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**Periphrastic expressions of non-epistemic modal necessity in Spanish.
A semantic description**

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1. Introduction¹

Linguistic modality as expressed by modal verbs, adverbs and adjectival constructions is commonly viewed in terms of possibility and necessity (e.g. Lyons 1977: 787-793). Although this distinction is based on modal logic it turns out to be a useful tool to capture the basic modal distinctions in a large number of languages (Van der Auwera & Plungian 1998). This paper discusses the semantics of the Spanish grammaticalized verbal constructions that are most frequently used for the expression of modal necessity, i.e. the infinitival constructions with *deber* ‘must’ and its free variant *deber de*,² *tener que* ‘have to’ and *haber que* ‘have to’, the latter being an impersonal construction which could be rendered in English as ‘one has to’.³ The literature on Spanish modal periphrastic constructions (Gómez Torrego 1988: 76-92, 1999: 3348-3359; Fernández de Castro 1999: 176-196; García Fernández et al.: 2006; RAE 2009: 2140-2154) includes a fourth infinitival construction, *haber de* ‘have to’, which will not be discussed in this study because of its relatively low frequency.⁴

It should be noted that elsewhere (Olbertz 1998) I restrict the concept of “periphrasis” to constructions with grammaticalized lexical verbs, which excludes constructions with the fully grammaticalized auxiliary *haber*. In the present paper, the term “periphrasis” is used in a less restrictive way and should be read as “grammaticalized analytic verbal construction”.

This paper concerns the central Peninsular variety of spoken and written Spanish, which will be studied on the basis of two closed corpora: the PRESEEA spoken corpus of Alcalá de Henares (AdH) (443,533 words) and a selection of 15 Spanish narrative literary texts (Lit) published between 1970 and 1990 (106,836 words). Closed corpora have been chosen in order to determine the relative frequencies of the three constructions and their meanings in a consistent and controllable way. For additional information, the CREA corpus will be used.

One of the most striking properties of the three periphrases is their unequal distribution in oral use. Table 1 shows the different frequencies of the three periphrases in oral and in written texts, providing absolute numbers as well as the numbers of tokens per 1,000 words (rendered

¹ I am grateful to Mar Garachana, Daniel García Velasco, Kees Hengeveld, Leo Lemmers and Eline van der Veken for their valuable comments on earlier versions of this paper. The responsibility of the remaining errors is mine.

² In the new academic grammar *Nueva gramática de la lengua española*, *deber de* continues to be viewed as a primarily epistemic expression (RAE 2009: 2143-2144). However, Yllera (1980: 128) shows that the academic norm is entirely artificial: from the first texts onward *deber* has preferably been used without a preposition. The incidental use of *deber de* is due to the analogy with other verbal periphrases and independent of its meanings. For an in-depth study of the variation in modern Spanish, cf. Eddington & Silva Corvalán (2011).

³ For the ease of presentation and in the interest of readability, I will refrain from the repeated mention of “+infinitive” after the quotation form of the periphrastic auxiliaries in this paper.

⁴ A 3rd person singular search in the Spanish oral texts of the CREA corpus yields 2184 cases of *haber que*, 1314 cases of *tener que*, 927 of *deber (de)* and only 92 of *haber de*. The closed corpora used in this study contain only 26 tokens of *haber de* against 177 of *deber (de)*, the least frequent periphrasis dealt with in this study. For more details on the relation between *haber de* and the other modal periphrases cf. e.g. Blas Arroyo & Villón Lahoz (2015), Hernández Díaz (2017) and Olbertz (in press).

as ‰). The totals refer to the number of modal necessity periphrases in the texts as well as their relative frequency per 1,000 words (‰).

	words	<i>deber (de)</i>	<i>tener que</i>	<i>haber que</i>	total tokens
AdH	443,533	89 0.20‰	816 1.82‰	232 0.52‰	1,137 2.56‰
Lit	106,836	88 0.87‰	94 0.93‰	40 0.39‰	222 2.11‰

Table 1. Token frequencies of periphrastic expressions of modal necessity in the corpora

There is a big difference between the oral texts on the one hand and the literary texts on the other. In the spoken corpus *tener que* is nine times as frequent as *deber (de)*, while the two have more or less the same frequency in the written corpus. As regards *haber que*, its frequency per 1,000 words is more or less constant, but in relation to *deber (de)* its prominence is considerably higher in the spoken texts than in the written ones. It is tempting to consider these differences as a matter of register variation only. However, as this paper will show, there is in fact much more to it.

The meanings of the periphrases will be described from a view inspired by Functional Discourse Grammar (Hengeveld & Mackenzie 2008) and will draw on the modal classification presented in Hengeveld (2004). The point of departure is a definition of modality as the marking of non-realized states of affairs or non-factual propositions as regards the possibility or necessity of their realization and factuality, respectively.⁵

Although all meanings of the auxiliary constructions will be discussed, this paper will concentrate on the non-epistemic meanings (also known as “root modality”).⁶ There are several questions to be answered in this paper: (i) What are the fundamental differences between the three periphrases with respect to their functioning within the modal domain? (ii) Which categories are needed to describe the ways they are used in the corpora (and elsewhere)? (iii) How does this help to explain the preferences for *tener que* and *haber que* in oral usage?

The structure of this paper will be as follows: section 2 will deal with the most important differences between the three periphrastic constructions with respect to their morphosyntactic properties and their semantics, thus answering question (i). Section 3 will categorize a number of straightforward uses of the three periphrases. Section 4 will present two complex cases of modal evaluation, which will lead to a further refinement of the classification, thus providing the answer to question (ii). In section 5 I will discuss the results of the previous sections in order to answer question (iii). Section 6 will consist of my conclusions.

2. The basic characteristics of *deber (de)*, *tener que* and *haber que*

Apart from the obvious syntactic difference between the personal constructions with *deber (de)* and *tener que* and the impersonal construction with *haber que*, to which I will come back in section 3, the constructions differ with respect to the range of the basic modal meanings they can express.

