Modals in Basque

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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: Basque

ISO 639-3: eus

Glottolog: basq1248

Consultant demographics: A female speaker of the Standard Basque from the Bilbao area.

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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).

Beñat igeri egiten egon **behar** da /du. Name swim do-atelic stay MOD aux.intransitive /aux.transitive 'Ben must be swimming'

- (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.
- .. *egon behar da* /du.
 Stay MOD aux.int / aux.trns
- (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.

... Izan **behar** da/du.

... be MOD

(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.

Txakurra etxean egon **behar** da /du — Dog home be must aux.intr / aux.tr 'The dog must be at home'

Txakurra etxean egonen **behar** da / du — Dog home be-EN must aux.intr / aux.tr 'The dog must be at home'

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.

Ane laku-an izan **behar** da orain. Name lake-in be BEHAR aux now

Ane lakuan izanEN da orain.

Comment: "Here, EN-version is not felicitous because the speaker has not exhausted the possibilities (the mountain option is not completely eliminated)"

(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.

#Euria egin **behar** du.

Rain do/make must aux

Goan euria egitekotan egon behar du orain.

Goa rain do-at.the.verge.of stay must aux now.

"Must be the case at the verge of raining"

(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.

Bera/Hura ikastolara/eskolara etor LITEKE (might) / #DAITEKE (can)
He school come HYPOTHETICAL

Hura ikastola-ra/eskola-ra etor LITEKE (might) / #DAITEKE (can)
He school-ALL come be.potential_FUT (?) / #be.potential_PRES
'He might come to school'

(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.

Garazi-ren lepokoa galduta egon **LITEKE**Grace-GEN(?) necklace lost be be.potential_FUT
'Grace's necklace might be lost'

(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).

Katu-a barruan edo kanpoan egon (*BA)LITEKE.
Cat-det inside or outside be be.potential_FUT
'The cat may be inside or 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 MAY / MIGHT / #is allowed to go to New York.

Also LITEKE

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.

Baliteke Miren etxean ez egoteA.

Might Mary home not being

Miren etxean egon behar da, baina *(BA-)LITEKE etxean EZ egoteA.

Mary home be SHOULD aux, but HYPOTHETICAL-might home NOT being

Comment: There is no item that fits in the following blank and expresses non-necessity

Benat ____ da etxean egon.
___ aux home be

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.

Benat **EZIN** da etxean egon Ben CAN'T aux home be 'Ben can't be 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.

Not tested.

B. DEONTIC

B1 Deontic Necessity

- (12) In Indonesia, the law states that when you ride a motor bike... You MUST wear a helmet.
- (Zu) Kasko-A eraman behar duzu. You helmet-DET wear MUST aux.2sg 'You must wear 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 leave by 6pm."

Bisitari-AK 6tik aurrera joan behar dira. visitor-DET.pl 6from onwards leave MUST aux.pl 'Visitors must leave from after 6pm'

(X) Telling a child to stay at home as a form of punishment: You MUST stay home

egon **behar** #egonen **behar**

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.

(nik) Arropa formala (gainean) eraman behar dut festara. (Me) Clothes formal (on.top) bring must aux.1sg party

(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!

Bezeroek bere eskuak garbi DITZAKETE. Customers their hands clean izan.3pl.pot 'Customers can wash their hands' Comment: no obligation meaning; rather fits possibility

Bezeroek bere eskuak garbitu beharko lituzkete. "highly recommended that you wash your hands"

#Bezeroek bere eskuak garbitu behar dituzte.

(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.

(Nik) maskara bat eraman behar dut. You mask indef carry MUST aux 'You must carry a mask'

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.

Martin noria-n ibili AHAL da. M. ferris.wheel-LOC go.on MOD aux

Martin noria-n ibili DAITE**KE**

(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.

(Zu) sartu AHAL zara (you) enter MOD aux.2sg

(Zu) sartu **ZAITEZKE** You enter be.2sg.POT

(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.]

(Zuk) gaua hemen [pasa/igaro ahal duzu] / [pasa/igaro dezakezu]. (you) night here stay.over MOD aux.2sg / stay.over be.2nd.present.ergative.potential

Etxera ERE joan **ahal** zara// joan zaitezke House-to also go MOD be.2sg// go be.2sg.pot

(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.

