

ON THE SYNTAX OF OUGHT-TO-BE CONSTRUCTIONS WITH AND WITHOUT A SPECIFIC ADDRESSEE

Núbia Ferreira RECH*
Simone GUESSER**

- **ABSTRACT:** This paper focuses on the (ought-to-be) deontic, which is analyzed from the concepts of obligation discussed in Castañeda (1970), Feldman (1986) and Hacquard (2006, 2010). From co-occurrence tests of an ought-to-be modal with other elements in the CP layer – in particular, with the *wh*-phrase *por que* (*why*) and with adverbial elements, it was found that ought-to-be is interpreted between the high projections IntP and ModP. It was also shown that an ought-to-be can be used in an utterance with or without a specific addressee and that this difference reflects in the syntax. The proposal is to extend the analysis by Portner, Pak and Zanuttini (2019), developed for Korean speech style particles, to the ought-to-be deontic, postulating that this deontic, when used with a specific addressee, integrates a structure in which the cP category is projected, which allows features that express the speaker-addressee relation, such as status, to be checked. Consequently, this modal is restricted to the matrix domain. When, however, it appears in an utterance without a specific addressee, it integrates a structure without the projection of cP, since it does not refer to the speaker-addressee relationship. In this case, it can appear in both the matrix and embedded domains.
- **KEYWORDS:** ought-to-be deontic modality; speaker-addressee relationship; cP category.

Introduction

According to Rech, Soares e Guesser (2019), Castañeda's (1970) and Feldman's (1986) concept of an *ought-to-be* obligation differs from Hacquard's (2006, 2010). The former associate *ought-to-be* with a type of obligation that conveys the idea of what something is supposed to be like or how it is supposed to happen, without a particular agent responsible for the event. This definition contrasts with the ought-to-do deontic, which links an event to a participant, putting the obligation to perform the event on a specific agent. Hacquard (2006, 2010) also uses this distinction, associating the differences between these two types of obligation to the position of the modal in the sentence: the ought-to-be deontic is interpreted in a high position, above the categories

* Universidade Federal de Santa Catarina (UFSC). Florianópolis - SC - Brazil. nubia.rech@ufsc.br. ORCID: 0000-0002-9278-2702.

** Universidade Federal de Roraima; Universidade Federal da Fronteira Sul; Universidade Federal do Rio de Janeiro. Chapecó – SC – Brasil. simoneguesser@yahoo.com.br. ORCID: 0000-0002-0064-9251.

of Tense and Aspect, while *ought-to-do* is interpreted in a low position, under Tense and almost all the categories that indicate Aspect. Unlike Castañeda and Feldman’s definition, Hacquard’s *ought-to-be* deontic corresponds to a directive speech act, which puts on the addressee the obligation to perform the event described in the sentence.¹ Considering both definitions, sentence (1a) and the one transcribed in (1b) both describe an *ought-to-be* obligation:

(1) a. *There ought to be a more equal distribution of wealth in the world.*
(FELDMAN, 1986, p. 179)

b. Kitty has to brush her teeth.
(HACQUARD, 2006, p. 40)

Feldman notes that, in a sentence like (1a), a more equal distribution of wealth in the world is an *ought-to-be* obligation, as it does not fall on any particular agent. According to Hacquard, an *ought-to-be* obligation is an addressee-oriented directive speech act. Therefore, (1b) illustrates this type of obligation if it is used in a context in which the speaker (Kitty’s mother, for example) puts the obligation of the event directly on the interlocutor, who may be the babysitter.

Based on previous studies, it can be assumed that the *ought-to-be* deontic — according not only to Castañeda (1970) and Feldman (1986), but also to Hacquard (2006) — corresponds to a modal in a high position (HACQUARD, 2006, 2010; TSAI, 2015; RECH; VARASCHIN, 2018a, 2018b; RECH; SOARES; GUESSER, 2019). The difference between these concepts is based on the orientation of this modal, which can be used in contexts with a generic addressee or no addressee at all, as in (1a), or in contexts with a specific addressee, as in (1b).

The next section shows how the *ought-to-be* deontic which is addressee-specific, and those with a generic or no addressee react to phenomena such as *actuality entailments* and *(non-)occurrence in the embedded domain*. After that, it will be argued that the structure of sentences with the deontic auxiliary modal *ought-to-be* can be different, based on whether or not they are addressee-specific: if so, there is a cP projection, whose head contains features that refer to the interaction between the speaker and their interlocutor (PORTNER; PAK; ZANUTTINI, 2019); if not, this category is not part of the structure.

The *ought-to-be* deontic: generic or non-existent addressee vs. specific addressee

According to the literature (BRENNAN, 1993; HACQUARD, 2006, 2010; TSAI, 2015; RECH; VARASCHIN, 2018a, 2018b; RECH; SOARES; GUESSER, 2019), the *ought-to-be* deontic is interpreted in a high position, while the *ought-to-do* deontic is

¹ “Note that we are using the *ought-to-do/ought-to-be* labels to refer to the distinction between the class of deontics that puts an obligation on the subject vs. that which puts an obligation on the addressee” (HACQUARD, 2006, p. 40).

interpreted in a low position. The main reasons for this distinction are the differences in how these types of deontic modals are related to tense and aspect, as well as their orientation: whether the obligation is put on the participant of the event described by vP, preferably the subject (*ought-to-do*) or on a salient participant in the speech event (*ought-to-be*).

This article focuses on the deontic modal interpreted in a high position: the *ought-to-be*. We will show how this deontic modal behaves in relation to actuality entailments and (non-)occurrence of the modal in the embedded domain. We will consider the deontic when there is a specific addressee and when the addressee is generic or non-existent.