In order to show how the three constructions differ from one another, I will distinguish three basic domains of modality, (i) deontic modality, (ii) circumstantial modality and (iii) epistemic modality, which will be further diversified in sections 3 and 4. While the concepts of

⁵ This definition has been based on (but is not identical to) Narrog’s definition (2005: 679).

⁶ The problem with the term “root modality” is that it is focused on possibility without taking necessity into account (cf. Van der Auwera & Plungian 1998: 84).

“deontic” (Lyons 1977: 823-831; Palmer 1986: 96-97) and “epistemic” (Lyons 1977: 793-809; Palmer 1986: 51-54) are well established in modality studies, the term “circumstantial” is less common and will be explained below.

The examples in (1) illustrate deontic modality, which is concerned with the desirability of some behaviour or some state of affairs (henceforth: SoA) in view of social or individual norms. Deontic necessity can be expressed by means of all the three periphrastic modals *deber* (*de*) (1a), *tener que* (1b) and *haber que* (1c).

- (1) a. *A las once y media sería la reunión con los de la firma y debía presentar=les algo convincente.*
 must.PST.IPFV3SG present.INF=them something convincing
 ‘At half past eleven the meeting with the people of the company would take place and he had to show them something convincing.’
- b. *A las once y media sería la reunión con los de la firma y tenía que presentar=les algo convincente.*
 have.PST.IPFV.3SG NEXUS⁷ present.INF=them something convincing
 ‘At half past eleven the meeting with the people of the company would take place and he had to show them something convincing.’
- c. *A las once y media sería la reunión con los de la firma y había que presentar=les algo convincente.*
 AUX.PST.IPFV⁸ NEXUS present.INF=them something convincing
 ‘At half past eleven the meeting with the people of the company would take place and they had to be shown something convincing.’ (Lit, Ortiz)

Although these different realizations of (1) are by no means synonymous, particularly given the difference between the personal constructions in (1a) and (1b) and the impersonal one in (1c), they are all grammatically correct and pragmatically felicitous expressions of deontic necessity.

The following example is a case of circumstantial modality, which is concerned with possibilities or necessities of the realization of a SoA given the circumstances, independently of whether they are considered to be desirable or not. I have adopted the label “circumstantial” from Narrog (2005, 2012: 10). Example (2) is a very clear case of circumstantial necessity, because the circumstance which motivates the necessity is made explicit in the immediate context.

⁷ Although the element *que* in the modal periphrases with *tener* and *haber* originates from a relative pronoun (cf. e.g. Garachana (2017), Fischer & Olbertz forthc., Olbertz in press), it functions as a linking device between the auxiliary and the infinitive in the periphrases, just like the (optional) preposition *de* with *deber*. Therefore, I gloss *que* as ‘NEXUS’.

⁸ Given the fact that *haber* is a full auxiliary, i.e. it does no longer express possession, I gloss its use in the modal periphrasis as ‘AUX’. In addition, due to the impersonal character of the periphrasis, the gloss does not contain any person marking, because the 3rd person singular is the only possible option.

- (2) *La carne tuvimos que tirar=la:*
 the meat have.PST.PFV.1PL NEXUS throw-away.INF=it
la humedad la había corrompido.

‘We had to throw away the meat: it had gone off due to the humidity’ (Lit, Llamazares)

Apart from *tener que* in (2), circumstantial necessity can also be expressed by *haber que* (2a), but not by *deber (de)* (2b).

- (2) a. *La carne hubo que tirar=la:*
 the meat AUX.PST.PFV NEXUS throw-away.INF=it
la humedad la había corrompido.

‘The meat had to be thrown away: it had gone off due to the humidity’

- b. *La carne debimos tirar=la:*
 the meat must.PST.PFV.1PL throw-away.INF=it
la humedad la había corrompido.

‘We should have thrown away the meat: it had gone off due to the humidity’

Although *deber* in the first part of (2b) cannot express circumstantial modality, it is not ungrammatical but can be read as an expression of counterfactual deontic modality. I will deal with this type of deontic modality in detail in section 4.

Epistemic modality is concerned with the possibility or necessity of the occurrence of some SoA and/or the truth of a propositional content. Examples (3) and (3a) illustrate epistemic necessity as respectively expressed by *deber* and *tener que*. This type of modal necessity cannot be expressed by means of *haber que* (3b).

- (3) *Las caras de las mujeres cuando lloran de verdad se vuelven intensas y contienen una belleza aterradora como las esculturas de Gaudí.*

Debe de ser eso lo que les da tanto
 must.3SG⁹ PREP COP.INF this what them give.3SG so-much
miedo a los hombres.
 fear to the men

‘The faces of women when they weep really become intense and have a terrifying beauty like the sculptures of Gaudí. It must be this what makes men so much afraid.’ (Lit, Rico-Godoy)

- a. [...] *Tiene que ser eso lo que les da*
 have 3SG NEXUS COP.INF this what them give.3SG
tanto miedo a los hombres.
 so-much fear to the men

[...] ‘It must be this what makes men so much afraid’

⁹ I consider the present as the unmarked tense and will therefore refrain from mentioning ‘PRS’ in the glosses.

- b. [...] **Hay que ser eso lo que les da*
 AUX NEXUS COP.INF this what them give.3SG
tanto miedo a los hombres.
 so-much fear to the men

Given its context, (3) is a very clear case of epistemic necessity. The variant in (3a) is equivalent with (3) without being entirely synonymous, because *tener que* expresses a higher degree of probability than *deber (de)* (cf. e.g. Gómez Torrego 1988: 85; Olbertz 1998: 395-396; Fernández de Castro 1999: 189-199). The variant (3b) does not have a translation because it is uninterpretable, i.e. truly ungrammatical. This ungrammaticality is also related to the restriction of *haber que* to predications with human referents as their first argument, or, as put in RAE (2009: 2148), ‘the modified verb predicates only on nominal groups whose referents are gifted with intention or will’.¹⁰

The three basic domains of modal necessity and the corresponding expressions are presented in Table 2, which shows that *deber (de)* cannot be used for the expression of circumstantial necessity and *haber que* cannot express epistemic necessity.

