The scope of modals and negation in the history of Low German

Aim. The current paper studies the scopal interaction between modality and sentential negation in Middle Low German (MLG), testing two recent hypotheses concerning the scope of negation with respect to modal verbs. First, Cormack & Smith (2002:146) (C&S) speculate that all languages expressing modality by means of modal auxiliaries – as opposed to e.g. modal main verbs – have two classes of modals with respect to the scope of sentential negation, and wonder whether epistemic/necessity and deontic/possibility always correlate with narrow and wide scope of negation, respectively. Second, Butler (2003) claims that necessity and possibility modals universally do not use the same forms.

Based on a corpus of MLG statutory prose contracts and letters (1325-1575), the current paper shows that one modal, *scholen* 'shall', exhibits a split along the person dimension, first person forms scoping below negation and non-first person forms scoping above. On closer inspection, first person forms tend to have a possibility reading in the present corpus, while non-first person forms tend to have a necessity reading. Therefore, the C&S's hypotheses largely holds, while Butler's is not borne out at all.

Prerequisite. The paper demonstrates that MLG had indeed a special class of modal auxiliaries, fulfilling the precondition for C&S's hypothesis: unlike their cognates in other older West Germanic languages, the Old Low German (OLG) preterite-present modals (that is, all modals apart from *uuillian* 'will, want') had not developed non-finite forms yet, and this situation persists in MLG. Even MLG *willen* < *uuillian*, which did have non-finite forms in Old Low German (Old Saxon), cf. (1), unlike the other (preterite-present-based) modals, has no finite forms in our entire MLG corpus, pointing to analogical assimilation of *willen* to a special class of modal auxiliaries.

(1) Ni scal that riki god, quad he, uualdand **uuillien**.

NEG shall that empire God said he ruling will.INF

'The ruling God shall not want that empire'

(Heliand (ca. 830) 3095-3096)

Two classes of modals. The MLG data largely confirm C&S's hypothesis that languages with modal auxiliaries have two classes of modals with different scope with respect to sentential negation. The two classes of modals are, however, not entirely comparable to the ones witnessed in Catalan (Picallo 1990) or English (C&S). As in English, those deontic modals that outscope negation are necessity modals like *moten* 'must'. An exception is necessity *dorven* 'need'¹, which arguably scopes below negation. Unlike C&S do for English *need* (cf. also Van der Auwera 2001: 37 on 'special' '¬¬p' verbs), *dorven* cannot be treated as an exception – it is historically a 'core' modal verb (e.g. historically preterite-present; cf. e.g. Mortelmans et al. 2009), and is not an NPI in MLG. On the whole, however, it can be said that necessity modals scope above negation in MLG, and possibility modals below.

One modal, two meanings, different scopes of negation. The situation is less clear with willen 'will, want' and scholen 'shall'. They appear to have a 'strong', necessity-like reading scoping above negation, and a 'weak', possibility-like reading scoping below negation. Such an ambiguity has also been observed for the Present-day (High) German (PDG) cognate modals wollen and sollen (Bech 1949, Ehrich 2001).

Arguably as a consequence of the nature of the corpus, i.e. contracts and legal texts, *willen* is in fact only attested in its possibility reading, and thus takes scope below negation. What is expressed is not the (strong) intention of the speaker, but what he agrees to do or is prepared or willing to do under the conditions of the contract in question. This corresponds to Leech's 1971 [2004:87] 'willingness' meaning of English *will* as opposed to what he calls the 'intention' or 'strong volition' meaning. As Ehrich (2001:165f) shows, the truth conditions

(i) also dat se nene umbequemicheit ofte nod liden *dorven* [necessity] thus that they no inconvenience or penury suffer *need/*may* 'such that they don't need to suffer any inconvenience or penury'

(ii) Den erven en *darff* men niet antworden om yegeliken saken [possibility] the heirs NEG *may*/**need* one NEG answer for any business 'One is not allowed to answer to the heirs concerning any business.'

¹ *Dorven* can also have the possibility meaning 'may, be allowed' in MLG, which of course also scopes below negation. The difference is clear:

between the two meanings of PDG wollen differ: in a sentence like (2), 'X will ('is willing to') appeal to assistance', the modalised proposition is true in world w iff **there is at least one** world w' accessible from w specifying the subject's wishes, w' ϵq (q = 'X appeals to assistance'). Negation then takes scope over this: \neg (will(X appeal to assistance)) (see also Coates 1983:176).

(2) Dartegen wy [...] neynes behelpes geneten wyllen.
against.which we no.GEN assistance.GEN enjoy want
'...against which we do not intend to appeal to legal assistance'
(i.e., 'we agree not to appeal...'; # 'we intend not to appeal ...') (Lübeck 1528)

Under a necessity reading ('X will ('intends to/is determined to') appeal to assistance'), on the other hand, the proposition is only true in world w if **in all** w' accessible from w specifying the subject's wishes, w' ϵq (q = 'X appeals to assistance'). Negation scopes below: will($\neg(X \text{ appeals to assistance})$). Such a reading of willen is not attested in the corpus.

In the case of *scholen*, this leads to an interesting split along the person dimension. Necessity *scholen*, which accounts for virtually all necessity modals scoping above negation in our corpus (*moten* 'must' is very rare), is almost entirely restricted to non-first person forms (singular or plural). First person forms of *scholen* on the other hand are arguably instances of the possibility variant, taking scope below sentential negation. In our corpus, non-first person forms of *scholen* express orders or requirements (cf. Leech's 1971 [2004:89] 'obligation' meaning of *shall*), that is, the speaker/author orders the subject to act in a certain way and assumes control over the realisation of the required action (Haegeman 1981), see (3). First person forms of *scholen* on the other hand express 'weak volition' ('willingness'; Leech 1971 [2004]) on the side of the subject, and therefore pattern with 'weak'/possibility *willen*.

(3) Ok en**sculde** he dat guth nynen manne vorkopen noch vorhuren also NEG.should he the commodity no.DAT man.DAT sell nor let 'Further, he should/shall not sell nor let the commodity to anyone' (i.e., 'he is required not to sell the commodity to anyone') (Oldenburg 1350)

Conclusion. Necessity *dorven* 'need' aside, MLG conforms to C&S's account of English (necessity > negation > possibility), see table (4). Our data do however provide counterevidence to Butler's (2003: 972) claim that necessity and possibility modals universally do not use the same forms: *willen* and *scholen* encompass both meanings, in case of *scholen* depending on the person of the subject.

(4)	mod > neg	necessity	scholen 'shall (be required to)'
			(moten 'must')
		possibility	mogen 'may' (epistemic only)
	neg > mod	necessity	dorven 'need'
		possibility	kunnen 'be able', mogen 'be allowed, be able',
			scholen 'shall (intend to)', willen 'wish, want, be willing to'
			dorven 'may, be allowed to'

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