Actuality entailments in deontic constructions

Actuality entailments are presented by Tsai (2015) as a consequence of the analysis of modals. They refer to the fact that, when in the perfective form, certain modals cause an entailment that the event described under its scope really happened. This phenomenon has been previously discussed by Bhatt (1999) and Hacquard (2006, 2009), among others. These authors point out that actuality entailment occurs with low modals — dynamic modals and the *ought-to-do* deontic —, but does not occur with high modals, such as epistemic modals and the *ought-to-be* deontic.

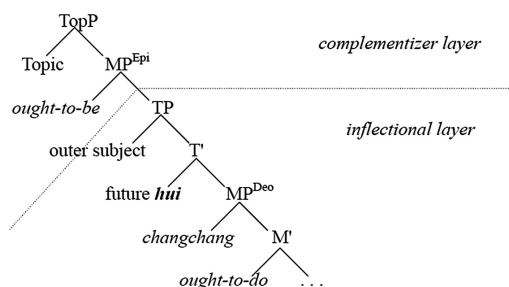
In Hacquard's (2006) analysis of French, actuality entailments are consequences of when the perfective aspect moves to a position above where dynamic and certain deontic modals are. Chinese does not use the perfective movement, but instead uses the insertion of an aspectual operator above the modal verb as a strategy for actuality entailments. Examples from Tsai (2015, p. 290), using the deontic modal *yao*, have been transcribed in (2):

- (2) a. Akiu yao changchang xiuxi. [irrealis: necessity]
 Akiu YAO often rest
 ‘Akiu needs to rest often’
 b. Akiu changchang yao xiuxi. [realis: human need]
 Akiu often YAO rest
 ‘Akiu often needed to rest’

When *yao* precedes an adverb of frequency/aspectual operator, such as *changchang* ‘often’ (2a), the sentence presents an *irrealis* reading and the modal presents an imperfective reading. However, when *yao* follows the adverb *changchang* (2b), the interpretation is *realis* and the modal has a perfective reading. Analyzing the sentences in (2), Tsai notes that the phenomenon of actuality entailment appears in constructions with low modals, such as the *ought-to-do* deontic (2b), but not in constructions with high modals, such as the *ought-to-be* deontic (2a).

The difference in behavior between the ought-to-do deontic and *ought-to-be* regarding phenomena such as the actuality entailment led Tsai to propose the structure below, in which the ought-to-do deontic is inside the inflectional layer, whereas the ought-to-be deontic is placed by the projection of the epistemic modal in the left periphery of the sentence:

Image 1 – The positions of the ought-to-do and ought-to-be deontics according to Tsai (2015)



Source: Tsai (2015, p. 291).

From this perspective, Tsai formulates the following generalization: actuality entailments are restricted to modals which are below TP, that is, ability, volition, dispositional modals and the ought-to-do deontic. Epistemic and ought-to-be deontic modals, as they are above TP, in the left periphery, do not show actuality entailments.

The phenomenon of actuality entailment based on Hacquard (2006) and Tsai (2015) was shown here to argue that the ought-to-be deontic is interpreted in a high position of the structure, above the tense category.

However, it is not possible to test the actuality entailment in BP in constructions with the ought-to-be deontic without an addressee:

- (3) a. *Tem que se fazer o controle das vacinas nos Postos de Saúde.*
Have to one control the vaccines in the health centers.
'Vaccination at health centers ought to be controlled.'
- b. *Teve que ser feito o controle das vacinas nos Postos de Saúde, #mas o controle não foi feito.*
Had to be done the control of vaccines in the Health Posts, #but the control was not done.
'Vaccination at health centers ought to have been controlled, #but the control was not done.'

The pragmatic inconsistency of the continuation “mas o controle não foi feito/ but the control was not done” shows that the actuality entailment emerges from (3b). However, it is important to note that only modals interpreted below tense can move to

the TP category to merge with the verb's inflection marks. The ought-to-be construction in (3a) becomes an ought-to-do construction when the modal *ter que* (ought to) bears perfective morphology, corresponding to a passive construction without the passive agent, someone like “nurses” (*Teve que ser feito o controle das vacinas pelos enfermeiros nos Postos de Saúde/Vaccination at health centers ought to have been controlled by nurses*). It seems to be the case that it is not possible to test the actuality entailment phenomenon in BP putting the perfective morphology on the modal. Tsai, however, tests this phenomenon by the combination of the ought-to-be deontic with high adverbs, like *changchang* (often), see the example in (2).

When the ought-to-be deontic denotes a speaker-addressee relationship, corresponding to a directive speech act, it is also impossible to test its reaction to the phenomenon of actuality entailment. Consider the following examples:

- (4) a. *As crianças têm que/devem receber as provas corrigidas.*
 The children have to/must receive the tests corrected.
 ‘The children ought to receive their tests corrected.’
- b. *As crianças tiveram que receber as provas corrigidas.*
 The children had to receive the tests corrected.
 ‘The children ought to have received their tests corrected.’

In sentence (4a), the speaker puts on the addressee - who might be *the teacher* - the obligation to give the children their tests corrected. This sentence, therefore, corresponds to a directive speech act. In (4b), the auxiliary *ought to* is in the perfective form; consequently, the *ought-to-be* reading is blocked. In this case, the modal is used for reporting an order or a necessity, so the modal reading is the ought-to-do type, causing an actuality entailment. Therefore, only high modals do not yield actuality entailments. The performative character of the addressee-specific ought-to-be deontic, in (4a), cannot occur in a perfective form since it makes no sense to give an order to someone to perform an event in the past.

In sum, as observed in the literature (HACQUARD, 2006, 2009; TSAI, 2015), modals interpreted in a high position (the ought-to-be deontic and epistemic modals) do not generate actuality entailment, which therefore makes them different from modals interpreted in a low position (the ought-to-do deontic and dynamic modals).