	<i>deber (de)</i>	<i>tener que</i>	<i>haber que</i>
circumstantial	–	+	+
deontic	+	+	+
epistemic	+	+	–

Table 2. Periphrastic expression of basic modal meanings

What this table does not show however are the relative frequencies of the periphrases in each function. In my corpus, *deber (de)* has an epistemic reading in about half of the cases in both corpora. The epistemic reading of *tener que* is less frequent (less than 10% on average in my corpora), but this periphrasis is particularly strong in the circumstantial and deontic domains. With respect to *haber que*, it should be noted that its circumstantial use is much less prominent than its deontic use, and therefore there are researchers who claim that the meaning of *haber que* is exclusively deontic (García Fernández et al. 2006: 167). However, there are several clearly circumstantial cases in my corpus, one of which is the following:

- (4) *es fácil que mi mujer [...] tenga*
 COP. 3SGprobable that my wife have.SBJV.3SG
que entrar en diálisis
 NEXUS enter.INF in dialysis
/y entonces hay que buscar los viajes/ que sean con- con arreglo a sitios donde
exista un equipo de diálisis

‘it is probable that my wife [...] will have to start dialysis/ and then one has to look for trips that have a- a solution to places where there is a dialyser’ (AdH S15, 11)¹¹

¹⁰ “[E]l verbo auxiliado sólo se predica de grupos nominales cuyos referentes están dotados de intención o voluntad”. The translation quoted in the text is mine.

¹¹ In the PRESEEA transcription conventions, the slashes indicate pauses of different duration; the maximum of three slashes corresponds to a silence of 2 seconds or more; the colon represents the lengthening of the preceding sound, and the hyphen in cases such as *con- con* in example (4) indicates a very brief waver. In the source indications of the PRESEEA examples from Alcalá de Henares (AdH), the alphanumeric code before the comma identifies the speaker. The letters *S*, *M*, and *P* respectively correspond to the educational levels *superior* (university), *media*

The following two sections will discuss the non-epistemic meanings of the constructions in more detail.

3. Non-epistemic *deber de*, *tener que* and *haber que*: straightforward cases

This section consists of two parts: in section 3.1 the basic categories of non-epistemic modality will be refined so as to yield six categories, and in section 3.2 these categories will be exemplified in order to see which periphrases can be used for the expression of each of these categories. In this section, only relatively straightforward cases will be presented, i.e. those cases in which the modalized SoA has no tense marking and is not modalized itself. The discussion of more complex cases will be postponed to section 4.

3.1 Categories of non-epistemic necessity

So far, we have distinguished only two basic domains of non-epistemic modality, deontic and circumstantial modality. In this section a further distinction will be added, that of “participant-internal modality”, which within the domain of possibility consists of “abilities” and within that of necessity consists of “needs”. Participant-internal necessity is relevant for the description of the periphrases at issue, particularly when one defines the concept of “needs” a bit more loosely than does Narrog (2012: 9), who views participant-internal needs as a matter of nutrition and excretion.¹² In addition to these basic human needs, also those cases of necessity will be considered which the speaker presents as if they represent an urgent inner need, of which (5) is a telling example:

- (5) [in a conversation with a rival]
“Tengo que hacer=le hablar más
 have.1SG NEXUS make.INF=him talk.INF more
–pensó–. Tengo que hurgar=le más,
 think.PST.PFV.3SG have.1SG NEXUS delve.INF=him more
sacar=le todo lo que se refiere a mí.
 get-out.INF=him everything what REFL.3 refer.3SG to me
 “I must make him talk more –he thought–. I must delve into him more deeply, get out of him everything that has to do with me.” (Lit, Pombo)

Following Narrog (2005, 2012), I will now introduce two macro-domains of modal evaluation: volitive modality and non-volitive modality. Deontic modality forms part of the macro-domain of volitive modality, and internal and circumstantial modalities belong to the macro-domain of non-volitive modality. Volitive modal distinctions are those that contain “an element of will” (Jespersen 1992 [1924], quoted from Narrog 2005: 683), i.e. deontic modality is

(secondary school), and *primaria* (primary school); the letter is followed by the interview number. The number after the comma, if present, refers to the token-number in my sample.

¹² Narrog (2012: 9-10) is nevertheless right in observing that there is a strong bias between possibility and necessity in the sense that ability is much more talked about than are needs, and therefore participant-internal necessity is rarely coded as such cross-linguistically, whereas there tend to be wide arrays of expressions for the corresponding possibility distinction.

volitive in the sense that it concerns the imposition of individual or societal human norms. Thus, so far we have the following picture:

- (6) *non-epistemic modal necessity (basic)*
 + VOLITIVE – VOLITIVE
 deontic internal, circumstantial

Now that we have a total of three modal distinctions, one volitive and two non-volitive ones, it is time to introduce a new parameter into the categorization of non-epistemic necessity, i.e. concerning the source and the target of modal evaluation. Such a parameter has been introduced by Hengeveld (2004), who distinguishes participant-oriented, event-oriented and proposition-oriented modal distinctions, of which only the former two will be relevant in this section.

When modal necessity is *participant-oriented* it concerns obligations and necessities of some specific human participant in an event. The source of the modalization can be either internal or external to the participant. In the latter case the source may be either the circumstances or somebody's will.

The source of *event-oriented* necessity is of a general nature and does not target an individual but a SoA. In the case of deontic modality the sources are social rules of different kinds. Circumstantial event-oriented modality concerns the necessity of some SoA to occur due to the circumstances. Internal event-oriented modality has the same property as internal participant-oriented modality: the source and the target are identical, which in this case boils down to inherent physical possibilities and necessities of SoAs. Internal event-oriented modality can be relevant in the case of possibility (cf. Olbertz 1998: 386), but it is difficult to conceive of something as an inherent physical necessity of events.

The addition of internal modality as well as the parameter regarding the target of modalization is summarized in Table 3.

DOMAIN		TARGET
VOLITIVE	NON-VOLITIVE	
deontic	circumstantial	internal
+	+	+
+	+	–
		participant state of affairs

Table 3. Non-epistemic modal necessity (preliminary)

This classification is sufficient to account for most non-complex uses of modal necessity. In the next section, these categories will be applied to the three periphrases.

