

Modals in Hindi

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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:	Hindi
ISO 639-3:	hin
Glottolog:	hind1269
Consultant demographics:	A male speaker of Hindi from Mumbai in Maharashtra. He also speaks Bengali, English.
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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 go swimming... so Ben **MUST** be swimming (right now).

<i>Ben</i>	<i>zaroor</i>	<i>swim</i>	<i>kar</i>	<i>rahaa</i>	<i>hoga</i>
Ben	definitely	swim	do	continuous.Masc.SG	be.FUT.M.SG

<i>Ben</i>	<i>swim</i>	<i>hi</i>	<i>kar</i>	<i>rahaa</i>	<i>hoga</i>
Ben	swim	emphatic	do	continuous.M.SG	be.FUT.M.SG

Comment: Both *zaroor* and *hi* are adverbial elements, and show up in different syntactic positions.

<i>Ben</i>	<i>swim</i>	<i>kar</i>	<i>raha</i>	<i>hoga</i> .
Ben	swim	do	continuous.Masc.SG	be.FUT.M.SG

“Ben is probably swimming.”

Comment: weaker than what (1) suggests

Zaroor Akbar naachta tha.

MOD Akbar dance be.PST.3SG

“Surely, Akbar used to dance.”

Comment: *Zaroor* can be used as a stand alone answer particle.

(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.

John **zaroor** school mein hoga
John definitely school inside be.FUT.M.SG

(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.

Ye ball **zaroor** C mein hogi
These ball definitely C inside be.FUT.F.SG

(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.

Comment: According to the consultant’s intuition, there is likely no formal distinction between epistemic weak necessity and epistemic possibility.

Ann lake pe hi hogi (zaroor)
Ann lake at emphatic be.FUT.F.SG (definitely)

Comment: Intuition: *hi* is slightly weaker than *zaroor*.

#Ann lake pe hi hei/ha
Ann lake at emphatic be.PRES

Comment: This would be # in (5). Expresses certainty.

(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.

<i>Goa</i>	<i>mei</i>	<i>barish</i>	<i>ho</i>	<i>hi</i>	<i>rahi</i>	<i>hogi</i>	<i>(zaroor)</i>
Goa	in	rain.F	be	emphatic	continuous.Masc.SG	be.FUT.F.SG	(definitely)

(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 tested.

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.

<i>Teacher</i>	<i>school</i>	<i>aa</i>	<i>sakta</i>	<i>hai</i>
teacher	school	come.INF	can.3SG.M	be.3SG

<i>Teacher</i>	<i>shayad</i>	<i>school</i>	<i>aa-yega</i>
Teacher	maybe	school	come-3SG.M.FUT

(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.

<i>Shayad</i>	<i>Grace</i>	<i>ki</i>	<i>necklace</i>	<i>kho.gayi</i>	<i>hai</i>
Maybe	Grace	of	necklace	lost	be.3SG

<i>(Shayad)</i>	<i>ho</i>	<i>sakta</i>	<i>hai</i>	<i>ki</i>	<i>Grace</i>	<i>ki</i>	<i>necklace</i>	<i>kho.gayi</i>	<i>hai</i>
(maybe)	be	can.M.3SG	be.3SG	of	Grace	of	necklace	lost	be.3SG

(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.

<i>Billi</i>	<i>andar</i>	<i>ho</i>	<i>sakti</i>	<i>hai</i>
Cat	inside	be-INF	can.3SG.F	be.3SG.F

<i>Billi</i>	<i>andar</i>	<i>nahi</i>	<i>bhi</i>	<i>ho</i>	<i>sakti</i>	<i>hai</i>
Cat	inside	NEG	and/also	be-INF	can.3SG.F	be.3SG.F

(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.

<i>Mary-ko</i>	<i>ghar</i>	<i>mein</i>	<i>ho-na</i>	<i>chahiye</i>
Mary=DAT	home	inside	be-FUT	can

<i>par</i>	<i>voh</i>	<i>nahi</i>	<i>bhi</i>	<i>ho</i>	<i>sakti</i>	<i>hai</i>
but	COMP	NEG	also	be	can	PRES.3SG

"Mary should be at home, but she could also not 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.