The ought-to-be deontic in the matrix and/or the embedded domain

As noted in the literature, there are elements restricted to the matrix domain (*root phenomenon*), while others move between the matrix and the embedded domain (see HAEGEMAN, 2004; PORTNER; PAK; ZANUTTINI, 2019). Portner, Pak and Zanuttini (2019) relate this distribution for the item's orientation: elements which express the speaker-addressee social relationship are oriented towards the moment of speech and

are not part of the embedded domain; on the other hand, elements that do not capture this relationship may occur both in the matrix and in the embedded domain. As evidence to this proposition, the authors show the syntactic distribution of speech-style particles, interrogative particles, politeness particles, among others. In (5) and (6) below, examples of the use of a speech-style particle in Korean, transcribed by Portner, Pak and Zanuttini (2019, p. 3), are shown:

- (5) Ecey pi-ka o-ass-**supnita**.
 yesterday rain-nom come-pst-decl.form
 ‘It rained yesterday’
- (6) *Inho-ka [ecey pi-ka o-ass-**supnita**-ko] malhayss-supnita.
 Inho-nom [yesterday rain-nom come-pst-decl.form-comp] said-decl.form
 ‘Inho said that it rained yesterday’

In Korean, there are final sentence particles, called *speech-style particles*, which encode information about the speaker and the interlocutor, as well as about the level of formality of the situation in which the communication occurs. In the examples above, the particle *supnita* is used, marking the situation as formal, the interlocutor as socially superior to (or older than) the speaker, and also identifies the type of sentence (declarative). The ungrammaticality of (6) results from the use of this particle in the embedded domain, which points in the direction that elements that encode information that is given in the enunciation context – such as the relationship between the interlocutors and the level of formality of the situation – are restricted to the matrix domain.

This phenomenon can also be verified in Japanese, in the syntactic distribution of the particle *-mas*, as the examples below show (PORTNER; PAK; ZANUTTINI, 2019, p. 4):

- (7) Peter-wa sushi-o tabe-**mas**-i-ta.
 Peter-top sushi-acc eat-mas-decl.pst
 ‘Peter ate sushi’
- (8) Hanako-wa [dare-ga kuru/*ki-**mas**-u ka] sitte i-mas-u.
 Hanako-top [who-nom come/come-mas-prs q] know mas-prs
 ‘Hanako knows who is coming’

The particle *-mas* is a politeness marker that the speaker uses when addressing a specific interlocutor in a slightly more formal communication situation; therefore, it encodes information that captures the speaker-addressee relationship. In this sense, the ungrammaticality of its use in (8) is further evidence that elements that capture information of this nature do not occur in the embedded domain.

A last example from Portner, Pak and Zanuttini (2019) is presented in order to illustrate the relationship between particle distribution in the matrix and/or embedded domain and the information they encode. The following examples show the contexts in which two interrogative particles are used in Korean (*-nya* and *-ni*):

- (9) a. Onul nalssi-ka way ilehkey coh-**nya**? (talking to oneself)
 today weather-nom why like.this good-int.pln
 ‘Why is the weather so good today?’
 b. Changco-**nya**, cinhwa-**nya**? (in writing)
 creation-int.pln evolution-int.pln
 ‘Is it creation or evolution?’
- (10) Choyesen-ul ta ha-ass-**ni**? (to an interlocutor)
 best-acc all do-pst-int.pln
 ‘Did you do your best?’

According to the authors, the interrogative particle *-nya* can appear in the embedded domain, while the particle *-ni* cannot. It is interesting to note, in the examples above, that *-nya* occurs in sentences without a specific addressee, as in (9a) and (9b), whereas *-ni* is used in sentences that directly address an interlocutor, such as (10). These examples corroborate the authors’ claim that elements used in sentences with a specific addressee encode information about the speaker-addressee relationship.

As it has been argued throughout this article, the ought-to-be deontic can be used in contexts without an addressee, with a generic addressee, and also with a specific addressee. Based on Portner, Pak and Zanuttini (2019) and the particles used in examples (5) to (10), it is expected that a modal such as the ought-to-be deontic should present a different syntactic distribution across languages, depending on whether the sentence has a specific addressee or not, assuming that this proposition is valid besides Korean and Japanese. We therefore expect this syntactic difference to be observed not only in BP, as we show in this paper, but in all languages, considering, in line with the Cartographic Approach (CINQUE; RIZZI, 2008), that, whenever the existence of a functional head is proposed in a given language, it should occur crosslinguistically. In (11), the syntactic distribution of an *ought-to-be without* a specific addressee is shown:

- (11) a. *Tem que/Deve haver medidas contra a violência doméstica.*
 Have to/Must have measures against the domestic violence.
 ‘There ought to be measures against domestic violence’
 b. *Tem que/Deve haver medidas que protejam as mulheres em situação de violência doméstica.*
 Have to/Must have measures that protect the women in situation of domestic violence.

‘There ought to be measures that protect women in a domestic violence situation’

- c. *Muitos concordam que tem que/deve haver medidas protetivas à mulher em situação de violência doméstica.*

Many agree that has to/must have protective measures to the woman in domestic violence situations.

‘Many agree that there ought to be protective measures for women in domestic violence situations’

The good formation of the sentences above shows that *ter que/dever* meaning *ought-to-be* can occur both in the matrix (11b) and the embedded domain (11c). This result was expected, because the modal in these sentences is not directed towards a specific addressee.

The restriction to the embedded domain is related to the use of a particular linguistic element that expresses the speaker-addressee relationship. For this reason, an *ought-to-be* directed to the addressee does not occur in the embedded domain, as illustrated by the example below:

- (12) a. *O traficante tem que/deve morrer nessa operação.*

The dealer has to/must die in this operation

‘The dealer/trafficker ought to die in this operation’

- b. *O comandante disse que o traficante tem que/deve morrer nessa operação.*

The commander said the dealer has to/must die in this operation.

