# Modals in Akan

Ella Hannon & Wataru Uegaki

Based on extended Questionnaire for modals by Ella Hannon & Wataru Uegaki (created for the UKRI FLF project "Logic in Semantic Universals" based on Vander Klok 2021 "Revised modal questionnaire for cross-linguistic use")

Language name: Akan

ISO 639-3: aka

Glottolog: akan1250

Consultant demographics: A male speaker of Asante Twi from Kumasi.

Elicitation dates: 13 Jun 2022

The document is further reviewed by a native speaker specialist.

# **BODY OF THE QUESTIONNAIRE**

#### A. EPISTEMIC

## A1 Epistemic Necessity

(1) Ben goes swimming every day. Ben is not obliged or required to go swimming; it is just a habit of his. It is now time for Ben to be swimming... so Ben MUST be swimming (right now).

```
(Enti) esese Ben dware (sesei ara)
(So) MOD Ben swim (right now)
```

The morphological analysis of esese according to Owusu (2014):

E-se-se

expletive-fit-Comp

#Ewose Ben dware

(infelicitous. This suggests that the speaker is going somewhere else with Ben afterwards)

(2) You know that John goes to school at 9am every day. You look at the clock and see it is 9am, therefore John MUST be at school.

Ewose John wo sukuu

Esese John wo sukuu MOD John be school

(3) The math teacher says: The ball is in A or in B or in C. It is not in A. It is not in B. So, it MUST be in C. Adapted from von Fintel & Gillies 2007.

**Esese**  $\varepsilon w \circ C$  **MOD** be C

A-gye-s $\varepsilon$   $\varepsilon$ w $\varepsilon$  C Perf-take/receive-COMP be C

(4) Tim is calling for his dog. The dog is not coming. Tim looks for the dog in the kitchen, bedroom, living room, (in every room in the house) but the dog is not in any of those rooms. Therefore, Tim thinks/concludes that the dog MUST not be in the house.

Not tested.

## A2 Epistemic Weak Necessity

(5) You know that Ann goes hiking from 7am until 8am every day. Most of the time Ann goes to the lake, but sometimes she goes to the mountains. It is now 7:30am. You say to your friend: Ann SHOULD be at the lake right now.

					<i>ho</i> beside		
						C	
					ho		
<b>MOD</b>	Ann	be	lake	DET	beside	right	now

Comment: If the reading is epistemic as opposed to deontic, esesse is preferred to ewose.

(6) (Imagine that) you used to live in Goa. You are not living in Goa anymore. You notice how different the weather is in the UK, where you live right now. You know that it often rains in Goa, especially in the afternoon, but not necessarily every day. Now it's the afternoon, so you think it SHOULD be raining now in Goa.

(Enti wə Goa wo dewne) se tэ sesei ESESE nsuo no ara right in Goa So you think EXPLETIVE.PRO **MOD** water DET fall now

<sup>\*</sup>ε-ho-hia

 $s\varepsilon$ Goa no tэ sesei ara w2 EWISE nsuo **EXPLETIVE.PRO MOD** water DET fall right now in Goa

(7) When the light is on at Mary's house, it usually means that she is home. You want to visit Mary. You walk past Mary's house and notice that the light is on. However, there is no car in the driveway. You think to yourself: Mary SHOULD be at home, but it's not certain.

### A3 Epistemic Possibility

- (8) The teacher is not consistent. The students never know if he's going to come or not to teach class. Today, it's time to start class and the students are waiting again. He MIGHT / #must be coming to school today.
- (9) Grace is looking for her necklace. She looks in her wardrobe and on top of the wardrobe. It's not there. She looks on top of the TV. It's not there. She looks in her backpack. It's not there. Wait! She didn't check her sister's wardrobe yet. Grace's necklace MIGHT / #must be lost.

Ebia	Grace necklace	no	ayera
MOD	Grace necklace	DET	lost
Gyama	Grace necklace	no	avera
MOD	Grace necklace	DET	lost

Ebe-tumi Grace necklace no ayera

3sg-MOD ... (ebia + tumi)

Grace necklace no be-tumi ayera
Grace necklace DET FUT-MOD lost

#Grace necklace no **tumi** yera
Grace necklace DET **MOD** lost
"Grace's necklace is able to disappear"

Initial Comment by the consultant: *Tumi* by itself can only mean ability. It needs to be combined with *be* (future marker) to express epistemic possibility. However, the consultant also finds the following examples from Owusu (2014: 66) natural.

