

On subjects of modal verbs in Latvian.

A corpus based study
of the debitive vs *vajadzēt*

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Outline

- What are the debitive and the verb *vajadzēt*?
 - What is the difference?
- classification of modal meanings
- classification of subjects used with the debitive and and the verb *vajadzēt*

debitive vs *vajadzēt*

Two main means of expressing verbal necessity in Latvian

- verb *vajadzēt*
- grammatical category of debitive = incorporated modal verb (Holvoet 2007)

Both have a subject in the dative.

The debitive is 6 times as frequent as *vajadzēt* (Balanced Corpus of Modern Latvian, *miljons-2.0*).

modal vs non-modal *vajadzēt*

- ‘need’ without infinitive (non-modal, 30%)

Man steidzami vajag naud-u <...>

I.DAT.SG urgently VAJADZĒT.3.PRS money-ACC.SG

‘I urgently need money.’

- with infinitive (modal, 70%)

Man vajag mazāk dzer-t zāl-es <...>

I.DAT.SG VAJADZĒT.3.PRS less drink-INF medicine-ACC.PL

‘I should take less medicine.’

modal vs non-modal *vajadzēt*

	modal		non-modal	
sum	1830	<i>100,00%</i>	779	<i>100,00%</i>
sbj	792	<i>43,28%</i>	59	<i>7,57%</i>
prs	505	<i>27,60%</i>	528	<i>67,78%</i>
pst	389	<i>21,26%</i>	105	<i>13,48%</i>
other	144	<i>7,87%</i>	87	<i>11,18%</i>

modal *vajadzēt* in SUBJ

Vecāk-iem vajadzē-tu pieskatī-t bēr-n-us
parent-DAT.PL VAJADZĒT.3PRS look.after-INF child-ACC.PL
un māj-ās runā-t par drošīb-u
and home-LOC.PL talk-INF about safety-ACC.SG
uz led-us <...>
on ice-GEN.SG

‘Parents should look after their children and talk at home about safety on the ice <...>’

debitive

- debitive prefix *jā-* plus present tense stem of any Latvian verb (plus auxiliary)

[*Viņa nesaprot,*]

kādēļ man tik daudz kafij-as jā-dzer.

why I.DAT.SG so much coffee-GEN.SG **DEB-drink**

‘[She doesn’t understand] why I need to drink so much coffee.’

debitive auxiliary

- auxiliary *būt* 'be' in tense and mood forms

Bērn-iem bū-tu jā-sāk mācī-tie-s

child-DAT.PL **be-SBJ** **DEB-start** learn-INF-RFL

svešvalod-as,

foreign.language-NOM.PL

[*cik agri vien iespējams.*]

'Children should start learning foreign languages
[as early as possible].'

grammatical profiles

		debitive		modal <i>vajadzēt</i>		non-modal <i>vajadzēt</i>	
sum		10597	<i>100,00%</i>	1830	<i>100,00%</i>	779	<i>100,00%</i>
sbj		634	<i>5,98%</i>	792	<i>43,28%</i>	59	<i>7,57%</i>
prs all		8739	<i>82,47%</i>	505	<i>27,60%</i>	528	<i>67,78%</i>
	prs aux	6239	<i>58,88%</i>				
	prs	2500	<i>23,59%</i>				
pst		577	<i>5,44%</i>	389	<i>21,26%</i>	105	<i>13,48%</i>
other		647	<i>6,11%</i>	144	<i>7,87%</i>	87	<i>11,18%</i>

debitive auxiliary

- Present tense forms without auxiliary are the most frequent forms of the debitive (59%).
- Avoiding the auxiliary → avoiding the negation (affirmative uses in 95%, cf 70% with *vajadzēt*)

Tev par to nav jā-domā.

2SG.DAT about DEM.ACC.SG **NEG.be.3.PRS DEB-think**

‘You needn’t think about it.’

debitive vs *vajadzēt*

- *vajadzēt* is a separate verb
debitive is a grammatical form (incorporated verb)
- *vajadzēt* has a non-modal variant
- *vajadzēt* is commonly used in the subjunctive
debitive is mostly found in the present tense
- debitive has an auxiliary but is normally used
without the auxiliary
- *vajadzēt* has a higher frequency of negated forms
with the debitive negation is rare

modality (necessity)

