

**On deontic modality, directivity, and mood**  
**A case study of Dutch *mogen* and *moeten***

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## 0. Introduction

This paper is an attempt to get a better grip on (some aspects of) one of the major hanging problems in the analysis of ‘tense-aspect-modality’ meanings or ‘qualificational’ meanings, viz. on the nature of deontic modality and its status relative to other qualificational or, more narrowly, modal categories and to mood categories such as the imperative. The means to this end is a corpus-based analysis of the meaning structure of the Dutch modal auxiliary verbs *mogen* ‘may’ and *moeten* ‘must’.

This paper is organized as follows. In section 1 we discuss the problems encountered in the literature with the definition and situation of deontic modality among the modal categories and relative to mood. Section 2 motivates the methodology adopted in this paper, and presents the data. Section 3 offers a global meaning analysis of the two modal auxiliaries, with special focus on the issue of the status of their deontic and directive uses. Section 4 looks into the role of ‘performativity’ versus ‘descriptivity’ in the deontic and directive uses, and inquires into the relations between the ‘directive’ use of the modals and mood categories such as the imperative. In section 5, finally, we reflect upon the theoretical implications of the present investigation, particularly in terms of the position of the deontic and the directive meanings in an analysis of the system of qualifications of states of affairs in language and conceptualization.

The analysis and discussion will be caught in the context of the cognitive-pragmatic approach as defined in Nuyts (1992), and as applied to (epistemic) modality, and to qualificational categories more in general, in Nuyts (2001a, 2005a, b).



## 1. Where/what does deontic modality stand (for)?

Modality in general – as one subcategory of the system of ‘tense aspect modality marking’, or of ‘qualifications of states of affairs’ (we will use the latter term in this paper) – remains among the major problem domains in linguistic semantics (cf. Nuyts 2005a). But this characterization applies even more stringently to deontic modality in particular, as one modal subcategory, which in the literature is usually defined in terms of notions such as permission and obligation (see below), and which is much less understood than its more ‘popular’ sister category of epistemic modality, even if ‘popularity’ is a very relative notion even in the latter case.<sup>1</sup> (Epistemic modality involves an assessment of the likelihood of a state of affairs, as expressed e.g. by the adverb *probably* in *John is probably home now.*) There is practically no functional linguistic (including cognitive linguistic and typological) literature specifically devoted to the semantic notion of deontic modality, concern with it in linguistic semantics is nearly exclusively as a ‘byproduct’ in the context of analyses of the formal category of the modal auxiliaries (even more so than this is the case for epistemic modality, which has received at least some attention beyond the modals). Not surprisingly, then, there is no stable, well founded and broadly accepted view regarding its status among the modal or more generally the qualificational dimensions, and even the few ‘default’ assumptions about it in the literature turn out to be problematic if put in a wider perspective.<sup>2</sup>

Thus, deontic modality is not even generally acknowledged as a separate or independent semantic notion: specifically, it is often not separated from (parts of) ‘dynamic modality’. (The latter category most typically involves an indication of abilities/possibilities or needs/necessities of the agent participant in the state of affairs, inherent ones, as expressed by the modal auxiliary in *little John can count till ten* and in *I need to go to the*

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<sup>1</sup> Admittedly, the category traditionally often called ‘dynamic modality’ – see below – is not much better off. Indirectly, this paper will also throw some light on the latter, though.

<sup>2</sup> See Nuyts (2005a, b) for a more elaborate definition of all the modal categories introduced in this section, and for discussion of problems pertaining to them, including to deontic modality. The present discussion is mainly based on these articles.

*toilet*, or ones imposed by the situation, as in *you can open the door, it's unlocked, or you have to unlock the door before you can enter*. But there is probably also a 'situational' subtype, see below.) This is for example the case in the notion of 'root modality' commonly encountered in the Anglo-American tradition, which as a whole is opposed to epistemic modality (cf. e.g. Coates 1983) – Bybee et al.'s (1994) category of 'agent oriented modality' essentially boils down to the same thing. Palmer (2001) does distinguish between the two categories, but nevertheless groups them together under the category of 'event modality', which is opposed to the category of 'propositional modality' covering epistemic modality and evidentiality. (Evidentiality marks the nature of the source of information regarding the state of affairs, e.g. inference, as expressed by the adverb *apparently* in *he is apparently gone already*, or hearsay, as expressed by the perception predicate in *I hear you've passed the exams*.) In van der Auwera and Plungian (1998) the situation is somewhat more subtle: they consider deontic modality a special case of the category of 'participant external modality', which also includes – as the more typical or overarching dimension – what we will call 'situational dynamic modality' (the latter involves possibilities or necessities, not of the agent participant in the state of affairs, but inherent in the situation or state of affairs as a whole – cf. *it can rain for weeks here*), and which is opposed to 'participant internal modality' (i.e. dynamic modality minus the situational subtype) on one hand, and epistemic modality on the other.

As argued in Nuyts (2005a), however, there are a number of conceptual reasons to question the plausibility of lumping together deontic modality with dynamic modality or even only with the situational subtype of the latter, and/or of opposing it together with dynamic modality to epistemic modality. The major one is that deontic modality can clearly count as an 'attitudinal' category, quite like epistemic modality, i.e. a category involving an indication of the degree to which the 'assessor' (typically, but not necessarily, the speaker – see the discussion in section 4 below re the notion of 'performativity versus descriptivity') can commit him/herself to the state of affairs in terms of certain principles external to that state of affairs, in this case 'moral' principles.<sup>3</sup> This is not true for dynamic modality, however, not even for situational dynamic modality, since all dynamic subtypes simply involve indications of possibilities or necessities inherent in agents or situations, but nothing in terms of assessments of speaker commitment to the state of affairs. In other words: even if a speaker says that *it can rain here for weeks in a row in winter* (s)he is not expressing a degree of commitment to the state of affairs, like (s)he would be doing if (s)he says *it will most probably rain again tomorrow*, but (s)he is simply describing a fact about

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<sup>3</sup> We are using the notion of 'morality' here for lack of a better term. It need not involve societal principles, however, it can also concern strictly personal norms of the assessor.

the average weather conditions applying at the location where (s)he is. We will not repeat here the more extensive argumentation to this effect offered in Nuyts (2005a).

Also the ‘average’ definition of the category of deontic modality found in the literature appears problematic, however. As already indicated above, traditional definitions are nearly always (and practically by ‘default’, without much explicit contemplation) caught in terms of the notions of permission and obligation (cf. e.g. Kratzer 1978: 111, Palmer 1986: 96-97, van der Auwera and Plungian 1998: 81, next to many others). Which raises the issue of the relationship with a mood category such as the imperative, of course – a matter which is however hardly ever addressed in this literature.<sup>4</sup> As argued in Nuyts (2005a, b), however, the traditional definition is probably too narrow, and, in fact, it may even be misguided, as follows:

- The definition might be too narrow in the following sense: Permission and obligation are typically – or maybe not even always all that typically, as the present investigation will show – deontic meanings (or what are presumed to be deontic meanings – see below) expressed by modal auxiliary verbs. But if one looks at other types of deontic expressions – think of forms such as *it is (un)acceptable that ...* or *I applaud/deplore that ...* – the core of the semantics of deontic modality would appear to only involve an estimation of the moral acceptability of the state of affairs. ‘Directive’ meanings such as permission and obligation should then rather (at least) be considered more complex, adding an ‘action’ plan to the deontic assessment.<sup>5</sup> For ease of reference later in this paper, let us call this assumption about the nature of the core definition of deontic modality ‘Assumption 1’.
- But one may possibly even have to carry this reasoning one step further, and in that case the traditional definition is even misguided, as follows: One may wonder whether the directive meanings are specifically deontic at all: surely, they may ensue from a deontic assessment, but in principle one can also perfectly imagine them to ensue from, e.g., observations regarding potentials or necessities present in a situation (i.e. dynamic

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<sup>4</sup> Bybee et al. (1994), e.g., keep deontic modal notions and moods separated, respectively in their categories of agent oriented and speaker oriented modality, yet the consequence is that semantically essentially the same notions figure in both categories: permission and obligation, among others, in the former, permissive and imperative, among others, in the latter.

<sup>5</sup> Strictly speaking, a permission or allowance to do something is not a directive, but for the sake of the presentation (and/or for lack of a better covering term) we will cover it under this label in this paper.

modality). So, possibly, the directive meanings should even be considered a completely separate type of semantic category, one which is not ‘part’ of deontic modality, and which even does not belong under the label of ‘qualifications of states of affairs’ anymore but rather belongs in the same range as the meanings associated with mood categories such as the imperative. Let us call this assumption about the independent status of directive uses ‘Assumption 2’.

The meaning analysis of two modal auxiliaries in Dutch in this paper is intended to demonstrate the empirical plausibility of these two assumptions, and to explore some of their consequences.

## 2. The procedure

As argued in Nuyts (2001a), investigating a semantic domain such as epistemic or deontic modality normally requires a ‘paradigmatic’ approach, i.e. an investigation of a range of different expressive devices of the semantic category. In fact, most or all qualificational categories – including the modal ones – can be expressed by linguistic forms belonging to two or more different parts of speech, including grammatical (in Dutch and other Germanic languages: auxiliary) forms, adverbs, adjectives and full verbs. Epistemic modality, for example has expressions from all four these form types: compare, e.g., grammatical *may* or *might*, adverbial *maybe* or *probably*, adjectival *probable* or *likely* and verbal *think* or *believe*. The speaker’s choice for a form from one of the alternative expression types, then, is due to functional factors inherent in the communicative situation (elements such as information structure, or (inter)subjectivity) which are in essence independent of (even if they may interact with) the epistemic qualification itself (see Nuyts 2001a). Each individual epistemic expression form, then, reflects not only the features of the epistemic qualification as such, but also of these other contextual factors. Hence, in order to be able to abstract away from features of any specific expression type due to other functional factors, and to get to the essential properties of the semantic category as such, it is absolutely essential to compare the properties of (ideally) the whole range of expressive devices of the meaning category.

In principle, the same is true for the category of deontic modality. As already suggested above, this category, too, has expressive devices belonging to (at least) the four parts of speech just mentioned, viz. auxiliaries like (in Dutch) *mogen* ‘may’, *moeten* ‘must’ and *kunnen* ‘can’, adverbs such as *beter/best* ‘better/best’ (i.e. the comparative and superlative forms of *goed* ‘good’ – cf. *je gaat maar beter naar huis* ‘you better go home now’)<sup>6</sup> or *hopelijk* ‘hopefully’, adjectives such as *goed/beter/best* ‘good/better/best’ (cf. *het is goed dat je dat gedaan hebt* ‘(it is) good that you’ve done this’), *(on)aanvaardbaar*

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<sup>6</sup> We will not bother here with the discussion whether lexical elements such as *goed*, *beter* and *best* ‘good/better/best’ should be considered adjectives or adverbs – we will consistently apply a syntactic definition of these notions: at the sentence level, whenever a lexeme of this kind is used predicatively, we will call it adjectival, when it is used as a modifier of the main verb in the utterance we call it adverbial.

‘(un)acceptable’ or *noodzakelijk* ‘necessary’, and full verbs such as *toejuichen* ‘applaud’, *betreuren* ‘deplore’, or maybe also *hopen* ‘hope’ or *vrezen* ‘fear’. The issue of the role of directivity in definitions of deontic modality may be a perfect illustration of the risks involved in focusing on just one of these formal categories: the former dimension has no doubt sneaked into the definition of deontic modality due to (among others) an exclusive concern with the modal auxiliaries – this would no doubt not have happened if a range of expressive devices of deontic modality would have been considered.