‘The commander said that the dealer ought to die in this operation’

In (12a), the modal *ter que/dever* can acquire a deontic reading (apart from that of wish); in this case, the sentence corresponds to a directive speech act, and the obligation falls on the addressee. Considering this use, it is assumed that the factors pointed out by Portner, Pak and Zanuttini (2019), which refer to the communication situation and the status of the interlocutors ($[S < A, S \leq A, S = A, S \geq A, S > A]$, in which S means speaker and A means addressee), become relevant. The hypothesis presented here is that an *ought-to-be* deontic that corresponds to a performative act needs to be checked for the feature *status* of the interlocutors, like the particles *-ni* and *-supnita* from Korean, and the particle *-mas* from Japanese (see examples (5) to (10) above). As previously noted, these authors state that the features *situation* and *status* are in the head of the cP category, which encodes contextual factors. They also note that the feature *status* expresses a performative meaning, reason why the cP category is not projected in the higher position of an embedded predicate (p. 30); consequently, an element that encodes this information does not occur in the embedded domain. In (12b), the deontic reading is maintained, but as the report of an order, not a performative act. The obligation is not being placed on the addressee or any other specific participant; this is an *ought-to-be* with a generic referent. Its occurrence in the embedded domain, therefore, is according to Portner,

Pak and Zanuttini's (2019) hypothesis. Also, the feature *status*, to be checked in the cP head, only refers to the speaker-addressee relationship, and the modal element used in (12b) relates the subject of the matrix sentence (the commander) to the participant on whom the obligation falls, who in this case is not necessarily the interlocutor.

Another example of the ought-to-be deontic in the embedded domain is shown in (13b) below:

- (13) a. O bebê *tem que/deve* ser vacinado para Hepatite B.
The baby has to/must be vaccinated for Hepatitis B
'The baby ought to be vaccinated against Hepatitis B'
- b. O médico disse que o bebê *tem que/deve* ser vacinado para Hepatite B.
The doctor said that the baby has to/must be vaccinated for Hepatitis B.
'The doctor said that the baby ought to be vaccinated against Hepatitis B'

(13a) may correspond to a directive speech act, in which the obligation expressed by the modal *ter que/dever* – an ought-to-be deontic – falls on the interlocutor. When this same sentence occurs in the embedded domain (13b), it loses its performative character, thus it does not express the relationship between the speaker (who gives the order) and the interlocutor (to whom the order is directed) anymore. As it has been argued, in (12a) and (13a) the cP category is projected, given that the modal is an ought-to-be deontic with a specific addressee.

(14) is an example in which the subject of the sentence on whom the modal operates presents the same referent as the interlocutor:

- (14) a. *Você tem que/deve trabalhar aos sábados.*
You have to/must work on Saturdays
'You ought to work on Saturdays'
- b. *O chefe disse que você tem que/deve trabalhar aos sábados.*
The boss said that you have to/must work on Saturdays
'The boss said you ought to work on Saturdays'

Both in (14a) and (14b), the obligation expressed by the modal falls on the interlocutor, as the pronoun 'você' (you), which refers to this participant, corresponds to the subject of the sentences with the modal. Note that, in (14b), *ter que/dever* is in the embedded domain, even when the obligation falls on the interlocutor. This is possible because the modal creates a relationship between the interlocutor (subject of the embedded domain) and the subject of the matrix sentence, not the participants of the speech event: the speaker and the interlocutor. It is this last relationship that requires checking for the feature *status* in the head of the cP category, an operation that cannot be performed if the modal occurs in the embedded domain.

The different behavior between a ought-to-be deontic with and without a specific addressee in relation to the occurrence in the embedded domain reveals that the concepts

presented by Castañeda and Feldman, on the one hand, and Hacquard, on the other, have their origin in the orientation of the modal, which can occur in sentences with a specific addressee, or in sentences with a generic or non-existent addressee. In the next section, we will argue that this difference is reflected in the structure projected for the *ought-to-be* interpretation.

On the position of the ought-to-be deontic in the CP system

The phenomenon of actuality entailment, addressed in subsection 2.1, shows that the ought-to-be deontic, similarly to the epistemic modal, occupies a higher position than TP. Thus, according to Tsai (2015), the natural space for these modals seems to be the left periphery of the sentence, the interface zone between the propositional content expressed by IP and the discursive context (RIZZI, 1997). This perspective is reinforced by the semantic-discursive characteristics of these modals. As noted by Tsai, the epistemic is oriented towards the discourse. This modal in particular considers the speaker’s knowledge of the discursive context. The semantics of the ought-to-be deontic is also related to the perspective of the agents in the communication: the speaker and the addressee.

Progress in the analysis of the ought-to-be deontic and the epistemic modal would be identifying with precision the position of these heads in the left periphery, which has the following configuration (RIZZI; BOCCI, 2017):

- (15) [Force [Top* [Int [Top* [Foc [Top* [Mod [Top* [Qemb [Fin [IP ...]]]]]]]]]]] (RIZZI; BOCCI, 2017, p. 9)

Relevant tests to detect the position of the projection of high modals refer to situations of their interaction with elements that occur in the left periphery, such as wh-elements, focus, topic and certain fronted adverbials, such as *quickly* (RIZZI, 1997, 2001; RIZZI; BOCCI, 2017; on BP, see MIOTO, 2001, 2003).

