

# Modals in Kĩĩtharaka

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“Revised modal questionnaire for cross-linguistic use”)

Language name:	Kĩĩtharaka
ISO 639-3:	thk
Glottolog:	thar1283
Consultant demographics:	A speaker of the îgoki dialect of Kĩĩtharaka (mostly spoken in Chiakariga sub-county). They also speak Kiswahili.
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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).

<i>Ben</i>	<i>n'wa</i>	<i>mwanka</i>	<i>wiigue</i>	<i>akĩbutagĩra</i>	<i>thaa</i>	<i>ino.</i>
Ben	ni-wa	mũ-anka	wiigue	a-kĩ-buut-ag-ĩr-a	thaa	ino
Ben	foc-MOD	3-MOD	be	1sm-situation-swim-hab-appl-fv	time	these <sup>1</sup>

- Can start with *n'wa mwanka*:

<i>N'wa</i>	<i>mwanka</i>	<i>wiigue</i>	<i>Ben</i>	<i>akĩbuutagĩra</i>	<i>thaa</i>	<i>ino.</i>
Ni-wa	mũ-anka	wiigue	Ben	a-kĩ-buut-ag-ĩr-a	thaa	ino
Foc-MOD	3-MOD	be	Ben	1sm-situation-swim-hab-appl-fv	time	these

<sup>1</sup> Sm = subject marker; hab = habitual; appl = applicative; fv = final vowel; sbjv = “subjunctive” marker; foc = focus

- Natural as a response to “What is Ben doing right now?”

(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.

(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.

<i>N’wa</i>	<i>mwanka</i>	<i>wîgue</i>	<i>mû-biira</i>	<i>û-ri</i>	<i>C.</i>
Ni-wa	<b>mû-anka</b>	wîgue	mû-biira	û-ri	C
Foc-MOD	3-MOD	be	3-ball	3sm-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 elicited

## 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. You say to your friend: Ann **SHOULD** be at the lake right now.

<i>Ann</i>	<i>a-ûmba</i>	<i>kû-îgua</i>	<i>a-rî</i>	<i>î-ria-ni.</i>
Ann	1sm-MOD	inf-be	1sm-be	5-lake-loc

“It is likely that Ann is at the lake”

(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.

- Not elicited

(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.

- Not elicited

Additional sentence elicited

*Mû-arimû*      *n'-wa-ûmbe*      *kûû-y-a.*  
 1-teacher      foc-MOD-MOD      inf-come-fv  
 “The teacher is likely to come.”

### 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.

*Mwarimu*      *n'waye*      *kana*      *ataaye.*  
*Mû-arimû*      *n'-wa-y-e*      *kana*      *a-ti-y-e*  
 1-teacher      foc-MOD-come-fv      or      1sm-neg-come-fv.subj  
 “The teacher may come or not.”

*N'-wa*      *wigue*      *mû-arimû*      *a-ka-y-a,*      *kana*      *a-ti-y-a.*  
 foc-MOD      be      1-teacher      1sm-fut-come-fv      or      1sm-neg-come-fv

(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.

- Not elicited

(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).

*Kabaka*      *n'wa*      *wigue*      *kari*      *nyomba,*      *kana*      *ûkeegua*      *kari*      *nja.*  
*Ka-baka ni-wa*      *u-îgue*      *ka-rî*      *ny-omba*      *kana*      *û-ka-îgua*      *ka-rî*      *n-ja*  
 12-cat      foc-MOD      be      12-be      9-house      or      ?-sit-be      12-be  
 9-outside

“The cat may be inside or outside.” (50/50)

(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 elicited

Additional sentence elicited:

*Ann n'wa wîgue a-rî î-ria-ni.*  
Ann foc-MOD be 1sm-be 5-lake-loc  
'Ann may be in the lake.'