Reviewer: I agree the use of 'tumi' as an epistemic modal is very limited

Me-hwε nea ε-re-keka kɔ yi a, ɔman yi mu tumi kyε. 1SG-look what 3SG-PROG-say go DET, REL nation DET in MOD divide 'Looking at what is going on, the nation can be divided.' (Adom FM 04/02/13) Nnea ommo yε yi nyinaa tumi de ntokwa ba. what 3PL do DET all MOD take fight come 'What they are doing can result in a fight.' (Adom FM 04/02/13)

Alternative Glosses - since Ebia and Gyama are adverbials

- Ebia perhaps/maybe
- *Gyama* maybe/perhaps
- (10) Charles is looking for his pet cat, but cannot find it. He knows that his cat is very elusive/mysterious. Charles tells his sister: The cat MAY be inside. The cat MAY also be outside.

(The task is not only to translate these two sentences individually, but to keep in mind the sequencing i.e., these sentences are not to be used in isolation).

Not tested.

(11) Daniel lives in London and his friend has recently moved to New York. Daniel's parents told him that he is not allowed to go and see his friend in New York because it is too far away. You heard that Daniel is leaving London next week but you don't know where he will go. Daniel usually does things that he is not permitted to do. You think Daniel MAY / MIGHT / #is allowed to go to New York.

Not tested.

### A4 Epistemic Non-necessity

(7') When the light is on at Mary's house, it usually means that she is home. You want to visit Mary. You walk past Mary's house and notice that the light is on. However, there is no car in the driveway. You think to yourself: Mary should be at home, but it is NOT NECESSARILY THE CASE THAT she is / she MAY NOT be / it is NOT CERTAIN that she is.

EbetumiabasεMaryeniefieMOD(it.could.be)happenCOMP Marynothome

Ebia Mary eni efieMOD Mary not home

## A5 Epistemic impossibility

(1') Ben goes swimming every day. Ben is not obliged or required to go swimming; it is just a habit of his. It is now time for Ben to be swimming... so Ben CAN'T be at home.

Enti Ben n-tumi n-wə efie So Ben Neg-MOD Neg-be home

Comment by the researcher: Neg scopes over tumi

Reviewer: The sentence is odd because the negated form of the main verb is incorrect. And the sentence also sounds very non-native.

(3') The math teacher says: The ball is in A or in B or in C. We opened box A, and the ball is there. There is only one ball. So, it MUST NOT / CAN'T be in C.

```
Enti \varepsilon-n-s\varepsilon-s\varepsilon \varepsilon \omega \omega \omega \omega \omega \omega \omega So pro-Neg-Verb-Comp be \omega "It must not be in C"
```

Comment by the researcher: Must scopes over Neg

```
*Enti \varepsilon-n-s\varepsilon-s\varepsilon \varepsilon-n-w\circ C
So pro-Neg-Verb-Comp Neg-be C
```

Comment: The sentence is ungrammatical regardless of context

```
Enti e-n-tumi n-wo C
So pro-Neg-Mod Neg-be C
Neg > tumi
```

The negated form of 'wo' is 'nni'

#### **B. DEONTIC**

### **B1** Deontic Necessity

(12) In Indonesia, the law states that when you ride a motor bike... You MUST wear a helmet.

```
εsesε wo hyε helmet.
MUST you wear helmet
εwosε wo hyε helmet
MOD you wear helmet
```

#### E-ho-hia

(13) You are going to visit your friend in the hospital. When you enter into the hospital, you stop at the information desk to inquire what room your friend is in. But the woman at the information desk tells you that you can't visit your friend now because it's already 8pm. She says, "I'm sorry, the hospital regulations say that... Visitors MUST leave by 6pm."

<sup>\*</sup>A-gye-se

```
ESESE visitor biara firi eha 6pm
MUST visitor every leave here 6
EWOSE visitor biara firi eha 6pm
MOD visitor every leave here 6
```

### **B2** Deontic Weak Necessity

(16) Your friend is having a birthday party. She tells you that she would like it if everyone invited wore formal clothes, but that it is not necessary to wear formal clothes to attend. You think to yourself... I OUGHT TO wear formal clothes to the party.

```
Esese me-hye ataade papa
MOD 1sg-wear dress good
```

*Ewose* is also fine

(17) Your friend tells you that the rules of the restaurant state that employees must wash their hands after going to the bathroom. You reply to your friend:... Non-employees OUGHT TO wash their hands too!

Not tested

(18) In England, it is recommended that face coverings be worn in stores, but it is not a legal requirement. You plan on going shopping, and you think to yourself... I OUGHT TO wear a face covering.

