gbe kakla lɛ naa child DEF AOR.kill knife DEF edge V-tr-obPostp-suEff_obLocus-EXPER E-ŋɔɔ mi-naa 3S-AOR.tasty 1S.POSS-edge V-tr-obPostp-suSens_obLocus-PERCPT E-nu o-he 3S-AOR.sense 2S.POSS-self	 'Kofi went to the funeral' 'She understood the problem' 'The child made the knife blunt.' 'It pleased me' 'He heard about you' 			
Kofi tee yara no K AOR.go funeral on V-tr-obPostp-suAgsens_obLocus-COGNITION E-nu sane lɛ shishi 3S-AOR.sense matter DEF underneath V-tr-obPostp-suAgeff_obLocus- Gbekɛ lɛ gbe kakla lɛ naa child DEF AOR.kill knife DEF edge V-tr-obPostp-suEff_obLocus-EXPER E-ŋɔɔ mi-naa 3S-AOR.tasty 1S.POSS-edge V-tr-obPostp-suSens_obLocus-PERCPT E-nu o-he 3S-AOR.sense 2S.POSS-self V-tr-obPostp-suStartpt_obLoc-COMPARISONEQU E-gbe-ɔ nyɛ-nɔ lɛ nɔ	 'Kofi went to the funeral' 'She understood the problem' 'The child made the knife blunt.' 'It pleased me' 'He heard about you' JATIVE 			
Kofi tee yara no K AOR.go funeral on v-tr-obPostp-suAgsens_obLocus-COGNITION E-nu sane le shishi 3S-AOR.sense matter DEF underneath v-tr-obPostp-suAgeff_obLocus- Gbeke le gbe kakla le naa child DEF AOR.kill knife DEF edge v-tr-obPostp-suEff_obLocus-EXPER E-ŋɔɔ mi-naa 3S-AOR.tasty 1S.POSS-edge v-tr-obPostp-suSens_obLocus-PERCPT E-nu o-he 3S-AOR.sense 2S.POSS-self v-tr-obPostp-suStartpt_obLoc-COMPARISONEQU E-gbe-ɔ nyɛ-nɔ le nɔ 3S-fall-HAB 2P.POSS-thing DEF surface	 'Kofi went to the funeral' 'She understood the problem' 'The child made the knife blunt.' 'It pleased me' 'He heard about you' JATIVE 			

 $[\]overline{^{2}$ Thanks to Mrs. Patience Obeng for this insight.

v-tr-obPostp_obSpecBPobSpecSpec-suAg_obLoc-COMMUNICATION Mi-wo ame-toi no 1S.AOR-raise 3P.POSS-ear on 'I informed them of it.' The object head, which is the postposition **no**, has a specifier that is a body part (ear) of its specifier, ame 'their'. vHab-trLght-obUnif-suAg_obThAbst-PROPTYGEN E-fe-> hej> **3S-do-HAB** laziness 'He is lazy.' v-tr-obUnif-suAqsens obLocus-PERCPT Wo-bo toi 1S-AOR.listen ear 'We listened.' v-tr-obSpecPostp-suSens_obPercpt-SENSATION E-nu kooloo le he fu 3S-AOR.sense animal DEF self smell 'He smelled the animal' v-tr-obDECLcmp-suSens_obPrcsit-PERCPT Mi-na ake e-ye jeme 1S-AOR.see COMP 3S-AOR.be there 'I saw that he was there' The object is a declarative clause introduced by a complementizer, which has the role of a perceived situation. v-tr-obIRRcmp-suAgintent_obThsit-INTENT M-a-sumo ní Akwele a-ve nii 1S-SBJV-like COMP A. SBJV-eat things 'I want Akwele to eat' In this situation, which is one of intention, the object clause has irrealis aspect. v-tr-obIRRbare-suAgintent_obThsit-INTENT Mii-tao é-ba 1S.PROG-want 3S.SBJV-come 'I want him to come' This construction is similar to the above except that the object clause is not introduced by a complementizer. v-tr-suIDobSu_obNomvL-suAg_obThsit-INCHOATIVE E-boi ame-bi-mo 3S-AOR.begin 3P.POSS-ask-NOM 'He began asking them.' v-tr-suIDobSu obNomvL-suAq obThsit-CESSATION Ame-foo daa to-o 3P-AOR.cease drink-exhaust-NOM 'They stopped getting drunk' v-tr-suIDobSu_obNomvL-suAg_obThsit-DOFREQUENTLY Mi-fə-ə ó-shi-bi-mə 1S-do.often-HAB 2S.POSS-down-ask-NOM 'I often ask after you' Since the object is a nominalized clause it has a logical subject, which in this case (and typically of aspectual verbs in Ga) is the syntactic subject of the head verb. v-tr-suPossp_suSpecIDob-suEff_obSens-EXPER E-tsuinaa mii-funta le 3S.POSS-desire PROG-nauseate 3S 'She feels sick, nauseous.' Note that this is a case where an argument (the subject) is expressed as the possession of its specifier, but is not its body part.

