# Modals in Hausa

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(created for the UKRI FLF project "Logic in Semantic Universals" based on Vander Klok 2021 "Revised modal questionnaire for cross-linguistic use")

Language name: Hausa

ISO 639-3: hau

Glottolog: haus1257

Consultant demographics: A male speaker of Standard Hausa (Kananci dialect spoken in

Kano state, Nigeria).

He also has knowledge of other Hausa dialects.

He speaks English as a second language and also has

knowledge of Arabic.

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# **BODY OF THE QUESTIONNAIRE**

### A. EPISTEMIC

# A1 Epistemic Necessity

Target: epistemic vs. deontic necessity.

- (3) and (4) target only 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).**

DoleneBenyananinkaya.MODCOPBen3sg.m.ipfvswim

- Comment: Lallai could fit as well, but dole is better because it conveys (strong) necessity.
- (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**.

DoleJohnyanaamakaranta.MODJohn3sg.m.ipfvprepschool

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

Doleyanaa cikinC.MOD3sg.m.ipfvprepC

(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 concludes that **the dog must not be in the house**.

Dolekarenbayaaa cikin gidan.MODdog.def neg3sg.mprephouse.def

### A2 Epistemic Weak Necessity

Target: epistemic weak necessity vs. deontic weak necessity (6) is also compatible with testing for epistemic possibility.

(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 and your friend asks where Ann is. You say to your friend: **Ann should be at the lake right now.** 

Lallai Ann tanaa a tekun yanzu haka. MOD Ann 3sg.f.ipfv at lake now exactly

- Comment: *Dole* would also work.
- (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.

Lallai a na yin ruwa a Goa yanzu.

MOD 3sg.neut.ipfv do water prep Goa now

- Comment: *Dole* would also work, but make it stronger.
- (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. You think to yourself: **Mary should be at home**.

Lallai Mary tanaa a gida.

MOD Mary 3sg.f.ipfv prep house

- Comment: *Dole* would also work here.

## A3 Epistemic Possibility

Target: epistemic possibility vs. epistemic necessity (11) targets epistemic possibility vs. deontic 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 be coming to school today**.

Wataƙilazaishigomakarantayau.MODZA.3sg.m.sbjvcome/enterschooltoday

- Comment: watakila (might) could be written as kila
- (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. She hasn't checked her sister's wardrobe, yet, but **Grace's necklace might be lost**.

Wataƙila/ƙilaabin-wuyan Graceyaabace.MODnecklaceGrace3sg.m.pfvlost

(10) Charles is looking for his pet cat, but cannot find it. He knows that his cat is very elusive and mysterious. Charles tells his sister:

The cat may be inside. The cat may also be outside.<sup>1</sup>

Wataƙila magen tanaa a ciki. Wataƙila kuma magen tanaa a waje. MOD cat 3sg.f.ipfv inside. MOD also cat 3sg.f.ipfv outside.

(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 might go to New York**.

WatakilaDanielzaitafiNew York.MODDanielZA.3sg.m.sbjvgoNY

<sup>1</sup> (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).

# 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 may not be at home / It is not certain that Mary is at home.

Wataƙila Mary bataagida.MODMary neg3sg.f.sbjvprephouse

Babu tabbacin cewar Mary tanaa a gida. there.is.not certainty comp Mary 3sg.ipfv prep house

(Mary doesn't have to be at home): comment: Consultant was explicitly asked for a translation of this sentence in the context.

Ba dole bane Mary ta kasance a gida. neg MOD neg.cop Mary 3sg.f.sbjv be prep house

## 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**.

Ba zai yiwu Ben ya kasancea gida ba. neg ZA.3sg.m.sbjv MOD B. 3.sg.m be prep house neg

(3') The math teacher says: There are 3 boxes. The ball is in box A or in box B or in box C. We opened box A, and the ball is there. There is only one ball. So, it can't be in C.