3.2 Participant- and event-oriented meanings of *deber* (de), *tener que* and *haber que*

In this section I will first present participant-oriented and then event-oriented examples of modal necessity. I will end with an overview of the distribution of *deber* (de), *tener que* and *haber que* within this modal domain.

Let us start with the two distinctions of non-volitive participant-oriented modality, internal and circumstantial necessity. The following two examples illustrate two types of internal participant-oriented modal necessity.

- (7) [speaker talking about her extremely busy life]
claro que yo tengo que comer también
 of-course that I have.1SG NEXUS eat.INF also
 ‘of course even I also have to eat’ (AdH S16, 11)

- (8) *En fin, lo que sí sabía sin duda alguna,*
es que tenía_ que verla
 COP.3SG that have.PST.IPFV.1SG NEXUS see.INF=her
cuanto_antes
 as-soon-as-possible
 ‘In sum, what I knew without a shade of doubt was that I had to see her as soon as possible’ (Lit, Soriano)

In (7) we have a case of internal modality proper, in the sense of being related to the need of nutrition. Example (8) concerns a case of an extreme urge of the first-person narrator to meet the lady he is in love with. What both cases have in common is that the source and the target of the necessity concern the same referent.

Example (9) is a case of circumstantial modality, i.e. it is the circumstances that force the bus driver to react by braking abruptly, which leads to serious injuries to passengers who are about to leave the bus:

- (9) *bueno se levantaron allí [...] para bajar en la parada//*
se cruzó un coche/ tuvo
 REFL.3 cross.PST.PFV.3SG a car have.PST.PFV.3SG
que pegar un frenazo
 NEXUS give.INF a abrupt-brake
 ‘well they got up there [...] to get out at the stop// suddenly there was a car crossing/
 and he had to hit the brake really hard’
 (AdH S9, 48)

Examples (10)-(12) illustrate the two possible expressions of participant-oriented deontic necessity, *tener que* in (10) and *deber (de)* in (11)-(12).

- (10) *Ahora lo_que tienes que hacer es*
 now what have.2SG NEXUS do.INF COP.3SG
volver a la cama.
 return.INF to the bed
 ‘What you must do now is go back to bed’ (Lit, Llamazares)

(11) [at the hairdresser's]

Pero además, hága=me caso, usted
but moreover do.IMP.FORMAL=me case you.FORMAL
lo_que debía de hacer
what must.PST.IPFV.2SG.FORMAL PREP do.INF
era poner=se mechas,
COP.PST.IPFV.3SG put.INF=REFL.2SG.FORMAL highlights
siempre se lo estoy diciendo, le irían de fenómeno unas mechas; ya lo vería.

'But, what is more, do take my advice, what you should do is have highlights, I've always told you, highlights would suit you fabulously; you'll see yourself' (Lit, Martín Gaité)

(12) *Debo hablar=le con toda franqueza.*
must.1SG speak.INF=you.FORMAL.DAT with all frankness

'I must speak to you in all frankness' (Lit, Delibes)

In (10) the speaker uses *tener que* to impose an obligation on the addressee in his or her own interest. In (11) the obligation, expressed by means of *deber de*, is imposed on the addressee, but mitigated by means of the use of the imperfective past rather than the simple present. In (12) the obligation is self-imposed: the speaker uses *deber* to express that he feels morally obliged to be honest.

With respect to the distribution of *deber (de)* and *tener que* in these examples, we see that the former is used only in the deontic case. *Tener que*, on the other hand, serves the expression of inherent, circumstantial, and deontic participant-oriented modality. As regards the third modal periphrasis, impersonal *haber que*, it is excluded from the participant-oriented domain, because it cannot be used to modalize linguistic expressions concerning a specific participant.

Let us now turn to the expression of event-oriented necessity, starting again with the non-volitive distinctions.

(13) [about an old piano]

porque claro es que era de madera/ y con los cambios de tiempo con el verano se contrae//
y cuando llega el otoño tienes que
and when arrive.3SG the autumn have.2SG NEXUS
volver=lo a afinar
return.INF=it to tune.INF

'because of course it was from wood/ and due to the change of the weather in the summer it contracts// and when the autumn comes you have to tune it again'
(AdH S18)

- (14) – *¿dónde queda eso?//*
 – *nada más pasar el subterráneo// en dirección hacia el Chorrillo// (uf:)/ a ver cómo te diría// desde:/ la Plaza Cervantes [...] yendo hacia el Paseo de la Estación// es al otro lado de- de las vías/ de:l tren [...]*
 COP.3SG at-the other side of of the rails of-the train
hay que cruzar por el subterráneo
 AUX NEXUS cross.INF through the underpass
 ‘– where is that?//
 – immediately after the underpass// in the direction of El Chorrillo// (gee) how to explain this?// from/ the Plaza de Cervantes [...] walking towards the Paseo de la Estación// it is on the other side of the rails/ of the train [...] you have to cross through the underpass//’ (AdH P39, 13)

In (13) the combined effect of the piano being old and the changing temperature makes tuning necessary. Although in this case, the modal expression with *tener que* has second person reference, it cannot refer to the addressee, because it is the speaker rather than the addressee who is responsible for tuning the piano. In other words, this second person reference has to be read generically. In example (14) it is reaching a place which implies the necessity of passing through an underpass, which, due to not being specifically directed to any participant, is expressed by means of *haber que*.

Deontic event-oriented necessity can be expressed by means of the three periphrases: (15) illustrates the use of *haber que*, (16) that of *tener que* en (17) that of *deber (de)*.