Still, the present paper will also focus on (some of) the modal auxiliaries only, at the exclusion of the other categories of expressions (although it is implicitly informed by first observations regarding some of the other expression types, too), and as such, it should only be considered a first step towards a more complete analysis of deontic modality, covering the whole range of deontic expressions.<sup>7</sup> The reason for this (provisional) focus on the modals is (at least in part) to be found in the complexity and (to a considerable extent) ‘fuzziness’ of the (range of) other expressive devices. In this regard, the system of deontic modal expressions, at least in Dutch, but at first sight also in other West European languages, differs considerably from that of the epistemic modal expressions. In the adverbial and adjectival domain, for example, the latter category has a whole range of forms which are typically and many of them even exclusively devoted to expressing this meaning: think of forms such as *waarschijnlijk* ‘probable/ probably’, *misschien* ‘maybe’ or *zeker* ‘certain(ly)’ (even if the latter has many non-epistemic uses as well – see Byloo et al. 2005). And also mental state predicates such as *denken* ‘think’ or *geloven* ‘believe’ are clearly profiled and very frequent as verbs used to express an epistemic meaning (even if they have other uses as well, of course, which are also very frequent – see Nuyts 2001a). The exact range of deontic expressions is far less clear, however. Deontically used adverbs appear to be much rarer than epistemic ones, and are hardly ever (if at all) specialized in the deontic meaning: on the contrary, the latter is often rather ‘parasitic’ upon other, more dominant meanings (especially indications of ‘manner’, as a type of aspectual meaning, as in *goed/beter/best* ‘good/ better/best’). There are a few adjectives with a clear and prominent deontic meaning (including the ones mentioned above), but these occur only rarely in actual discourse. The same applies to deontic verbs such as *betreuren* ‘deplore’ and *toejuichen* ‘applaud’, and the precise meaning profile of more frequent verbs such as *hopen* ‘hope’ or *vrezen* ‘fear’ is not immediately evident (is it purely deontic, or more complex?). These observations as such are no doubt significant, but their interpretation in terms of the status and nature of the deontic meaning will have to await a more in depth study of all these different form types.

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<sup>7</sup> This more complete investigation is actually in progress at the Center for Grammar, Cognition and Typology of the University of Antwerp, but is far from completed yet.

In the mean time, however, as the following will demonstrate, the modals as such already offer a few insights which are more than interesting enough in view of pushing forward our understanding of deontic modality and its relationship to other modal or qualificational categories, and to mood.

More specifically, we will take a closer look at the Dutch modals *mogen* ‘may’ and *moeten* ‘must’, which generally count as the most typical expressions of deontic modality (in the traditional definition of this notion, of course) in the language. Also the modal *kunnen* ‘can’ can be used deontically (cf. Nuyts 2001a, Van Ostaeyen and Nuyts 2004), but this is clearly a much less common means. Even rarer are deontic uses of the modal *zullen* ‘will, shall’. Hence we will focus on the former two modals only.

Our analysis of these two modals is corpus-based: we will work from a sample of 100 instances of each. These instances are all taken from the ‘Corpus Gesproken Nederlands’ (‘Corpus of Spoken Dutch’ – henceforth ‘CGN’), a major 9 million word corpus covering all possible types of spoken Dutch (the investigation does, thus, not include written language). The instances were selected randomly from the complete corpus, at the exclusion of the parts with ‘read aloud’ texts (since these cannot really count as ‘spoken language’), and with the constraint that (per modal) we have aimed for an equal distribution of instances over Northern and Southern Dutch (i.e., 50 instances by speakers from The Netherlands and 50 by Flemish speakers), and within these, of 40 declarative and 10 interrogative instances (imperatives are not included because these modals simply do not show up in such a pattern). In the presentation of the analyses below we will not systematically differentiate between these subcategories in our data. Particularly, the North-South-difference will not be considered at all (cf. Diepeveen et al. in prep. for considerations of North-South differences in the use of these and other modal expressions), but we will spend some attention to the declarative/interrogative distinction, though only when relevant. Although our prime concern in this paper is with deontic modality (and meanings which are traditionally considered deontic, viz. the ‘directive’ ones), the selection of instances from the corpus is not constrained by this (or these) meaning(s), since we do not want to start out from a preconception of what deontic modality in these modals would actually stand for, and since we also want to get an idea of the position and the importance of the deontic meaning in relation to other meanings. This also means that the analyses below will (initially) cover all meanings of these modal verbs.

All instances in our data selection were analyzed taking into consideration their wider discourse context as available in the CGN (that is also how they will be presented in the following sections). All instances were analyzed by each of the three authors of this paper, cases of disagreement regarding the meaning of an instance were resolved through discussion. Obviously, unclear or uninterpretable cases (e.g. due to lack of context, completely ungrammatical or interrupted utterances, etc.) were excluded from the selection.

In the presentation of corpus instances below, we will perform a ‘mild clean up’ of the original transcripts in the CGN by omitting pauses, hesitations, repetitions, false starts, back channel cues and other brief hearer interruptions, etc., to the extent that they do not distort the interpretation of the instances and are not relevant for the discussion. We will not mark these minor adjustments in the transcripts. We will sometimes also omit longer irrelevant sections of the transcript (e.g. side sequences), these omissions will be marked by ‘(...)’. Other types of interventions in the transcripts (e.g. explicitation of the referent of pronouns when needed, correction of disturbing performance errors such as mispronunciations, etc.) will be enclosed between square brackets ‘[...]’. The modal forms at stake in the examples are italicized. Examples will always be identified by two ‘labels’ enclosed between brackets at the end of the transcript: the first label indicates the number of the instance in our database, the second label marks the code of the transcript in the CGN from which the instance was taken (this code actually reveals the geographical origins of the instance: the characters ‘fn’ at the beginning of the code mark Northern/Netherlandic Dutch instances, ‘fv’ marks Southern/Flemish Dutch instances). For reasons of space we will not provide English glosses for the Dutch examples, we will only provide a free translation. The latter will be ‘really free’ in the sense that we will aim to render the meaning as closely as possible, irrespective of the precise wording in Dutch – only in cases where the precise wording is relevant, we will also render it, if needed accompanied by a ‘really free’ transliteration.

### 3. The meanings and uses of *mogen* and *moeten*

#### 3.1. Overview

Table 1 offers a global overview of the meanings of *mogen* ‘may’ and *moeten* ‘must’ found in our data. We distinguish between unambiguous and ambiguous instances. Unless indicated otherwise in the discussions below, labeling an instance as ambiguous means no more than that each of the two or three meanings indicated was imaginable given the context in which the instance occurred, hence that we were unable to decide which of them was actually intended by the speaker (an inability which is at least in part/in some cases due to the fact that even a corpus offers impoverished contextual information, it lacking intonational information, information about nonverbal elements such as facial expression and gestures, the physical environment, wider background knowledge of the interlocutors, etc.). That is, we do not mean to suggest that in such instances the speaker intended both or all three of these meanings at once: we simply do not or cannot know on the basis of the present data.<sup>8</sup> Since the total number of instances per modal equals 100, the absolute numbers in this table can at the same time be read as percentages indicating the share of each meaning in the total number of instances.<sup>9</sup>

Clearly, both modals exhibit roughly the same range of meanings. Exceptions are the categories of evidentiality/epistemic modality, which only appears among the instances of

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<sup>8</sup> Some may want to assume that a speaker can indeed mean to express several meanings at the same time, others (including some of the present authors) assume that speakers usually/normally only have one of these meanings in mind. We will not pursue this discussion any further here, however, since it would lead us too far astray.

<sup>9</sup> In line with what we have announced in section 2, for the sake of simplicity we do not differentiate between declarative and interrogative instances in the present table – see section 3.8 below. Since the relative share of interrogative instances in the present data (20%) is relatively higher than the actual share of interrogative instances in the corpus as a whole (app. 8% for *mogen* ‘may’, app. 13% for *moeten* ‘must’), one might object that this may have a biasing effect on the real proportions of the different meanings of these auxiliaries. As section 3.8 will demonstrate, however, there are no significant differences between the meanings of declarative and interrogative instances.

		<i>mogen</i>	<i>moeten</i>
unambiguous	dynamic	1	36
	deontic	6	10
	directive	68	16
	epistemic or evidential	0	1
	other	7	3
ambiguous	dynamic/deontic	2	18
	dynamic/directive	2	6
	deontic/directive	13	4
	dynamic/boulomaic	0	1
	boulomaic/volitional	1	0
	dynamic/deontic/directive	0	5

Table 1: Meanings of *mogen* ‘may’ and *moeten* ‘must’

*moeten*, and of volition, which only occurs among the uses of *mogen*. But the relative importance of the meanings shared by both differs considerably. Some of the possible reasons for these differences will emerge in the discussions below and in the next section. Both modals also exhibit a fairly high number of ambiguous instances, *moeten* (33 instances) more so than *mogen* (18 instances). This observation does not come as a surprise for those used to working on the semantics of the modal auxiliaries, or of modal expressions more generally: a high incidence of ambiguous instances (not only involving the meaning combinations in table 1, but very many others as well – although there are in some cases clear limits on which meaning combinations do appear and which do not) is typical of many (even if not all) modal expressions.<sup>10</sup> There are undoubtedly (at least) historical causes for such ambiguities (to do with the meaning development of the forms at stake and the gradual stabilization of new meanings – cf. Van Ostaeyen and Nuyts 2004 for discussion), but going into this is beyond our present purposes.

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<sup>10</sup> Massive ambiguity can also be found, e.g., in the Dutch modal *kunnen* ‘may/can’ (cf. Nuyts 2001a, Van Ostaeyen and Nuyts 2004), or in the Dutch and English modal adverbs *zeker* and *certainly* (cf. Byloo et al. 2005). But it is entirely absent, e.g., in the Dutch epistemic adverb and adjective *waarschijnlijk* ‘probable/probably’ (cf. Nuyts 2001a).

Let us now go through the meanings of these two modals one by one, and discuss their specific properties. We will start with the ‘minor’ categories which will not be of special interest for the rest of the paper, and gradually move towards the uses which are more central to our present goals.

### 3.2. ‘Other’ meanings/uses

The category of ‘other’ meanings of both modals covers a number of uses which can be characterized as ‘idiomatic’ or ‘fixed’, which means that they are tied to very specific semantic and/or grammatical usage contexts, so much so that the actual meaning of the modal (or its specific contribution to the idiom) is hardly discoverable anymore.

For *mogen*, this category covers the following uses:

- The use of the modal as a conditional marker, i.e. to signal that the clause in which it figures is a conditional clause, as in (1) (there are 5 instances of this type in our data). This use probably originates in either the dynamic or the epistemic meaning of this modal (both of which have now largely disappeared – see below), but these origins are not really ‘visible’ or recognizable anymore in the present use. In this type of usage one may even wonder whether the modal still has a ‘meaning’ at all, and is not rather tending towards being a purely formal marker of a grammatical ‘type’ (in this case, a conditional clause).

- (1) *mocht* een fusie met British Airways niet lukken dan is Air France een goede optie zegt Van Wijk (30 – fn003574)  
“If a fusion with British Airways would not succeed, then Air France is a good option, says Van Wijk.”

- Uses of the type in (2), in which the modal figures in an expression marking a for the agent-participant in the clause unexpected or unwanted (or at least not deliberately chosen) and possibly problem causing state of affairs. (There are 2 instances of this kind in our data.)

- (2) A: ja maar stel dat alle Belgen uit Kongo terugkeren hè. waar moeten die mensen dan naartoe?  
B: kijk die mensen komen uit de tropen. die zijn niet gewend aan onze winterse temperaturen. dus ik denk dat het leger fameus wat verwarmde tenten zal *mogen* optrekken toch ja. (87 – fv600883)

- “A: Yes but suppose that all Belgians would return from Congo. Where do these people have to go?  
 B: Look, these people are coming from a tropical area. They are not used to our winterly temperatures. So I think that the army will have to put up quite some heated tents.”

This very characteristic kind of use of *mogen* cannot really be categorized in terms of one of the traditional meaning categories to be discussed below: there is no permission involved (cf. directivity), there is no expression of moral acceptability on the part of the speaker (cf. deontic modality), there is no issue of abilities (cf. dynamic modality). Surely, the directive reading is the most likely candidate for being the originator of this use – but again, the present usage is quite opaque in this regard.