## 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.

*T'wa mwanka wîgue Mary arî mûcîi.*  
Ti-wa mû-anka u-îgue Mary a-rî mû-ciî  
Neg-MOD 3-MOD ?-be Mary 1sm-be 3-home

*Ti racima wîgue Mary arî mûcîi.*

- (*racima* loaned from Swahili *lazima*)

## 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.

*Ben atiûmba kwîgua arî mûcîi.*  
Ben a-ti-ûmba kû-îgua a-rî mû-ciî  
Ben 1sm-neg-MOD inf-be 1sm-be 3-home

# *Ben atigakare mûcîi.*  
Ben a-ti-ka-kar-e mû-ciî  
Ben 1sm-neg-fut-stay-fv.sbjv 3-home

Follow-up: What would be the translation of the sentence "Ben is not at home"?

*Ben atirî mûcîi.*  
Ben a-ti-rî mû-ciî  
Ben 1sm-neg-be 3-home  
'Ben is not at home.'

(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.

<i>Mûbiira</i>	<i>ûtiûmba</i>	<i>kwîgua</i>	<i>ûrî</i>	<i>C.</i>
Mû-biira	û-ti-ûmba	kû-gua	û-rî	C
3-ball	3sm-neg-MOD	inf-be	1sm-be	C

## 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.

<i>N'wa</i>	<i>mwanka</i>	<i>wîkîre</i>	<i>elmeti.</i>
Ni-wa	mû-anka	û-îkîre	elmeti
foc-MOD	3-MOD	1sm-wear	helmet

(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."

- Not elicited

### 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.

- Not elicited

(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 elicited

(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.

<i>I</i>	<i>mbatîrî</i>	<i>gwîkîra</i>	<i>elmeti.</i>
Ni	ni-batîr-i	kû-îkîra	elmeti
Foc	1.sg-MOD-noml?	inf-wear	helmet

"I am supposed to wear a helmet."

## 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. Martin MAY / #must ride the ferris wheel.

- Not elicited

(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 enter.

*N'wa*                *ûthûngîre.*  
*Ni-wa*            *û-thûngîr-e*  
**Foc-MOD**        1sm-enter-sbjv.fv  
"You may/can enter."

*N'okathûngîra.*  
*Na-û-ka-thûngîra*  
With-1sm-**sbjv**-enter  
"You can enter"  
"(I will) let you enter"

Translation of "You enter (the hospital).":

*Thûngîra.*  
*Thûngîr-a*  
Enter-fv  
"Enter."

*N'athûngîre.*  
*Ni-a-thûngîr-e*  
**Foc-1sm-enter-fv.sbjv**  
"Let him enter."

(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.

<i>N'wa</i>	<i>ûraare,</i>	<i>kana</i>	<i>ûkeenûka.</i>
<i>Ni-wa</i>	<i>û-raare</i>	<i>kana</i>	<i>û-ka-înûka</i>
<b>Foc-MOD</b>	1sm-spend.the.night	or	1sm-sbjv-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... Alice CAN lift her baby.

- Not elicited

(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.

- Not elicited

## 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.

*Ti racima.*  
neg MOD

*T'wa mwanka.*  
Ti-wa mû-anka  
neg-MOD 3-MOD

Full sentence ("I don't have to wear formal clothes."):

<i>Ti racima wîkîre</i>	<i>nguo</i>	<i>cia</i>	<i>ûbici.</i>
Ti <b>racima</b> û-îkîr-e	n-guo	ci-a	û-bici
neg MOD 2sg.sm-wear-sbjv	10-clothes	10-Connector	14-office

"Not a must that you wear official clothes."

<i>T'wa mwanka wîkîre</i>	<i>nguo cia ûbici.</i>
Ti-wa mû-anka û-îkîr-e	n-guo ci-a û-bici
neg-MOD 3-MOD	2sg.sm-wear-sbjv 10-clothes 10-Connector 14-office

"Not a must that you wear official clothes."