v-tr-obPostp_obSpecNomvL_suIDobSpecSu-suAg_obLocsit-CONTINUATION

Mi-tsa mi-kase-mo no

1S-AOR.continue 1S.POSS-study-NOM top

'I continued my studies'

In this case the *subject* (**mi**) of the object's *specifier* (**kasemo**) (which is also the specifier of the object's specifier) is identical with the subject of the head verb – compare the example before the previous, where there is no postposition.

v-tr-obPostp-suAg_obLoc-MAINTAINPOSITION

E-damo ame-hie 3S-AOR.stand 3P.POSS-front

'He stood before them.'

 $v-tr-obPostp-suAg_obLocus-COMMUNICATION$

E-fene sane le naa

3S.AOR-untie matter DEF edge

'He opened the matter.'

v-tr-obIRRbare-suAgintent_obThsit-PERMISSION

Amɛ-ha Kofi a-ba

3P-AOR.give K SBJV-come

2S-INGR.FUT-stay eat-NOM

'They allowed Kofi to come.'

v-tr-obNomvL-suAg_obThsit-CONTINUATION

O-baa-hi ye-li

'You will be eating.'

The object is labelled formally as a verb-last nominalization, although in this particular example the nominalized verb has no object.

v-trAdv-suTh_obEndpt-IMPRECATION

Enε a-ka-gbale wo foŋfo

this SBJV-NEG-flash 1P distantly 'This (ill luck) should not come our way.' This is a somewhat archaic expression. It is not clear whether the adverb 'distantly' should be treated as part of the construction.

v-trAtc-obIDatcSu_atcDECLcmp-suSens_obTh-PERCPT

Mi-na lɛ ní ee-nyiɛ

1S-AOR.see 3S₁ COMP 3S₁.PROG-walk 'I saw him walking'

v-trAtc-obPostp_obIDatcSu_atcDECLcmp-suSens_obPrcpt-SENSATION

Mi-nu e-he ní e-bolo

1S.AOR-hear 3S.POSS-self COMP 3S.AOR-shout 'I heard him shout'

v-trComp-suIDcompSu_obIDcompOb_compIRRbare-suAg_obTh-ACHVMNT

o-baá-nyɛ enɛ ó-la?

2S-INGR.FUT-able this 2S.SBJV-sing

'Can you sing this?'

In this interesting construction, the subject and object of the head verb have identical reference with the subject and object of the extraposed clause, although in the extraposed clause the object is not phonetically expressed. The subjunctive aspect of the verb in the extraposed clause is also constrained by the future (irrealis) feature of the head verb.

 $v-trComp-obPostp_compDECLcmp-suAg_obLocus-COMMUNICATION$

Amε-here no akε...