The case of interrogatives with the wh-element *why* will now be considered. These interrogatives show a different syntactic behavior from the one verified in questions with argumental wh-elements, such as *what*, and with wh-elements that correspond to low adverbials, such as *where* and *how*. The following example shows that *why* has no sensitivity to negation in English, unlike *how*:²

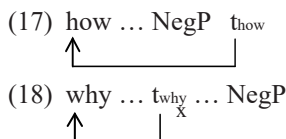
- (16) a. Why didn’t Geraldine fix her bike?
 b. *How didn’t Geraldine fix her bike? (SHLONSKY; SOARE, 2011, p. 657)

According to Shlonsky and Soare (2011), if the ungrammaticality of (16b) results from a violation of Relativized Minimality (RIZZI, 1990), caused by the intervention

² Data adapted from Rizzi (2001) and subsequent works.

of negation, as illustrated in (17), the chain formed by *why* has its tail above NegP, as outlined in (18).

Image 2 – *How* and *why* interacting with negation



Source: Shlonsky and Soare (2011, p. 657).

This shows that the base position of *why* needs to be above the NegP projection.

Using data from Italian, Rizzi (2001) shows that interrogatives with argumental wh-elements, such as *che cosa* (what) and low adverbials, such as *dove* (where) and *come* (how), have to show I to C movement (see (19)). However, this movement is not mandatory for interrogatives with wh-elements that correspond to higher adverbials, such as *perché* (why) (see (20)):

- (19) a. **Che cosa Gianni ha fatto?*
 a'. *Che cosa ha fatto Gianni?*
 'What did Gianni do?'
 b. **Dove Gianni è andato?*
 b'. *Dove è andato Gianni?*
 'Where did Gianni go?'
 c. **Come Gianni è partito?*
 c'. *Come è partito Gianni?*
 'How did Gianni leave?' (RIZZI, 2001, p. 5)

- (20) *Perché Gianni è venuto?*
 'Why did Gianni come?' (RIZZI, 2001, p. 7)

Besides, the author notes that argumental wh-elements do not occur with a contrastive focus (see (21)). However, this restriction does not apply to the element *perché* in the order *perché*-Focus (see (22)).

- (21) a. **A GIANNI che cosa hai detto (, non a Piero)?*
 'TO GIANNI what did you say (, not to Piero?)
 b. **Che cosa A GIANNI hai detto (, non a Piero)?* (RIZZI, 1997, p. 291)

- (22) *Perché QUESTO avremmo dovuto dirgli, non qualcos'altro?*
 'Why THAT we should have told him, not something else?' (RIZZI, 2001, p. 7)

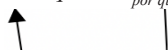
Rizzi (2001) hypothesizes that elements such as *why* and *perché* have their external merge in the CP system, more precisely in Spec of IntP. Besides, he also proposes that the [+wh] feature is intrinsic to the Int° head. Therefore, in questions with *perché*, the Wh-Criterion (RIZZI, 1996) is met in IntP, between *perché* and Int° [+wh]. Consequently, I to C becomes unnecessary. This does not occur in argumental wh-phrases or in those in which wh-elements correlate to low adverbs, as (19a'), (19b') and (19c'), because the generation in Spec of IntP does not extend to these elements. As these elements are not sentential operators, their external merge needs to be internal in relation to IP in order to have their scopes established. In this case, the Wh-Criterion is met via another strategy: the movement of these elements to Spec of FocP and, as a consequence, the rise of the [+wh] inflected verb to Foc°.

Perché merges externally in IntP, this is why it can occur with a contrastive focus, as illustrated in (22): it occupies the position of Spec of IntP, above the FocP projection, and therefore, co-occurs with a focus in the *perché*-Focus order. The ungrammaticality of the sentences in (21) results from the co-occurrence of argumental and low adverbial wh-elements with a contrastive focus. These elements are inserted in an IP internal position, and move to Spec of FocusP, thus competing with the contrastive focus that occupies this position.

The same analysis can be performed in BP for *por que* in the left periphery. The well-formedness of (23a) shows that this element has an external merge position above NegP, according to (23b). Example (24), in turn, shows that *por que* does not move to Spec of FocP, as it co-occurs with a contrastive focus in the *por que*-Focus order.

(23) a. *Por que o Paulo não viajou?* (Why didn't Paulo travel?)

b. *Por que ... t_{por que} ... NegP*



(24) *Por que UMA MOTO você comprou?* (Why did A MOTORBIKE you buy?)
(*não um carro*) (not a car)

Considering that the element *por que* is originated in a left peripheral position, which can be assumed to be the Spec of IntP, it is possible to use interrogatives with this element as a test to check the highest limit of a modal verb. (25) and (26) below show how an ought-to-be deontic with and without a specific addressee, respectively, interact with the wh-element *por que*:

(25) A: *A filha da protagonista tem que/deve ter olhos azuis.*

The daughter of the protagonist has to/must have blue eyes.

‘The main character’s daughter ought to have blue eyes’

B: *Por que a filha da protagonista tem que/deve ter olhos azuis?*

Why the daughter of the protagonist have to/must have blue eyes?

‘Why does the main character’s daughter ought to have blue eyes?’

C: *Sinceramente, eu não sei a razão dessa ordem.*

Honestly, I not know the reason for that order.

‘Honestly, I do not know the reason for that order.’

(26) A: *No Brasil, tem que/deve haver políticas de incentivo aos estudantes.*

In Brazil, have to/must have policies of incentive for-the students.

‘In Brazil, there ought to be incentive policies for students’

B: *Por que tem que/deve haver políticas de incentivo aos estudantes no Brasil?*

Why has to/must have policies of incentive for-the students in Brazil?

‘Why ought there to be incentive policies to students in Brazil?’

C: *Honestamente, eu não sei a razão dessa obrigação.*

Honestly, I not know the reason of-this obligation.

‘Honestly, I do not know the reason for that obligation.’