Not tested

## **B3** Deontic Possibility

- (19) The ferris wheel ride is only for children under 12 years of age. Martin is 10 years of age. It is not obligatory for Martin to go on the ride if he doesn't want to. Martin MAY / #must ride the ferris wheel.
- (20) According to the rules of the hospital, only family members are allowed to enter the patient's room during visiting hours. You came to visit your sister, but it was after visiting hours. But the really nice nurse says... You MAY / #must enter.

```
Wo be-tumi awuramu
You FUT-MOD enter
```

Comment: be is a future marker, but may not have the meaning of future tense in this sentence

```
#wo tumi awuramu
You MOD enter
```

Comment: bad as an assertion; with a rising tone in the final vowel, it can work as a question "are you allowed to enter?"

#### Reviewer agrees.

(21) You are making plans for tomorrow night to meet up with your friend. Your friend says:

You can stay overnight and you can go home.

You can stay overnight. You can also go home.

Not tested.

(22) Alice fell down the stairs and broke her arm a while ago. She hasn't been lifting her baby while her arm was hurt because the baby is heavy. Finally, she has recovered, and she went to the doctor for a final check-up. The doctor gave her permission to lift her baby. But when she got home after her visit to the doctor, Alice found that she is still too weak to lift her baby... Alice CAN lift her baby.

Not tested.

(23) Beth's teacher told her class that it was okay to go swimming, but Beth doesn't want to because she cannot swim! Beth CAN go swimming.

i.e. Beth COULD go swimming, Beth is ALLOWED/PERMITTED to go swimming, but she can't swim.

```
Beth be-tumi a-kɔ dware nsuo mu
Beth FUT-MOD PERF-go bathe water in
```

Beth wo hokwan se o-dware nsuo mu Beth have permission Comp pro-bathe water in

### B4 Deontic non-necessity

(16') Your friend is having a birthday party. She tells you that she would like it if everyone invited wore formal clothes, but that it is not necessary to wear formal clothes to attend. You think to yourself... I ought to wear formal clothes to the party, but I DON'T HAVE TO / NEEDN'T wear formal clothes.

*Ewose* mehye ataadee papa, nanso ensese me hye ataadee papa "I should wear good clothes but I don't have to"

Comment: The second clause also has the reading "I must not wear good clothes" (would be odd in conjunction with the first clause)

More natural:

*Ewose* mehye ataadee papa, nanso  $\varepsilon$ -ho-n-hia se me hye ataadee papa "I should wear formal clothes, but I don't have to"

#? **ESESE** mehye ataade papa, nanso **ENWSE** me hye ataade papa (initial reaction: this is slightly unnatural in the context)

Reviewer cannot decipher this word.

Me-pese mehye ataade papa, nanso enwse me hye ataade papa 1st-want

(18') In England, it is recommended that face coverings be worn in stores, but it is not a legal requirement. You plan on going shopping, and you think to yourself... I OUGHT TO wear a face covering, but I DON'T HAVE TO / NEEDN'T.

Not tested

#### **B5** Deontic impossibility

(12') In Indonesia, the law states that when you ride a motor bike... You MUST NOT / MAY NOT ride a motor bike without a helmet.

Ensese wo twi motor bike bere a wonhye helmet

MOD+neg you drive ...

*Enwose* also fine.

Wo **ntumi ntwi** motor bike bere a wonhye helmet

You **Neg.MOD Neg.**drive ...

(13') You are going to visit your friend in the hospital. When you enter into the hospital, you stop at the information desk to inquire what room your friend is in. But the woman at the information desk tells you that you can't visit your friend now because it's already 8pm. She says, "I'm sorry, the hospital regulations say that... Visitors MUST NOT / MAY NOT stay after 6pm."

Not tested.

### C. TELEOLOGICAL

### C1 Teleological Necessity

(24) There is only one main road from Location A to Location B... If you go from Location A to Location B, you HAVE TO take this road.

**EWISE** wo fa kwan wie so

MOD you take road this on

#Esese

Reviewer: not infelicitous (maybe still dispreferred?)

\*ε-ho-hia

Absolutely incorrect

(25) Team A are playing in a tournament/competition/championship. In order to advance... Team A HAS TO beat Team B.

*swose* 

Comment: Won't be surprised if people use Esess in this context, but Paul wouldn't personally use it.

(26) The best pizza in town is sold at Gino's. You have invited your sister for dinner, and you decide to order pizza. You tell your sister: We HAVE TO order from Gino's to eat the best pizza.

Not tested.

