Dutch modals with a null VP proform complement

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OUTLINE OF THE TALK

1 THE BASIC DATA

• Modals can have at least 2 interpretations: epistemic and deontic

(1) a. Het is acht uur. Klaas moet nu wel thuis zijn. = **epistemic**
it is eight hour Klaas must now PRT home be
'It's eight o'clock. It must be the case that Klaas is at home now.'
b. Klaas moet morgen afwassen. = **deontic**
Klaas must tomorrow wash.the.dishes
'Klaas has to wash the dishes tomorrow.'

→ The deontic modals allow their complement to be absent:

(2) A: Komt Thomas ook naar je lezing?
comes Thomas also to your talk
'Is Thomas coming to your talk too?'

B: Hij wil/ mag/ kan/ hoeft/ moet niet.
he wants may can need must not
'He doesn't want to/is not allowed to/can't/doesn't need to/doesn't have to.'

• There are (at least) three possible analyses for this phenomenon:

❶ Deletion of a fully specified syntactic structure, parallel to English VP ellipsis.

❷ There is no complement; the verb is simply intransitive.

❸ The verb selects a null proform.

→ **main claim: null infinitival complements (NIC) involve a vP containing a null VP proform**

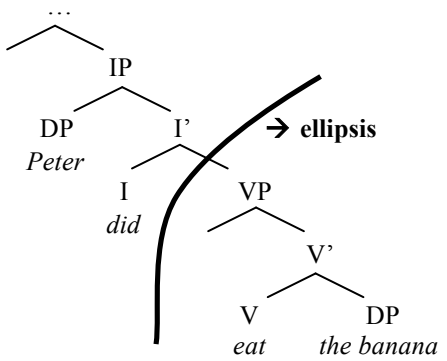
2 AGAINST A DELETION ACCOUNT

• Ross (1969), Merchant (2001) & Johnson (1996, 2001):

English VP ellipsis (VPE) = deletion of a full syntactic structure

(3) Mina didn't eat the banana, but Peter did [~~$_{VP}$ eat the banana~~].

(4)



→ arguments: VPE allows extraction out of the elided complement and agreement with elements inside the complement (see examples below).

! The properties of NIC differ from those of VPE in this respect.

→ **Claim**: the null complement of a modal does not contain a fully specified VP.

2.1 Extraction

Extraction is not allowed out of a NIC ⇔ VPE does allow it.

❶ Wh-phrases may extract out of an elided VP (cf. Schuyler 2002, Merchant to appear), but not out of a NIC.

(5) A: To who should Peter introduce Mina? → VPE
B: I don't know. To who should Tom?

(6) A: Aan wie moet Katrien een cadeautje geven? → NIC
to who must Katrien a present give
B: Dat weet ik niet. * Aan wie moet Bert?
that know I not to who must Bert

→ **VPE:** VP must contain internal structure to be able to host the trace of the wh-phrase (cf.(7)).

(7) To who should Tom [~~$_{VP}$ introduce Mina $t_{to\ who}$~~].

→ **NIC:** the wh-phrase cannot be moved out of the complement → explanation: no internal VP structure.

❷ VPE allows arguments or adjuncts to survive the ellipsis (= pseudogapping), NIC does not:

(8) Mina can roll up a newspaper and Peter can a magazine. → VPE

(9) * Katrien kan brood kopen en Bert kan melk. → NIC
Katrien can bread buy and Bert can milk
INTENDED READING: '…and Bert can buy milk.'

→ **VPE:** VP must contain internal structure to be able to host the trace of the object (which has moved out of the VP prior to the deletion of VP; see Jayaseelan 1990; Johnson 1996; Lasnik 1999a, 1999b, 2001 & Takahashi 1994).

(10) Mina can roll up a newspaper and Peter can a magazine [~~$_{VP}$ roll up $t_{a\ magazine}$~~].

→ **NIC:** the object cannot be moved out of the complement → explanation: no internal VP structure.

❸ VPE allows antecedent-contained deletion (ACD), NIC do not.

(11) Mina reads each book that Peter should. → VPE

(12) * Joris leest elk boek dat Monika moet. → NIC
Joris reads each book that Monika must
INTENDED READING: Joris reads every book that Monika must read.