Ba za ta kasance a cikin C ba.
neg ZA 3sg.f.sbjv be prep C neg

Ba zai yiwu tanaa cikin C ba. neg **ZA**.3sg.m.sbjv **MOD** 3sg.f.ipfv prep C neg

- Both versions volunteered
- 2nd version: "it is not possible it is in C"
- ("Ball" is a feminine noun (ƙwallo))

# **B. DEONTIC**

### **B1** Deontic Necessity

Target: deontic necessity

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

**Dole** ku/ka/ki saka hular kwano/kwalkwali.

MOD 2pl.neut/m/f.sbjv wear helmet

- Comment: Kwalkwali is an alternative (dispreferred) word for helmet
- Three versions for three possible genders: neutral/impersonal, singular masc, singular fem
- (ka is a short vowel)
- (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."

Dolenemaziyarta suwuce dakarfe 6pm.MODcopvisitor3pl.sbjvleave prephour 6pm

# **B2** Deontic Weak Necessity

Target: 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.

Ya kamata in saka tufafin [da suka dace zuwa wajen bukin].

MOD lsg.sbjv wear clothes [...]

- Comment: wajen means "venue of"
- (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:... Guests ought to wash their hands too!

Ya kamatamabakinsuwankehannayensu.MODalsoguests3pl.sbjvwashhands.their

- Comment: non-employees changed to guest
- ma = kuma (also/too)
- (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.

Ya kamata in saka kyallen rufe fuska.

MOD 1sg.sbjv wear face.covering

# **B3** Deontic Possibility

Target: deontic possibility vs. deontic necessity (22) and (23) target deontic possibility vs. circumstantial 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, but **Martin may ride the ferris wheel.** 

Wataƙila Martin zai tuka wil dîn ferris.MOD Martin ZA.3sg.m.sbjv drive wheel of ferris

(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 after visiting hours. But the really nice nurse says... You may enter.

**Za** ka/ki/ku **iya** shiga. **ZA** 2sg.m/f/neut.sbjv **MOD** enter

(21) You are making plans for tomorrow night to meet up with your friend. Your friend says: You can stay overnight or you can go home.

Za ka/ki/kuiyakwana kozaka/ki/kuiyatafiyagida.ZA 2sg.m/f/neut/sbjvMODstayorZA2sg.m/f/neut/sbjvMOD gohome

You can stay overnight. You can also go home.

Za ka/ki/ku iya kwana. Za ka/ki/ku iya tafiya gida.
 ZA 2sg.m/f/n.sbjv MOD stay ZA 2sg.m/f/n.sbjv MOD go home

(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, although according to the doctor's orders **Alice can lift her baby**.

```
Alice za ta iya daukar jaririyarta/jaririnta.
Alice ZA 3sg.f.sbjv MOD lift baby.girl/baby.boy
```

(23) Beth's teacher told her class that it was okay to go swimming, but Beth doesn't want to because she has never learnt to swim! However, as far as the teacher's directions are concerned...

#### Beth can go swimming.

```
Beth za ta iya zuwa iyo/ninkaya.
Beth ZA 3sg.f.sbjv MOD go swim
```

Comment: iyo and ninkaya are two different words for "swim".

### **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.

```
Ва
       lallai/dole
                       ba
                                              saka
                                                      kayan/suturar bukin.
                              ne
                                      in
       MOD
                                                      clothes party
neg
                              cop
                                      1sg
                                              wear
                       neg
Bahu
       bukatar sai
                       naa
                              saka
                                      kayan/suturar bukin.
neg
       need
               SAI
                       1sg
                              wear
                                      clothes party
```

Comment: second version comes to mind for the "needn't" version (naa here has a long vowel)

(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 wear a face covering.

```
Ba lallai/dole ba ne in saka kyallen rufe fuska.
neg MOD neg cop 1sg wear face.covering
```

Babu **buƙatar** in saka ƙyallen rufe fuska.

neg need 1sg.sbjv wear face.covering

## **B5** Deontic impossibility

(12') In Indonesia, the law states that when you ride a motor bike... You mustn't ride a motor bike without a helmet.

Kadaka/ki/kutukamashinbatare da hular kwano/kwalkwaliba.MOD2sg.m/f/neut.sbjvdrivemotorbikenegwithhelmet...neg

(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 mustn't stay after 6pm."

**Kada** maziyarta su wuce karfe 6 na yamma.

**MOD** visitors 3pl.sbjv stay hour 6 pm

#### C. TELEOLOGICAL

# C1 Teleological Necessity

Target: 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**.

**Dole** ka/ki/ku bi wannan hanyar/titin.

MOD 2sg.m/f/neut take this road

(25) Team A are playing in a tournament. In order to advance... Team A has to beat Team B.