Ben	<i>ghar-mein</i>	<i>nahi</i>	<i>ho</i>	<i>sakta</i>	<i>hai</i>
Ben	home-inside	NEG	be	can	PRES.3SG

B. DEONTIC

B1 Deontic Necessity

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

<i>Tum-he</i>	<i>helmet</i>	<i>pehen-na</i>	<i>hi</i>	<i>hoga</i>
You-DAT	helmet	wear-FUT.mandatory	emphasis	will.have.3SG.M
(best fit)				

<i>(Indonesia</i>	<i>me)</i>	<i>voh</i>	<i>helmet</i>	<i>pehen-te</i>	<i>hain</i>
Indonesia	in	they	helmet	wear-3PL	be.3PL

(More habitually/culturally they wear helmets in Indonesia; as a rule)

(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."

<i>Dekhne</i>	<i>valon-ko</i>	<i>chhe</i>	<i>baje</i>	<i>tak</i>	<i>jana</i>	<i>hoga</i>
See	people-DAT	six	o'clock	by	go	will.have.3PL

Comment:

Two different interpretations of *hoga*;

hoga expresses certainty/obligation if the sentence describes a future event; it means speculation/uncertainty if the sentence describes a non-future event.

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.

Not tested.

(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!

<i>Non-employees=ko</i>	<i>haath</i>	<i>dho-na</i>	<i>chahiye</i>
Non-employees=DAT	hands	wash-FUT	ought to

(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.

Not tested.

(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.

Tum fir bhi andar aa sakte ho
 You despite.this also inside come can be

(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.

Tum sari raat rah bhi sakte ho ghar bhi ja sakte ho
 You all night stay also/and can be.FUT home also go can be.FUT

(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 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 was 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 tair sakti hai par use tairna nahi aata
 Beth swim can.F.3SG be.F.3SG. but he swim neg habitual

Beth=ko swim kar-na allowed hai
 Beth=DAT swim do-INF allowed be.F.3SG

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.

mujhe formal kapde pahain-nein chahiye, par main pahain
 wear formal clothes can but I

nahi bhi sakta hoon
 NEG also can 3PL

(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.

<i>Tum</i>	<i>helmet-ke</i>	<i>bina</i>	<i>bike</i>	<i>nahi</i>	<i>chala</i>	<i>sakte</i>	<i>ho</i>
You	helmet-Case	without	bike	NEG	run	can	PRES.2SG

(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.

<i>Tumhe</i>	<i>yah-i</i>	<i>rastaa</i>	<i>le-na</i>	<i>hoga</i>
you.DAT	this-very	road	take-FUT	will.have

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

<i>Team A-ko</i>	<i>Team B-ko</i>	<i>hara-na</i>	<i>hi</i>	<i>hoga</i>
Team A-DAT	Team B-DAT	beat-FUT	emphasis	will.have

(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.

<i>Tum-he</i>	<i>bus</i>	<i>le-na</i>	<i>chahiye</i>
You-DAT	bus	take-FUT	should/ought.to

(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.

<i>Tum-he</i>	<i>chote</i>	<i>raston-se</i>	<i>ja-na</i>	<i>chahiye</i>
You-DAT	small	road.PL-INST	go-FUT	should/ought.to

(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

(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.

<i>Tum</i>	<i>Way</i>	<i>1</i>	<i>le</i>	<i>sakte</i>	<i>ho</i>
You	Way	1	take	can.M.SG	be.2SG

<i>Tum</i>	<i>Way</i>	<i>1</i>	<i>lo-ge</i>
You	Way	1	take-FUT

<i>Tum-he</i>	<i>Way</i>	<i>1</i>	<i>le-na</i>	<i>tha</i>
You-DAT	Way	1	take-FUT	be/do.PST

(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.

<i>Tum</i>	<i>boutique</i>	<i>jaa</i>	<i>sakti</i>	<i>ho</i>
You	boutique	go	can.2.F.SG	be.2SG

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.