→ **VPE**: The relative clause involves wh-movement of an empty operator (Chomsky 1977, 1981). This empty operator Op_i needs to bind a trace, so the elided VP has to contain syntactic structure that can host the trace.

(13) Mina reads each book Op_i that Peter should [$_{VP}$ read t_i].

→ **NIC**: there is no VP structure for the operator to move out from.

❹ Object scrambling out of the null complement is disallowed:

(14) a. Ik wil [je helpen], maar ik kan je niet [t_{je} helpen].
I want you help but I can you not help
b. Ik wil je helpen, maar ik kan (*je) niet.
I want you help but I can you not
'I want to help you, but I cannot.'

2.2 There-*expletives*

An elided VP can have a *there*-expletive as its subject (Ross 1969), NIC cannot.

(15) Mina thinks there should be balloons in the hall, but there shouldn't.→ VPE

(16) A: Moeten er veel mensen naar de vergadering komen? → NIC
must there a.lot.of people to the meeting come
B:*Nee, er moeten niet.
no there must not

→ **VPE**: the elided VP must contain an indefinite DP that licenses *there* and agrees with the finite verb

(17) …, but **there shouldn't** [~~VP be **balloons** in the hall~~]

→ **NIC**: *er* 'there' is not licensed → explanation: the NIC does not contain a fully specified VP structure containing an indefinite DP.

2.3 The IPP effect

NIC do not display the IPP (Infinitivus Pro Participio) effect.

• IPP: in 3-verb clusters the non-finite auxiliary verb is an infinitive instead of the expected past participle in Dutch.

(18) a. Hij heeft dat niet gehoord. → 2-verb cluster: past participle
he has that not heard
'He didn't hear that.'
b. Hij heeft dat niet horen vallen. → 3-verb cluster: IPP
he has that not hear.INF fall.INF
'He didn't hear that fall.'

→ modals in 3-verb clusters: also IPP

(19) Kwam Peter niet gisteren? – Nee, hij heeft niet *gewild/ willen
came Peter not yesterday no he has not wanted want.INF
komen.
come.INF
'Did Peter come yesterday?' – 'No, he didn't want to come.'

• NIC: no IPP effect

(20) Kwam Peter niet gisteren? – Nee, hij heeft niet ?gewild/*willen.
came Peter not yesterday no he has not wanted want.INF
'Did Peter come yesterday?' – 'No, he didn't want to.'

→ explanation: there is no VP structure containing the main infinitive that causes IPP.

Conclusion: Dutch NIC do not involve deletion of a fully specified syntactic VP.

3 AGAINST THE INTRANSITIVE ANALYSIS

- A null infinitival complement does not contain a syntactic VP structure → this leaves us with 2 options:
  - × The modal is an intransitive verb without any complement at all (cf. Napoli 1985 for Italian).
  - × The modal has a null VP proform in its complement.

This section: argument against an intransitive analysis

→ a detour via Dutch modal verbs

Overview:

3.1 Raising versus control

- Claim: deontic modals are raising verbs, just like epistemic modals. They do not assign an Agent Θ-role to their subject (Wurmbrand 2003).

Step 1: Diagnostic tests for the raising/control distinction.

❶ Raising verbs can have inanimate subjects when their complement is passive, because they do not assign an Agent Θ-role to it:

(21) a. De auto lijkt gewassen te zijn. → raising
the car seems washed to be
'The car seems to be washed.'
b.* De auto probeert gewassen te worden. → control
the car tries washed to become

❷ Raising verbs allow impersonal passive, unlike control verbs:

(22) a. Er lijkt gedanst te worden. → raising
there seems danced to become
'There seems to be dancing going on.'
b.* Er probeert gedanst te worden. → control
there tries danced to become

Step 2: Comparing deontic modals to raising and control verbs.

inanimate subjects:

(23) De auto kan/moet/ mag/* wil gewassen worden.
the car can must may wants washed become
'The car can/has to/may be washed.'

impersonal passives

(24) Er kan/ moet/ mag/* wil gedanst worden.
there can must may wants danced become
'There can/must/may be dancing going on.'

- However: deontic *kunnen* 'can' has both an ability and an availability reading.