- **epistemic modality**

speaker is certain that a situation takes place

- non-epistemic / event modality

epistemic (rare): debitive

[<...> lidosta Rīga ir ieguvusi Starptautiskās gaisa transporta asociācijas <...> pētījuma rezultātus,]

atbilstoši kur-iem 2012. gad-ā Rīg-ā

according REL-DAT.PL.M 2012 year-LOC.SG Riga-LOC.SG

***jā-būt** ne mazāk kā 4,9 miljon-iem aviapasažier-u.*

DEB-be NEG less than 4.9 million-DAT.PL air-passenger-GEN.PL

‘[<...> the Riga Airport has received results of a research carried out by the International Air Transport Association] in accordance with which there must be no less than 4.9 millions of air passengers in Riga in 2012.’

epistemic (rare): *vajadzēt*

[*Piemēram, “Piebalgas alus” tirdzniecības vadītājs norāda, ka*

tālāk-ajā

perspektīv-ā

noteikti

further-LOC.SG.DEF

perspective-LOC.SG

definitely

vajadzē-tu

palielinā-tie-s

vajadzēt-SBJ

increase-INF-RFL

patēriņ-am

krog-os <...>

consumption-DAT.SG

restaurant-LOC.PL

‘[For example, the trade manager of the *Piebalgas alus* points out that] in a further perspective, the consumption in restaurants is certain to increase.’

modality (necessity)

- epistemic modality
speaker is certain that a situation takes place
- **non-epistemic / event modality**
 - deontic: participants have obligations or are given instructions
 - dynamic: participants have needs or are compelled by circumstances
 - differentiated on the basis of the communicative purpose

deontic (very common): debitive

Vis-iem būvniecīb-as dalībniek-iem

all-DAT.PL.M construction-GEN.SG participant-DAT.PL

jā-ievēro Latvij-as nacionāl-o

DEB-comply Latvia-GEN.SG national-ACC.SG.DEF

standart-u

standard-ACC.SG <...>

‘All persons participating in construction shall comply with the requirements of the Latvian national standards <...>’

deontic (very common): *vajadzēt*

Ar draug-a māt-i var un

with friend-GEN.SG mother-ACC.SG can.3PRS and

vajag sarunā-tie-s <...>

VAJADZĒT.3PRS converse-INF-RFL

‘It is both possible and necessary to have conversations with your boyfriend’s mother.’

modality (necessity)

- epistemic modality
speaker is certain that a situation takes place
- non-epistemic / event modality
 - deontic: participants have obligations or are given instructions
 - dynamic: participants have needs or are compelled by circumstances
 - differentiated on the basis of the communicative purpose

dynamic (less common)

Man jā-iet uz veikal-u.

1SG.DAT **DEB-go** to shop-ACC.SG

‘I need to do the shopping.’

Labdien, man vajag piezvanī-t!

hello 1SG.DAT **VAJADZĒT.3.PRS** call-INF

‘Hello, I need to make a call.’

dynamic (past tense): debitive

[*Cilts pārstācju kļuva arvien vairāk,*]

bet ūden-s daudzum-s, ar ko

but water-GEN.SG quantity-NOM.SG with REL.acc

*viņ-iem **bija** **jā-iztiek,***

3-DAT.PL **be.3PST** **DEB-subsist**

[*aizvien saruka.*]

‘[The number of people in the tribe was increasing,
but the quantity of water that they had to subsist on
[was shrinking].’

dynamic (less common): *vajadzēt*

[*Pagājušajā sezonā bija tik daudz darba, ka skrēju kā vāvere ritenī.*]

Vajadzēja ***apgū-t*** *un* ***spēlē-t*** *četr-as*
vajadzēt.3PST **learn-INF** and **play-INF** **4-ACC.PL.F**
jaun-as *lom-as* *teātr-ī* *plus*
new-ACC.PL.F part-ACC.PL theatre-LOC.SG plus
vēl ***paspē-t*** *uz* *televīzij-u <...>*
more **be.in.time-INF** on television-ACC.SG

‘[There was so much work in the last season that I was running like a squirrel on a wheel.] I had to learn and play four new parts in the theatre plus be in time <for my work> on television.’

debitive vs *vajadzēt*

- dynamic vs deontic (Endzelīns 1951)?
- corpus studies
 - correlation with different mood and tense forms (Daugavet 2017)
 - deontic uses are more frequent
 - dynamic uses are less usual
 - correlation with different subjects
 - ✓ no (phonetically realized) subject

no subjects (60%)

Bērn-a *vēlm-ēs* **vajag**
child-GEN.SG wish-LOC.PL **VAJADZĒT.3.PRS**

ie-klausī-tie-s <...>

PVB-listen-INF-RFL

‘It is necessary to listen to a child’s wishes.’

