

## How ‘can’ becomes ‘have to’: Middle Danish *mughe* and its West Germanic parallels

Sune Gregersen (Universiteit van Amsterdam)  
SØF, Cologne 12 June 2019

### Overview of paper

- 1 Background
- 2 From ‘can’ to ‘have to’ in West Germanic
- 3 Classification of modal meanings
- 4 Middle Danish material
- 5 Findings
- 6 Conclusions and questions

### 1 Background

- The history of the Germanic modal verbs: a popular research topic (cf. e.g. Bech 1951; Standop 1957; Plank 1984; Goossens 1987; Traugott 1989; Warner 1993; Fritz 1997; Diewald 1999; Traugott & Dasher 2002; Yanovich 2016).
- Parallel development across West Germanic from ‘can, may’ to ‘must, have to’: English *must*, German *müssen*, Dutch *moeten*, West Frisian *moatte*, etc.
- Similar change in late Middle Danish *mughe*/MÅ (cognate of English *may*, German *mögen*, etc.).
- Question: How did the change ‘can, may’ > ‘must, have to’ happen? Not settled in the case of West Germanic; in Danish not investigated systematically.
- Material: Late Middle Danish texts (early 16th century) in order to identify possible contexts licensing the change.

### 2 From ‘can’ to ‘have to’ in West Germanic

- Old English MOT can usually be translated ‘can’ or ‘may’, as in (1):
  - (1) *Of ælcum treowe ðises orcerdes ðu most etan.*  
of each.DAT tree.DAT this.GEN garden.GEN you MOT.2SG eat  
‘Of every tree in this garden you may eat.’ (DOE Corpus; Gen 2.16)
- From early Middle English onwards, necessity uses start appearing, i.e. with the meaning ‘must’ or ‘have to’, cf. (2):
  - (2) *Ah heo mot nede beien, þe mon þe ibunden bið*  
but he MOT necessarily yield the man REL bound is.SBJV  
‘But the man who is bound necessarily has to yield.’ (Lazamon *Brut* (Calig.) 1051; OED, s.v. *mote* v.<sup>1</sup>)
- Similarly in Old High German MUOZ expresses possibility or permission (3); in MHG necessity meanings appear (4):
  - (3) *See dine gungirun tuoant daz sie nimozun tuoan*  
look your.PL disciples do.3PL REL they NEG.MUOZ.PL do.INF  
*in fera\_tagum*  
in holidays.DAT  
‘Look, your disciples are doing what they are not allowed to do during the Sabbath’ (Referenzkorpus Althochdeutsch; MF 4,4–5)
  - (4) *Leider ich muoz mich entwenen/ meniger wunne,*  
unfortunately I MUOZ 1SG.REFL forgo many.F.GEN joy(F)  
*der mîn ouge an sach.*  
REL.F.DAT my eye at looked  
‘Unfortunately I have to do without many joys that my eye used to look at.’ (Vogelw. 89,II; Bein 2013: 433)

- Various suggestions about the West Germanic developments:
  - » “**Negation**” theory: The meaning ‘not allowed to’ reanalysed as ‘obliged not to’ (Standop 1957; Goossens 1987; *OED*, s.v. *mote* v.<sup>1</sup>).
  - » “**Euphemism**” theory: Conventionalisation of ‘euphemistic’ use of permission for obligation (Bréal 1903; Klarén 1913; Traugott & Dasher 2002: 123–127).
  - » “**Single possibility**” theory: Logical overlap between necessity and possibility in some contexts – ‘can only’ ≈ ‘have to’ (Paul 2002 [1897]; Fritz 1997; Diewald 1999; Obe 2013).
- Problem: Less than ideal *Quellenlage* for early Middle English and early Middle High German. However, parallel change in Danish happened much later (15th/16th century).

### 3 Classification of modal meanings

- Many competing classifications of modality. I follow the model used by Byloo & Nuyts (2011, 2014) in their investigations of Dutch; comparable in many respects to the Danish functional tradition (e.g. Bech 1951; Hansen & Heltoft 2011).
  - Important: Semantic distinction between **possibility** (5) vs. **permission** (6) and **necessity** (7) vs. **obligation** (8).
- (5) *Why some people can whistle easily while others struggle to make even the slightest toot is somewhat of a mystery.*<sup>1</sup>
- (6) *You can even smoke cigarettes in hospitals in Pakistan [...]*<sup>2</sup>

<sup>1</sup> <<https://www.healthline.com/health/how-to-whistle>> (01.06.19)

<sup>2</sup> <<http://presspartners.org/fellow-blog-khalid-khattak-hookahs-and-cigarettes/>> (01.06.19)

- (7) *When the renovation began, the contractors had no blueprints to work with, so they had to improvise [...]*<sup>3</sup>
- (8) *In New Zealand you have to wear a safety belt if your vehicle was fitted with one.*<sup>4</sup>
- Polysemy in English (and many other languages): The **dynamic** meanings possibility and necessity may often be expressed by the same forms as the **directive** meanings permission and obligation.
  - Early Middle Danish material shows the same polysemy as PDE *can* (and *have to*), cf. Table 1 and (9), from Bjerrum (1967: 35).