- (15) [on an urban renewal project]
lo hicieron para el presente no para el futuro ¿sabes?
que lo_que hay que mirar también es
 that what AUX NEXUS consider.INF also COP.3SG
el futuro no es el presente/ hay que
 the future not COP.3SG the present AUX NEXUS
mirar el presente ¿me entiendes? pero
 consider.INF the present me understand.2SG but
también el futuro/
 also the future

‘they did it for the present not for the future you know? I mean what is necessary to look at is also the future it’s not the present/ it’s necessary to look at the present you understand? but also the future/’ (AdH P51, 12)

- (16) *Era grande y tenía todo*
 COP.PST.IPFV.3SG large and have.PST.IPFV.3SG everything
lo_que tenía que tener,
 that have.PST.IPFV.3SG NEXUS have.INF
pero no daba al mar sino al desierto, a las palmeras agitadas que rodeaban el hotel.
 ‘It was large and had everything it had to have, but it had a view not of the sea but of the desert, of the waving palms that surrounded the hotel’ (Lit, Puértolas)

- (17) *lo cuezo todo/ lo cielo/ lo pelo/ lo echo/ echo una pastilla de Avecrén/
dicen que no se debe de echar/
say.3PL that not REFL.3 must.3SG PREP add.INF
pero a mí me gusta/
but to me.EMPH me please.3SG*
- ‘I cook it all/ I strain it/ I peel it / I add/ add an Oxo cube/ they say you shouldn’t/ but I like it/’ (AdH M35, 2)

In all these cases some non-specified norms are implicated, in (15) the requirement of a long-term vision in urban planning, in (16) the general expectations of what a hotel room should contain, and in (17) the norm of a recipe or a cookery book (cf. Vázquez Laslop 2001: 95-98 for more details).

In conclusion, this study of straightforward cases of modal necessity brings us to the distribution of the three periphrastic constructions presented in Table 4, which shows that *deber (de)* is excluded from the non-volitive domain.

DOMAIN		TARGET
VOLITIVE	NON-VOLITIVE	
deontic	circumstantial	internal
<i>deber (de)</i> <i>tener que</i>	<i>tener que</i>	<i>tener que</i>
<i>deber (de)</i> <i>tener que</i> <i>haber que</i>	<i>tener que</i> <i>haber que</i>	– state of affairs

Table 4. The periphrastic expression of non-epistemic modal necessity (preliminary)

In the next section this picture will be further expanded to accommodate complex cases of the use of the modal periphrases.

4. Non-epistemic *deber de*, *tener que* and *haber que*: complex cases

So far we have considered participant-oriented and event-oriented modalities, i.e., roughly speaking, modal evaluations of SoAs and their relations with participants, circumstances and social norms. In all these cases the SoAs are non-real, but may be expected to be realized. We will now go on to the relation between speakers and past SoAs or unrealizable SoAs.

Let us first consider past SoAs. In (18) the speaker presents his opinion on an action that was carried out without providing something that the speaker deems to be necessary.

- (18) *tenían que nada_más_que poner*
 must.PST.IPFV.3PL NEXUS immediately-after put.INF
esa:s fábricas/ al mismo tiempo que las ponen
 those factories at-the same time that them put.3PL
haber hecho algo/ para que no/
 have.INF do.PTCP something so that not/
perjudicara al río//
 harm.PST.SBJV.3SG PREP-the river

‘they should immediately after building these factories/ at the moment of building them/ have done something in order not to/ harm the river//’ (AdH P39, 11)

The combination of an imperfective past tense form on the periphrastic auxiliary (in this case: *tenían que*) and the relative past on the non-finite verb (in this case: *haber hecho*) indicates counterfactuality, i.e. that the event described in the modalized SoA has not taken place (Laca 2005: 32-33; RAE 2009: 2152-2153). In other words, (18) is an expression of the speaker’s negative evaluation of a past event. I will refer to this type of deontic modality as “evaluative deontic modality” in contrast to “prescriptive deontic modality” which corresponds to event-oriented deontic modality as illustrated in examples (15)-(17).¹³

The following example illustrates a case of an unrealizable SoA.

- (19) [joking about death]
La gente debería morir=se en el
 the people must.COND.3SG die.INF=REFL.3 in the
cuarto_de_baño con la radio puesta.
 bathroom with the radio switched-on

‘People ought to die in the bathroom with the radio on’ (Lit, Vázquez Montalbán)

Example (19) differs from (18) in not being located in the past. In addition, whereas example (18) is counterfactual, i.e. the SoA “is the exact reverse of the factual world” (Verhulst and Declerck 2011: 25), cases such as (19) create an “imaginary world”, in which the speaker “is not concerned about its relation the factual world at all” (Verhulst and Declerck 2011: 25). In (19) *deber* is used to express a wish, and by using the conditional form of the auxiliary (*debería*) the speaker expresses that he is well aware of the fact that his wish cannot come true. Desires of this type cannot be interpreted as obligations in any sense, because nobody is able to comply with them. Therefore, cases like (19) will be categorized as desiderative modal expressions.

What evaluative deontic necessity and desiderative modality have in common is the fact that they have the speaker as their source and participate in the volitive domain.

In the following sections, I will first discuss evaluative deontic modality and its interaction with tense and other modal expressions (section 4.1), then go into desiderative modality (section 4.2) and end by locating these two modal distinctions within a complete picture of non-epistemic modal necessity (section 4.3).

¹³ In Olbertz & Gasparini Bastos (2013) this distinction has been referred to as one between “objective” and “subjective” deontic modality. Given the fact, however, that this distinction is generally associated with the difference between the so-called “directive” or “performative” use of deontic modals in the context of second person address (cf. e.g. Lyons 1977: 824; Vázquez Laslop 1999; Verstraete 2001, 2004), I prefer the labels “prescriptive” and “evaluative” here.

4.1 Evaluative deontic necessity

As opposed to prescriptive deontic modality, which concerns events that may, in principle, be expected to be realized after the moment of utterance or writing, evaluative deontic modality may concern past SoAs. When this is the case, such as in example (18) above, this SoA is necessarily counterfactual. In a case like (18), the speaker indicates that she/he would like SoA (e_i) to have occurred in the past and that he/she knows that what in fact took place is the contrary, ($\sim e_i$). Such a procedure is characteristic of evaluation, i.e. of analyzing an event in the past with the knowledge of its consequences that are available at the moment of speaking. This seems to contradict Lyons' point that "there is an intrinsic connection between deontic modality and futurity" (Lyons 1977: 824) and that "we cannot rationally will or intend something to happen or have happened" (Lyons 1977: 825-826). However, all of this remains true, because the nature of evaluative deontic modality is different: rather than expressing the will or the intention of having something happen, it concerns the speaker's opinion on some past event.¹⁴ This difference is particularly clear in first person contexts:

- (20) [The theologian Joan Sobrino is the only survivor of a massacre at the Catholic University of El Salvador, because he was abroad at that time. When asked about his immediate feelings when he heard about the events, he says]

Pensaba: "yo *tendría* *que* *haber*
think.PST.PFV.1SG I have.COND.1SG NEXUS AUX.INF
estado *allí*
be-located.PTCP there

'I thought: "I should have been there"' (TVE, 30/1/1990, CREA)

It is clear from this example that it is the knowledge about the past events that motivates this evaluative deontic modalization.