Pēc iespēj-as *mazāk* **jā-ie-klausā-s**
after possibility-GEN.SG less **DEB-PVB-listen-INF-RFL**

cit-u *padom-os.*
other-GEN.PL advice-LOC.PL

‘It is necessary to listen to other people’s advice as little as possible.’

types of subjects

- nominal vs pronominal (personal)
- nominal
animate, inanimate, collective
- prepositional vs postpositional
 - nominal vs pronominal
 - animate vs inanimate

nominal vs pronominal

	debitive		modal <i>vajadzēt</i>		non-modal <i>vajadzēt</i>	
—	6434	60,72%	1184	64,70%	449	57,64%
sub	2401	22,66%	312	17,05%	69	8,86%
pers	1257	11,86%	252	13,77%	216	27,73%
other	505	4,77%	82	4,48%	45	5,78%
sum	10597	100,00%	1830	100%	779	100%

The non-modal *vajadzēt* prefers pronominal subjects.

nominal vs pronominal

Man steidzam-i vajag naud-u <...>
1SG.DAT urgent-ADV VAJADZĒT.3.PRS money-ACC.SG

‘I need money urgently.’

<...> *cilvēk-am vajag izraudā-tie-s.*
human-DAT.SG VAJADZĒT.3.PRS weep.out-INF-RFL

Tenisist-iem jā-brauc uz Itālij-u.
tenisist-DAT.PL DEB-go to Italy-ACC.SG

‘The tennisists have to go to Italy.’

modal vs non-modal *vajadzēt*

	modal		non-modal	
sum	1830	<i>100,00%</i>	779	<i>100,00%</i>
sbj	792	<i>43,28%</i>	59	<i>7,57%</i>
prs	505	<i>27,60%</i>	528	<i>67,78%</i>
pst	389	<i>21,26%</i>	105	<i>13,48%</i>
other	144	<i>7,87%</i>	87	<i>11,18%</i>

The difference in the frequencies of subjects is accompanied by the difference in the grammatical profiles.

Types of subjects: pronominal

		debitive		modal <i>vajadzēt</i>		non-modal <i>vajadzēt</i>	
—		6434	60,72%	1184	64,70%	449	57,64%
sub		2401	22,66%	312	17,05%	69	8,86%
pers		1257	11,86%	252	13,77%	216	27,73%
	1	677	6,39%	115	6,28%	124	15,92%
	2	276	2,60%	60	3,28%	38	4,88%
	3	304	2,87%	77	4,21%	54	6,93%
other		505	4,77%	82	4,48%	45	5,78%
sum		10597	100,00%	1830	100%	779	100%

subject types and modal meanings

- For the debitive, deontic uses are more common with nominal subjects, and **dynamic uses with pronominal subjects**.
- For *vajadzēt*, deontic uses are frequent with both nominal and pronominal subjects. But dynamic uses are less frequent with nominal subjects because some of them are ambiguous between dynamic and epistemic meaning.

subject types and modal meanings

debitive				
	sub		pron	
sum	1869	<i>100%</i>	1257	<i>100%</i>
deont	1268	<i>68%</i>	496	<i>39%</i>
deont/dyn	65	<i>3%</i>	77	<i>6%</i>
dyn	473	<i>25%</i>	668	<i>53%</i>
epist	29	<i>2%</i>	7	<i>1%</i>
deont/epist	20	<i>1%</i>	0	<i>0%</i>
dyn/epist	14	<i>1%</i>	9	<i>1%</i>

subject types and modal meanings

modal <i>vajadzēt</i>				
	sub		pron	
sum	246	<i>100%</i>	252	<i>100%</i>
deont	127	52%	123	49%
deont/dyn	14	6%	18	7%
dyn	58	24%	94	37%
epist	13	5%	2	1%
deont/epist	9	4%	2	1%
dyn/epist	25	10%	13	5%

subject types and modal meanings

- deontic uses are more frequent
- for *vajadzēt*, deontic uses are more frequent with both nominal and pronominal subjects
 - increase in epistemic uses with nominal subjects
- for the debitive, deontic uses are still more frequent with nominal subjects but less frequent than dynamic uses with pronominal subjects

Animacy (nominal subjects)

- animate (humans, animals etc.)
- inanimate (physical objects, properties, actions etc.)
- collective (organizations etc.)

- animate

Eņģeļ-iem nav sevi jā-uztur.

angel-DAT.PL NEG.be.PRS3 RFL **DEB-support**

‘Angels don’t have to support themselves.’