For *moeten* this category of ‘other uses’ covers the following (there is one instance of each of these in our data):

- The use of the modal in the idiomatic expression *iets zelf moeten weten*, literally ‘to have to know something oneself’, but in free translation meaning something like ‘it is XYZs own responsibility/business’ (whereby XYZ is a person), as in (3). It is entirely unclear whether this originates in the dynamic or the deontic use of the modal (it certainly does not derive from the evidential use).
- (3) je hebt zo van die mensen dat *moeten* ze ook zelf weten dat veroordeel ik verder niet maar die gaan ’t liefst iedere week in dezelfde kroeg. in dezelfde wijk. en dan denk ‘k van mensen in Nijmegen is zo veel meer dan dat. (50 – fn000377)  
 “There is that kind of people, they have to know themselves, I do not condemn this otherwise, but they prefer to go to the same pub every week, in the same district. And then my thoughts are like: ‘hey folks, there is so much more than that in Nijmegen’.”
- The use of *moeten* as a conditional marker (a usage restricted to Southern Dutch dialects and Belgian substandard Dutch – standard Dutch uses *mogen* here, as in (1) above), as in (4). This most probably derives from the dynamic use of the modal (i.e. from a meaning like ‘if it were necessary for us to XYZ’), but to a present day speaker these origins are not recognizable anymore.
- (4) wij kennen die eigenlijk heel goed en 't zou jammer zijn *moesten* we dat nu stoppen (90 – fv400292)

“We know them very well, actually, and it would be a pity if we would stop this now.”

- The (possibly again Southern Dutch) use of the modal in an impersonal construction (with as its subject *het* ‘it’) and in combination with the adverbial particle *maar* ‘but’, to forecast an unpleasant or negative condition, as in (5). Again the meaning of the modal here is very difficult to characterize in terms of the ‘traditional’ meanings to be discussed below (although the origins are most likely in the dynamic meaning).

(5) *het moet maar uw zoon of uw dochter zijn die verongelukt in het verkeer.* (95 – fv600230)

“What if it would happen to be your son or daughter who gets killed in a car crash.”

There are actually several more what may be called idiomatic or ‘fixed’ uses of these two auxiliaries, but in these the meaning of the modal is still transparent or recognizable, or at least more so than in the foregoing cases, hence they have been classified among the other meanings (we will mention them in the course of the discussion below): for *moeten* there are only 3 more (all in the category ‘dynamic’), but for *mogen* there are 13 other such instances (in different meaning categories). This means that for the latter modal the total number of uses which may be called idiomatic adds up to 20%. For *moeten* it only covers 6% of the instances. The very high incidence of idiomatic uses in *mogen* is no doubt associated with the fact that this modal had a considerably wider usage in Middle Dutch, covering the entire range of meaning categories from dynamic via deontic and directive to epistemic, but has gradually lost both its dynamic and its epistemic use to *kunnen* and has narrowed down to a predominantly deontic/directive form, leaving quite some ‘fossilized’ traces of earlier types of uses, however.

### 3.3. Evidentiality/Epistemic modality

A meaning category only present in our data for *moeten*, not for *mogen*, is what in table 1 we have labeled ‘epistemic or evidential’. The double label has to do with the fact that specifically for *moeten* the precise status of this meaning is a matter of dispute: some would call it evidential, others would classify it as epistemic. As mentioned in section 1, evidentiality concerns an indication of the type of source of information about the state of affairs (hearsay, direct perception, inference from other information, etc.); epistemic modality concerns an estimation of the likelihood that the state of affairs exists in the world. Coates (1983: 41ff), e.g., calls this meaning of *must* epistemic but admits that it also has an

inferential meaning component. Palmer (2001: 8-9) calls it deductive, i.e. inferential, but handles it together with the epistemic forms. Bybee et al. (1994: 180) list it under the epistemic meanings but label it as expressing inferred certainty. Nuyts (2001a, 2005a) classifies this usage of *moeten* and *must* as purely inferential. Although these meanings are not our focus in this paper, it is useful to have a brief look at the single instance of this usage in our data, since it illustrates the complexity of the discussion regarding the status of (in this case) Dutch *moeten* in these terms. It is given in (6).

- (6) B: hij was daar ook nog 'ns een keer vijf pond goedkoper dan bijvoorbeeld Amazon.  
A: waar ... oh ja oh.  
B: ik heb 't via Play gedaan.  
A: en da 's een Engels bedrijf?  
B: ja 't *moet* liggen op Jersey of Guernsey. nee ik denk Jersey hè? Jersey. ja je hebt ook Guernsey hè?  
A: ja ja je hebt toch twee? liggen bij elkaar ja.  
B: ja. nou ik denk dat 't Jersey was want Jersey die valt vaker buiten de wetten van Engeland en 't heeft geen extra portokosten voor heel West-Europa. (41 – fn006728)  
“B: it was moreover even five pound cheaper there than with Amazon.  
A: Where? Oh, yeah, well.  
B: I've done it via Play.  
A: That's an English company?  
B: Yes it must be situated on Jersey or Guernsey. No I think Jersey, right? Jersey. Yes there's also Guernsey right?  
A: Yeah aren't there two of them? lie next to each other yes.  
B: Yes. Well I think it was Jersey because Jersey is more often not covered by the laws of England and it has no extra postal expenses for all of Western Europe.”

If, as an interpreter, one has only perceived the context preceding the relevant modal, at the point when the latter appears in the text there is little reason to question an analysis in terms of ambiguity between hearsay ('I've heard that ...', which is obviously, beyond any dispute, an evidential reading) and what we consider to be inference ('from not mentioned facts I infer that ...'), i.e. an ambiguity between two different subtypes of evidentiality. The following context, however, turns epistemic, witness the use (twice) of the epistemically used mental state predicate *denken* 'think'. Proponents of the analysis of *moeten* as being epistemic might obviously consider this an argument in their favor, thereby implicitly assuming that the speaker is consistently expressing the same meaning throughout his

discourse. But obviously, one can just as well assume that the speaker is very well concerned with two different meanings: it is perfectly imaginable that the speaker first presents what (s)he has heard or has inferred from other information, and only then turns to statements regarding which of the alternatives appears most probable.

This meaning type is clearly not dominant among the meanings of *moeten*, and it is entirely absent in the meanings of *mogen* although this modal used to have this meaning in Middle Dutch (it lost it since then). For a comparison: in the modal *kunnen* ‘may’, 0.2% of the instances is unambiguously epistemic, but an additional 7.6% is ambiguously epistemic (cf. Nuyts 2001a: 187) – the situation is thus fairly different in the present modals. We will not return to this meaning category in the remainder of this paper.

### 3.4. Boulomaic attitude and volition

‘Boulomaic attitude’ indicates the degree of ‘(dis)likability’ of the state of affairs (Nuyts 2005a, b), as expressed in utterances such as *I hate to go, I love it that you are here, how nice that you are here*, etc. This meaning category is not among those traditionally listed under the modal meanings, or the meanings expressed by the modal auxiliaries (but see Kratzer 1978). Still, two instances in our data (one of each modal) might possibly be classified as such. They are given in (7) and (8).

- (7) A: Lotje. ja ja.  
B: hoe is ’t daarmee? met d’r moeder en zo?  
A: ‘k weet niet. ik vraag er niet meer naar. ‘k heb er geen zin meer in. ‘k heb ’t gehad 'k *mag* niet meer. (45 – fn000757)  
“A: Lotje, oh yes.  
B: How is she doing? and how’s her mother and so?  
A: I don’t know. I don’t ask her anymore. I don’t feel like it anymore. I’ve had it. I don’t like it any more/don’t want any more of it.”
- (8) A: wat heb jij een gezellige ring daar.  
B: welke?  
A: nee andere kant dan. oh ik dacht dat ‘k net een doodskop zag maar dat zie ‘k dus helemaal niet.  
B: nee dit is een slangetje. (...) deze heb ‘k al vanaf groep acht. (...) ik had zo in groep acht al tien ringen om. vond ‘k mezelf heel stoer.  
A: mm-hu. heb je hier nog één. oh nee je hebt d’r nou ook maar zes.

- C: ja. nee zeven. maar 't is pijnlijk want ik raak ze allemaal kwijt. maar deze hier die *moet* weer daar. en dan krijg 'k een nieuwe voor deze. (74 – fn000954)
- “A: what a cosy ring do you have there. [ironical]
- B: Which one?
- A: No, the other side. Oh, I thought I had just seen a skull but so I don't see that at all.
- B: No this is a little snake. (...) This one I have since group eight. (...) In group eight I already had ten such rings on. I thought I was very hip.
- A: Aha. Do you have one here, too. Oh no, you only have six now.
- C: Yes, no, seven. But it's painful because I am losing all of them. But this one here has to go back there. And then I'll get a new one for here.”

To many native speakers, (7) sounds somewhat weird – it actually strongly reminds of the German use of the cognate modal in expressions like *ich mag nicht mehr*, which can be interpreted as ‘I don't like it anymore’, ‘it’ being whatever one is doing or dealing with (i.e. boulomaic), or, alternatively, as ‘I don't want any more of it’, i.e. volitional. The Dutch auxiliary in (7) is interpretable in the same two ways. Views in the literature regarding the status of volition differ quite substantially: some consider it part of deontic modality (Palmer 1986), others include it among the dynamic modal meanings (Goossens 1983, Palmer 2001), yet others simply exclude it from the modal notions (van der Auwera and Plungian 1998). Nuyts (2005a, b) suggests that it might actually be a special ‘subtype’ of boulomaic attitude, since ‘liking’ and ‘desires’ are closely related (in the latter case (7) is not really ambiguous between two meaning categories, of course). We will leave the discussion open here.

In (8) the modal is ambiguous between a reading like ‘I prefer it to be on that finger’, which has to do with ‘liking better’, i.e. boulomaic, and a reading of the kind ‘circumstances force it to go to that finger’, i.e. what we call ‘situational dynamic’. The borderline between the former reading (at least in this instance) and a purely deontic one is thin – but the present data do not allow us to go more deeply into this issue. In any case: the instance does not have to do with ‘moral’ issues (in whichever meaning), whence we have not also classified it as deontic.

### 3.5. Dynamic modality

In the literature, dynamic modality is traditionally associated with ‘abilities’ or ‘potentials’ (i.e. the meaning predominant in the modal *can*, or Dutch *kunnen* for that matter; cf. e.g. Goossens 1985). In this vein, Coates' (1983) analysis of *must* does not (within her category

of ‘root modality’) mention ‘needs’ or ‘inherent necessity’ as one of the meanings, as distinct from what we would call the deontic and directive uses of this modal (although she does distinguish between ‘ability’/‘possibility’ and ‘permission’ for *can*). Yet, in line with what was already observed by Palmer (1979: 91ff), dynamic modality clearly does also cover ‘needs’ or ‘necessities’ (as already suggested above – and see Nuyts 2005a, b). This is obvious if one considers forms such as *need to* or *have to*. But in fact, this meaning category is manifestly present even in *moeten* (and, no doubt, in *must* as well) – it is even by far the predominant meaning in this modal (although, admittedly, it is fairly often not easy to distinguish the dynamic and deontic or directive meanings of this modal, witness the relatively high number of ambiguous cases). Thus, consider instances such as in (9) to (13).

