Modals 'missing' their infinitive[*]
The case of non-verbal complements
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1. INTRODUCTION TO NON-VERBAL COMPLEMENTS

In many Germanic languages modal verbs do not need an infinitive.

(1) Subject + Modal + PP =   Ik moet naar huis.
                                  I must   to   house
(2) Subject + Modal + AdvP =   Ik kan weg.
                                  I can away
(3) Subject + Modal + AdjP =   De muur mag rood.
                                  The wall may red
(4) Subject + Modal + NP =   Het kind hoeft geen ijsje.
                                  the child needs no ice-DIM
(5) ?Subject + Modal + CP =   Het moet dat ze hun opdrachten via Youtube uitvoeren.
                                  it must that they their tasks   via YouTube out-carry

First attempt of interpretation (Barbiers 1995): obligation/permission to change into the state that is described by the complement. Modal verb entails a **deontic** reading, complement entails a **polarity transition**.

Syntactic questions:
- o   Structure: Is the modal verb a lexical verb or an auxiliary? In other words, is the complement a small clause or a full verbal phrase?

(6) [TP subject modal [PREDP ~~subject~~ complement]]   (Barbiers 1995)
(7) [TP subject modal [~~subject~~ [VP [complement] ~~go~~]]]   (VandenWyngaerd 1994)
(8) [TP subject modal [~~subject~~ [VP [complement] *GO*]]]   (Van Riemsdijk 2002)

- o   Question for the SC hypothesis: Do all the complements in (1)-(5) have an identical syntactic (and semantic) structure?
- o   Questions for the VP hypothesis: Is deletion without a clear reason allowed? Is there any independent evidence for a phonetically null element *GO*?
- o   Question for both analyses: Are there syntactic differences that account for the unavailability of this construction in English?

Semantic questions:
- o   Can the sentences in (1)-(5) be described as a single phenomenon?
- o   Why are epistemic interpretations unavailable?

(9) Hij kan naar huis.
    He can to house
    i. 'He is able to go home'   deontic
    ii. #'It is possible that he goes home'   epistemic

    Do we need to refine the restriction on deontic interpretations? CP in (5), future (David Denison p.c.):

(10) Ik zal naar Londen ?(gaan)
     I will to London   (go)
(11) Jij   zou   toch naar Antwerpen?
     You should part. to Antwerp?
     'Weren't you supposed to have gone to Antwerp?'
     (Van Riemsdijk 2002:166)

- o What is the nature of the 'polarity transition'?
- o Are there semantic differences that account for the unavailability of this construction in English?

2. SYNCHRONIC OVERVIEW

Languages in which the construction is grammatical:
    (12) Danish   hun skal hjem (Vikner 1988:17)
                       she must home
    (13) German   sie muss nach Hause
                       she must to   house
    (14) Frisian   Jan   sil nei Grins   ta (Hoekstra 1997:143)
                       John will to Groningen to
    (15) Dutch   ze moet naar huis
                       she must to house
    (16) Afrikaans   Hy moet biblioteek toe (Biberauer & Oosthuizen 2011:5)
                       he must library   to
    (17) ???

Germanic languages in which the phenomenon is not grammatical:
    (18) Modern English   he must *(go) home
    (19) Modern Icelandic   Harald geta *(fara) heim
                       Harald will   go   home

3. DIACHRONIC OVERVIEW

Roberts (1985, 1993), Roberts & Roussou (2003): Old and Middle English modals could take non-verbal complements.

- I. Similar phenomenon?
- II. If so: what caused the loss? What can this tell us about the languages that still have this structure?

Corpus research:
- o Penn-Helsinki Corpora (Old English --- Modern English (1920));
- o Search query MD + specified sister; no other verb in the sentence;
- o Visser's collection (1963-1973: §178) added;
- o ARCHER corpus (1600-1800) will – hopefully – give the final answer.