(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 elicited

## 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.

<i>Ūtikathiithie</i>	<i>bikibiki</i>	<i>ūtari</i>	<i>na</i>	<i>elmeti.</i>
Ū-ti-ka-thiith-i-e	bikibiki	û-ti-rî	na	elmeti
1sm-neg-fut-ride-ic-fv.sbjv	motorbike	1sm-neg-be	with	helmet

Translation of “You are not riding a motorbike without a helmet.”:

<i>Ūtikûthiithia</i>	<i>bikibiki</i>	<i>ūtari</i>	<i>na</i>	<i>elmeti.</i>
Ū-ti-kû-thiith-i-a	bikibiki	û-ti-rî	na	elmeti
1sm-neg-pres-ride-ic-fv	motorbike	1sm-neg-be	with	elmeti

“You are not riding a motorbike without a helmet.”

(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.”

<i>Ageni</i>	<i>batigakinyithie</i>	<i>thaa</i>	<i>kûmi</i>	<i>na</i>	<i>ciîrî</i>	<i>gûkû.</i>
A-genî	ba-ti-ka-kiny-ith-i-e	thaa	kûmi	na	ci-îrî	kû-kû
2-visitors	2sm-neg-fut-reach-caus-ic-fv.sbjv	hours	ten	and	10-two	17-in.here

“Visitors should not be here after 6:00pm.”

- *Ti umba* is not felicitous here.

Translation of “Visitors aren't here after 6pm.” / “Visitors don't come here after 6pm.”:

<i>Ageni</i>	<i>batîjaga</i>	<i>aaga</i>	<i>nyuma</i>	<i>ya</i>	<i>thaa</i>	<i>kûmi</i>	<i>na</i>	<i>ciîrî.</i>
A-genî	ba-ti-ja-ag-a	a-ga	nyuma	ya	thaa	kûmi	na	ci-îrî
2-visitors	2sm-neg-come-hab-fv	16-dem.prox	after	5-conn	hour	twelve		

“Visitors don't come here after 6:00pm.”

...*batikinyithagia* ...  
 Ba-ti-kiny-ith-ag-i-a  
 2sm-neg-reach-caus-hab-ic-fv



## 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.

<i>N'wa</i>	<i>ûthiire</i>	<i>barabara</i>	<i>îno.</i>
Ni- <b>wa</b>	û-th-ire	barabara	î-no
Foc- <b>MOD</b>	1sm-go-pfv	road	9-dem.prox

“You must follow this road.”

Cf. the following is a possibility statement. It is infelicitous in 24:

# <i>N'wa</i>	<i>ûthi</i>	<i>barabara</i>	<i>îno.</i>
Ni- <b>wa</b>	û-thi	barabara	î-no
Foc- <b>MOD</b>	2sg.sm-go	road	5-dem.prox

“You can use this road.”

<i>N'wa</i>	<i>mwanka</i>	<i>ûthi</i>	<i>barabara</i>	<i>îno.</i>
Ni- <b>wa</b>	mû- <b>anka</b>	û-th-i	barabara	î-no
Foc- <b>MOD</b>	3- <b>MOD</b>	1sm-go-fv	road	9-dem.prox

“You must follow this road.”

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

<i>Team A</i>	<i>n- 'wa</i>	<i>î-tur-ire</i>	<i>Team B.</i>
Team A	Foc- <b>MOD</b>	5sm-beat-pfv	Team B

  

<i>Team A</i>	<i>n- 'wa</i>	<i>mwanka</i>	<i>î-tur-ire</i>	<i>Team B.</i>
Team A	Foc- <b>MOD</b>	3- <b>MOD</b>	5sm-beat-pfv	Team 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.

- Not elicited

## 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 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.

*N'atûmîre*                      *mbasi.*

N-a-tûmîr-e                      m-basi

Foc-1sm-use-fv                      9-bus

“Let him/her use a bus.”

*N'agatûmîra*                      *mbasi.*

N-a-ka-tûmîr-a                      m-basi

Foc-1sm-sbjv-use-fv                      9-bus

“S/he can use a bus.”