- (9) een wedstrijd op gang getrokken door Koen Allaert. ging heel snel weg. man van het wegcircuit. dan *moest* ie afhaken en dan kwam jij op de voorgrond hè. want jij hebt een heel goeie wedstrijd gelopen geduelleerd met Ruddy Walem. (89 – fv600145)  
 “A race gotten going by Koen Allaert. Ran away very fast. Man of the road circuit. Then he had to let go and then you came into the picture, right. Because you have run a very good race, dueled with Ruddy Walem.”
- (10) hij is echt iemand die z’n gitaar pakt en die dat speelt en d’r zit soms een soort rare klank in en dat rougher zo. hij is ook constant met z’n pedalen bezig maar hij schrijft ook echt direct z’n noten uit om aan de andere muzikanten te geven. hij kan dat ter plaatse doen zonder dat hij d’rover *moet* nadenken. in die zin is hij echt een muzikant die ongelooflijke capaciteiten heeft. (55 – fv600277)  
 “He is really someone who takes his guitar and who plays it and it sometimes contains a strange sound, something rougher. He is also constantly handling his pedals but he really also writes up his notes directly to give them to the other musicians. He can do that on the spot without having to think about it. In that sense he is really a musician with incredible capacities.”
- (11) A: kunt ge daar hout mee schuren en kunt ge daar ook die metalen pootjes mee afschuren?  
 B: da ‘s veel te breed hè. dat *moet* ge met de handen doen. (2 – fv400081)  
 “A: Can you scour wood with it? and can you also scour those metal legs with it?  
 B: It is much too broad for that. You have to do that by hand.”
- (12) PSV heeft als eerste de finale bereikt van de Amstelcup. de ploeg uit Eindhoven won in de halve finale de uitwedstrijd tegen Heerenveen met drie één. Ruud Van Nistelrooij scoorde twee keer. PSV dat al bijna landskampioen is kan nu voor het

eerst in tweeëntwintig jaar weer eens de dubbel winnen. maar dan *moet* de finale van de Amstelcup wel worden gewonnen. (37 – fn001789)

“PSV is the first to reach the Amstel cup final. In the semifinal the team from Eindhoven won the away game against Heerenveen by three to one. Ruud Van Nistelrooij scored two times. PSV, which is already almost national champion, can now, for the first time in twenty-two years, again win the double. But then it has to win the final of the Amstel cup.”

- (13) A: en daar vraagt u mij een oordeel in te winnen bij de Algemene Rekenkamer. het is de vraag of de Algemene Rekenkamer dit überhaupt kan. (...) ik ontraad derhalve de motie op stuk vier en de motie van mevrouw Van Zuijlen die laat ik over aan het oordeel van de Kamer gehoord wat mijn oordeel hierover is. dank u wel.
- B: voorzitter als u mij toestaat de laatste keer.
- C: de heer Vendriks.
- B: hoeveel affaires *moeten* d'r nu nog naar buiten komen voordat u van deze houding afstapt?
- A: het is een verschil wat u affaires noemt. (283 – fn000173)
- “A: And then you ask me to get a recommendation from the General Audit Department. The question is whether the General Audit Department can do this at all. (...) For that reason I do not endorse the motion in matters item four, and I leave the motion by misses Van Zuijlen to the judgment of the House of Representatives. [You have] heard my opinion about it. Thank you.
- B: Mister Chairman, if you allow me for the last time.
- C: Mister Vendriks.
- B: How many more affairs have to see the daylight before you change this attitude?
- A: There's a difference in what you call affairs.”

In all of these, the necessity expressed by the modal is very clearly not a matter of a judgment of a ‘moral necessity’ or an imposition of an ‘obligation’ onto someone by the speaker or some other person (unlike in instances of the type to be discussed in the categories of deontic and directive meanings below), but simply a matter of necessities inherent in a participant or ensuing from a situation, i.e. a purely dynamic modal meaning. Most instances of this category in our data are actually of the dynamic subtype which Nuyts (2005b) calls ‘participant-imposed dynamic’, i.e. involving a necessity or need for the agent participant to do something which is imposed or triggered by the circumstances – (11) is a prototypical example of this kind. Purely or unambiguously ‘participant-inherent dy-

dynamic’ cases, in which the need or necessity is entirely inherent to the agent participant, are not present in the data (although they are imaginable: cf. *I must go to the toilet*) – instances (9) and (10) could possibly receive such a reading, but they can also be understood as being ‘participant-imposed’ (cf., for (9), e.g.: ‘his physical condition was insufficient hence he had to stop’ vs. ‘something happened which forced him to stop’). Also ‘situational dynamic’ instances are rare: (13) is the only pure case in our data, (12) would seem to come close to being one, although a participant-imposed reading is not entirely excluded, even if not very manifest due to the implicitness of the agent participant in this passive construction.

Among our dynamic instances are actually also three cases which may be called ‘fixed’ or idiomatic (cf. 3.2 above), two of which are given in (14) and (15) (the third instance is like (15)).

(14) maar ik *moet* heel eerlijk zeggen die eerste drie avonden heb ik geen enkel avondactiviteit meegedaan (58 – fv400092)

“But I have to confess, those first three evenings I haven’t participated in any of the evening activities.”

(15) *moet* je luisteren Koos ik zal je nog een voorstel geven. (76 – fn000879)

“Listen here, Koos, I’ll make you another proposal.”

Both involve formulaic expressions, the former predominantly used as a hedging device, the latter as an attention drawer. Both are more or less clearly a matter of inherent necessities, however, hence we have included them among the dynamic instances.

Quite contrary to the situation in *moeten*, however, the dynamic reading in *mogen* – indicating ability or potential – is marginal.<sup>11</sup> The only ‘pure’ case – given in (16) – is moreover a clearly idiomatic one (the ‘situational dynamic’ reading is only marginally recognizable, still).

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<sup>11</sup> This was a very prominent meaning in this auxiliary in Middle Dutch, but *kunnen* ‘can’ has since then gradually taken over as the predominant marker of dynamic ability or potential, and by now *mogen* has clearly by and large lost this meaning. A similar thing has actually happened to the epistemic meaning, which *mogen* started to develop probably in the Middle Dutch period still, long before *kunnen* did, but which has later been taken over entirely by *kunnen*, and which has by now disappeared in *mogen*. The historical ‘interaction’ between *mogen* and *kunnen* is an interesting subject for further research.

- (16) op het veld gekomen is nog even Jasper Bruistens. hij kwam de licht gebllesseerde Sandy Schreur vervangen. het *mag* allemaal niet meer baten waarschijnlijk. d'r vallen grote gaten achterin. De Treffers profiteert er niet meer van omdat 't zich concentreert op de verdediging om zodoende geen doelpunt meer tegen te krijgen. (37 – fn000032)  
“Jasper Bruistens has entered the field for the short time remaining. He came to replace the mildly injured Sandy Schreur. It probably can't remedy the situation anymore. Large undefended areas are appearing in the back. The Treffers does not take advantage of it anymore because it is concentrating on the defense, in order to avoid goals against them.”

And also 3 of the 4 instances which are ambiguous with either a deontic or a directive reading can be called idiomatic uses – in these the ambiguity is clearly the result of a loss of semantic transparency of the modal (i.e. it is not a matter of an inability on the part of the analyzer to determine the actual meaning intended by the speaker, but it is inherent to the usage of the form itself). An instance which is ambiguous between a dynamic and a directive reading (i.e. involving a permission) is (17), (18) is one of the two idiomatic instances which are ambiguous with something which can best be characterized as a deontic reading of ‘moral acceptability’ – ‘permission’ does not seem to be at stake here (the other instance is essentially identical, also featuring the combination *mogen verwachten* ‘may expect’).

- (17) doet ie het of doet ie het niet? twee weken lang heeft hij de wereld in spanning gehouden. twee weken lang hebben we getuige *mogen* zijn van z'n gewetensnood. na veel wikken en wegen heeft Gerard Mortier besloten z'n termijn als intendant van de Salzburger Festspiele vol te maken. (58 – fv600111)  
“Is he going to do it or is he not going to do it? For two weeks he has kept the world in tension. For two weeks we could witness [literally: we have been allowed/able to be the witness of] his scruples. After long deliberation Gerard Mortier has decided to complete his term as intendant of the Salzburger Festspiele.”

- (18) als u 't goed vindt laten we 't wederwoord even zitten want ik wilde toch heel graag praktisch maken voor die mensen die in dit huuruur toch even willen horen wat d'r gebeurt eigenlijk met die huurstijgingen. als dat maximaal zes en een half procent mag zijn dan vragen we ons af stijgt dan de kwaliteit van dat huren ook met zes en een half procent. mevrouw Van Veen *mogen* we dat verwachten? (1 – fn007332)  
“If it is alright with you we'll leave the reaction aside. Because I wanted to make things practical for those people who during this ‘rent hour’ wanted to hear what is actually happening with those rent increases. If that can be up to maximally six and

a half percent, then we wonder whether the rent quality will also increase by six and a half percent. Misses Van Veen, can we expect that?”

The only ‘non-idiomatic’ instance which can possibly receive a dynamic reading, albeit ambiguously with a directive reading of permission, is (19).

- (19) A: een grote reden is dat er heel veel studenten die zich enorm inzetten voor alles wat met Chrisos[tomos] te maken heeft dat die sneuvelen op het einde van ’t jaar. met ’t gevolg zitten die nu nog ‘ns het zesde jaar daar hun broek te verslijten.  
B: (...) maar dan *mogen* ze nog 'ns meedoen met Chrisostomos.  
A: maar ja da’s toch niet meer hetzelfde hè? (81 – fv400086)  
“A: A major reason is that many students who devote a lot of their energy to everything to do with Chrisostomos do not make it at the end of the year. Consequently, they are sitting here again the sixth year wearing off their pants.  
B: (...) But then they can participate once again at Chrisostomos.  
A: Yes but that is not really the same anymore, right?”

### 3.6. Deontic modality

In line with ‘Assumption 1’ formulated in section 1 above, our data for both modals feature a number of instances which clearly involve a meaning of ‘moral acceptability’ (in the case of *mogen*) or ‘moral necessity’ (in the case of *moeten*) without them also involving a directive meaning of permission or obligation – in other words, instances which underscore the argument that deontic modality should not be defined in the latter terms, but in the former, more basic terms. As table 1 shows, such uses constitute a fair proportion of the total number of instances, in *moeten* more so than in *mogen*, especially if one also considers the ambiguous cases in which this deontic meaning is one of the possible readings. (20)-(22) are examples of this kind with *mogen* (the latter two expressing unacceptability due to the combination with negation), (23)-(25) feature instances with *moeten*.

- (20) A: Judith heeft nog steeds geen baan Joost hè.  
B: nee?  
A: nee die is halverwege ‘r studie halverwege dit jaar samen gaan wonen. hebben een huis gekocht. (...)  
B: kan ze niet een half jaar wachten met samenwonen? (...)  
A: nee je moet gewoon als je studeert nog niet een huis kopen.

C: niet samen. nee.  
 A: je *mag* wel samengaan als je partner toch al op zichzelf woont.  
 C: ja precies. (14 – fn007803)  
 “A: Judith still doesn’t have a job, hey Joost.  
 B: No?  
 A: No she went to live together [with a guy] in the middle of her studies, in the middle of this year. They bought a house. (...)  
 B: Can’t she wait half a year to go and live together [with him]? (...)  
 A: No, when you’re studying you simply shouldn’t buy a house yet.  
 C: Not together, no.  
 A: You can/It’s fine if you go and live together if your partner already lives on his own.  
 C: Yes, exactly.”

(21) ja en dan doe ‘k ‘t toch in het Nederlands omdat ik dat bij officiële gelegenheden en dergelijke vind ‘k dat gewoon dan hoort dat. en daar kreeg ik toch wel commentaar op van de mensen. zo van ja waarom niet in ’t dialect? we zijn toch hier in Susteren in ’t dorp en zo. ik zeg ja maar er zijn ook mensen die niet van Susteren zijn en mensen die ook naar dit koor komen luisteren en ‘t de presentatie komen kijken zeg en dan vind ik het gewoon correct als je dat in het Nederlands doet. ik bedoel Nederlands is toch de standaardtaal die wij allemaal spreken en op 't moment dat jij dialect gaat praten waar mensen bij kunnen zijn die 't niet verstaan ga je mensen uitsluiten en dat *mag* je niet. (77 – fn000117)

“Yes and then I do it in Dutch anyway, because in my opinion that is how it should be on official occasions. People did react to that, in terms like ‘why not in dialect? we are here in Susteren in the village’ and so on. I say ‘sure but there are also people who are not from Susteren and come to listen to this choir and to see the presentation’. And then in my mind it’s simply correct if you do it in Dutch. I mean Dutch is after all the standard language which we all speak and if you start using dialect when there can be people around who do not understand it then you are going to exclude people and that one should not do/that is unacceptable.”