<i>Tum-he</i>	<i>bus</i>	<i>le-na</i>	<i>chahiye</i>	<i>par</i>	<i>tum</i>	<i>nahi</i>	<i>bhi</i>	<i>le</i>
You-DAT	bus	take-FUT	can	but	you	NEG	also	take

<i>sakte</i>	<i>ho</i>
can	3SG

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.

Not tested.

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

<i>Team</i>	<i>A</i>	<i>Team</i>	<i>B-se</i>	<i>har</i>	<i>nahi</i>	<i>sakti</i>	<i>hai</i>
Team	A	Team	B-ABL	lose	NEG	can	3SG

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!

<i>Mujh-e</i>	<i>bathroom</i>	<i>ja-na</i>	<i>hi</i>	<i>hoga</i>
Me.DAT	bathroom	go-FUT	emphasis	be.FUT.SG

(34) In the middle of a conversation, you feel a sneeze coming on... Excuse me! I HAVE to sneeze. Not tested.

(35) I am seeing a solar eclipse. This means: the Earth, the moon, and the sun HAVE to be aligning with each other.

<i>Dharti</i>	<i>chaand aur</i>	<i>sooraj</i>	<i>aligned hi</i>	<i>ho-nge</i>
The.Earth	moon and	sun	aligned emphasis	be-FUT.F.PL

(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.

<i>Paani-ko</i>	<i>daine</i>	<i>output-se</i>	<i>hi</i>	<i>aa-na</i>	<i>ho-ga</i>
Water-DAT	right	output-ABL	emphasis	come-FUT	be-FUT.F.SG

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.

<i>Duku</i>	<i>ped</i>	<i>idhar</i>	<i>ug</i>	<i>sakte</i>	<i>hain</i>
Duku	trees	here	grow	can.M.PL	be.FUT.3.PL

<i>#Duku</i>	<i>ped</i>	<i>idhar</i>	<i>ug-te</i>	<i>hain</i>
#Duku	trees	here	grow-HAB	be.PRES.PL

(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 pasta ba-na sakti hai
 Amy pasta make-FUT can.F.SG be.FUT.3.SG

(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.

Not tested.

(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 tested.

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.

Is	volcano-ke	fatne	ke	chances high	hain	lekin
this	volcano-of	eruption	of	chances high	be.FUT.3.PL	but
voh	fat	nahi	bhi	sakta	hai	
that	eruption	NEG	also	can	3SG	

D5. Circumstantial impossibility

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

Not tested.

(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.

Pani	baine	output-se	nahi	aa	sakta	hai
water	left	output-ABL	NEG	come	can	PRES.3SG

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.

<i>Mujh-e</i>	<i>voh</i>	<i>handbag</i>	<i>khareed-na</i>	<i>hi</i>	<i>ho-ga</i>
I	that	handbag	buy-FUT	emphasis	be-3SG

<i>Mujh-e</i>	<i>voh</i>	<i>handbag</i>	<i>khareed-na</i>	<i>hi</i>	<i>hai</i>
I	that	handbag	buy-FUT	emphasis	PRES.3SG

(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 tested.

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

Not tested.

Table for Hindi modals

MODALS	EPISTEMIC	ROOT/NON-EPISTEMIC			
		PARTICIPANT-EXTERNAL		PARTICIPANT-INTERNAL	
	Epistemic	Deontic	Teleological	Circumstantial	Bouletic
Necessity	<i>zaroor</i> (adv) + <i>hoga/hogi</i> (copula form) <i>Zaroor</i> (adv)	<i>hoga/hogi</i>	<i>hoga/hogi</i>	<i>hoga/hogi</i>	<i>hoga/hogi</i>
Weak Necessity	(no designated form)	<i>chahiye</i>	<i>chahiye</i>	--	...
Possibility	<i>sakte</i> (aux) <i>shayad</i> (adv)	<i>sakte</i>	<i>sakte</i>	<i>sakte</i>	...
Non-necessity	(periphrastic)	(periphrastic)	(periphrastic)	(periphrastic)	...
Impossibility	(periphrastic)	(periphrastic)	(periphrastic)	(periphrastic)	...

- In the root necessity contexts, *hoga/hogi* co-occurs with the dative case on the subject as well as the future form of the verb.