#### Nigeria has to beat Ghana.

DoleneNajeriyatabugeGhana.MODcopNigeria3sg.f.sbjvbeatGhana

Dolenetawagar ƙwallon Atabugetawagar ƙwallon B.MODcopteamfootball A3sg.f.sbjvbeatteam football B

(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) (don cin mafi kyawun pizza).

Dole daga Gino. ти vi oda ne MOD cop order from Gino 1pl.sbjv do Dole Gino. ne ти sayo daga MOD cop 1pl.sbjv buy from Gino

## C2 Teleological Weak Necessity

Target: teleological weak necessity

(27) There are different ways to get to the shopping centre. You can go by foot, by bus, or drive 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.

Ya kamata ka/ki/ku shiga bas.
MOD 2sg.m/f/neut.sbjy take bus

- Comment: *lallai* or *dole* would be strong necessity (you don't have any option)
- (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**.

Ya kamata ka/ki/ku bi ta ƙananan hanyoyin. MOD 2sg.m/f/neut.sbjv take via small.pl roads

(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.

Ya kamataka/ki/kujeshago na.MOD2sg.m/f/neut.sbjvgoshop my

# 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.

**Za** ka/ki/ku **iya** bin hanya ta 1. **ZA** 2sg.m/f/neut.sbjv **MOD** take way via 1

(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.

Za mu iya zuwa/tafiya wurin yin iyo/ninƙaya da ke ta yamma.
 ZA lpl.sbjv MOD go place do swim to the west

(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.

Za ka/ki/ku iya zuwa shagon sayar da tufafi.
 ZA 2sg.m/f/neut.sbjv MOD go shop selling of clothes

# C4 Teleological non-necessity

(27') There are different ways to get to the shopping centre. You can go by foot, by bus, or drive 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 take the bus.

Balallai/dolebaneka/ki/kubi bas.negMODnegcop2sg.m/f/neut.sbjvtake bus

Babubukatarka/ki/kubi bas.negneed2sg.m/f/neut.sbjvtake 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.

Ba za ka/ki/ku iya bin wata hanyar ba. neg ZA 2sg.m/f/neut.sbjv MOD take another road neg

(25') Team A are playing in a tournament. In order to advance... Team A can't lose to Team B.

Tawagarkwallon A baza taiyabuge tawagarkwallon B ba.teamfootball A negZA 3sg.f.sbjvMODbeat teamfootball B ba

"Team A can't beat team B."

## D. CIRCUMSTANTIAL

# **D1 Circumstantial Necessity**

Target: circumstantial necessity; (35) with inanimate subject

(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!

Doleinkewayada sauri.MOD1sg.sbjv go.aroundquickly/badly

- Comment: This version is preferred for register reasons (more respectful)

(Naa matsu sosai.)1sg.pfv badly pressed

(*Dole* ne in je/tafi bayi da sauri.)

MOD cop 1sg.sbjv go toilet quickly/badly

(34) In the middle of a conversation, you feel a sneeze coming on... Excuse me! I have to sneeze.

Doleinyiatishawa.MOD1sg.sbjvdosneeze

(35') Water is entering a pipe, which has two outputs: the left output and the right output. You block the left output so that **the water must come out from the right output**.

Doleruwanyafitatagefen dama.MODwater3sg.m.sbjvcome.outthrough output right

# D3 Circumstantial Possibility

Target: (36) & (37) circumstantial possibility vs. epistemic possibility (38) circumstantial possibility

#### (39) & (40) circumstantial possibility vs. deontic 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, where *duku* trees grow. 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 grow here.

```
Itatuwan duku za su iya girma a nan.
trees duku ZA 3pl.sbjv MOD grow prep here
```

(37) Amy was in Italy and learned 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 make traditional Italian pasta (but she does not have the ingredients).

```
Amy za ta iya girka taliyar Italiya ta gargajiya.
Amy ZA 3sg.f.sbjv MOD cook pasta Italian prt tradition
```

(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.** 

```
Ben
       zai
                     iya
                             tafiya
                                    yanzu.
Ben
       ZA.3sg.m.sbjv MOD walk
                                    now
Ben
      yana
                     iya
                             tafiya
                                   yanzu.
Ben
       3sg.m.ipfv
                     MOD walk
                                    now
```