The fact that (25B) and (26B) can be answered with sentences (25C) and (26C), which highlight causes for the order and the obligation expressed by the modal, shows that the *wh*-element (*por que*) has scope over the ought-to-be deontic (*ter que/dever*). The conclusion, therefore, is that the auxiliary modal ought-to-be is interpreted in a position below the IntP projection.

From this point, we will verify the behavior of ought-to-be in relation to a lower position in the CP system. Before that, consider the adverbial fronting phenomenon in (27b), discussed in Rizzi and Bocci (2017):

(27) a. *Gianni ha trovato rapidamente la soluzione.*

‘Gianni has found quickly a solution’

b. *Rapidamente, Gianni ha trovato la soluzione.*

‘Quickly, Gianni has found the solution’ (RIZZI; BOCCI, 2017, p. 5)

It is relevant to notice that adverbials such as *rapidamente* (quickly) can be topicalized and focalized. However, the fronting in (27b) corresponds to a phenomenon that serves to highlight an adverb, without giving it topic or focus status. As observed by Rizzi and Bocci (2017), even though a sentence like (27b) is similar to a topic structure from an intonational point of view, it has a different interpretation: topics require a connection with the pragmatic-discursive context, which is, necessarily, given information; fronting of an adverb like *rapidamente* in (27b), on the other hand, does not need to establish a connection with the previous context. If compared to a focalization structure, (27b) is intonationally and interpretatively different (it is not its function to provide new information contrasting with another element previously presented).

Apart from that, the adverbial fronting in (27b) has a syntax that differs from the ones that correspond to the structures of topic and focus. Among the differences identified by Rizzi and Bocci (2017), an important one is that adverbial fronting is a phenomenon restricted to the sentence in which it occurs, differently from adverbial topicalization or focalization. Thus, in a structure such as (28), *rapidamente* can act on the matrix sentence (informing that Mario said something quickly), but not on the embedded sentence. This restriction, however, does not apply in topicalization and/or focalization. For example, in a sentence like (29), in which *rapidamente* is interpreted with contrastive focus, it can have both matrix and embedded readings.

- (28) *Rapidamente, Mario ha detto (--)* *che Gianni ha trovato (*) la soluzione.*
 ‘Quickly, Mario said that Gianni has found the solution’
 (RIZZI; BOCCI, 2017, p. 6)

- (29) *RAPIDAMENTE Mario ha detto () che Gianni ha trovato () la soluzione,*
non lentamente.
 ‘QUICKLY Mario said that Gianni has found the solution, not slowly’
 (RIZZI; BOCCI, 2017, p. 6)

Rizzi and Bocci (2017) use example (30) to argue that the projection involved in the adverbial fronting, called ModP, occupies a position above the lowest topic projection in the left periphery. On the other hand, ModP must be below IntP, since *rapidamente* can only follow the complementizer *se (if)*, which is the head of IntP, as (31a-b) show.

- (30) *Rapidamente, i libri, li hanno rimessi a posto.*
 ‘Quickly, the books, they put them back in their place’
 (RIZZI; BOCCI, 2017, p. 6)

- (31) a. *Mi domando se, rapidamente, Gianni potrà trovare la soluzione.*
 ‘I ask myself if, quickly, Gianni will be able to find the solution’
 b. **Mi domando, rapidamente, se Gianni potrà trovare la soluzione.*
 ‘I ask myself, quickly, if Gianni will be able to find the solution’
 (RIZZI; BOCCI, 2017, p. 7)

ModP can also not precede a Foc^o projection, because in sentences such as (32), *rapidamente* has a topic reading, not a fronted adverb reading.

- (32) *Rapidamente, I LIBRI hanno rimesso a posto, non gli articoli.*
 ‘Quickly, THE BOOKS they put them back in their places, not the articles’
 (RIZZI; BOCCI, 2017, p. 7)

According to the authors, (32) is an appropriate structure as a sequence for (33a):

- (33) a. *So che hanno rapidamente rimesso a posto gli articoli...*
 ‘I know that they quickly put back in their place the articles...’
 b. *No! rapidamente, I LIBRI hanno rimesso a posto, non gli articoli.*
 ‘No! quickly, THE BOOKS they put back in their place, not the articles’

The conclusion that Rizzi and Bocci (2017) come to is that Mod occupies the inferior part of the CP system, only occurring above the lowest topic position.

Considering the configuration of the CP system proposed by the authors (see (15)), the interaction between the head Mod^o and the ought-to-be deontic with and without a specific addressee is tested in (34a-b) and (35a-b), respectively:

- (34) a. *(*Rapidamente) Tem que/Deve (rapidamente) denunciar (rapidamente) quaisquer fraudes (rapidamente) na administração pública (rapidamente).*
 (Quickly) have to/Must (quickly) report (quickly) any frauds (quickly) in administration public (quickly).
 ‘(Quickly) Any fraud (*quickly) in public administration (*quickly) ought to be (quickly) reported (quickly).’
 b. *(*Rapidamente) Tem que/Deve (rapidamente) haver (rapidamente) uma melhor distribuição de renda (rapidamente) no país (rapidamente).*
 (Quickly) Have to/must (quickly) have (quickly) a better distribution of income (quickly) in the country (quickly).
 ‘(*Quickly) There (quickly) ought to be (*quickly) a better income distribution (quickly) in the country (quickly).’
- (35) a. *(*Rapidamente) O parto (*rapidamente) tem que/deve (rapidamente) ser feito (rapidamente) neste hospital (rapidamente).*
 (Quickly) The delivery (quickly) has to/must (quickly) be done (quickly) in this hospital (quickly).
 ‘(*Quickly) Delivery (*quickly) ought to (*quickly) happen (quickly) in this hospital (*quickly).’
 b. *(*Rapidamente) O ginásio (*rapidamente) tem que/deve (rapidamente) ser preparado (rapidamente) para o show (rapidamente).*
 (Quickly) The gym (quickly) has to/ must (quickly) be prepared (quickly) for the show (quickly).
 ‘(Quickly) The gym (quickly) ought to (quickly) be prepared (quickly) for the concert (quickly).’