### C2 Teleological Weak Necessity

(27) There are different ways to get to the shopping centre. You can go by foot, by tram/horse-carriage/truck/train/bus/public van, or drive/motorcycle/bicycle yourself. You are not sure how to go. Your friend advises you to get the bus because it is cheaper... To get to the shopping centre, you SHOULD take the bus.

```
εwəsε wo fa bus noMOD you take bus DET
```

**Ewose** preferred to Esese

(28) There are 3 ways to get to the seaside: a direct road, taking smaller roads, or a combination. Your friend says that taking the smaller roads is very beautiful. According to him, you SHOULD go via the smaller roads.

Not tested

(29) Your friend wants to buy a new shirt for her job at a reasonable price. There are many nice shops for professional clothes in the area, and you work at one of them and think it offers good prices. You say: You SHOULD go to my shop to buy a new shirt.

Not tested

### C3 Teleological Possibility

#### Target: teleological possibility

(30) There are two different ways to get to the mountains from the city centre. Way 1 is inland and way 2 goes around via the coast. Both take around 7 hours by bus and they are equally beautiful... You CAN take way 1.

Wo (be)**tumi** afa ( $\varepsilon$ )kwan 1 no so You FUT-mod take road 1 DET on

Comment: be is optional but be-tumi is the first thing that comes to mind.

Original Gloss for tumi - "can"

(31) There are two swimming pools in the town with the exact same design and both are an equal distance from your house. You plan to go swimming later on but have no specific desire for which pool to go to. You tell your sister... We CAN go to the swimming pool to the west.

Not tested.

(32) Your friend wants to buy a new shirt for her job. Since there are many nice shops for professional clothes in the area, you say... You CAN go to this boutique.

Not tested.

## C4 Teleological non-necessity

(27') There are different ways to get to the shopping centre. You can go by foot, by tram/horse-carriage/truck/train/bus/public van, or drive/motorcycle/bicycle yourself. You are not sure how to go. Your friend advises you to get the bus because it is cheaper... To get to the shopping centre, you should take the bus, but you DON'T NEED TO / NEEDN'T do so.

# <b>ewəse</b> wo	<i>fa</i>	<i>bus</i>	no,	<i>nanso</i>	enwo	<i>wo</i>	<i>fa</i>	<i>bus</i>	no	
<b>MOD</b> you	take	bus	DET,	but	neg.MOD	you	take	bus	DET	
εwɔsε wo fa bus	s no, nan but		ε-ho- <b>n</b> - pro-sel	<i>-hia</i> lf-Neg-n	$s\varepsilon$	<i>wo</i> you	bε-fa FUT-t	ake	<i>bus</i> bus	no DET

#### **E-ho-hia** sε wo bε-fa bus no

<sup>&</sup>quot;You have to take the bus / It is important that you take the bus"

### C5 Teleological impossibility

(24') There is only one main road from Location A to Location B... If you are going from Location A to Location B, you CAN'T take another road.

Wo **n-tumi** ( $\varepsilon$ ) n.fa kwan fofor so you **neg.MOD** neg.take road different on

Ensese wo fa kwan foforo so

Enwose wo fa kwan foforo so

Both are possible in the context.

(25') Team A are playing in a tournament/competition/championship. In order to advance... Team A CAN'T lose to Team B.

Not tested.

### D. CIRCUMSTANTIAL

#### D1 Circumstantial Necessity

- (33) You are on a bus. You have not had a chance to go to the toilet for 4 hours, and your bladder is full. You text your friend... I HAVE to pee so badly!
- (34) In the middle of a conversation, you feel a sneeze coming on... Excuse me! I HAVE to sneeze.

Mepawokyew ewase me wansi please MOD 1sg sneeze

Comment: Esese is possible but the consultant prefers ewase. E-ho-hia is not possible.

(35) Water is entering a pipe, which has two outputs: the left output and the right output. But, you know that the left output is blocked. And the water is coming out from the right output. You say: the water MUST come out from the right output.

Ewosensuonofirinifa(so) $\varepsilon$ -baModwaterDETfromright.sidepro-come

Esese nsuo no firi nifa na eba MOD

Comment: Esese is preferred

### D3 Circumstantial Possibility

(36) Ani came to visit a small island in the Philippines. She noticed that the climate and many of the plants are similar to some places she visited in Indonesia. The temperature is the same, the rainfall is the same, the types of rocks and the soil are the same. But when she looked around, she didn't find any *duku* trees anywhere. But because the temperature, rainfall, and soil are the same, she thinks that... *duku* trees CAN / #might grow here.

Duku trees be-tumi a-fifi wə  $(\varepsilon)$ ha Duku Trees FUT-**MOD** Perf-grow Loc here

Duku trees tumi fifi wɔ (ε)ha
can grow Loc here

(37) Amy knows how to make traditional Italian pasta. Now Amy is back in the country she lives in, and she wants to make traditional pasta, but the right kind of ingredients are not sold where she lives. So, she is unhappy because she wanted to show her parents how to make traditional pasta... Amy CAN / #might make traditional Italian pasta (but she does not have the ingredients).