(25) a. Karel kan zwemmen. = ability
Karel can swim
PREFERRED READING: 'Karel has the ability to swim.'
b. Karel kan vanavond de afwas doen. = availability
Karel can tonight the dishes do
PREFERRED READING: 'Karel is available tonight for washing the dishes.'
'Karel has the ability to do the dishes tonight.'

→ Only in the availability reading *kunnen* is a raising verb:

(26) De auto kan gewassen worden.
the car can washed become
= 'The car is available for washing.'
≠ 'The car is able to be washed.'

(27) Er kan gezwommen worden.
there can swum become
= 'Swimming facilities are available.'
≠ 'There is an ability to swim.'

⇨ *kunnen*$_{\text{ability}}$ = control main verb, assigning an Agent Θ-role to the subject (cf.(28)a).
kunnen$_{\text{availibility}}$ = raising verb, assigning only a Theme Θ-role to its whole infinitival complement (cf. (28)b).

(28) a. SUBJ *kunnen* [PRO VP]
b. *kunnen* [t_{subj} VP]

⇨ Dutch modals are raising verbs, except for *willen* (want) and *kunnen*$_{\text{ability}}$. *Willen* and *kunnen*$_{\text{ability}}$ are control verbs assigning an Agent role to the subject.

3.2 A subject position below the modal

• **Prediction**: if the NIC modal is an intransitive verb, there is an incompatibility with raising as in (28)b/(29)b, since there is no position from which raising could have taken place.

(29) a. Hij moet. (intransitive analysis)
he must
b. Hij_i moet [t_i XP]. (raising analysis)

→ The prediction is **not** borne out: raising modals can have a null complement.

(30) a. Zal Karel vanavond dansen? – Hij moet wel!
will Karel tonight dance he must PRT
'Will Karel dance tonight?' – 'He has to!'
b. Kom je naar het feestje vanavond? – Nee, ik mag niet.
come you to the party tonight no I may not
'Are you coming to the party tonight?' – 'No, I'm not allowed.'

Moreover: only the raising *kunnen*$_{\text{availability}}$ allows NIC.

(31) a. Piet kan zwemmen, en Tim kan ook *(zwemmen).
Piet can swim and Tim can too swim
'Pete can swim and Tim can swim too.' = ability
b. Piet kan vanavond afwassen, en Tim kan ook (vanavond
Piet can tonight wash.the.dishes and Tim can too tonight
afwassen).
wash.the.dishes
'Pete can wash the dishes tonight, and so can Tim.' = availability

→ **The modal is not intransitive**: there is at least some structure in the complement of the modal.

⇨ NIC do not involve an intransitive modal: there is a vP complement present containing a subject position and a null VP proform.

4 NULL VP PROFORM

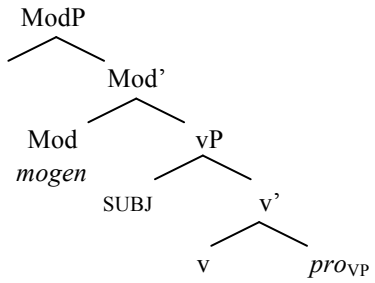
Overview

4.1 The analysis: a null VP proform

Dutch NIC: no syntactically specified complement, but a null VP proform

(32) Ik wil wel komen vanavond, maar ik mag niet [*e*].
I want PRT come tonight but I may not
'I want to come tonight, but I am not allowed.'

(33)



4.2 Licensing the proform

- Not every verb can take a null VP proform complement: the proform has to be licensed.

Rizzi (1986): licensing requirements on null objects

(34) a. *pro* is governed by a head X^0 of type *y*.
b. Let X be the licensing head of an occurrence of *pro*: then *pro* has the grammatical specification of the features on X coindexed with it.
c. *pro* is Case-marked by X_y^0.

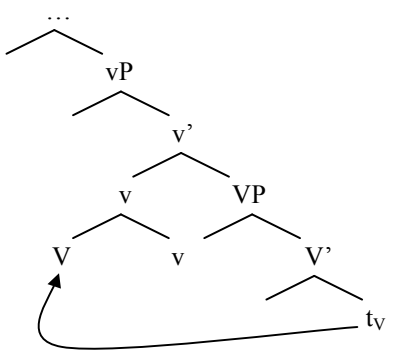
→ Current minimalist theories (Chomsky 1995):
Identification and licensing of proforms through a local AGREE relation with a syntactic head.