3S.AOR-reply PRO surface COMP... 'They replied that..' The phonetically unrealized specifier of the postposition (represented in the gloss by PRO) is the subject under discussion, or what the interlocutor said.

v-trImpers-suExpl-obAff-E-fi mi 3S-tie 1S

'I am in difficulties.'

vHab-trImpers-suExpl_obNomvL_obIntrComp-DOFREQUENTLY

E-fɔ-ɔ ka-a akɛ amɛ-ba-a biɛ

3S-frequently-HAB stick-NOM COMP 3P-come-HAB here

'It often happens that they come here'

This might look like another case where the aspect of the second clause is constrained by that in the first. However, the clause beginning with ake is the complement of the nominalized verb ka-a 'sticking' which is the object of the head verb, and not the complement of the head verb itself.

v-trVid-suAg_obAffincrem_vidObTrgt-COMPARISONCOMPARATIVE

E-ye loo fe mi

3S-AOR.eat meat surpass 1S

'She ate more meat than me.'

v-trVid-vidObBPvidObSpec-suAg_obTh_vidObLoc-ACQUISITION

E-ma wolo le ye mi-de

3S-AOR.borrow book DEF be.at 1SPOSS-hand

'She borrowed the book from me.'

 $v-trVid-obPostp_vidObBPvidObSpec-suAg_obTop_vidObLoc-ASKINGABOUT$

Wo-bi o-naanemε-i a-shi yε e-dε-ŋ

1P-AOR.ask 2S.POSS-friend-P ASSOC-down AOR.be 3S.POSS-hand-LOC 'We asked him about your friends.'

v-trVid-obPostp_obSpecIDvidObSpec-suAg_obLocus_vidObLoc-INCREMENTALRESULT-EXPER

E-fo mli yε e-blayei-aŋ

3S-AOR.cut PRO.POSS inside be.at 3S.POSS-youngwomen-LOC

'She has gone through her young-womanhood/puberty.'

In this construction the covert specifier of the postposition **mli**, glossed here as PRO.POSS, is the period of time during which the experience took place.³ It thus in effect has an aspectual function, and is represented in Slot 5 as INCREMENTALRESULT.

v-trVid-vidObPostp-suMover_obEndpt_vidObLocus-CHANGESTATUS

O-gbee shi ye asafo mli le

2S-fall down be.at organization inside DEF

'You lost your status in the organization,'

v-trVid-vidObPostp-suExper_obLoc_vidObStartpt-CONSCIOUSNESS

E-hɛle shi yɛ wɔ mli

3S.AOR-realize down be.at sleep inside 'She woke up with a start.'

v-trVid-vidObPostp-suAg_obTh_vidObStartpt-MOTIONCAUSED

Mi-wo kukwei le ye la le no

1S.AOR-collect pot DEF AOR.be.at fire DEF surface 'I took the pot from the fire.'

v-trVid-obUnif-suAg_obTh_vidObLoc-ASSUMELOCATION

Ame-ba-bo ade ye Ga

3P-INGR.AOR-do thing be.at Accra

'They came to settle permanently in Accra.'

It is only in combination with **ade** that **bo** means 'settle', so object and verb are unified. Since settling implies settling somewhere, the locative expression is considered to be part of the construction template.

³ Thanks again to Patience Obeng for useful discussion.

Ditransitive:

v-ditr-suAg_obTrgt_ob2Content-COMMUNICATION

A-bu le bem

3.AOR-declare 3S innocence

'He was declared innocent.'

v-ditr-suAg_iobRec_obTh-TRANSFER

E-ha mi shika

3S-AOR.give 1S money

'He gave me money'

Note that in this example, representing a fundamental template of the language, the first object, the recipient, is labelled 'indirect object', indicating that the second is the direct object, but in the preceding example, which also represents a basic template, the objects are merely given sequential labels, object and object2. This is mainly because the transfer event is clearly directed at the recipient, but the communication event above is not obviously directed at the first object, which seems to be the target of the content of the communication, but not necessarily of the communication event itself. However it would probably not be wrong to use the same convention for both.

v-ditr-suAg_obTrgt_ob2Loc-COMMUNICATION

Mii-da bo shi	
1S.PROG-thank 2S down	

'I thank you.'

v-ditr-suAg_iobTrgt_obThmover-COMMUNICATION

E-fɔ mi nine 3S.AOR-throw 1S hand

'She waved to me; invited me.'

v-ditr-suAg_obAff_ob2Instr-CUTTING

Nuu lε baŋ lε klante man DEF AOR.slash 3S cutlass

'The man slashed him with a cutlass.'