Amy be **-tumi** a- $y\varepsilon$ .... Amy FUT-**MOD** Perf-do/make....

Amy **tumi** yε....

(38) Ben was in a motorbike accident 3 weeks ago, and he sprained his ankle. Ben is able to walk now. However, the doctor told Ben that he is not allowed to walk until 5 weeks after the accident... Ben CAN walk now.

Not tested.

- (39) Paul is quite old now, but he is still strong. His children are scared he will hurt his back if he does any intense labour, so they told him that he is forbidden to lift heavy things. But one day, his friend Rob asked to help him in the field, because Rob knows Paul is still strong. So when Rob saw a large rock that had to be moved, he asked P straightaway for help (but he didn't tell Paul's children!). Rob knew that... Paul CAN lift that rock.
- (40) The travel vans have a limit of 13 people by law. But the drivers don't care, and stop for more than 13 people. Also, the vans are bigger than you think... Travel vans CAN fit 20 people.

Travel vans be **-tumi** a-fa nipa aduonu FUT-**MOD** PERF-take people twenty

Travel vans **tumi** fa nipa aduonu (20)

### D4. Circumstantial non-necessity

(44) Given the way this volcano has been active in the past 100 years, it is LIKELY BUT NOT CERTAIN that it will erupt in the next 5 years.

*E-be-tumi* nanso me n-gyeni sε e-be-tumi asi pro-Fut-**MOD** but 1sg Neg-certain Comp pro-Fut-can happen

Comment: If one uses *enwose* or *ensese* in the second clause, it will be contradictory.

Reviewer: I am not sure what this means (cannot parse the sentence).

#### D5. Circumstantial impossibility

- (34') In the middle of a conversation, you feel a sneeze coming on... Excuse me! I CAN'T help sneezing!
- (35') Water is entering a pipe, which has two outputs: the left output and the right output. But, you know that the left output is blocked. And the water is coming out from the right output. You say: the water CAN'T come out from the left output.

Nsuo no n-**tumi** n-firi benkumso  $\varepsilon$ -m-ba Water Det Neg-**MOD** Neg-from leftside Neg.come

## E. BOULETIC

### **E1** Bouletic Necessity

#### **Target: bouletic necessity**

#### (42) targets bouletic necessity vs. deontic necessity

(41) You love handbags. You see a really nice handbag in a window and you say... I WANT/NEED TO buy it.

Me  $p\varepsilon s\varepsilon$  me  $t \circ ...$ 1SG want 1sg buy ...

esese me to

MOD 1SG buy

**εwəsε** me tə MOD 1SG buy

(42) Your friend asks you what you desire/want to do today since it is a holiday and you both are not required to do any tasks today. You say... I WANT to go to the cinema.

<sup>\*</sup>me esese me to

ויא	- 4	tested
1	$\alpha$	TACTAC
1 7	V/L	LUSLUU

(43) A daughter tells her parent... My friend WANTS to come visit me.

Not tested.

## Table of Akan modals

MODALS	EPISTEMIC	ROOT/NON-EPISTEMIC						
		PARTICIPA	NT-EXTERNAL	PARTICIPANT-INTERNAL				
	Epistemic	Deontic	Teleological	Circumstantial	Bouletic			
Necessity	esese a-gye-se	ε-ho-hia  // εsεsε  // εwɔsε	EWOSE  //  ESESE (marginally acceptable according to consultant)	εwosε preferred over εsεsε but both possible	ESESE // EWOSE			
Weak Necessity	Esese // sewse	Esese // ewose	εwosε // preferred		1			
Possibility	ebia (adverbial)  // gyama (adverbial)  //  (e)be-tumi	be-tumi	(be-)tumi  (first thing that comes to mind)	tumi / be-tumi	<del>-</del>			
Non necessity	ebetumi / ebia + eni (not)	ε-ho-hia + negation (N) most natural	ε-ho-n-hia (ε-ho-hia + negation)	ebetumi	_			
Impossibility	NEG (n) + tumi	NEG (n) + tumi	NEG (n) + tumi	NEG (n) + tumi	_			

	//	//	
	where n ensese	ensese	
18 1	NEG //	//	
	enwose	enwose	

Preliminary table of modals for Akan (based on the above questionnaire and Owusu 2014).

## References:

Owusu, A. (2014). Linguistic Strategies in the Expression of Modality in Akan. M.Phil Thesis University of Ghana, Legon.