Rizzi: licensing of DP proforms
→ NIC: licensing of a pro_{VP}: There must be a local AGREE relation between a licensing head (i.e. the modal) and the VP proform.

4.2.1 Licensing pro_{VP}, step 1: Mod^0 is a derived phase head in NIC.

- v^0-head = morpho-phonologically deficient → it gets morpho-phonological features from V through movement of V.

(35)



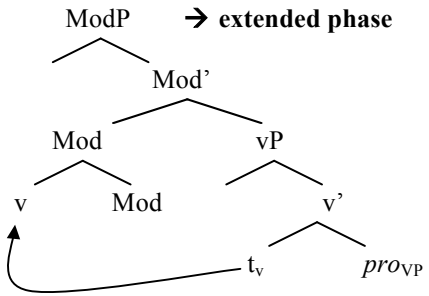
However: in NIC, V is absent, and pro_{VP} does not have morpho-phonological features.

- Solution: **phase extension**

(36) *Syntactic movement of the head H of a phase α up to the head X of a node β dominating α extends the phase up from α to β; α loses its phasehood in the process, and any constituent on the edge of α ends up in the domain of the derived phase β as a result of Phase Extension.* (Den Dikken 2006)

→ NIC: v moves to the head of the phrase dominating vP to get morpho-phonological features there, thereby extending the phase and making Mod^0 a derived phase head (see (37))

(37)

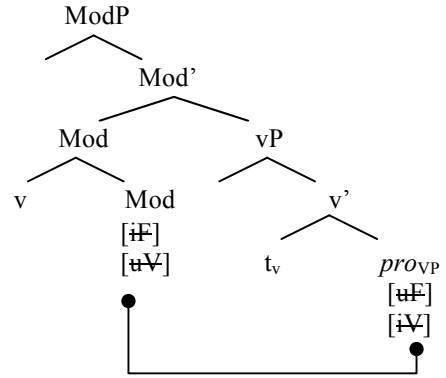


4.2.2 Licensing in NIC, step 2: AGREE.

• Feature specification: Mod^0 [uV], [iF] (with F a functional feature)
pro$_{VP}$ [iV], [uF]

→ Feature checking: an AGREE relation between Mod and *pro*$_{VP}$.

(38)



→ The licensing modal head is local enough and the proform gets licensed through AGREE.
→ The proform cannot be licensed by verbs higher up in the tree due to the Phase Impenetrability Condition (PIC; Chomsky 2000).

(39) *In a phase α with head H, the domain of H is not accessible to operations outside α, only H and its edge are accessible to such operations.*

4.3 Predictions made by the analysis

❶ Epistemic modals, temporal auxiliaries and raising verbs such as *schijnen* 'seem' do not license NIC.

These verbs are higher up in the structure (Wurmbrand 2003, Butler 2006) → not local enough to license the VP proform.

✗ epistemic modals:

(40) A: Zou Klaas nu op zijn bureau zijn?
Would Klaas now on his office be
B:*Hij moet wel. Hij werkt altijd op zaterdag.
he must PRT he works always on Saturday
INTENDED READING: 'It must be the case that he is in his office.'

✗ temporal auxiliaries (*hebben* 'have', *zijn* 'be' and *zullen* 'will'):

(41) A: Heeft Katrien gisteren gebeld? – B: * Ze heeft niet.
has Katrien yesterday called she has not

(42) A: Is Thomas ook naar je lezing gekomen? – B: * Hij is niet.
is Thomas also to your talk come.PART he is not

(43) A: Komt Thomas ook naar je lezing? – B: * Hij zal niet.
comes Thomas also to your talk he will not

✖ higher raising verbs:

(44) A: Heeft iemand de auto gerepareerd? – * Ja, Klaas schijnt.
has someone the car fixed yes Klaas seems

⇨ **corollary**: all verbs that can license a VP proform are low enough in the structure, immediately dominating vP.

❷ English modals can only license deletion of a VP structure, not a VP proform.