(22) B: er moet meer onderzoek gebeuren. dat is al zeker maar minister Gosuin gaat nu al maatregelen nemen hier in het Brusselse Gewest op basis hiervan.  
 A: wel dit is toch werkelijk zeer zeer drastisch.  
 B: dat zou hij niet *mogen* doen eigenlijk nee?  
 A: het heeft tientallen jaren gekost om onze Belgische en Vlaamse bevolking wakker te maken voor een zekere zwemcultuur. (...) en ik denk dat dit heel

prematuur is om zo'n draconische maatregelen te nemen op basis van één enkele wetenschappelijke studie. (97 – fv601094)

“B: More research is needed. That is for sure. But on this basis minister Gosuin is going to take measures in the Brussels community already now.

A: Well, this is really very very drastic.

B: He shouldn't really do that, no?

A: It has cost us decades to make our Belgian and Flemish people sensitive to a certain swimming culture. (...) And I think it is very premature to take such draconian measures on the basis of one single scientific study.”

(23) om af te sluiten zouden jullie nu de luisteraar in enkele zinnen kunnen zeggen waarom *moeten* ze nu naar Gelukkige Dagen van Beckett gaan kijken? (11 – fv600273)

“To conclude, could you tell the listener in a few sentences: why should they go and see Happy Days by Beckett?”

(24) A: en gij gaat dan uw gedichten meebrengen of wat?

B: ja want ik kan zo moeilijk beslissen wat dat 'k ga nemen. ik moet er drie uitnemen en ze *moeten* een beetje verband hebben met elkaar vind ik en 't mag niet te zwartgallig zijn vind ik. (42 – fv700058)

“A: And you are going to bring your poems or what?

B: Yes, because I have such a hard time deciding what I am going to take. I have to pick out three, and they should relate to each other to some extent, in my opinion, and it can't be too sinister I think.”

(25) volgens de wethouder komt in de klokkenluidersregeling te staan dat ambtenaren wel met serieuze klachten *moeten* komen. (30 – fn005402)

“According to the alderman the bell ringer regulation will mention that public officers should step forward with serious accusations [implied: they should not bother with minor issues].”

In (20), for example, it makes no sense to characterize the meaning of the modal as involving a permission issued to a 'generic' person (the entire utterance is generic) to go and live together with someone in such and such circumstances, the meaning intended is clearly that it is acceptable to do so. (A similar situation applies in the two other examples with *mogen* – of course, due to the combination with negation the meaning turns into 'unacceptability' in these instances.) Or in (25), the regulation will not oblige public officers to file (only) serious complaints – rather, the meaning is that if public officers file

complaints, the latter should be of a serious nature, or in other words, it is ‘morally’ only okay to file a complaint if it is a serious one (the fact that the meaning of the modal focuses on the seriousness of the accusations even appears to make a directive reading essentially impossible). (Again, a comparable story goes for the two other examples of *moeten*, and all other instances of this kind in the data.)

In the case of *mogen*, a striking observation is that 4 of the 6 unambiguous instances of this kind (i.e. 67%) involve negation, a percentage which is much higher than the average frequency of negation in all uses of *mogen* together (30% of the total number of instances), or than the frequency of negation in the unambiguously deontic instances of *moeten* (2 among the 10, i.e. 20%). Given the low number of instances, however, we cannot attach any firm conclusions to this fact (the more since among the 15 ambiguous instances of *mogen* with a deontic meaning only 4 – i.e. 27% – involve negation).

In two cases of (non-negated) deontic *mogen* (one unambiguous, one ambiguous) one might actually wonder whether the speaker was not really wanting to express something close to moral necessity, rather than mere acceptability. (26) is the unambiguous instance (the other one is comparable).

(26) persoonlijk vind ik dat het communautaire spook zo snel mogelijk zou mogen verdwijnen want het is altijd mijn overtuiging geweest dat we al zeer veel tijd en zeer veel energie in die communautaire problematiek hebben gestoken die we beter in andere zaken zouden steken. dus voor mij *mag* het communautaire probleem zo snel mogelijk opgelost worden. (86 – fv600985)

“In my personal opinion the ‘community matters’ ghost should disappear as quickly as possible. Because it has always been my conviction that we have already invested a lot of time and a lot of energy in the community problems which we would better invest in other matters. So for me the community problem should be resolved as quickly as possible.”

The meaning here is clearly, rather, that the speaker considers it highly desirable that the conflict between the Flemish and French communities in Belgium be resolved as soon as possible, not that he just considers it acceptable that this should happen. The expression may not be quite as strong as when it would have featured *moeten* ‘must’, but it is getting close to it. But this near necessity reading is probably rather an implicature, i.e. this use of the modal is an ‘understatement’. This kind of use actually comes close to being idiomatic – it involves a standard way to express this kind of meaning in Dutch (Dutch does not really have an equivalent for English *should* or *ought to*, so this usage of *mogen* might be one of the ways to express the same kind of meaning).

One other type of use of *mogen* which is clearly idiomatic – but still recognizable as deontic – is (27) (this is the only instance of this type in our data, however).

(27) en je *mag* vooral niet vergeten dat de vooruitgang toch wel sensationeel is. (59 – fv601268)

“And you should especially not forget that the progress is quite sensational.”

### 3.7. Directive uses

The data for both modals also offer clear evidence in support of Assumption 2 formulated in section 1, viz. the assumption that the directive meaning is not really deontic at all, but is something separate. Here is the evidence.

As table 1 shows, the data feature numerous instances which can clearly be characterized as involving a directive meaning, i.e. a meaning in which (usually) the agent in the state of affairs is instructed (with some degree of strength: advised, or obliged, or interdicted) or not hindered (allowed or permitted) to do something as rendered in the utterance.<sup>12</sup> This usage is present in 31% of the instances of *moeten* (ambiguous instances included), but it is absolutely dominant in the semantic profile of *mogen*, it being present in 83% of the instances (including the ambiguous cases). (The question why there should be such a difference between the two modals in this regard will be taken up in section 4 below.)

Now some of these instances can clearly be characterized as being related to or informed by a deontic assessment – this is, for example, clearly the case for the (unambiguous) instances of *mogen* in (28) and (29) (11 of the 68 unambiguously directive instances of *mogen* can clearly be characterized as such), (30) is an example (actually the only very clear one among the 16 unambiguously directive instances) featuring *moeten*.

(28) A: zal ik nu nog ‘ns terugbellen of moet ik ‘ns nen andere keer terugbellen?

B: heb je nog veel te vertellen? (...)

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<sup>12</sup> In a number of instances in our data it is actually not literally the agent participant in the state of affairs who is the addressee of the directive. But in such cases, we are each time again dealing with one or another kind of (semantically) passive-like construction, which conceptually implies an actor – and it is this implied actor who is the addressee of the directive. One example is: *dan moet het in elk geval af zijn* ‘in any case, it has to be ready by then’ – obviously, the addressee of the directive is some person automatically implied in/by the state of affairs (even if not literally present in it, at least not at the level of its lexical realization) who is supposed to finish ‘it’.

A: ja (...)  
 B: ah *moogt* de gij gerust nog ne keer bellen. (4 – fv901044)  
 “A: Shall I call back right now or should I call back some other time?  
 B: Do you still have a lot to say? (...)  
 A: Yes. (...)  
 B: ah [then] you may surely call me back.”

(29) de Taliban spreken graag recht. en dat doen ze in een voetbalstadion. (...) deze vrouwen worden vandaag terechtgesteld. nadat ze het stadion zijn binnengevoerd krijgt het publiek ruim de tijd om ze te bekijken. dan moeten ze naar de rand van het strafschoopgebied gaan. en zelfs nu *mogen* ze hun sluier niet uitdoen. (8 – fv601354)  
 “The Taliban like to ordeal. And they do so in a soccer stadium. (...) These women will be executed today. After they have been brought into the stadium the public has ample chance to look at them. Then they have to go to the edge of the penalty zone. And even then they are not allowed to take off their veil.”

(30) zoals uit het voorgaande blijkt is seksualiteit huwelijk en voortplanting onverbreekelijk met elkaar verbonden. in de praktijk werd dit vertaald in een strenge reglementering van seksualiteitsbeleving. binnen het huwelijk *moest* men zich beperken. zonen feestdagen kwamen niet in aanmerking. ook vrijen tijdens de vasten of advent was uit den boze. (22 – fv400209)  
 “As appears from the foregoing, sexuality, marriage and reproduction are inseparably linked together. In practice this was translated into a strict regulation of sexual practice. In marriage one had to abstain. Sundays and holidays were not available. Also making love during fasting and Advent was out of the question.”

But very many other directive instances are – in view of their contextual embedding – clearly based on other dimensions of reality, especially on potentials or necessities or ‘practicalities’ ensuing from situations or individuals in those situations, i.e. what is caught in dynamic modal meanings, but sometimes (much more rarely) also on a boulomaic assessment. (31) and (32) are dynamically inspired instances of *mogen* (at least 4 of the unambiguously directive instances of this modal are of this type), (33) and (34) are dynamically based directives of *moeten* (there are 5 clear cases of this type among the unambiguously directive instances of *moeten*), (35) is a boulomaic assessment based directive use of *mogen* (the only fairly clear one in the data, there are no comparable cases of *moeten*).

- (31) Karolien had vlak voor dat ze overleden is de week daarvoor hè had ze nog een eike gebakken en tussen de boterham. die *mocht* ze niet eten hè. de lever was ook aangetast. eieren waren verboden. (42 – fv400069)  
 “Karolien had, just before she died, the week before, fried an egg and [eaten it] on a sandwich. She couldn’t/wasn’t permitted to eat them. The liver was also affected. Eggs were forbidden.”
- (32) A: mevrouw moeten wij die riviertjes ook blauw kleuren?  
 B: dat *mag* je doen ja. da’s misschien inderdaad een goed idee om eventjes dat water ook met blauw te overtrekken. (22 – fv400025)  
 “A: Miss, do we have to paint those rivers blue, too?  
 B: Sure, go ahead and do that [literally: you may do that, yes]. Maybe that’s a good idea, indeed, to quickly cover that water with blue, too.”
- (33) dus zij moeten extreem hygiënisch gekleed zijn. dus alle uurwerken ringen uit. ze *moeten* een hoofdkapje dragen daar nen helm bovenop. ’t is daar koud. vier graden dus ze staan daar allemaal met ne pull en een lange broek. en daarover dus een jas en dan nog ne plasteiken voorschoot. (13 – fv400070)  
 “So they have to wear super hygienic clothing. So no watches and rings. They must wear a head cap, and a helmet over it. It’s cold there. Four degrees, so they are all standing there with a pullover and long pants. And a coat over it and moreover a plastic apron.”
- (34) A: aanstaande zondag moet Feyenoord in Amsterdam spelen?  
 B: ja. nee in Rotterdam.  
 A: en dan Ajax *moet* naar Rotterdam?  
 B: ja. (39 – fn000728)  
 “A: Next Sunday Feyenoord has to play in Amsterdam?  
 B: Yes. No, in Rotterdam.  
 A: So then Ajax has to go to Rotterdam?  
 B: Yes.”
- (35) A: en heb je zelf d'rvoor gezorgd dat je daar *mocht* spelen in Dranouter of is d'r iemand ne keer geweest naar een optreden of zo?  
 B: we hebben gespeeld in Dranouter in de hoop dat ze ons gingen vragen daarna. omdat ze zelf zeggen van we laten hier een aantal groepen optreden en dan kiezen we daaruit een aantal mensen die kunnen spelen op ’t festival. (12 – fv400448)

“A: And did you arrange that you could play in Dranouter yourself, or did someone come to a performance some time, or something?

B: We have played in Dranouter hoping that they were going to ask us afterwards. Because they say themselves that ‘we let a number of groups perform here and then we choose from them a number of people who can play at the festival’.”