In examples (21) and (22) the counterfactual evaluative deontic modalization is expressed by means of the modal auxiliary in the imperfective past (21) or conditional form (22) and the verb in the perfect infinitive.¹⁵

Let us have a look at some more examples:

- (21) *yo creo* *que* *Sadam se* *tendría* *que*
I believe.1SG that Sadam REFL.3 have.COND.3SG NEXUS
haber rendido *antes*
aux.inf surrender.PTCP before
(Radio, Madrid, 1/3/1991, CREA)

'I think Sadam should have surrendered earlier'

¹⁴ In the same vein, Laca (2005: 29-32) proposes that in the counterfactual readings of *deber* (*de*) and *poder*, the prospective interpretation of the modals is cancelled, given that the knowledge of the counterfactuality of the SoA is essential for the deontic evaluation.

¹⁵ Alternatively, it is also possible to use the perfective past, as in example (2b) quoted in section 2. But in such cases the interpretation depends very much on the context, because, in principle, an epistemic reading is also possible. This is why I will consider constructions of the type of (21) and (22) only, because these almost always yield a counterfactual deontic reading.

- (22) *creo que: ha hecho mal/ no sé///*
 believe.1SG that AUX.3SG do.PTCP badly not know.1SG
debería haber=los sacado a
 must.COND.3SG AUX.INF=them deploy.PTCP PREP
estos ¿no?///
 these not
o sea que los mejores jugadores son los que jugaron en ... en el último partido
¿no?///
 ‘I believe he made a mistake/ I don’t know/// he should’ve selected these, shouldn’t he?/// I mean that the best players are those who played in ... in the last game, right?///’ (AdH M22, 33)

In both (21) and (22) the speaker gives his/her opinion about an event in the past that failed to occur in the way he/she would have approved of. More precisely, the event (e_i) modalized by means of *tener que* or *deber* was not effectuated in the past and is marked as such by the combined effect of the conditional marking of the auxiliary and the compound infinitive. This unreal SoA describes what the speaker would have regarded as desirable.

However, the evaluative nature of modal evaluation does not depend on the counterfactuality of the modalized SoA, rather, evaluative deontic modality may also concern present or future SoAs. Consider the following variants of (21) and (22), in which the conditional of the auxiliary and the compound infinitive of the main verb have been substituted by the present tense of the auxiliary and a plain infinitive:

- (21) a. *yo creo que Sadam se tiene*
 I believe.1SG that Sadam REFL.3 have.3SG
que rendir
 NEXUS surrender.INF
 ‘I think Sadam must give up’
- b. *Sadam se tiene que rendir*
 ‘Sadam must give up’
- (22) a. *creo que debe sacar=los*
 believe.1SG that must.3SG deploy.INF=them
a estos
 PREP these
 ‘I believe he must select these’
- b. *debe sacarlos a estos*
 ‘he must select these’

In (21a) and (22a) the evaluative character of the modalization may still be attributed to the fact that the modal evaluations are complements of the matrix clause with *creer* ‘believe’ in both cases. But even when the matrix clause is removed, as in (21b) and (22b), these sentences continue to be evaluative, i.e. speaker-bound comments on a situation the speakers do not control.

Participant-oriented readings are excluded in both cases, because the speaker has no authority to impose his or her will on the primary referents in either of them.

As we saw in example (20), evaluative deontic modality can also concern SoAs in which the speaker him- or herself participates, but in such a case it is crucial for the evaluative deontic reading that he or she is no longer involved with this event. When we adapt this example to the present, the result is an expression of participant-oriented modality:

- (20) a. *Yo tengo que estar allí.*
 I must.1SG NEXUS be-located.INF there
 ‘I must be there’

Within the context given in (20), (20a) would be infelicitous. But outside that context, it could be read either as an expression of participant-inherent modality, similar to the example given in (8) above, or as an expression of self-imposed participant-oriented deontic modality, similar to (12) above.

What we can conclude from this brief excursion is that it is an essential property of evaluative deontic modality that the evaluated event cannot be controlled by the speaker. This may be because it occurred in the past and/or because the speaker does not have the possibility or the authority to influence the course of events.

The difference between evaluative and prescriptive deontic modality is also reflected in the fact that expressions of the former can have expressions of the latter in their scope. Consider the following examples:

- (23) *El pueblo cubano debe poder elegir*
 the people Cuban must.3SG can.INF choose.INF
qué sistema desea.
 what system wish.3SG

‘The Cuban people must be allowed to decide what system they want’
 (Ruben Blades in *Movimiento mundial de solidaridad con Cuba*, April 2010)

- (24) *Se debería abolir la distinción de procedimiento para gastos obligatorios y no obligatorios, es decir que*
el Parlamento Europeo debería poder
 the Parliament European must.COND.3SG can.INF
actuar como interlocutor en términos de igualdad para
 act.INF as interlocutor in terms of equality for
todo tipo de gastos.
 all kind of expenses

‘The different procedures for obligatory and non-obligatory expenses should be abandoned, in other words the European Parliament should have the right to act as a partner in the same way for any kind of expense’
 (Código de la Unión Europea, 1996, CREA)

In (23) Ruben Blades, a popular Panamanian singer, expresses his opinion that Cubans must (*debe*) have the right (*poder*) to political liberty. In (24) the writer deems it necessary (*debería*) for the European Parliament to be entitled (*poder*) to act in a specific way. What is encoded by

means of *poder* in both cases are legal norms, which are typical cases of event-oriented prescriptive deontic modalization. What is encoded by *deber* are expressions of necessity as viewed from the perspective of the speaker/writer, who has no authority to change the situation she/he describes.