More languages in which the construction is grammatical:
    (20) Old English   þæt Metellus to Rome moste
                       that Metellus to Rome must-SG.PRET
                       'that Metellus was obliged to go to Rome'
                       (ca. 925; Bately 1980; *Orosius* 5 9.123.2.2576)
    (21) Middle English   he shall   owte of preson
                       he shall-3.SG out   of prison
                       'he shall go out of prison'
                       (1475-1488; Cely *Papers* no 98 in Visser 1963-1973: 163)

(22) Early   Modern   I will away; for this will out.
     English   (1594; Shakespeare *King Richard III* I iv 288 in Visser 1963-
                      1973:164)
(23) Old Icelandic   Spakt   skyldi   it ellzta barn
                      good-NOM   must-3.SG   the oldest child
                      'the oldest child must be good'
                      (ca. 1150; *First Grammatical Treatise*; translation George
                      Walkden)

I. Similar construction?
o All modals (*can, could, dare, may, might, must, shall, should, will, would*), the
   marginal modal *agan* (owe, ought) and the now obsolete modals *mote* (must)
   and *þearf* (need).
o All complements except for adjectival phrases (type *the wall must red*); not
   attested in older Dutch corpora; attested in Icelandic (22).

(24)   gif man þæt nyde   scyle,
       if man that necessarily shall-SG.SBJ
       'if one necessarily shall do that,'
       (ca. 1050; Jost 1959; *Institutes of Polity* 14)

(25)   Eaðe mæg,   þæt me Drihten þurh   his   geearnung miltsigan   wille.
       easily may-3.SG that me Lord   through his-GEN merit   have-mercy-INF will-SG.SBJ
       'it may easily be the case that the Lord will have mercy with me because of his
       merit.' (ca. 950; Miller 1890-1898; *Bede* 3:1.192)

o General interpretation "change of state" (22), (28); Visser (1963-1973:§178)
   speaks of a 'directional interpretation'.
o Deontic uses dominate:

(26) I must down to the seas again
     'I must go down to the seas again'
     (1902 Masefield *Sea Fever* in Visser 1963-1973:165)

   But notice the future use in (8) and (22), and the epistemic interpretation
   when combined with a CP in (5) and (25); finer-grained distinction necessary.

II. When declined?
o At least after Shakespeare. Current guess is after the 17th Century with
   fossils into the 21st Century: *murder will out, truth will out.*

(27) I must down to the seas again
     'I must go down to the seas again'
     (1902 Masefield *Sea Fever* in Visser 1963-1973:165)

(28) a precipitate exit lest the inward laugh should out
     'a precipitate exit lest the inward laugh should go out'
     (1905 Ward *The Marriage of William Ashe* 83 in Visser 1963-1973:165)
o Triggers suggested in the literature:
   o Roberts & Roussou 2003: loss of infinitival inflection causing
      reorganization of the clausal structure;

(29)   [TP modal [VP ~~modal~~ [TP T [VP V]]]] → [TP modal [VP V]]

- o Barbiers 2005, Coupé & Van Kemenade 2008: loss of verbal inflection causing V-to-v movement.

(30) [TP [modal1 [vP Subject [modal2 [VP Object Verb]]]]] → [TP [modal1 [vP Subject Verb [VP Object ~~Verb~~]]]]]

- o Check triggers with period & Icelandic

4. SUMMARY

What seemed to be a strange Dutch structure turns out to be a widespread phenomenon, both from a synchronic and a diachronic point of view. By pinning down the parameter that changed in the history of English we will learn much more about the construction still present in many modern languages.

<u>Generalization 1</u>: The construction concerns a complicated interaction of syntax and semantics (subject-predicate relation, modal semantics).

<u>Generalization 2</u>: The construction can probably be traced back to at least a common Germanic ancestor (Old English, Old Icelandic).

<u>Generalization 3</u>: The CP-complement seems to be different (only impersonal agents, epistemic reading available).

5. INNOVATIONS?

I. English: *Better* as a verb (Denison 2010)

(31) I would better → I'd better → I better
(32) I better away and get some work done.
    (20 results on Google)

II. Afrikaans: Missing infinitive implying "organization"

"Old" construction:

(33) Hy is/moet biblioteek toe (Biberauer & Oosthuizen 2011:5)
     he is/*must library*   *to*

Notice: *have + go, is + non-verbal complement*

"New" construction:

(34) Ek sal/moet/wil/gaan/het,etc. dat Wanda die boeke bestel
      I shall/must/want/go/have,etc. that Wanda the books order
      'I will/must/have organize(d)/ensure(d)/propose(d)/ask(ed) that Wanda orders the books' (Biberaurer & Oosthuizen 2011:5)

Syntax: modals/causatives/*have* + CP with overt complementizer.
Semantics: Implying organization of event described in CP; postulation light verb MAKE.

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