Clearly, in (31) the interdiction to eat eggs (presumably on the part of medical doctors) is not inspired by a moral assessment, but by purely physical properties, potentials and necessities (the health situation, the risk of death) of the ‘agent’ *Karolien* (by the way: the same observation applies to the non-auxiliary directive expression *verboden* ‘forbidden’ in the last utterance of (31)). Or in (34), the fact that Ajax is obliged to go to Rotterdam (presumably by the authorities practically organizing the soccer season in The Netherlands) has nothing to do with moral assessments, but with the practical necessities ensuing from the soccer calendar. (A comparable reasoning applies to (32) and (33).) And in (35), the permission to play at the festival in Dranouter, on behalf of the organizers, is again not a matter of moralities or ethical principles, but of their judgment of the qualities of the interviewee in (35) and his group, i.e. of the (dis)likability of the music they play.

Very many directive instances are completely indeterminate in terms of the nature of the ‘driving force’ behind the directive, however, even if considered in their wider context (in principle, this applies to all the remaining unambiguous instances of both modals not covered by the categories mentioned above, i.e. the large majority). (36) and (37) are a few very clear instances of this kind of *mogen*, (38) and (39) are clear instances of *moeten*.

(36) volgens mij is 't niet zo dat ik *mag* passen. maar ik pas nu omdat ik geen dingen heb om hier neer te leggen. dus daarom zei ik dus pas. (5 – fn000307)

“In my view it is not the case that I can pass. But I do pass now because I don’t have things to lay down here. So that’s why I said pass.”

(37) A: wat vind je d’r van dat leerlingen graag dat soort boeken op hun lijst zetten?

B: ik begrijp dat ze dat soort boeken graag lezen. (...) wat vind ik daarvan? nou één mogen ze d’rop zetten en meer niet. zeker straks niet als ze nog maar een maximum van twaalf boeken krijgen te lezen. dan *mag* er één zo'n boek op en meer niet. (28 – fn00129)

“A: What do you think of it that kids like to add that kind of books to their list?

B: I understand that they like to read that kind of books. (...) What do I think of it? Well, they can list one, but no more. Especially not in the future when they will only have to read a maximum of twelve books. Then they can include one such book and no more.”

(38) ik zou zeggen dat er daar misschien vijftien percent bij is die dat [literatuur] belangrijk vindt voor zichzelf. en op 't einde van die opleiding zijn d'r misschien veertig procent die dat belangrijk vinden. de rest zal dat doen maar zal die jeugd waar ze mee te maken hebben niet kunnen warm maken niet kunnen verleiden. want ze *moeten* ook zoveel doen hè en vooral die cognitieve dingen zijn belastend en zo. (25 – fv400136)

“I would say that there are maybe fifteen percent among them which find literature important for themselves. And at the end of the educational program there are maybe forty percent who find it important. The rest will do it but will not be able to stimulate, to seduce the youngsters with whom they will be dealing. Because they have to do so many things, right? And especially those cognitive things are burdening.”

(39) de waterzuiveringsmaatschappij Aquafin heeft enkele van zijn zuiveringsstations voorgesteld. tien jaar geleden heeft Aquafin van de Vlaamse regering de opdracht gekregen om het Vlaamse afvalwater te zuiveren. de Europese Commissie heeft België onlangs op de vingers getikt omdat het de Europese normen niet gehaald heeft. dat had gebeurd *moeten* zijn tegen eind achtennegentig. Aquafin maakt zich sterk dat ze over een jaar of vier vijf de normen wel haalt. en de voorstelling was bedoeld om te laten zien welke inspanningen er de afgelopen tien jaar al geleverd zijn. (51 – fv600444)

“The water clearing company Aquafin has presented a few of its clearing stations. Ten years ago the Flemish government commissioned Aquafin to clean the Flemish effluent waters. The European commission has reprimanded Belgium recently because it did not meet the European norms. That should have happened by the end of ninety-eight. Aquafin is confident that it will meet the norms within some four or five years. And the presentation was meant to demonstrate which efforts have been made in the last ten years.”

In (36), e.g., which is taken from a conversation during and about a family game, the speaker states that (s)he does not have permission to do something, presumably because the rules of the game do not allow it – but is this a deontically inspired interdiction (which would mean that it is morally necessary to abide by the rules of the game), or a dynamically inspired one (which would mean that given the rules of the game, which have been developed in order to make the game into a workable/interesting/pleasant one, the circumstances make it in principle impossible for the speaker to do what (s)he is talking about)? And does it matter? Or in (38), is the fact that teachers are obliged to do so many things a matter of moral considerations on behalf of those leading the school (system), or

of practical consequences of the need to optimize the functioning and efficacy of schooling? And does it matter? (Again, a similar analysis applies to (37) and (39), and the very many other instances of this kind in our data.)

In fact, even in cases where it is clear that the directive is deontically or dynamically or ‘boulomaically’ informed, including those given in (31) to (35) above, it is systematically very obvious that what matters centrally in the utterance is not this deontic or dynamic or boulomaic assessment, but the directive to the hearer or someone else to do what is stated in the utterance. The deontic or dynamic or boulomaic meaning element is something which only matters – or maybe even simply only ‘emerges’ – ‘in the background’.

Also note, by the way, that there are quite a few instances of ambiguity between a directive meaning and a dynamic meaning, even if the number is lower than the number of cases with ambiguity between the directive meaning and a deontic meaning: for both modals together, there are 10 instances of the former type, 15 of the latter type. For *moeten* there are even 5 cases which are ambiguous between all three meanings: dynamic, deontic and directive. To avoid misunderstandings: this involves ambiguity between a purely deontic or dynamic reading, of the kind characterized in respectively paragraphs 3.6 and 3.5 above, and a directive meaning as defined above irrespective of the latter’s ‘subtype’ in terms of the presence or not of an additional or implied deontic or dynamic or boulomaic or whatever meaning. The two instances of *mogen* which are ambiguous between a dynamic and a directive meaning were already presented above, viz. in (17) and in (19) – the latter, for example, can either mean that ‘it is possible for those students to participate in the Chrisostomos celebration once again’ (dynamic potential), or ‘that they are permitted (presumably by the school community) to participate in it again’ (directive; note that in this reading it is totally unclear again whether the background is dynamic or deontic, in spite of the fact that the alternative reading is a dynamic one). (40) and (41) are instances of this kind of ambiguity featuring *moeten*.

(40) A: hoe zou jij hem typeren als rallyrijder?

B: ‘k moet zeggen voor mij is Tommi tot nu toe één van de meest natuurlijke piloten die ‘k ooit heb gezien ja ze zijn toch gewoon om op verhard[e] wegen te rijden. en ook natuurlijk hij rijdt al eigenlijk jaren voor hetzelfde team. dat is Mitsubishi. en natuurlijk weten die mensen echt wat hij wil hoe hij het wil en hoe ze eigenlijk voor hem *moeten* zorgen. (62 – fv600148)

“A: How would you characterize him as a rally pilot?

B: I must say that to me up till now Tommy is one of the most natural pilots I’ve ever seen. Yes, they are used to driving on paved roads. And also, of course, he is driving for the same team for years now. Mitsubishi that is. And of course

those people really know what he wants, how he wants it, and how they should take care of him.”

- (41) A: vandaag heb ik telefoon gekregen van die van 't buitengewoon onderwijs die zei komt dat verslag nog of niet? (...)
- B: wat kunnen die met dat verslag doen? allee die moeten daar op verder werken of wat? (...)
- A: in praktijk bekijken ze dat bijna altijd terug opnieuw. wij zijn de enigsten die kunnen doorverwijzen naar een buitengewoon onderwijs hè. dus ge hebt dat nodig hè. (...) maar ja. da 's wel nen helen boterham zuh. dan *moet* de echt op al die domeinen van alles gaan schrijven. dan moet de met verschillende mensen gaan samen schrijven. (47 – fv400183)
- “A: Today I got a phone call from that lady from the special schools [schools for (among others) handicapped people], who said ‘are we still getting that report, or not?’ (...)
- B: What can they do with that report? Do they have to work further on it, or what? (...)
- A: In practice they nearly always reconsider it. We are the only ones who can forward [kids] to a special school, you know. So you do need it, right. (...) But sure, it's quite a task. You really have to write things in all those domains. You have to write together with different people.”

In (41), e.g., the modal may either indicate that in order to make the report it is (situationally) necessary to deal with all these different matters, or that the writer(s) of the report are obliged (by some unmentioned authority, e.g. the house regulations) to deal with all these different matters – and in the latter case, it is again entirely open whether this should be understood against a deontic or rather against a dynamic background. Clearly, then, if ambiguity between two modal meanings can be considered a signal of kinship or relationship in one or another way (at least historically) between those meanings, then the directive meaning cannot really be said to hold a special relationship to the deontic meaning per se (or only) – there are obviously ties with the dynamic meaning as well.

All of the foregoing clearly points towards an analysis of the kind suggested in Assumption 2 in section 1, in which the directive ‘meaning’ of these modals (or, by extension, any other linguistic form; directive ‘use’ might be a better term than ‘meaning’, actually) is considered something completely separate from the deontic (or any other) meaning. And the deontic or dynamic or boulomaic or whatever element in the ‘background’ of some of these directive uses is then probably more of a contextual byproduct of

the usage (a contextually implied – or maybe not even implied but just emerging – meaning), rather than an element of the meaning of these modal uses as such.

Among the directive uses of *mogen* (but not of *moeten*), there are actually once again quite a few idiomatic or ‘fixed’ ones, viz. 7 of the 68 unambiguously directive ones, and 2 of the ambiguous ones (one ambiguous with a deontic meaning, one with a directive meaning; the former is already given in example (17) above). A few examples are given in (42), featuring the idiomatic expression *zich gelukkig mogen prijzen* ‘may be glad’, (43) featuring *iets mogen vergeten* ‘better forget about something’, and (44) and (45), which feature examples of the many ‘formulaic politeness uses’ of *mogen*.

(42) Club Brugge haalde zwaar uit op het veld van Harelbeke. nul zes winst na een prima ploegprestatie. een bleek Harelbeke *mocht* zich nog gelukkig prijzen dat doelman Frans als enige op niveau speelde en zo dubbele cijfers voorkwam. (7 – fv600520)  
“Club Brugge stroke heavily at the Harelbeke soccer field. A nil to six win after an excellent team performance. A pale Harelbeke could even consider itself lucky that goal keeper Frans, as the only one in the team, played at a normal level and thus prevented a double score.”

(43) zijne voetbal *magt* ie vergeten. (20 – fv400019)  
“He may/can forget about his soccer [game].”

(44) *mag* 'k 'ns vragen mevrouw de voorzitter en mevrouw Noorman (...) (131 – fn000229)  
“May I ask, misses chairman and misses Noorman ...”

(45) voorzitter *mag* ik misschien want u gaat van dit voorgaande punt af hè de Wet Wapens En Munitie. (173 fn000237)  
“Mister chairman, may I, perhaps, because you are leaving the preceding item, right, the law on weapons and ammunition.”

### 3.8. Declarative versus interrogative contexts

To conclude this analysis of the range of meanings of *mogen* and *moeten*, let us briefly take a look at the presence of these meanings in the declarative versus interrogative instances in our data. Table 2 shows the frequency of the different meanings of each modal verb in declarative and interrogative instances, relative to the total number of instances in these sentence types (i.e., per modal, 80 declarative instances, 20 interrogative instances).