**Table 1:** Modals in early Middle Danish (13th c.)

dynamic	directive
possibility	permission
MÅ	MÅ
necessity	obligation
SKAL	SKAL

- (9) *oc trøstær han sich til thær ofnæ at han ma utæn kunæ*  
 and trusts he REFLto there upon that he MÅ without wife  
*wæræ. tha ma han hennæ ut af garthæ sciutæ i særki*  
 be then MÅ he her out of property expel in smock  
*enæ oc mættæl*  
 only and mantle

‘And if he is confident after this that he can [= ‘is able to’] live without a wife, then he may [= ‘is allowed to’] expel her from the house in nothing but her smock and mantle’ (c.1300 ErL 2,2)

<sup>3</sup> <<https://www.nytimes.com/2007/02/01/garden/01treasury.html>> (01.06.19)

<sup>4</sup> <<https://www.drivingtests.co.nz/resources/seat-belt-law-in-new-zealand/>> (01.06.19)

- MÅ first attested with necessity meaning in the late 15th century:
- (10) *wdger worde seg mannelege ok slogh xx i hæll aff them*  
 Ogier defended REFL valiantly and struck 20 dead of them  
*tha war han so trøtther at han motthæ giffue segh fangen*  
 then was he so tired that he MÅ.PST give REFL caught  
 ‘Ogier defended himself valiantly and killed twenty of them; then he was so tired that he had to surrender’ (1480 KMagnus; Obe 2013: 151)
- Present-Day Danish: MÅ expresses necessity, as in (11), or permission, as in (12). Replaced by KAN in its earlier ‘possibility’ function. Modern system summarised in Table 2 (cf. Hansen & Heltoft 2011: 783–784).
- (11) *Mit fly var aflyst, så jeg måtte vente til kl. 18.35.*  
 my flight was cancelled so I MÅ.PST wait until clock 6.35.  
 ‘My flight was cancelled, so I had to wait until 6.35 p.m.’ (KorpusDK)
- (12) *På sabbat må ortodokse ikke tænde lys*  
 on Sabbath MÅ orthodox.PL not light candles  
 ‘On the Sabbath Orthodox Jews may not light candles’ (KorpusDK)

**Table 2:** Modals in Present-Day Danish

dynamic	directive
possibility	permission
KAN	MÅ
necessity	obligation
MÅ	SKAL

#### 4 Middle Danish material

- Four late Middle Danish prose texts (early 16th century), all from editions published by the Society for Danish Language and Literature (DSL):
  - » *Jon Præst* (JPræst): Description of the wonders of the East written by the (fictitious) king of India, John the Presbyter. Adaptation of a Swedish translation from Latin (Karker 1978).
  - » *Jesu Barndoms Bog* (JesuB.): Chapbook with legends about the lives of Mary and Jesus. Adapted from an earlier Danish verse translation of Philipp von Seitz’s *Marienleben* (cf. Jacobsen & Paulli 1915).
  - » *Kvinders Urtegård* (KvUrteg.): Fairly close translation of Eucharius Rößlin’s *Der Schwangern frawen vnd hebammen rosztgarten* (Strasbourg, 1513), the first printed handbook on midwifery.
  - » *Om kranke og fattige Mennesker* (HelieKr.): Treatise by the friar Paulus Helie on the treatment of the poor and destitute. Danish original, but more rhetorically ornate than the three other texts.

**Table 3:** Abbreviations and text information

	Title	Date	Edition	Witness	Words
JPræst	<i>Jon Præst</i>	c.1500	Nielsen 2015	Thott 585,8°	c.1,600
JesuB.	<i>Jesu Barndoms Bog</i>	1508	Boeck 2015	LN 21 (eks. 1)	c.15,000
KvUrteg.	<i>Kvinders Urtegård</i>	c.1515	Boeck 2017	Thott 245,8°	c.17,000
HelieKr.	<i>Om kranke og fattige Mennesker</i>	1528	Kristensen 1933	A.12-2	c.10,000

## 5 Findings

- 103 examples of MÅ. Of these, 95 examples were analysed as shown in Table 4. (Remaining 8 examples in idiomatic expressions or other minor meaning categories.)
- ‘Possibility’ the most frequent category in the texts; only 7 unambiguous instances of ‘necessity’.
- 18 examples ambiguous between ‘possibility’ and ‘necessity’, cf. (13) and (14). None of these contains a negation.