As regards the place of evaluative deontic modality within our classification, I will make use of the concept of “episode”, introduced by Hengeveld & Mackenzie (2008: 157-166), which can basically be characterized as (sets of) tensed SoAs. As opposed to prescriptive deontic modality, which scopes over tenseless SoA, the SoA may be tensed for being anterior to the moment of speaking in the case of evaluative modality. At this point, it might be objected that also prescriptively used modals can be tensed, such as in (16), repeated here as (25) for convenience:

- (25) *Era grande y tenía todo*
 COP.PST.IPFV.3SG large and have.PST.IPFV.3SG everything
lo_que tenía que tener,
 that have.PST.IPFV.3SG NEXUS have.INF
pero no daba al mar sino al desierto, a las palmeras agitadas que rodeaban el hotel.
 ‘It was large and had everything it had to have, but it had a view not of the sea but of the desert, of the waving palms that surrounded the hotel’ (Lit, Puértolas)

However, what happens here is that the imperfective past on the modal is a consequence of tense copying, also known as *consecutio temporum*, i.e. the formal adaptation of the modalized clause to the past context of the narrative. This means that the past tense just expresses simultaneity with the context, and that neither the modal nor the SoA is tensed in relation to the remainder.

The functioning of evaluative deontic modality is informally represented in (26), where the elements printed in lowercase are operators of modality and tense, separated from each other by commas, and their mutual order reflects their scope. The elements rendered in small capitals represent the entities on which the operators operate. The bracketed expressions are those that can occur within the scope of the episodes, i.e. the tensed SoAs.

- (26) The scope of evaluative deontic necessity
 a. evaluative-deontic, past/present EPISODE [prescriptive-deontic SOA]
 b. evaluative-deontic, past EPISODE [participant-oriented-deontic PRIMARY PARTICIPANT IN SOA]

The structure in (26a) represents the possibility of an expression of evaluative deontic modality to take an expression of prescriptive deontic modality in its scope. In addition, “past/present”¹⁶ in the representation shows that the expression of evaluative deontic modality can operate on linguistic expressions that can be located freely in time. The representation in (26b) concerns the scope of an expression of participant-oriented modality. In this case the tense operator on the episode can only be “past”, because only in that case an evaluative deontic modalization is possible. A past tense operator on the episode will trigger a counterfactual reading of the SoA. Both representations in (26) account for the fact that the speaker cannot influence the course of

¹⁶ The theoretical possibility of “future” is not included here, because future tense marking on modals usually triggers a conjectural, i.e. epistemic reading.

events, because evaluative deontic necessity operates neither on the SoA nor on the primary participant in a SoA, but on the episode.

As we will see in the next section, the second type of non-prescriptive modality behaves quite differently.

4.2 Desiderative modality

What I call “desiderative” here, covers what has been termed “boulomaic”, and defined as the expression of “wishes, hopes, and desires” in Hengeveld (1988: 239). Desiderative modality is an exceptional type of modality because it does not participate in the possibility–necessity dichotomy: it is difficult, if not impossible, to conceive of desires in terms of anything but necessity (Olbertz 1998: 381, Narrog 2012: 9). The crucial difference between deontic and desiderative modality is that the latter does not impose obligations. Rather, it is a defining characteristic of desiderative modality that it concerns uncontrollable and/or unrealizable SoAs.

- (27) *Lo dijo Goethe: “Todos los editores son hijos del diablo. Para ellos debería haber un infierno especial”.*
for them must.COND.3SG AUX.INF a hell special

‘Goethe said it: “All publishers are sons of the devil. For them there should be a special hell”.’ (*El País* 17/7/1997, CREA)

- (28) *De niña pensaba que era una pena que la vida de la gente se perdiese, que tendría que haber un gran libro donde todos los minutos del vivir quedarán registrados uno por uno, tal vez existieran en el Paraíso esos libros gordos donde se guardaba todo.*
that have.COND.3SG NEXUS AUX.INF a big book
where all the minutes of-the life remain.PST.SBJV.3PL
registered one by one

‘As a little girl I thought that it was a pity that the lives of the people would get lost and that there ought to be a big book where all the minutes of life would be registered one by one, and that perhaps in Paradise there were these huge books where everything was being kept’ (*ABC Cultural* 5/6/1996, CREA)

In (27) and (28) *deber* and *tener que* are used to modify a proposition describing an imaginary world, “a purely invented scenario”, for which the relation with real SoAs is irrelevant (Verhulst and Declerck 2011: 25).

The following is a particularly telling example, because in this case the desire represents a physical impossibility:

- (29) *Se debería poder tocar el piano*
 REFL.3 must.COND.3SG can.INF play.INF the piano
mientras que se va en bicicleta
 while REFL.3 go.3SG in bicycle
 ‘It should be possible to play the piano while riding a bike’
 (*El Alpe d’Huez*, 1994, CREA)

We have seen that desiderative necessity shares with evaluative deontic necessity the property of having the speaker/writer as their source. A common denominator for both therefore is “subjective modal necessity”. The difference is that deontic modality concerns evaluations of events and that desiderative modality concerns ideas and fantasies, which may or may not bear a relation to extralinguistic reality. In the next section, I will present a proposal of how to reflect this difference in our classification of modal necessity.

4.3 The targets of evaluative deontic and desiderative modality

We have seen that evaluative deontic modal necessity concerns episodes that can be located independently in time thus relating them to the moment of speaking. Desiderative modality concerns neither SoAs nor episodes, but propositions. As opposed to events, which can be witnessed and located in time and space, propositions are mental constructs such as beliefs and wishes, which are unobservable and cannot be located in time or space, but exist in the speakers’ minds (Vendler 1967: 144; Lyons 1977: 443-447; Hengeveld & Mackenzie 2008: 130-131). This means that the target of desiderative modality is not the episode but the proposition.¹⁷

The inclusion of episode- and proposition-oriented modality (i.e. subjective modal necessity) completes the picture of non-epistemic necessity, which is presented in Table 5, where the shaded area concerns subjective modal necessity and the unshaded area the remainder, which I will refer to as “objective modal necessity”.