		<i>mogen</i>		<i>moeten</i>	
		decl	inter	decl	inter
unambiguous	dynamic	1.3	0	37.5	30
	deontic	7.5	0	7.5	20
	directive	63.8	85	18.8	5
	epistemic or evidential	0	0	1.3	0
	other	8.8	0	3.8	0
ambiguous	dynamic/deontic	0	10	16.3	25
	dynamic/directive	2.5	0	6.3	5
	deontic/directive	15	5	3.8	5
	dynamic/boulomaic	0	0	1.3	0
	boulomaic/volitional	1.3	0	0	0
	dynamic/deontic/directive	0	0	3.8	10

Table 2: Meanings of *mogen* ‘may’ and *moeten* ‘must’ in declarative and interrogative utterances

There are clearly no dramatic differences between the uses of these modals in the two sentence types (most differences concern such small numbers of instances that the likelihood of them being due to mere chance is high). In *mogen*, the predominance of the directive meaning is even stronger in the interrogative than in the declarative pattern. In *moeten*, on the other hand, the directive meaning is more important than the deontic one in declarative utterances, but in interrogative ones the situation is opposite. But both meanings remain less important than the dynamic one in both sentence types. All in all, it does not look like there are any strong lessons to be learned from these facts.



#### **4. Performativity in the deontic and directive uses of *mogen* and *moeten*, and the relations between the directive use and the imperative mood**

A further element in line with ‘Assumption 2’ (hence with ‘Assumption 1’) formulated in section 1 appears if we take a look at the role of ‘performativity’ in the deontic and directive uses of these two modals. This issue also leads us straight into the question how the directive uses of these modals relate to mood categories involving directivity, in particular the imperative. And it may moreover hint us towards an answer to the question raised in the previous section whether the striking difference between the two modals in the frequency of the directive meaning is more than a matter of mere ‘chance’ (i.e., of the accidental individual historical pathways of the two modal forms).

Performativity is of course a well know concept from speech act theory: in that context, the notion refers to the fact that by uttering an expression a speaker ‘performs’ a certain act towards the hearer, and the performance of the act is inherent in, or is accomplished by virtue of the uttering of the expression. Thus, when a speaker utters the expression *get out of my armchair* to his/her housemate, (s)he performs an act of ‘ordering’ or ‘commanding’ the housemate to do what is indicated in the utterance.

As argued in Nuyts (2001a), however, performativity (versus descriptivity) is a concept which also applies to certain qualificational expressions, and more particularly (only) to ‘attitudinal’ ones, i.e., to the meaning categories of evidentiality, epistemic modality, deontic modality and boulomaic attitude (and also volition, whatever its status otherwise – see section 3) – but not to a category such as dynamic modality, which as already mentioned in section 1 above is not attitudinal. In the attitudinal categories, the issue has to do with the question whether the speaker is committed to the qualification of the state of affairs or not.<sup>13</sup> Specifically, a performative expression marks an attitude held by the speaker at the moment of speech – i.e., the speaker is fully committed to the attitude. In a descriptive use, however, the speaker is only reporting on an attitude regarding some state of affairs held by someone else, or by him/herself but at some point in time other than

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<sup>13</sup> This notion is thus not exactly the same as that applying in speech act theory, even if there are clear relations. Cf. Nuyts (2001a, 2005a, b) for more elaborate discussion.

the moment of speech (usually: sometime in the past), or (s)he is only tossing up an attitude as a hypothetical possibility, but without there being any (indication of a) commitment to that attitude on his/her own part at the time of speech.

Now, as shown in Nuyts (2001a), in Dutch, the modal auxiliary *kunnen* ‘may’ when used epistemically can only be performative, not descriptive – and probably the same applies to the evidential or epistemic use of *moeten* (hence, as expected, the one instance in our data, cited in (6) above, clearly is performative, too) and to epistemic uses of the modals in general, in Dutch, and also in English actually. But the deontic and directive uses of the modals clearly do show a distinction between performative and descriptive uses. The examples of these meanings in the previous section already included instances of both types, but for the sake of clarity we present illustrations in a more systematic fashion here. (46a) features a performative use of unambiguously deontic *mogen* (this is a shortened version of example (21) in section 3, see there for more context), (46b) a descriptive use, as one of the possible meanings of this instance (in fact, there are no unambiguous instances of this in our data, cf. table 3 below; the other possible reading of (46b) is a descriptive directive one). (47a-b) offer a performative and a descriptive example of (unambiguously) deontic *moeten*, respectively ((47a) is a shortened version of (24) above, (47b) repeats (25)). (48a-b) feature a performative and a descriptive instance of (unambiguously) directive *mogen* ((48a) is shortened from (28), (48b) repeats (31)). And (49a-b), finally, feature a performative and a descriptive use of unambiguously directive *moeten*, respectively ((49b) is shortened from (33)).

- (46) a. op 't moment dat jij dialect gaat praten waar mensen bij kunnen zijn die 't niet  
verstaan ga je mensen uitsluiten en dat *mag* je niet. (77 – fn000117)  
“If you start using dialect when there can be people around who do not understand  
it then you are going to exclude people and that one should not do/that is  
unacceptable.”
- b. B: want bij mij op school daar zou dus geen protestant binnenkomen. (...)  
A: en waarom zouden er geen protestant[en] bij jou op school *mogen* komen  
lesgeven? (39 – fn000272)  
“B: Because at my school no protestant would be allowed. (...)  
A: And what would there be against protestants teaching at your school/why  
would protestants not be allowed to teach at your school?”
- (47) a. ik moet er drie uitnemen en ze *moeten* een beetje verband hebben met elkaar vind  
ik (42 – fv700058)

“I have to pick out three, and they should relate to each other to some extent, in my opinion.”

- b. volgens de wethouder komt in de klokkenluidersregeling te staan dat ambtenaren wel met serieuze klachten *moeten* komen. (30 – fn005402)  
“According to the alderman the bell ringer regulation will mention that public officers should step forward with serious accusations [implied: they should not bother with minor issues].”

(48) a. B: heb je nog veel te vertellen? (...)

A: ja (...)

B: ah *moogt* de gij gerust nog ne keer bellen. (4 – fv901044)

“B: Do you still have a lot to say? (...)

A: Yes. (...)

B: ah [then] you may surely call me back.”

- b. Karolien had vlak voor dat ze overleden is de week daarvoor hè had ze nog een eike gebakken en tussen de boterham. die *mocht* ze niet eten hè. de lever was ook aangetast. eieren waren verboden. (42 – fv400069)  
“Karolien had, just before she died, the week before, fried an egg and [eaten it] on a sandwich. She couldn’t/wasn’t permitted to eat them. The liver was also affected. Eggs were forbidden.”

(49) a. A: en vandaag ook de keuzevoorwaarden in de bus gehad?

B: ik heb de brief zien liggen maar ik heb ‘m nog niet opengemaakt. was dat de nieuwe CAO?

A: ja nou niet CAO de nieuwe vorm van arbeidsvoorwaarden dat je wat meer keuzes hebt. en dat je in feite een beetje op beperkte schaal een individueel pakket kunt samenstellen. dus of verlofdagen inruilen voor extra salaris of juist andersom. en zo die dingen. een fiestregeling een PC-regeling en zo. (...) *moet* je maar ‘ns kijken. ze hebben een heel simulatieprogramma op internet. (53 – fn008030)

“A: And did you also receive the option conditions in your mailbox today?

B: I’ve seen the letter but I did not open it yet. Was that the new CAO [a ‘collective employment agreement’]?

A: Yes, well, not the CAO but the new type of employment conditions in which you have somewhat more options. And in which you can actually, to some extent, on a limited scale, put together an individual package. So, either

exchange off-days against extra salary or the other way around. And things like that. A bike agreement, a PC agreement and more like that. (...) Do have a look, they have a complete simulation program on the internet.”

- b. dus zij moeten extreem hygiënisch gekleed zijn. dus alle uurwerken ringen uit. ze *moeten* een hoofdkapje dragen daar nen helm bovenop. (13 – fv400070)  
“So they have to wear super hygienic clothing. So no watches and rings. They must wear a head cap, and a helmet over it.”

In (46a), for example, it is the speaker him/herself who judges that it is morally unacceptable to exclude people because they cannot understand what you say. To the extent that the statement is caught in a generic form, the speaker may be suggesting that (s)he is actually applying a more general moral principle, hence that (s)he is in agreement with a wider group of people regarding this judgment (i.e., there is at least contextually a suggestion that the deontic evaluation is ‘intersubjective’, and not ‘subjective’ – see Nuyts 2001a, b, 2005a, b on this issue of (inter)subjectivity), but nevertheless it is very obvious that the speaker does endorse this evaluation him/herself, at the moment of speech, and that is what matters to qualify the instance as performative. In (46b) (in its deontic reading), however, the speaker is not issuing a personal deontic assessment of the state of affairs, i.e. that it is morally unacceptable that there would be protestant teachers in the school; (s)he is wondering why others – possibly including the hearer – would hold such an assessment (the modal figures in an interrogative). There is, thus, no commitment on the part of the speaker to this deontic evaluation, (s)he is only mentioning (describing) an assessment held by others. The story is comparable in the cases featuring *moeten* in (47) (actually, unlike in (46a), in (47a) the speaker evaluation is clearly subjective, not intersubjective, due to the presence of the subjectivity marker *vind ik* ‘in my opinion’).

The instances in (48) and (49), then, are interesting to see what performativity means in directive uses of the modals: is it of the ‘speech act’ kind, or of the qualificational kind? Clearly the former: (48a) performs the permission to the hearer to call again, exactly like what (s)he would be doing when uttering a ‘weakened’ imperative like *bel mij gerust maar eens terug op hoor* ‘do call me again if you like’ (when uttered in the right circumstances). Likewise, (49a) performs a gentle order (or a strong advice) in exactly the same way as when the speaker would have said *kijk maar eens (naar hun website)* ‘do have a look (at their website)’. Hence, also in this regard the deontic and the directive uses of these modals are clearly different things – an element which is perfectly in line with ‘Assumption 2’ above.

At the same time, the examples in (48) and (49) already point towards one difference between the use of an imperative and a modal to ‘code’ directivity, viz. the possibility to

render a directive descriptively. (48b), e.g., does not perform a speech act of interdicting someone to do something on the part of the speaker, the speaker merely reports – descriptively – on an interdiction which someone else had issued to the ‘Karolien’ mentioned in the instance. It is impossible to do this by means of a (modified) imperative. Exactly the same applies in (49b): the speaker does not perform an order/obligation, (s)he reports on an obligation issued by someone else, descriptively – an imperative cannot be used this way, it can only be used performatively, when the speaker him/herself issues the command.

Let us now have a look at the frequency of performative and descriptive cases in the deontic and directive instances in our data – this information is presented in table 3.<sup>14</sup> A few instances of *mogen* (strangely enough only of that modal, not of *moeten*) are ambiguous between a performative and a descriptive reading (i.e., as analysts we can construe such an instance in either way and we cannot decide, not even on the basis of the context, what the speaker actually had in mind) – the frequency of these is mentioned in a separate column (the ‘perf/descr’ column). In order not to complicate the presentation too much, the table does not offer separate frequencies for the different combinations of qualificational meanings in the ambiguous instances featuring the deontic and the directive meanings or uses (e.g. dynamic/deontic, deontic/directive etc. – see table 1). The categories ‘deontic ambiguous’ and ‘directive ambiguous’ simply cover all ambiguous instances which feature the deontic meaning and the directive meaning (respectively).<sup>15</sup> The table shows the absolute numbers of performative, descriptive or ambiguous performative/descriptive instances (‘n’), as well as the relative share of these types per meaning category (‘%’).

A first striking observation is that even in the deontic meaning (on the directive meaning, see below) the (clearly) performative use makes up for ‘only’ just over half the number of uses of both modals (for *mogen* possibly somewhat more if one takes into consideration the instances which are ambiguous between a performative and a descriptive reading). In all epistemic expressions (not only the auxiliary, but also the adverbial, adjectival or verbal ones), if the performative use is not the only possibility (as in the auxiliaries and the adverbs, which cannot be used descriptively), then it is nevertheless absolutely the default, while descriptive uses are the minority. The situation in the deontic

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<sup>14</sup> As already mentioned, the one evidential/epistemic use of *moeten* is performative, too, and the same goes for the two boulomaic and/or volitional instances of *mogen* and *moeten*, but this is of no further concern here.