**Table 4:** Meanings of late Middle Danish MÅ

	dynamic	directive
	possibility	permission
	51	8
prediction	possibility/necessity	
11	18	
	necessity	obligation
	7	0

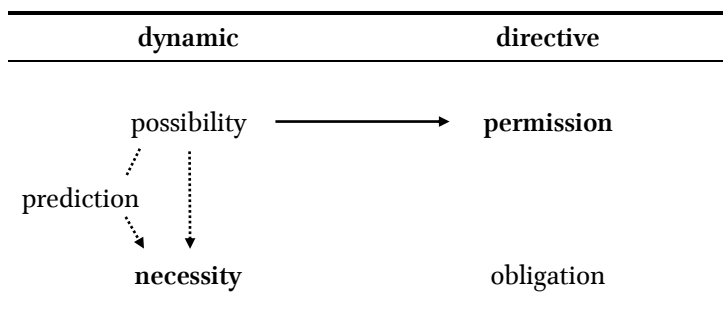
- (13) *Tha sagdhe iomfrw maria thijll iosep huor komme wij*  
 then said virgin Mary to Joseph how come we  
*offuer thenne beck. iosep swarede wi mo wade oss scal*  
 across this creek Joseph replied we MÅ wade us shall  
*intheth skade*  
 nothing hurt  
 ‘Then said the Virgin Mary to Joseph, “How are we going to get across this creek?” Joseph replied, “We can [or ‘have to’] wade; nothing is going to hurt us.’ (JesuB. 13)

- (14) *en qwynne, som megit vansmectigh er ok toor ok mager, hwn*  
 a woman whovery feeble is and dry and thin she  
*mo ok rædis for vtidigt barn*  
 MÅ also worry about premature child  
 ‘a woman who is very feeble, dry, and thin may [or ‘has reason to’, or ‘needs to’] worry about premature birth as well’ (KvUrteg. 10)
- Surprisingly, 11 examples appear to be better analysed as expressing ‘prediction’. (15) is especially clear because the German original (16) has a periphrastic future rather than a modal verb:
- (15) *Er thet so, at ther er ingen knwder poo, tha fonger hwn*  
 is it so that there are no knots on then gets she  
*aldri flere børn, men er ther fult knuder po, tha mo*  
 never more children but are there full knots on then MÅ  
*hwn fonge it barn for hwor knwde*  
 she get a child for every knot  
 ‘Is it so that there are no knots on it [the umbilical cord], then she will get no more children, but are there knots on it, then she will get a child for every knot.’ (KvUrteg. 17)
- (16) *Siend aber rüntzlin od(er) knöpf ff dar an/ so würt sie nach*  
*de(m)selben kind so vil kinder mache(n) so vil der nabel ru(n)tzlen*  
*od(er) knöpf ff hat.*  
 ‘But are there folds or knots on it, then she will bear as many children after this one as the navel has folds or knots.’ (Rößlin 1910 [1513]: 74)

## 6 Conclusions and questions

- Necessity meaning of MÅ develops out of possibility, perhaps partly through an intermediate stage of ‘prediction’ (cf. Table 5).
- The notion of ‘obligation’ plays no role in this development (*pace* the “euphemism” theory).
- Apparently no interaction with negation: possibility/necessity ambiguity occurs in non-negated contexts.
- For MÅ, the “single possibility” theory (Paul 2002 [1897]; Fritz 1997; Diewald 1999; Obe 2013) clearly preferable to the other two.

Table 5: Development of necessity and permission MÅ



- Not certain that OE/ME MOT and OHG/MHG MUOZ followed the same trajectory. But comparative investigations may help us reconsider earlier assumptions: For instance, are some early ‘necessity’ instances perhaps better analysed as ‘prediction’?
- (2') *Ah heo **mot** nede beien, þe mon þe ibunden bið*  
 ‘But the man who is bound necessarily **has to** yield.’  
 ~ ‘But the man who is bound **is necessarily going to** yield.’?
- And is the development of MÅ similar to that of the Swedish and Norwegian ‘aquisitive’ modal FÅ (van der Auwera et al. 2009)?

## Acknowledgements

Thanks for comments and discussions to Kasper Boye, Wim Caers, Olga Fischer, Peter Juul Nielsen, and the members of the *Language Description and Typology* research group, Universiteit van Amsterdam.