English modals behave differently from Dutch modals (see among others Wurmbrand 2003, IJbema 2002): lack of inflection, cannot co-occur, do not take DP complements.

→ English modals are higher than ModP, in T and cannot license a VP proform.

5 IMPLICATIONS AND FURTHER RESEARCH

5.1 Categorizing the verbs licensing NIC

(45)

	licensing NIC	**raising**
deontic modals		
moeten	✓	✓
kunnen (avail.)	✓	✓
mogen	✓	✓
hoeven	✓	✓
willen	✓	✖
kunnen (abil.)	✖	✖
epistemic modals		
moeten	✖	✓
kunnen	✖	✓
mogen	✖	✓
hoeven	✖	✓
willen	✖	✓
other restructuring verbs		
beginnen	✓	✓
durven	✓	✖
helpen	✓	✖
dwingen	✓	✖
weigeren	✓	✖
verplichten	✓	✖
proberen	✓	✖
dreigen	✖	✓

Table 1: Categorizing the NIC verbs

• Examples of non-modal verbs taking infinitival complements:

beginnen:

(46) a. Het begint te regenen. → **raising**
it begins to rain

b. Lara was aan het zingen en toen ik aankwam, begon Tom ook.
Lara was on the sing and when I arrived began Tom too
'Lara was singing and when I entered Tom began to sing as well. → **NIC**

control verbs with NIC:

(47) a. Ze moesten enkel de bal wegschoppen, maar ze durfden
they must.PAST only the ball away.kick but they dared
niet.
not
'They only had to kick away the ball, but they didn't dare to.'

b. Hij kan zich aankleden, maar je moet hem wel helpen.
he can REFL on.dress but you must him PRT help
'He can dress himself, but you have to help him with it.'

c. Ik wou de berg niet afrijden, maar Steven heeft mij
I wanted the hill not off.drive but Steven has me
gedwongen.
forced
'I didn't want to drive down the hill, but Steven forced me.'

d. A: Wou iedereen helpen? – B: Alleen Klaas weigerde.
wanted everyone help only Klaas refused
'Did everyone agreed to help?' – 'Only Klaas refused.'

e. Tim wou niet komen, maar moeder verplichtte hem.
Tim wanted not come but mother compelled him
'Tim didn't want to come, but mother compelled him to.'

f. A: Heeft iemand de auto gerepareerd? – B: Nee, maar Tom
has someone the car fixed no but Tom
heeft wel geprobeerd.
has PRT tried
'Did someone fix the car?' – 'No, but Tom did try.'

dreigen:

(48) a. Er dreigt gevochten te worden. → **raising**
there threatens fought to become
'There threatens to be fighting going on.'

b. Het is niet zeker dat de regering zal vallen, maar ze
it is not sure that the government will fall but she
dreigt wel *(te vallen). → **no NIC**
threatens PRT to fall

⇨ The distinction between the verbs allowing and not allowing a null VP proform crosscuts the familiar distinction between control and raising verbs.

5.2 Further research questions

❶ Is there an overt counterpart of this proform in Dutch?

Suggestion: Dutch might have a null SO, on a par with the English overt VP proform *so*.

❷ We have two strategies in language to elide a verb phrase: deletion of a syntactic structure (VPE) and null proforms (Dutch NIC).

→ How does language decide between these strategies? What determines the choice?
→ Can we unite these two strategies?

❸ Cross-linguistic comparison: there are many other languages with null infinitival complements, e.g. German, Italian, French and Spanish. Can this analysis be transferred to these languages?

6 CONCLUSION

❶ Null infinitival complements of modals are vPs containing a subject position and a null VP proform.

❷ The null complements do not involve deletion of a full syntactic structure, unlike VP ellipsis in English:
- They do not allow extraction (e.g. pseudogapping, wh-extraction, ACD, object scrambling).
- They do not allow a *there*-expletive as their subject.
- They block the IPP- effect.

❸ The modal verb with a null infinitival complement is not used intransitively (contra Napoli 1985). As most of them are raising verbs, there must be a position dominated by the modal from which the subject can be raised.

❹ Not all modals allow null VP proforms, only deontic modal verbs do. The boundary between verbs that can take a null infinitival complement and verbs that cannot does not coincide with the distinction between raising and control.

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