DOMAIN				TARGET
VOLITIVE		NON-VOLITIVE		
desiderative	deontic	circumstantial	inherent	
–	+	+	+	participant-oriented
–	+	+	–	event-oriented
–	+	–	–	episode-oriented
+	–	–	–	proposition-oriented

Table 5. Non-epistemic modal necessity

As regards the linguistic realizations of the two distinctions of subjective necessity, we have seen that *deber* (*de*) and *tener que* can be used for both.

¹⁷ The present analysis deviates from the one presented in Olbertz & Gasparini-Bastos (2013), where desiderative modality is analyzed in the same way as evaluative deontic modality, i.e. as belonging to the level of the episode, rather than to that of the proposition. I now believe that this approach fails to fully account for the fact that desires are entirely fictitious and have no existence outside the speaker’s mind and his/her corresponding descriptions.

5. Discussion

In this paper I have shown that modality can basically be subdivided into volitive and non-volitive macro-domains, and furthermore be classified according to the target of modal evaluation, as shown in Table 5 above. Table 6 presents the way in which the three periphrases *deber (de)*, *tener que* and *haber que* are distributed over these categories. Again, the shaded area specifies the subjective domains.

DOMAIN				TARGET
VOLITIVE		NON-VOLITIVE		
desiderative	deontic	circumstantial	inherent	
–	<i>deber (de)</i> <i>tener que</i>	<i>tener que</i>	<i>tener que</i>	participant-oriented
–	<i>deber (de)</i> <i>tener que</i> <i>haber que</i>	<i>tener que</i> <i>haber que</i>	–	event-oriented
–	<i>deber (de)</i> <i>tener que</i>	–		episode-oriented
<i>deber (de)</i> <i>tener que</i>	–	–	–	proposition-oriented

Table 6. Periphrastic expressions of non-epistemic modal necessity

Apart from the clear exclusion of *deber (de)* from the non-volitive macro-domain, it is obvious that the modal periphrases are highly polysemous. This holds particularly for *tener que*, and to a lesser degree also for *deber (de)* and *haber que*. In addition, there are many cases that allow for multiple readings, such as the case of (20a), repeated here as (30) for convenience, which, out of context, allows for a deontic, a circumstantial and an inherent reading.

- (30) *Yo tengo que estar allí.*
 I must.1SG NEXUS be-located.INF there
 ‘I must be there.’

However, ambiguity is not only a matter of presenting utterances out of context. The following case is one of the many examples that allow for both a circumstantial and a deontic reading within the context in which it appears.

- (31) [after an evening out, two friends have to say good-bye]
A Enric lo habían traído ellos y
 PREP Enric him AUX.PST.IPFV.3PL bring.PTCP they and
tuvo que ir=se con ellos.
 have.PST.PFV.3SG NEXUS go.INF=REFL.3 with them
 ‘Enric had come with them (in their car), and he had to return with them’
 (Lit, Puértolas)

In the first reading, there is no alternative for Enric to get back, and in the second it is a matter of politeness to return with the same people who brought him. In fact, it is quite possible that in cases like (31) this ambiguity is not being felt as such, since simply both meanings may be intended. Coates (1983) speaks of “merger” in such cases: “merger differs from ambiguity in that it is not necessary to decide which meaning is intended before an example can be understood; with merger the two meanings are involved and are not in certain contexts mutually exclusive” (Coates 1983: 17).

It probably is this very polysemy of *tener que* that motivates its popularity in oral usage. Given that *tener que* can be used for both non-volitive and volitive modalities, the use of *tener que* avoids a potential confrontation with the interlocutor that might arise from the use of an unambiguously deontic expression. Using *tener que* may always be partially or fully associated with an external (to wit, circumstantial) necessity, i.e. with non-volitive modality, rather than being solely related to the speaker’s will.

As regards the preference for *haber que* in oral use there is a different explanation, because, as we have seen in section 3, this periphrasis expresses deontic meaning in most of the cases. The reason for speakers to prefer *haber que* to *deber (de)* probably lies in the impersonal character of the former. We have seen that modalization with *haber que* is always event-oriented. This fact can be used in conversational interaction to avoid the use of participant-oriented deontic modality as in the following example, which is uttered in a tense situation between the interlocutors:

- (32) *Hay que reconocer, Julio,*
 AUX NEXUS admit.INF Julio
que los santanderinos nos ponemos pesadísimos, siempre con el dichoso Santander
 [...]
 ‘You must admit (lit.: one must admit), Julio, that we Santandarians behave really awfully, always with this fantastic Santander [...]’
 (Lit, Pombo)

The pragmatic effect is very similar to that of the ambiguity effect of *tener que*: instead of unambiguously imposing his will on the addressee, the speaker circumvents this by using an impersonal deontic expression, seemingly directed to nobody in particular but in fact directed to the addressee. The use of event-oriented deontic modality, as in this example, is another pragmatic strategy of indirectly expressing participant-oriented deontic modality, thus avoiding the risk of any confrontation with the interlocutor.

The situation is different in the case of subjective necessity, where there is no longer any ambiguity involved. Within the subjective domains, the quantitative difference between *deber (de)* and *tener que* in oral usage is much less prominent: here *tener que* is just a little more frequent than *deber (de)*.¹⁸

¹⁸ I searched the AdH corpus for all person/number conditional forms of both *tener que* and *deber (de)* followed by an infinitive and found 20 cases of the former against 17 of the latter.

6. Conclusion

I have shown in this paper that the non-epistemic meanings of the three modal periphrases can best be accounted for in a two-dimensional model which distinguishes the domains and the targets of modal evaluation. One of the outcomes of this approach is a strict division between objective (participant- and event-oriented) and subjective (episode- and proposition-oriented) modal domains. Within the former there are many cases of ambiguity and even merger between the volitive and non-volitive modal distinctions expressed by *tener que*, particularly between deontic and circumstantial necessities. This, as well as the impersonal structure of *haber que*, may explain the pragmatic preference for *tener que* and *haber que* to the detriment of *deber (de)* in oral usage.

Uncommon abbreviations in glosses

EMPH = emphatic

PREP = semantically empty preposition

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