If the descriptions in (34) and (35) are correct, the position of the interpretation of the ought-to-be deontic occurs in CP, above the Mod category.

Regarding the FocP category, it was noted that the natural order for the interaction between focalized elements and an ought-to-be deontic is Focus > Ought-to-be, as example (36) below shows:

- (36) *NO PAÍS tem que/deve (?*NO PAÍS) (rapidamente) haver (rapidamente) uma melhor distribuição de renda (rapidamente).*
 IN THE COUNTRY have to/must (IN THE COUNTRY) (quickly) have (quickly) a better distribution of income (quickly).
 ‘IN THE COUNTRY there ought to (*IN THE COUNTRY) (quickly) be (quickly) a better income distribution (quickly)’

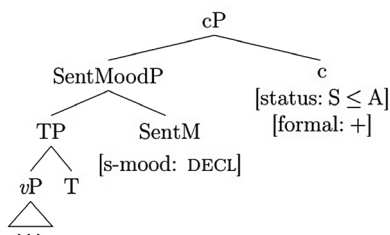
Also, considering the order between this deontic and the wh-element *por que*, shown in (25) and (26) above, the conclusion is that the head ought-to-be is located below the Int and Foc categories and above the Mod category, according to (37):

- (37) [Force[Top*[Int[Top*[Top*[Foc[OughtP[Top*[Mod[Top*[Qemb[Fin[IP...]]]]]]]]]]]]]

The ought-to-be deontic therefore corresponds to a modal head interpreted in a high position in the structure of the sentence. The use of this deontic with a specific addressee presupposes that the speaker assumes that he/she has authority over the interlocutor. For this reason, in this case the modal needs to check features that express the relationship between the interlocutors, such as *status* [$S < A$, $S \leq A$, $S = A$, $S \geq A$, $S > A$]. This feature is checked in the head of the cP category – which encodes contextual information (PORTNER; PAK; ZANUTTINI, 2019). The hypothesis presented in this article is based on the behavior of ought-to-be deontics in relation to the phenomenon of actuality entailment and, in a more determinant way, to the non-occurrence of the ought-to-be deontic in the embedded domain (root phenomenon), addressed, respectively, in subsections 2.1 and 2.2. The ought-to-be with a specific addressee is part of a structure in which the functional cP category is projected. On the other hand, an ought-to-be without a specific addressee is part of a structure in which this category is not projected, because the interpretation of this modal does not depend on features that capture the relationship between the interlocutors.

The relevant part of the syntactic structure proposed by Portner, Pak and Zanuttini (2019) for elements that express the relationship between the speaker and the interlocutor has been transcribed below in (Image 3):

Image 3 – The speaker-addressee relation at the syntactic structure according to Portner, Pak e Zanuttini (2019)



Source: Portner, Pak and Zanuttini (2019, p. 10).

The ought-to-be with a specific addressee needs to check features in the head of the cP category, the reason why its occurrence is restricted to the matrix domain, which has an interface with the discourse. A linguistic element that is present in the embedded domain does not access the head of the cP category, which cannot be the complement of a higher predicate since it encodes information about the communication situation and of the *status* of the interlocutors. The representation in (Image 3) explains the restriction of a deontic auxiliary modal to the embedded domain when the obligation is placed directly on the addressee. However, to explain the performative interpretation bound to an ought-to-be with a specific addressee, it is necessary to change, in (Image 3), the type of sentence specified in the SentM category: from declarative (DECL) to imperative (IMP). Therefore, this deontic is relativized to a speech event whose content corresponds to a list of tasks that belongs to the addressee (the addressee's To-Do List), as proposed by Hacquard (2006) for imperative constructions.

As previously noted, this analysis allows to differentiate an ought-to-be with a specific addressee from an ought-to-be with a generic or non-existent addressee. Thus, the biggest challenge is knowing how to differentiate the structure of an ought-to-be without a specific addressee from an epistemic modal; considering that both are interpreted above the categories of Tense and Aspect (CINQUE, 1999; HACQUARD, 2006, 2010; TSAI, 2015) they do not present actuality entailment, happen in both the matrix and the embedded domain and are present in declarative sentences – corresponding to assertions. Regarding this last property, Yanovich (2015) observes that, in Hacquard's proposal, the content of a speech event in a declarative sentence corresponds to the set of beliefs of the speaker, which is only compatible with the epistemic interpretation. Besides, it is also worth noting that Hacquard illustrates the difference between high and low modals giving representations that correspond to the ought-to-do deontic and to the epistemic modal³. The position of interpretation of a high deontic modal and its structural differences with respect to an epistemic modal are not specified by the author.

³ We transcribe, in (i) and (ii), the representations proposed by Hacquard (2010, p. 7) for the derivations of an ought-to-do deontic and an epistemic modal, respectively:

The discussion involving the position of interpretation of an epistemic modal in the syntactic structure is not in the scope of this research, but it is important to observe that it is a very challenging issue that needs to be accurately investigated, as it has a narrow interface with modal semantics.

Concluding remarks

In this article, our aim was to show that the deontic modal *ought-to-be* can be used without a specific addressee, according to Castañeda (1970) and Feldman (1986), or with a specific addressee, according to Hacquard (2006, 2010). Evidence was provided to show that, in both cases, the modal is interpreted in the left periphery of the sentence, between the IntP and ModP heads.