v-ditr-suAg_obLoc_ob2Res-CUTTING

Nuu le baŋ mi-hie gbe

man DEF AOR.slash 3S.POSS-face scar 'The man cut marks on my face.' Note that although the second object is a body part, in this construction that fact is not a feature of the construction—it could have been something else—and so it is not labelled as such.

v-ditr-suAg_obTh_ob2Instr-PENETRATION

E-gbu le kakla

3S.AOR-pierce 3S knife

'He stabbed him with a knife.'

vHab-ditr-suNrg_ob2DECLcmp-obSens_ob2Thsit-COGNITION

E-fe-ɔ mi akɛ noko bɛ mli

3S-do-HAB 1S COMP something is.not inside

'It seems to me that it isn't true'

The subject of the sentence, e' it', has a syntactic role in the construction but does not contribute to the meaning of the sentence, hence it is not regarded as an argument and has no semantic role.

v-ditr-obPostp-suAg_obEndpt_ob2Th-PLACEMENT

Ame-wo tsone le mli yele

2S.PERF-cut PRO.POSS self fence

3P-AOR.put vehicle DEF in yam 'They put yams in the lorry.'

v-ditr-obPostp-suAg_obLocus_ob2Instr-CARETAKING

Ó-fo he afabaŋ

'You have protected it.'

In this example the specifier of the postposition **he** has no phonetic expression, as is the rule with 3^{rd} person non-human, non-subject pronouns in this language in most circumstances.

v-ditr-obPostp-suAg_obLocus-ob2Th-REMOVAL E-fofloo e-he shia le 3S.AOR-rinse 3S.POSS self sand DEF 'She washed off the sand.' v-ditr-suIDobSpec-obPostp_ob2DECLcmp-suAg_obLoc_ob2Thsit-COGNITION E-fee e-yi-ŋ akɛ wɔ-baa-fee noko 3S1-AOR.do 3S1.POSS-head-LOC COMP 1P-INGR.FUT-do something 'She decided that we will do something.' v-ditr-obUnif-suAgsens_iobTrgt_obTh-PERCPT Wo-bo le toi 1S-AOR.listen 3S ear 'We listened to him' v-ditr-obUnif-suAgsens_iobTrgt_obContent-EMOTIONDIRECTED O-na le mobo 2S-AOR.see 3S pity 'You pitied him' v-ditr-suIDobSpec obPostp ob2Unif-suAgsens ob2Locus obTh-PERCEPTION Wo-bo wo-he toi 1P₁-AOR.listen 1P₁-body ear 'We were expectant' v-ditr-ob2Unif-suAg_obAff_ob2Eventunit-DESTRUCTION A-baa-gbe bo shika gbele 3S-INGR.FUT-kill 2S money death 'You will be fined; it will cost you a great deal of money' v-ditrComp-compIRRcmp-suAg_iobRec_obThAbst-PERMISSION Ashon ha mi gbe ní ma-ba A, AOR.give 1S way COMP 1S.FUT-come 'Ashong gave me permission to come.' v-ditrVid-suIDob2SpecSpec_obIDvidObSpec_ob2SpecPostp-suAg_obTrgtob2Th-vidObLoc-REMOVAL E-fo wo e-he shika ye wo-de-ŋ 3S₁.AOR-cut 1P₁ 3S₁.POSS-self money be.at 1P₁-hand-LOC 'She collected her money from us.' Copula verb: Ga has only one copula verb, with a very restricted construction range.

Ga has only one copula verb, with a very restricted construction range. v-copN-PROPTY

Tsoolo ji le teacher BE 3S

'He is a teacher'.

Extended verb complex:

ev_suAg-pvltr-pvlobEventunit-vtr-obPostp-obLocus-CONTINUE

Wo-ke nitsumo le hie otsi mli

1P-move work DEF AOR.continue week inside

'We continued the work for a week.'

Note that if the specifier of the postposition **mli** is not expressed, the postposition will still indicate that the event occurred within a period of time (see **wo hie mli** above).

ev_suAg-pv1tr-pv1obStartpt-vintr-DEPARTURE

E-ke e-wu foo aaa-fee afii enyo nee

3S-move 3S.POSS-husband cease FUT-do year-PL two this 'She left her husband about two years ago.'