<sup>15</sup> Actually, although there is a high likelihood that the alternative meanings within any one ambiguous instance will both be either performative or descriptive – if the dimension applies to both of them – this link is not necessary. But this is of no further importance for the present discussion.

			performative		descriptive		perf/descri	
			n	%	n	%	n	%
<i>mogen</i>	deontic	unambiguous	5	83.3%	0	0.0%	1	16.7%
		ambiguous	6	40.0%	8	53.3%	1	6.7%
		<b>total</b>	<b>11</b>	<b>52.4%</b>	<b>8</b>	<b>38.1%</b>	<b>2</b>	<b>9.5%</b>
	directive	unambiguous	8	11.8%	59	86.8%	1	1.5%
		ambiguous	3	20.0%	10	66.7%	2	13.3%
		<b>total</b>	<b>11</b>	<b>13.3%</b>	<b>69</b>	<b>83.1%</b>	<b>3</b>	<b>3.6%</b>
<i>moeten</i>	deontic	unambiguous	3	30.0%	7	70.0%	0	0.0%
		ambiguous	16	59.3%	11	40.7%	0	0.0%
		<b>total</b>	<b>19</b>	<b>51.3%</b>	<b>18</b>	<b>48.6%</b>	<b>0</b>	<b>0.0%</b>
	directive	unambiguous	1	6.3%	15	93.8%	0	0.0%
		ambiguous	2	13.3%	13	86.7%	0	0.0%
		<b>total</b>	<b>3</b>	<b>9.7%</b>	<b>28</b>	<b>90.3%</b>	<b>0</b>	<b>0.0%</b>

Table 3: Performativity in the deontic and directive uses of *mogen* and *moeten*

modals tentatively suggests that this situation might be different in the deontic expressions in general. Whether this is really so is a matter for further investigation.

An even more striking observation, however, and one which is relevant for our concern with the relationship between directive uses of the modals and the imperative, is the fact that in the directive uses descriptivity is absolutely predominant, in *moeten* even more so than in *mogen*, and in both modals in the unambiguous cases even more so than in the ambiguous ones. This immediately leads one to the conclusion that to a large extent there is a distribution of labor between the directive uses of the modals and the (different forms of the) imperative: the latter is/are used to express a permission or an order performatively (in the speech act sense), the former are used to render these acts descriptively – a usage which is fairly often needed in everyday language use since one often has to refer to prescriptions or instructions contained in or issued by laws and regulations, written documents of all kinds, people in charge of things, etc.

The fact that the number of performative directive uses is somewhat (in terms of absolute numbers even considerably) higher in *mogen* than in *moeten*, then, may be explicable (at least in part – see below) by the fact that an imperative in its ‘bare’ (hence default) form has the strength of a command – in order to turn it into a permission one has

to add all kinds of linguistic devices (one could call them ‘mitigators’) such as (in the case of Dutch) particles, or a personal pronoun marking the addressee of the permission, hence using a modal such as *mogen* is sometimes just as convenient. Compare (50a-c) (for once we provide English glosses – the glosses for the particles are literal renderings, it is impossible to offer semantic equivalents in English).

- (50) a. [command] Sluit dat raam  
 Close that window  
 “Close the window”
- b. [permission] Sluit u maar gerust dat raam hoor  
 Close you but assuredly that window listen/sure  
 “Do close the window if you please”
- c. [permission] U mag gerust dat raam sluiten hoor  
 You may assuredly that window close listen/sure  
 “You may surely close the window”

Turning an imperative into a permissive is actually somewhat easier to do in Dutch than in English, as is also demonstrated by the translation of (50b): the Dutch original in (50b) is much more permission-like than the English translation, which has more of a polite command. This is due to the fact that Dutch has many particles which can be used for this purpose, whereas English hardly has any, and to the fact that unlike Dutch English does not normally allow a personal pronoun referring to the addressee in an imperative (except in negative imperatives, cf. *don't you close that window* – in that case, however, the imperative even turns into a threat). One may expect this to have an effect on the frequency of performative permissive uses of modals in English: they should be relatively more frequent than in Dutch because the alternative expression by means of an imperative is not so readily available. Whether this is really so is a matter for further investigation.

The question remains, of course, why also for *moeten* there does remain an albeit small number of performative uses. One reason (which may actually also play a role in *mogen*, to some extent) is the use of directives in reported speech. Consider instances such as (51) and (52) (2 of the 3 performative directive cases of *moeten* are of this kind, and also 2 instances of *mogen* are like this).

- (51) tante Caroline zegt ook als ik 's morgens zeg dat en dat en dat *moet* gedaan zijn als wij gaan werken dan is d'r niets gedaan want 't is te veel. (6 – fv400360)

“Aunt Caroline also says ‘when in the morning I say ‘this and this must be done while we are off to work’ then nothing is done because it is too much’.”

(52) ik zeg je *mag* 'm van mij wel een keertje proberen. ja bedoel ze mag 'm best wel een keer mee hebben ook al zet ze 'm thuis even op of gaat ze gewoon kijken van hé zoiets zoek ik. (75 – fn000817)

“I say ‘as far as I am concerned you can try it out sometime’. Yes, I mean, she can surely take it along sometime even if she briefly turns it on at home, or simply looks at it, like ‘hey that’s what I am looking for’.”

In such instances the present speaker is not actually performing the directive. But they are nevertheless classified as performative because (at least at first sight, or ‘at the surface’, in terms of how they are presented by the present speaker) they involve direct speech reporting, which means that the speaker is in a way ‘reperforming’ the original speech act (by someone else in (51), or by the speaker him/herself at an earlier time in (52)). It is well known, however, that the borders between direct and indirect speech reporting are very fuzzy (cf. e.g. Chafe 1994) – in fact, what may appear to be direct speech may well (or is even very likely to) contain a certain doses of ‘present speaker input’, i.e. elements of indirect speech. So it is very well possible that in instances of the kind in (51) and (52) the original speech act was actually by means of an imperative – but in the reporting the present speaker is possibly ‘penetrating’ the original and is rendering it by means of a modal, and in that case these would actually involve semi-(in)direct speech, and the uses of the modals should rather be considered descriptive (the present speaker could also have used an imperative, of course, in which case we would certainly be dealing with real direct speech reporting).

Yet another reason for using a performative directive modal rather than an imperative may obviously be politeness (especially in the case of *moeten* as an expression of obligation – for permissives this is a less obvious factor, but to the extent that *mogen* in combination with negation expresses an interdiction it may also apply to this modal): using an imperative to give an order is of course a very direct way to do this, which in some cases may be too offensive or ‘face threatening’, hence using a modal may offer a somewhat more indirect or polite way to perform such an act.

We still have not answered the question why there should be such a striking difference between the two modals in the frequency of the directive use. An explanation for the higher frequency of performative uses (in absolute terms) has been given above, but this leaves us with the question why there should also be so many more descriptive uses (again, in absolute counts – i.e. in terms of the importance of this use in the modal as a whole). At least part of the answer may appear if we take into consideration the role of negation.

Negation in combination with a directive use of *mogen* obviously turns the speech act into an interdiction, i.e. a ‘negative command’, something which cannot be achieved by combining *moeten* with negation, of course.<sup>16</sup> In fact, 17 of the unambiguous descriptive instances and 3 of the ambiguous descriptive instances of this modal feature negation in the clause, i.e. in total 20 of the 69 directive instances, whereas none of the directive instances of *moeten* does. In other words, *mogen* is quite systematically used for two really different directive functions, whereas *moeten* is essentially only used for one such function. Maybe, this explains at least to some extent why the directive use is so much more dominant in *mogen* than in *moeten*.

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<sup>16</sup> What negation does in combination with *moeten* is actually a very complex issue, partly also because the answer is not identical in all varieties of Dutch. We will not go into this matter here, the more since there is not a single instance of directive *moeten* with negation in our data.



## 5. Some theoretical implications

What does the foregoing imply for our understanding of the phenomenon of ‘qualifications of states of affairs’? Here are some considerations.

### (i) *The position of deontic modality*

First of all, in terms of the position of deontic modality as such among the other qualificational categories, our present investigation does not offer any reasons to doubt that this dimension is – as argued in Nuyts (2005a, b) – part of the system of attitudinal categories, next to epistemic modality, boulomaic attitude and at least some types of evidentiality, most notably inferentiality, categories with which it shares a number of other properties as well, including the fact that it is subject to dimensions such as performativity versus descriptivity and (inter)subjectivity, that it affects the state of affairs as a whole and is not tied to one of the participants (notably, the agent participant) in it, and that it is scalar in nature. Thus, Verstraete (2005) argues that epistemic and deontic modality are not really comparable in terms of their status as scalar categories, because in deontic modality also the element of ‘willingness’ of the modal agent (usually the first argument participant in the clause) plays a role, something which is entirely absent in epistemic modality. The critical point is, of course, that this analysis follows the traditional – but clearly flawed – definition of deontic modality in terms of notions such as permission and obligation. Verstraete’s argument does apply to the directive uses of the modals (but obviously, regular speech acts hardly allow a simple scalar analysis either), but clearly not to the real deontic meaning.

### (ii) *Directivity and the status of illocution in a theory of language*

Linguistic models integrating accounts of the system of qualificational categories – specifically, Role and Reference Grammar (Van Valin 1993, 2005) and Functional Grammar (Dik 1997, Hengeveld 1989) – tend to include the dimension of ‘illocution’ in this system. More specifically, in these models illocution is considered to ‘head’ the hierarchy of qualificational categories. As argued in Nuyts (2001a: 350f), however, in a cognitive

perspective, this does not appear adequate, since qualificational categories and illocution are of a fundamentally different nature. Qualificational categories are basic notions in human conceptualization, they constitute integral and very central dimensions of our cognitive system for storing and handling knowledge of the world (see also Nuyts 2005c). But illocutionary notions are not conceptual categories at all, they are not elements of how we know and think about the world. Rather, they are (very central) elements of communicative behavior, i.e. they pertain to how we interact with other ‘minds’. More specifically, they encode (types of) communicative goals which speakers may pursue by means of language (and for which language offers specific means to signal them). There are, of course, relations between these conceptual and communicative dimensions, in the sense that communication is obviously instigated and steered by the conceptual system. And, no doubt, qualificational dimensions such as epistemic and deontic assessments of states of affairs in knowledge have ‘special’ ties with certain illocutionary goals: epistemic uncertainty about some state of affairs, e.g., is obviously a very direct source for instigating a question about that state of affairs; and deontic ‘agreement’ or ‘disagreement’ with some state of affairs will obviously be a frequent cause for issuing an order or an advice or an interdiction or a permission. Nevertheless, in a cognitive model these two dimensions have to be kept apart, in the sense that they have to be situated in entirely different ‘components’ of the processing systems.

The present analysis of *mogen* and *moeten* clearly fits this theoretical analysis: their deontic (and epistemic and boulomaic and dynamic) uses are direct reflections of the corresponding qualificational categories in conceptualization, but their directive uses are obviously related to the signaling of illocutionary goals in communication. The fact that the directive uses appear to result from different conceptual sources – different conceptual qualificational dimensions, including deontic assessments, but also boulomaic assessments, or simple interpretations of (dynamic) possibilities or necessities inherent in situations or people – underscores the view that these dimensions need to be kept separated.

Of course, the fact that the directive use does relate to these conceptual qualificational dimensions (in the sense that the latter may ‘cause’ the former) at once explains why linguistic forms such as the modals should feature both kinds of uses – there is every chance for the two uses to get associated in one form in the course of diachronic developments.

## 6. Conclusion

In this paper we hope to have demonstrated

(i) that deontic modality is a semantic category which must be defined in terms of a scale featuring the notions of (moral, ethical) acceptability or necessity, and not at all in terms of notions such as permission and obligation;

(ii) that the dimension of directivity as (manifestly) present among the uses of the modals does not belong in/pertain to the (conceptual) system of qualifications of states of affairs, but is part, jointly with (at least) the mood categories, of the system of communicative functions 'steering' language use.



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