Aliz-EK bere semea altxa **DEZAKE**Alize-erg poss baby lift be.3sg.pot.erg

(Aliz altxa DAITEKE)
Aliz lift be.3sg.pot.abs

#Aliz-EK bere semea altxatu **ahal** du Alice-erg poss baby lift MOD aux.3sg

Comment: the last sentence does not have the reading where "she's not able physically")

(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 igeri egitera joan **DAITEKE Swim do go**#Beth igeri egitera joan **AHAL** da.

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.

(Nik) Ez dut <u>arropa formala</u> eraman **BEHAR** I neg aux Clothes formal wear MUST

If it has to be conjoined with (16) *Arropa formala eraman behar dut, baina (Nik) Ez dut <u>arropa formala</u> eraman BEHAR*

Consultant's comment: 'could be contradictory in the above form'

One way to conjoin *ought* with *non-necessity*: reduplication of the verb in the second conjunct *Arropa formala eraman behar dut, baina ez dut eraman eraman BEHAR*

(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 mask].

Ez dut maskara eraman behar Neg aux mask wear MOD

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.

*EZIN ZENUKE motorra kaskor-ik gabe gidatu*Imposs be.2sg.erg.pot motorbike helmet-PART without ride

(wouldn't be able to...)

EZIN duzu motorra kaskor-ik gabe gidatu Imposs aux.2 motorbike helmet-PART without ride (you may not)

(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."

Bisitariak **EZIN** dira 6 [ostean/ondoren] gelditu Visitors imposs be.3pl.ind 6 [after] stay (more prohibitive + more direct)

#Bisitariak **EZIN DAITEZKE** 6 ostean gelditu ('more likely something written on the door') Visitors imposs be.3pl.pot ...

(egon versus gelditu - former: hanging around, latter:

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.

Errepide hau hartu **BEHAR** duzu Road this take MOD aux.2

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

A taldea B taldea-ri irabazi BEHAR dio.

A team B team-dat win MOD izan.3sg.

A taldea B taldea zapaldu BEHAR du. A team B team step-on MOD aux. (stronger form of win, like "team A steps on 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.

Ginoz-etik eskatu **BEHAR** dugu pizza-rik onena jateko/bazkaltzeko... *(ez dago besterik)

Gino - ___ MOD aux bizza-superlative Neg there.is any.other.way

• Comment: Without the consequent, emphasis is different - "we need to" instead of "we have to"

(XX) You are waiting for a delivery and the company says that the package will arrive between 6pm and 8pm. You say: I have to be at home (during the time window) to receive the package.

Etxean egon **behar** naiz paketea jasotzeko. At.home egon MOD izan.1sg package receive

#Etxean egonen behar naiz paketea jasotzeko.

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.

Supermerkatu-ra joateko autobusa hartu **BEHAR(KO) ZENUKE**. supermarket -to go.inorderto bus take behar.fut be.2sg.erg.pot

Comment: zenuke is some sort of strong suggestion

?Supermerkatu-ra joateko autobusa hartu **BEHAR** duzu. supermarket -to go.inorderto bus take behar aux Consultant: This seems to be "have to" rather than "should"

(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.

Errepide txiki-etatik zehar joan **BEHAR(KO) ZINATEKE** Roads small.PERL? through go

(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.

Nire denda-ra joan **BEHARKO ZINATEKE** alkondara berri bat eros-teko. (erosi) My store.to go shirt new one buy-purpose

C3 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.

Lehenengo bidea har **DEZAKEZU** First way take be.2nd.potential

Lehenengo bidea hartu AHAL duzu First way take **MOD** aux

Comments:

- DEZAKEZU preferred over AHAL variant
- Roughly equivalent in meaning "you can take one or the other"

(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.

Same as (30) - again, potential variant preferred

(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.

Same again as (30) and (31)

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]/[take the bus to the shopping centre].

Autobusa har DEZAKEZU baina ez duzu (hori) egin **beharrik**. Bus take can but Neg Aux.2sg (that) do necessarily?

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.