The last four words constitute an optional verbid adjunct phrase, and are therefore not accounted for in the template.

ev_suAg-pv1tr-pv1obTh-vtr-suIDobSpec_obPostp-obLoc-POSSESSION

E-ke shika to e-he

'She kept the money.'

ev_suAg-pv1tr-pv1obInstr-vtr-obTh-PENETRATION

3S₁-move money AOR.seize 3S₁-self

e-ke kakla gbu le

'He stabbed him with a knife.'

Note the alternative construction with the same verb and arguments listed under Distransitive constructions.

ev_suAg-pv1tr-pv1obInstr-vditr-iobBen_obPercpt-EXHIBOBJ

O-ke tso le tsoo mi tsu le

3S-move knife AOR.stab 3S

2S-move stick DEF show 1S house DEF 'You pointed out the house to me with a stick.'

ev_suExper-pv1tr-pv1obThsit-vtr-obEndpt-EXPER

E-kɛ-fɔ shi

3S-move.AOR.throw down

'He has died'.

ev_suAg-pvltr-pvlobPro-pvlobInstrsit-vtr-obPostp-obLocus-CARETAKING

A-ke mii-baa kusum le yi

3-move PRO PROG-protect custom DEF head 'The custom is thus [by that means] being protected'

ev_suAg-pvltr-pvlobNomvL-pvlobThsit-vtr-vobEndpt-FINISH

A-kɛ ameo du-mɔ e-ba naagbee

3-move tomatoes plant-NOM PERF-come end 'Tomato planting is over.'

ev_suAg-pvltr-pvlobPossp_pvlobBPpvlobSpec_pvlsuIDpvlobSpec-pvlobThvtr-obPostp-obLoc-ASSESS

Ε-kε e-hiε fɔ-ɔ o-nɔ

3S-move 3S-face throw-HAB 2S.POSS-surface

'She trusts you.'

ev_suAg-pv1tr-pv1obPostp_obNrg-vtr-obTrgt-

Kofi ke e-he fufuaa e-tsekwe le

K move 3S.POSS-self hang 3S.POSS-uncle DEF 'Kofi is always hanging around his uncle; pesters his uncle; courts his uncle's favour'

ev_suAg-pvltr-pvlobPro-pvlobThsit-vtr-obPostp_suIDobSpec-obLocus-COMMUNICATION

(Eepiŋ, shi) e-kɛ-bɛ e-he

(3S.PROG-suffer, but) 3S₁-move-AOR.pinch 3S₁.POSS-self '(She is suffering, but) she's keeping it to herself.'

In this case of course the COMMUNICATION situation is negative, or absence of communication.

ev_suAg-pv1tr-pv1obTh-vtr-obEndpt-COVER

A-ke mama bla gbonyo

3-move cloth AOR.wrap corpse

ev_suAg-pvltr-pvlobTh-vtr-obPostp-obEndpt-COVER

E-ke kpaa bla tso le he

3S-move rope AOR.wind tree DEF self

'She wound the rope around the tree'

'The corpse was shrouded'

Serial verbs: sv_suAspID_suAg-v1intr-v2intr-v2suClit-REPETITION E-saa e-ba 3S.AOR-prepare 3S.AOR-come 'She came again.' sv suAspID suTh-vlintr-v2intr-v2suClit-DETERIORATION É!-shá é-gbò 3S.PERF-shrink 3S.PERF-age 'He has aged prematurely. This construction differs from the preceding only in the role of the Subject and in the Situation Type. sv-suAspID_suAg-v1tr-v1obTh-v2tr-v2suClit-v2obEndpnt-PLACEMENT Hii le tsi mi ame-gbee shi men DEF AOR.push 1S 3P-AOR.fell down 'The men pushed me down.' sv_suAspID_suAg-vlintr-v2tr-v2suClit-v2obBen-HELP Ame-ve ame-bua le 3P₁-AOR.eat 3P₁-AOR.collect 3S 'They helped her.' sv_suAspID_suAg-v1tr-v1obTh-v2tr-v2suClit-v2obEndpt-EJECTIONDIRECTED E-fo tsensi le e-nme shi 3S-throw pan DEF 3S-unroll down 'She threw the pan down.' sv_suAspID_suAg-vltr-vlobTh-v2ev-v2pvltr-v2pvlobThSit-v2trv2obEndpt-TRANSPORT Mi-wo gbeke le ke-tee skul 1S.AOR-collect child DEF move.AOR-go school 'I took the child to school.' sv_suAspID_suAg-v1tr-v1obTh-v2tr-v2suClit-v2obBen-PERMISSION Á-gbele gbε á-ha bo 3.PERF-open road 3.PERF-give 2S 'You have been granted permission.' sv_suAspID_suAq-v1tr-obThAbst-v2ev-v2pv1tr-v2pv1obPro-pv1obThsitv2tr-obBen-EXPOSE Ame-fose ame-suomo ke-ha ame-bii le 3P.AOR-pour.out 3P.POSS-love move.AOR-give 3S.POSS-children DEF 'They poured out their love for their children.'