## Contact information

sune.gregersen@gmail.com

## Sources

- Bein, Th. 2013. *Walther von der Vogelweide: Leich, Lieder, Sangsprüche*. Berlin: Walter de Gruyter.
- DOE Corpus = A.d. Healey et al. (eds.). 2009. *Dictionary of Old English Web Corpus*. <<https://tapor.library.utoronto.ca/doecorpus/>>.
- HelieKr. = P. Helgesen [Helie]. 1933 [1528]. *Om kranke og fattige Mennesker*. In M. Kristensen (ed.), *Skrifter af Paulus Helie*, vol. 3, 1–37. Copenhagen: DSL. <[http://adl.dk/solr\\_documents/helgesen03](http://adl.dk/solr_documents/helgesen03)>.
- JPræst = M.A. Nielsen (ed.). 2015. *Jon Præst*. Copenhagen: DSL. <<https://tekstnet.dk/jon-praest-thott>>.
- JesuB. = S.S. Boeck (ed.). 2015. *Jesu Barndoms Bog*. Copenhagen: DSL. <<https://tekstnet.dk/jesu-barndomsbog>>.
- KorpusDK. Copenhagen: DSL. <<http://ordnet.dk/korpusdk>>.
- KvUrteg. = S.S. Boeck (ed.). 2017. *Kvinders Urtegaard*. Copenhagen: DSL. <<https://tekstnet.dk/kvinders-urtegaard>>.
- Referenzkorpus Altdeutsch. Berlin: Humboldt University of Berlin. <<https://www.deutschdiachrondigital.de/>>.
- Rößlin, Eucharius. 1910 [1513]. *Der Swangern frawen vnd hebamme[n] roszgarte[n]*. Strasbourg. (Facsimile published by Kuhn, Munich.)

## Other references

- Bech, G. 1951. *Grundzüge der semantischen Entwicklungsgeschichte der hochdeutschen Modalverba*. Copenhagen: Munksgaard.
- Bjerrum, A. 1967. *Grammatik over De sjællandske Love*. Copenhagen: Gyldendal.
- Bréal, M. 1903. Un changement de signification : le verbe allemand *müssen*. In *Album – Kern: Opstellen geschreven ter eere van Dr. H. Kern*, 27–28. Leiden: Brill.
- Byloo, P. & J. Nuyts. 2011. The diachrony of Dutch *mogen*. *Antwerp Papers in Linguistics* 113.
- Byloo, P. & J. Nuyts. 2014. Meaning change in the Dutch core modals: (Inter)subjectification in a grammatical paradigm. *Acta Linguistica Hafniensia* 46. 85–116.
- Diewald, G. 1999. *Die Modalverben im Deutschen: Grammatikalisierung und Polyfunktionalität*. Tübingen: Niemeyer.
- Fritz, G. 1997. Historische Semantik der Modalverben: Problemskizze – exemplarische Analysen – Forschungsüberblick. In G. Fritz & Th. Gloning (eds.), *Untersuchungen zur semantischen Entwicklungsgeschichte der Modalverben im Deutschen*, 1–158. Tübingen: Niemeyer.
- Goossens, L. 1987. Modal tracks: The case of *magan* and *motan*. In A.-M. Simon-Vandenbergen (ed.), *Studies in honour of René Delorez*, 216–236. Gent: Vitgeuer.
- Hansen, E. & L. Heltoft. 2011. *Grammatik over det Danske Sprog*. 3 vols. Copenhagen: DSL.
- Klarén, G.A. 1913. *Die Bedeutungsentwicklung von können, mögen und müssen im Hochdeutschen*. Lund University dissertation.
- Obe, R. 2013. *Modalverbernes semantiske system i gammeldansk*. Roskilde University dissertation.
- OED = *Oxford English Dictionary*, online edn. <<http://www.oed.com>>.
- Paul, H. 1992 [1897]. *Deutsches Wörterbuch*. 9th edn. Tübingen: Niemeyer.
- Plank, F. 1984. The modals story retold. *Studies in Language* 8(3). 305–364.
- Standop, E. 1957. *Syntax und Semantik der modalen Hilfsverben im Altenglischen* *magan, motan, sculan, willan*. Bochum: Pöppinghaus.
- Traugott, E.C. 1989. On the rise of epistemic meanings in English: An example of subjectification in semantic change. *Language* 65. 31–55.
- Traugott, E.C. & R.B. Dasher. 2002. *Regularity in semantic change*. Cambridge: CUP.
- van der Auwera, J., P. Kehayov & A. Vittrant. 2009. Acquisitive modals. In L. Hogeweg, H. de Hoop & A.L. Malchukov (eds.), *Cross-linguistic semantics of tense, aspect, and modality*, 271–302. Amsterdam: Benjamins.
- Warner, A.R. 1993. *English auxiliaries: Structure and history*. Cambridge: CUP.
- Yanovich, I. 2016. Old English \**motan*, variable-force modality, and the presupposition of inevitable actualization. *Language* 92(3). 489–521.