(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 Paul straightaway for help (but he didn't tell Paul's children!). Rob knew that... Paul can lift that rock.

```
Paul zai
                                      wancan dutsen.
                      iva
                              daga
Paul ZA.3sg.m.sbjv
                      MOD lift
                                      that
                                             rock
Paul
                                      wancan dutsen.
       yanaa
                      iya
                              daga
Paul
       3sg.m.ipfv
                      MOD lift
                                      that
                                             rock
```

- Comment: both variants are appropriate/equivalent

(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**.

```
Motocin safara za
                                     daidai da
                                                     mutane 20.
                      su
                              γi
        travel ZA
                      3pl.sbjv do
vans
                                      fit
                                             with
                                                     people 20
Motocin safara sunaa
                                     daidai da
                                                     mutane 20.
                              vin
        travel 3pl.ipfv MOD do
                                                     people 20
vans
                                      fit
                                             with
```

- Comment: both variants appropriate

# 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. **The volcano doesn't have to erupt**.

```
Ba dole ba ne dutsen volcano ya yi aman-wuta.
neg MOD neg cop rock volcano 3sg.m.sbjv do eruption
```

# D5. Circumstantial impossibility

(34') Ben was in a motorbike accident 3 weeks ago. He sprained his ankle and is in a lot of pain. **Ben can't walk.** 

```
Ben ba zai iya tafiya ba.
Ben neg ZA.3sg.m.sbjv MOD walk neg
```

(36') Ani came to visit a small Caribbean island. She noticed that the climate and many of the plants are very different to the places she visited in Indonesia, where *duku* trees grow. The types of rocks and the soil are different as well. She doesn't know whether or not there are *duku* trees on the island. But because the temperature, rainfall, and soil are so different, she thinks that... *duku* trees can't grow here.

```
Itatuwan duku ba
                                                                         ba.
                      za
                             su
                                            iya
                                                   girma a
                                                                  nan
                                            MOD grow
trees
       duku
                      ZA
                             3pl.sbjv
              neg
                                                           prep
                                                                  here
                                                                         neg
```

# 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 must buy that handbag.

```
Doleneinsayiwancan jakkar.MODcop1sg.sbjv buythathandbag
```

(42) Your friend asks you what you want to do today since it is a holiday and you both are not required to do any tasks today. However, you absolutely want to see this new movie that everyone is talking about-You say... I must go to the cinema.

```
Doleneintafisinimar.MODcop1sg.sbjv gocinema"I must go..."
```

```
Inaa son in tafi sinimar.
Isg.ipfv want 1sg.sbjv go cinema
"I want to go..."
```

- Comment: Both ok in the context, difference. With *dole* it feels more necessary/urgent, with *son* it just expressed the will
- (43) A daughter tells her parent... My friend wants to come visit me.

```
Abokina yanaa son ya kawo mani ziyara. friend.m.my 3sg.m.ipfv want 3sg.m.sbjv come to.me visit
```

# Table of Hausa Modals:

MODALS	EPISTEMIC	ROOT/NON-EPISTEMIC			
		PARTICIPANT-EXTERNAL		PARTICIPANT-INTERNAL	
	Epistemic	Deontic	Teleological	Circumsta ntial	Bouletic
Necessity	Dole + ipfv/pfv,	<b>Dole</b> + sbjv	<b>Dole</b> (+ ne) + sbjv	Dole + sbjv	<b>Dole</b> + ne + sbjv (=must), <b>Son</b> + sbjv (=want)
Weak Necessity	Lallai + ipfv, (Dole + ipfv)	Ya kamata + sbjv	Ya kamata + sbjv		
Possibility	Wataƙila + za / ipfv/pfv,	Wataƙila + za, Za + iya	Za + iya	Za + iya, ipfv + iya	
Non necessity	Wataƙila > NEG, NEG > dole	NEG > dole/lallai, Babu bukatar ("no need") + sai	NEG > dole/lallai, Babu buƙatar ("no need") + sbjv	NEG > dole	
Impossibility	NEG > za (+ yiwu)	Kada + sbjv	NEG > za + iya	NEG > za + iya	

Comment: za = za + sbjv ("za" always occurs with subjunctive/prospective TAM)