Note that in this expression and the next ('He found a box for me'), the object of the preverb that forms part of the second verb is indicated as 'Pro', meaning that analytically there is a pronoun object of $\mathbf{k}\varepsilon$ which however has no phonetic exponent. Its role is 'thematic situation'. Such constructions are common in Ga when the subject does not appear as a clitic on the second verb.

sv_suAspID_suAg-v1tr-v1obTh-v2ev2-v2pv1tr-v2obPro-v2pv1obThsitv2pv2intr-v2tr-v2iobRec-

E-tao adeka kɛ-ba-ha mi

3S.AOR-search box move-come-AOR.give 1S 'He found a box for me.'

sv_suAspID_suAg-v1tr-v1obLoc-v2ev-v2pv1tr-v2pv1obPro-v2pv1obThSitv2tr-v2obTh-REMOVAL

E-ju shi ke-wo adeka le

3S.AOR-steal down move.PRO.AOR-carry box DEF 'He stealthily carried the box away.'

sv_suAspID-suAg-vltr-vlobLoc-v2ev-v2pvltr-v2pvlobPro-v2pvlobThsitv2tr-v2iobBen-REPRESENT

Mi-damə shi ke-ha le

1S-stand down move-give 3S

'I represented her.'

sv_suAspID_suAg-v1tr-v1obThmover-v2intr-v2suClit-EJECTION

E-tse tsensi le e-fo

3S.AOR-place pan DEF 3S.AOR-throw

'He threw the pan away.'

sv_suAspID_suAg-v1tr-v1obContent-v2tr-v2suClit-v2obEndpt-

O-ŋma ene o-fo shi

2S-AOR-write this 2S.AOR-throw down

'You wrote this down.'

sv_suAspID_suAg-vltr-vlobPostp_vlsuIDobSpec-vlobLocus-v2tr-v2suClitv2obTrgt-DISPLAY

Ee-kpɔfu e-he ee-wo bo

3S.PROG-show.off 3S.POSS-self 3S.PROG-put 2S 'She's showing off to you.'

sv_suAspID_suAg_vlobSpecIDv2ob-vltr-vlobPostp-vlobLocus-v2ditrv2obPro-v2iobRec-v2obTh-TRANSFER

Ma-gwao mli ma-ha bo

1S.FUT-flog inside 1S.FUT-give 2S 'I will give you part payment.' (colloq.)

The specifier of the postposition **mli**, which is covert here because it refers to a non-animate, refers to the actual amount of the debt, and this is also understood as the direct object of $h\tilde{a}$ 'give', which similarly cannot be phonetically expressed. As in several other examples above, the fact that third person pronominalization is this language is frequently zero is crucial.

svComp_suAspID_suAg_compDECLbare-v1tr-v1obPostp-obLocus-v2trv2suClit-v2obBen-REPRESENT

E-damo mli e-ha mi a-fa mi shika le

3S.AOR-stand PRO inside 3S.AOR-give 1S 3.AOR-lend 1S money DEF

'He guaranteed my loan.'

This sentence might look at first glance like a 3-verb serial construction, but the last verb does not share the subject of the first two, and the clause it heads is a complement of the two-verb series.