(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 elicited

(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 elicited

## 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.

*N'wa*                      *ûtûmîre*                      *mbasi*    *kana*    *baisikiri.*

Ni-**wa**                      û-tûmîr-e                      m-basi    kana    baisikiri

Foc-**MOD**                      2sg.sm-use-fv.sbjv                      9-bus    or    9.bicycle

“You can use a bus or a bicycle.”

- Comment: without *n'wa* we don't get the “can” meaning, it's more like an instruction

Translation of “You use a bus (to get to the city centre).”:

*Aritûmîra mbasi.*  
 A-rî-tûmîr-a m-basi  
 1sm-be-use-fv 9-bus  
 “S/he is using a bus.”

(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 elicited

(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 elicited

## 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.

*T'wa mwanka ûtûmîre mbasi.*  
 Ti-wa mû-anka û-tûmîr-e m-basi  
 neg-MOD 3-MOD 2sg.sm-use-fv.sbj 9-bus  
 “Not a must that you use a bus.”

*Ti racima ûtûmîre mbasi.*  
 Ti racima û-tûmîr-e m-basi  
 neg MOD 2sg.sm-use-fv.sbj 9-bus  
 “Not a must that you use a 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.

*Ûtitûmîra njîra yîngî kûthi B.*  
 Û-ti-tûmîr-a n-jîra î-ngî kû-thi B  
 2sg.sm-neg-use-fv 9-path 5-other 15-go B  
 “You don't use another path to go to B.”

- *Ti umba* can be used as well:

*Ūtiŭmba*                      *gûtûmîra*              *njîra*    *yîngî*    *kûthi*    *B.*  
 Ū-ti-ŭmba                      kû-tûmîr-a              n-jîra    î-ngî    kû-thi    B  
 2sg.sm-neg-MOD              pres-use-fv              9-path    5-other    15-go    B  
 “You can’t use another path to go to B.”

# *Ūtigatûmîre*    *njîra*    *yîngî*    *kûthi*    *B.*  
 Ū-ti-ka-tûmîr-e    n-jîra    î-ngî    kû-thi    B  
 2sg.sm-neg-fut-use-fv.sbj    9-path    inf-go to B  
 “You shall not use another path to go to B.”

- Comment: not felicitous in the given context... suggests that there is another road, but sb. advises you to not to take another road. Translation: “You don’t use another path to go to B.”

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

- Not elicited

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

*N’wa*                      (*mwanka*)              *mbathimûrire.*  
 Ni-wa                      (mû-anka)              ni-bathimûr-ire  
 Foc-MOD              3-MOD              1sg.sm-sneeze-pfv  
 “I must/have to sneeze.”

(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.

- Not elicited

### 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. 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.

<i>Mî-tî</i>	<i>ya</i>	<i>duku</i>	<i>n'wa</i>	<i>îkûre</i>	<i>Indonesia.</i>
Mî-tî	ya	duku	ni-wa	î-kûr-e	Indonesia
4-trees	of	duku	foc-MOD	5-grow-fv.sbj	Indonesia

"Duku trees can grow in Indonesia."

Translation of "Duku trees grow in Indonesia.":

<i>Mî-tî</i>	<i>ya</i>	<i>Duku nîkûraga</i>	<i>Indonesia.</i>
Mî-tî	î-a	Duku ni-î-kûr-ag-a	Indonesia
3-trees	5-conn	Duku foc-5-grow-hab-fv	Indonesia

"Duku trees grow in Indonesia."

(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 make traditional Italian pasta (but she does not have the ingredients).

<i>Kirimi n'waruge</i>	<i>chapati indî</i>	<i>atirî</i>	<i>na</i>	<i>into</i>	<i>bia</i>	<i>kûruga.</i>
Kirimi ni-wa-ruge	chapati indî	a-ti-rî	na	i-nto	bi-a	kû-ruga
Kirimi foc-MOD-cook	chapati but	1sm-neg-be	with	8-things	8-of	15-cook

"Kirimi can cook chapati but, unfortunately, he doesn't have the ingredients."