- inanimate

<...> *ventilator-am vajadzē-tu*

fan-DAT.SG **VAJADZĒT-SBJ**

darbo-tie-s stipr-āk,

function-INF-RFL strong-ADV.COMP

[*bet tas knapi dvesa...*]

‘The fan was expected to function more effectively
[but it was almost dead...].’

- collective

<...> *skol-ām* *tagad* ***vajag***

school-DAT.PL now **VAJADZĒT.3.PRS**

pār-rakstī-t *vis-us* *dokument-us.*

re-write-INF all-ACC.PL.M document-ACC.PL

‘Now schools are required to rewrite all documents.’

Animacy (nominal subjects)

	debitive		modal <i>vajadzēt</i>		non-modal <i>vajadzēt</i>	
anim	1186	49,40%	135	43,27%	48	69,57%
inanim	683	28,45%	111	35,58%	8	11,59%
collect	532	22,16%	66	21,15%	13	18,84%
sum	2401	100,00%	312	100,00%	69	100,00%

The non-modal *vajadzēt* is less tolerant towards inanimate subjects.

animate (nominal subjects)

- animal and supernatural beings (rare)
- human beings (most common)
 - reversible (occupation, residence)
 - irreversible (age, gender, family relationship, nationality, religion)
 - personal names
- *cilvēks* and *persona* both meaning ‘human, person’

animate (nominal subjects)

	debitive		modal <i>vajadzēt</i>		non-modal <i>vajadzēt</i>	
reversible	732	62%	70	52%	6	13%
irreversible	232	20%	33	24%	19	40%
names	89	8%	20	15%	12	25%
hum/pers	122	10%	11	8%	8	17%
other	11	1%	1	1%	3	6%
sum	1186	100%	135	100%	48	100%

The non-modal *vajadzēt* favours irreversible subjects.

deontic vs dynamic (animate subjects)

- Animate subjects represented by personal names have 60% of dynamic uses vs 30% of deontic uses with both the deictive and the modal *vajadzēt*.
- In all other groups the proportion is reversed in favour of the deontic meaning.

Irmgard-ei jā-salabo piloš-ais

Irmgarde-DAT.SG **DEB-repair** dripping-NOM.SG.M.DEF

vannasistab-as krāns.

bathroom-GEN.SG tap-NOM.SG

‘Irmgarde has to repair the dripping tap in the bathroom.’

Mārim vajadzēja izturēt arī

Māris-DAT.SG **VAJADZĒT.3.PRS** **endure-INF** also

vairākas asin-s pārļiešanas.

several-ACC.PL.F blood-GEN.SG transfusion-ACC.PL

‘Māris had to endure several blood transfusions.’

inanimate (nominal subjects)

physical objects, places, substances, smells, sounds, complicated objects with or without physical dimension, objects and places without physical dimension, actions, events, circumstances, time, personal qualities, emotions, attitudes, prices, payments, numbers, information with a fixed form of presentation, information without a fixed form of presentation, symbols...

	debitive		modal <i>vajadzēt</i>		non-modal <i>vajadzēt</i>	
object	116	17%	24	22%	4	50%
action	88	13%	17	16%	2	25%
attribute	88	13%	14	13%	1	13%
idea	84	12%	7	6%		
document	65	10%	4	4%		
network	49	7%	5	5%	1	13%
circumstances	43	6%	9	8%		
place	38	6%	10	9%		
price and pay	31	5%	7	6%		
substance	29	4%	7	6%		
symbol	25	4%				
time	6	1%	2	2%		
num	4	1%	3	3%		
virtual	4	1%				
sum	674	100%	109	100%	8	100%

actions and events

Ekonomisk-ai *izaugsm-ei* ***jā-notiek***
economic-DAT.SG.F growth-DAT.SG **DEB-take.place**
vienlaikus ar sociāl-o *attīstīb-u.*
same.time with social-ACC.SG.DEF development-ACC.SG
‘Economic growth should take place simultaneously with social changes.’