EZIN duzu beste errepide-E hartu Cannot aux another road-RIK to take

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

A Taldeak **EZIN** dio B taldea-ri irabazi. A team.Erg cannot aux B team.dat win

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!

Txisa egin **BEHAR** dut nahitaez/derrigorrez/bai edo bai Pee do MOD aux necessarily / compulsorily /

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

Doministiku egin **BEHAR** dut 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.

*Ura eskubiko zulotik atera BEHAR da.*Water right hole.from come.out must aux

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.

Kiwiak hemen hazi **DAITEZKE / LITEZKE**CAN / COULD

Kiwiak hemen hazi AHAL dira

(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).

Eimi-k pasta tradizionala sukaldu **DEZAKE/LEZAKE** Eimik pasta tradizionala sukaldu **AHAL** du

Comment: Ahal least preferred

(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 orain ibili **DEZAKE** / #**LEZAKE**Ben now walk

Ben orain ibili AHAL daiteke Ben now walk

?Ben orain ibili AHAL da

Comment:

- The last variant is not as preferable as the other two.
- Lezake is not embeddable under 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 P straightaway for help (but he didn't tell Paul's children!). Rob knew that... Paul CAN lift that rock.

Pablok harria jaso **DEZAKE** / **LEZAKE** Pablo stone lift ABIL

Pablok harris jaso **ahal** du See (37)

(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.

Bidai furgonetak 20 pertsona egokitu **DITZAKETE**/LITZAKETE
Travel van 20 person fit ___

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.

- a. Ez dago ziurtasun-ik sumendiak 5 urteetan aktibatuko dela Neg aux there.is.certainty-NPI volcano 5 years be.activated aux
- b. Ez da ziur sumendiak....
 Neg aux certain volcano

- a) "there is no certainty", b) "it is not certain"
- Equally felicitous

#Sumendia EZIN izango da 5 urteetan aktibatu

D5. Circumstantial impossibility

(34') In the middle of a conversation, you feel a sneeze coming on... Excuse me! I CAN'T help sneezing! (adapted context: he broke his leg, and he CAN'T walk)

EZIN da ibili

MOD aux walk

#AHAL

(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.

*Ura EZIN da ezkerreko zulotik atera*Water MOD aux left.GEN hole.from come out

E. BOULETIC

E1 Bouletic Necessity

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

Erosi **BEHAR** dut.

Buy MOD aux

Erosi NAHI dut

Buy MOD aux

(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.

Zinemara joan NAHI dut

Cinema.to go want aux

With BEHAR the bouletic sense possible here as well.

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

Nire laguna ni bisitatzera etorri **NAHI** du. My friend me visit.to come wants aux

Table of Basque Modals:

MODALS	EPISTEMIC	ROOT/NON-EPISTEMIC			
		PARTICIPANT-EXTERNAL		PARTICIPANT-INTERNAL	
	Epistemic	Deontic	Teleological	Circumstantial	Bouletic
Necessity	Behar ^M , -en?	Behar ^M	Behar ^M	Behar ^M	Nahi ^M , Behar ^M
Weak Necessity	[Egitekotan egon] ^P ("is nearly" paraphrase)	Behar ^M // [V + potential izan] ^{VP}	Behar ^M		
Possibility	[V + potential izan] ^{VP}	Ahal ^M , [V + potential izan] ^{VP}	[V + potential izan] ^{VP}	$[V + potential izan]^{VP}$	
Non necessity	[Ba + potential <i>izan</i> V ez] ^P ("possible V not" prp)	NEG + behar ^M	NEG + behar ^M (+ "any" NPI (rik))	[Ez da ziur] ^P (no certainty that prp)	
Impossibility	ezin ^M	ezin ^M	ezin ^M	ezin ^M	

Ez = NEG

Key for Categories in Basque Data:

- M: lexical modals, possibly adjectival/nominal and uninflected (e.g., *behar* [necessity/necessary], *ahal* [capability/permitted/able], *nahi* [will/desired]). Positioned between the main verb and (usually) copular auxiliary.
- P: true paraphrase, which can independently contain conditional/hypothetical/potential *izan*

•	VP: Verb Phrase, with main verb followed by conditional/hypothetical/potential inflection	on of <i>izan</i> .