The following is infelicitous in the context:

# <i>Kirimi n'akaruga</i>	<i>chapati.</i>
Kirimi ni-a-ka-ruga	chapati
Kirimi with-1sm-sbjv-cook	chapati

"Let Kirimi cook chapati"

(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 elicited

(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.

- Not elicited

(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.

- Not elicited

#### 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.

*T'wa mwanka kîrîma kîribûke.*  
 Ti-wa mû-anka kî-rîma kî-ribûk-e  
 neg-MOD 3-MOD 7-mountain 7-explode-fv.sbjv  
 "Not a must that the mountain erupts (lit:explode)."

*Ti racima kîrîma kîribûke.*  
 Ti racima kî-rîma kî-ribûk-e  
 neg MOD 7-mountain 7-explode-fv.sbjv  
 "Not a must that the mountain erupts (lit:explode)."

#### D5. Circumstantial impossibility

(34') In the middle of a conversation, you feel a sneeze coming on... Excuse me! I **CAN'T** help sneezing!

- Not elicited

(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.

*Ti umba.*  
 neg MOD

(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.

<i>Mîî</i>	<i>ya</i>	<i>Duku</i>	<i>îîûmba</i>	<i>gûkûra</i>	<i>Indonesia.</i>
Mî-tî	î-a	Duku	î-ti-ûmba	kû-kûr-a	Indonesia
3-tree	5-conn	Duku	5-neg-MOD	inf/15-grow-fv	Indonesia

"Duku trees can't grow in Indonesia."

## 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.

<i>N'wa</i>	<i>mwanka</i>	<i>ngûre</i>	<i>gîkombe</i>	<i>gîkî.</i>
Ni-wa	mû-anka	ni-gûre	kî-kombe	kî-kî
Foc-MOD	3-MOD	1sg.sm-buy	7-cup	7-dem.prox

"I must/have to buy this cup."

<i>N'wa</i>	<i>ngûrîre</i>	<i>gîkombe</i>	<i>gîkî.</i>
Ni-wa	ni-gûr-ire	kî-kombe	kî-kî
Foc-MOD	1sg.sm-buy-pfv	7-cup	7-dem.prox

"I must/have to buy this cup."

(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.

- Not elicited

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

- Not elicited

Table of Kîtharaka Modals

MODALS	EPISTEMIC	ROOT/NON-EPISTEMIC			
		PARTICIPANT-EXTERNAL		PARTICIPANT-INTERNAL	
	Epistemic	Deontic	Teleological	Circumstantial	Bouletic
<b>Necessity</b>	<i>N'wa mwanka</i>  <i>N'wa + pfv</i>	<i>N'wa mwanka</i>  <i>N'wa + pfv</i>	<i>n'wa mwanka</i>  <i>N'wa + pfv</i>	<i>n'wa mwanka</i>	<i>n'wa + pfv</i>  <i>n'wa mwanka</i>
<b>Weak Necessity</b>	<i>ûmba</i>	<i>Batûir-i</i>  <i>*ûmba</i>	<i>??</i>  <i>*ûmba</i>	<i>--</i>	<i>...</i>
<b>Possibility</b>	<i>n'wa</i>	<i>N'wa</i>	<i>n'wa</i>	<i>n'wa</i>	<i>...</i>
<b>Non necessity</b>	<i>Ti (neg) wa mwanka/ti racima</i>	<i>Ti wa mwanka/ti racima</i>	<i>Ti wa mwanka/ti racima</i>	<i>Ti wa mwanka/ti racima</i>	
<b>Impossibility</b>	<i>ti umba</i>	<i>Ti (neg) +ka</i>	<i>Ti (neg) + verb/ti umba</i>	<i>Ti umba</i>	