<...> *braukšan-ai* *kanāl-ā* ***vajadzē-tu bū-t***
 navigating-DAT.SG canal-LOC.SG **VAJADZĒT-SBJ be-INF**
pa straum-i.
along current-ACC.SG
‘Navigation on the canal should be along the current.’

attitudes and emotions

Taču ir jā-būt vēlm-ei un spēj-ai

but be.3.PRS **DEB-be** wish-DAT.SG and ability-DAT.SG

organizē-t sav-u darb-u <...>

organize-INF RFL-ACC.SG work-ACC.SG

‘There should be wish and ability to organize one’s work <...>’

Pa pēd-ām vajadzē-tu nāk-t

prep track-DAT.PL **VAJADZĒT-SBJ** **come-INF**

uzticīb-ai un paļāvīb-ai.

trust-DAT.SG and reliance-DAT.SG

‘There should follow trust and reliance.’

information

lebildum-iem gan jā-būt pamatot-iem.

objection-DAT.PL PCL **DEB-be** well.based-DAT.PL.M

‘It is objections that should be well-based.’

[*Pirmkārt,*]

alg-as jautājum-am vajadzē-tu bū-t

salary-GEN.SG issue-DAT.SG **VAJADZĒT-SBJ be-INF**

konfidentiāl-am <...>

confidential-DAT.SG

‘[Firstly,] the issue of salary should be confidential
<...>’

Position

- prepositional vs postpositional

Man vispirms jā-tiek gal-ā ar sav-iem
1SG.DAT first.of.all **DEB-arrive** end-LOC.SG with RFL-DAT.PL.M
ministr-a un valdīb-as
minister-GEN.SG and government-GEN.SG
locekļ-a pienākum-iem.
member-GEN.SG duty-DAT.PL

‘First of all, I have to fulfill my duties as a minister and a member of the government.’

<...> *ar mūsu problēmām jā-tiek*
with our problem-DAT.PL **DEB-arrive**
gal-ā mums paš-iem.
end-LOC.SG 1PL.DAT self-DAT.PL

‘It is with our own efforts that we should solve our problems.’

Position

- prepositional vs postpositional
- prepositional vs postpositional combined with nominal vs pronominal
- prepositional vs postpositional combined with animate vs inanimate

postpositional

Daļēj-i *izdevum-i* ***jā-sedz*** *arī*
partly-ADV expense-NOM.PL **DEB-cover** also

resident-DAT.PL

iemītniek-iem <...>

‘It is also the residents who have to partly cover the costs.’

Briežkaln-ā ***vajadzē-tu*** ***pa-bū-t***

Briežkalns-LOC.SG **VAJADZĒT-SBJ** **DLM-be-INF**

katr-am *nopietn-am* *slēpotāj-am* <...>

every-DAT.SG.M serious-DAT.SG.M skier-DAT.SG

‘It is Briežkalns where every self-respecting skier should make a visit to <...>’

Pre-position vs post-position

	debitive		modal <i>vajadzēt</i>		non-modal <i>vajadzēt</i>	
pre	3702	88,52%	597	91,56%	320	96,68%
post	480	11,48%	55	8,44%	11	3,32%
sum	4182	100,00%	652	100,00%	331	100,00%

Gradual increase in postpositional subjects from the non-modal *vajadzēt* to the debitive.

prepositional vs postpositional (nominal subjects)

	debitive		modal <i>vajadzēt</i>		non-modal <i>vajadzēt</i>	
nom	2408	100,00%	317	100,00%	70	100,00%
pre	1977	82,10%	271	85,49%	66	94,29%
post	431	17,90%	46	14,51%	4	5,71%

Gradual increase in postpositional nominal subjects from the non-modal *vajadzēt* to the debitive.

prepositional vs postpositional (pronominal subjects)

	debitive		modal <i>vajadzēt</i>		non-modal <i>vajadzēt</i>	
pro	1263	<i>100,00%</i>	252	<i>100,00%</i>	83	<i>100,00%</i>
pre	1250	<i>98,97%</i>	246	<i>97,62%</i>	80	<i>96,39%</i>
post	13	<i>1,03%</i>	6	<i>2,38%</i>	3	<i>3,61%</i>

Postpositional pronominal subjects are very few with any of the verbs.

prepositional vs postpositional (animate subjects)

	debitive		modal <i>vajadzēt</i>	
animate	1210	<i>100,00%</i>	141	<i>100,00%</i>
pre	1063	<i>87,85%</i>	136	<i>96,45%</i>
post	147	<i>12,15%</i>	5	<i>3,55%</i>

Postpositional animate subjects are more favoured by the debitive.

prepositional vs postpositional (inanimate subjects)

	debitive		modal vajadzēt	
inanimate	674	100,00%	110	100,00%
pre	463	68,69%	72	65,45%
post	211	31,31%	38	34,55%

Postpositional inanimate subjects are equally possible with both the modal *vajadzēt* and the debitive.