The behavior of *ought-to-be* deontic regarding phenomena such as actuality entailment and (non-)occurrence in the embedded domain was analyzed. The results indicated differences in their syntactic structure. Based on the analysis conducted by Portner, Pak and Zanuttini (2019) for the Korean particles called speech-style particles, it was proposed that an *ought-to-be* deontic with a specific addressee needs to check features that express the speaker-addressee relationship, such as *status*; for this reason, it is part of a structure that has an interface with the functional category cP, whose head allows it to be checked. On the other hand, an *ought-to-be* deontic without a specific addressee does not refer to the relationship between the interlocutors; consequently, it is part of a structure without the projection of the cP category, thus it can occur both in the matrix and the embedded domain.

Acknowledgements

We thank CNPq for their support (Process 424025/2016-7), conceded by the Edital Universal 01/2016.

RECH, N.; GUESSER, S. Construções *ought-to-be* com e sem *addressee* específico. *Alfa*, São Paulo, v.66, 2022.

- **RESUMO:** *Esse artigo investiga o deôntico do tipo ought-to-be, o qual é analisado a partir dos conceitos de obrigação discutidos em Casteneda (1970), Feldman (1986) e Hacquard (2006, 2010). Com base em testes de co-ocorrência de um modal ought-to-be com elementos*

(i) [_{CP} Speech e₀ λe₀ [_{TP} T Asp₁ λe₁ Mod f (e₁) [_{VP} V e₁]]] (Deôntico *ought-to-do*)
 (ii) [_{CP} Speech e₀ λe₀ Mod f (e₀) [_{TP} T Asp₁ λe₁ [_{VP} V e₁]]] (Epistêmico)

In (i), the modal acquires a deontic reading of the *ought-to-do* type; it is interpreted in a low position in the structure and the event variable is related to the event described by the vP (e₁). In (ii), the modal has an epistemic interpretation; it is interpreted in a high position in the structure and the event variable is related to the speech event (e₀).

que integram o CP - em particular com o sintagma-wh por que e elementos adverbiais -, constatamos que o ought-to-be é interpretado entre as categorias IntP e ModP. Mostramos que o deontico ought-to-be pode ser usado em um enunciado com ou sem um addressee específico e que essa diferença reflete na sintaxe. Nossa proposta é estender a análise de Portner, Pak e Zanuttini (2019), desenvolvida para partículas de estilo de fala do coreano, para o deontico ought-to-be, postulando que esse deontico, quando usado com um addressee específico, integra uma estrutura na qual cP é projetado, permitindo a checagem de traços que expressam a relação falante-addressee, tais como status. Consequentemente, esse modal é restrito ao domínio matriz. Quando, entretanto, um deontico ought-to-be aparece em um enunciado sem um addressee específico, ele integra uma estrutura sem a projeção de cP, uma vez que não remete à relação entre falante e addressee. Nesse caso, ele pode aparecer em ambos os domínios: matriz e encaixado.

- *PALAVRAS-CHAVE: modalidade deontica ought-to-be; relação falante-addressee; categoria cP.*

REFERENCES

- BHATT, R. **Ability Modals and their Actuality Entailments**. Stanford: CSLI, 1999. Disponível em: <http://people.umass.edu/bhatt/papers/wccfl-ability-modals.pdf>. Acesso em: 7 mar. 2022.
- BRENNAN, V. **Root and Epistemic modal auxiliary verbs**. 1993. Tese (Doutorado em Linguística) - University of Massachusetts, Amherst, 1993.
- CASTAÑEDA, H. On the Semantics of the Ought-to-do. **Synthese**, Dordrecht, n. 21, p. 449-468, 1970.
- CINQUE, G. **Adverbs and Functional Heads: a cross-linguistic perspective**. New York: Oxford University Press, 1999.
- CINQUE, G.; RIZZI, L. The cartography of syntactic structures. **CISCL Working Papers on Language and Cognition**, Siena, v. 2, p. 43-59, 2008.
- FELDMAN, F. **Doing the Best We Can: philosophical Studies**. Dordrecht: Reidel, 1986. (Series in philosophy, 35).
- HACQUARD, V. On the Event Relativity of Modal Auxiliaries. **Natural Language Semantics**, Dordrecht, n. 18, p. 79-114, 2010.
- HACQUARD, V. On the interaction of aspect and modal auxiliaries. **Linguistics and Philosophy**, Dordrecht, n. 32, p. 279-312, 2009.
- HACQUARD, V. **Aspects of modality**. 2006. Tese (Doutorado em Filosofia da Linguística) - Massachusetts Institute of Technology, Cambridge, 2006.

- HAEGEMAN, L. Topicalization, CLLD and the left periphery. **ZAS Papers in Linguistics**, Berlin, n. 35, p. 157-192, 2004.
- MIOTO, C. Focalização e quantificação. **Revista Letras**, Curitiba, v. 61, p. 169-189, 2003.
- MIOTO, C. Sobre o sistema CP no português brasileiro. **Revista Letras**, Curitiba, v. 56, p. 97-139, 2001.
- PORTNER, P.; PAK, M.; ZANUTTINI, R. The speaker-addressee relation at the syntax-semantics interface. **Language**, Washington, v. 95, n. 1, p. 1-36, 2019.
- RECH, N.; SOARES, E. C.; GUESSER, S. L. A interpretação deôntica no português brasileiro: um estudo de natureza experimental. **Revista Diacrítica**, Braga, v. 33, p. 178-195, 2019.
- RECH, N. F.; VARASCHIN, G. Predicados estativos e os tipos de deôntico: ought-to-do e ought-to-be. **Cadernos de Estudos Linguísticos**, Campinas, v.60, n.1, p.159–177, 2018a.
- RECH, N. F.; VARASCHIN, G. Propriedades do modal deôntico ought-to-be. **Alfa**, Araraquara, v.62, n.2, p.361–380, 2018b.
- RIZZI, L. On the Position of Interrogative in the Left Periphery of the Clause. *In*: CINQUE, G.; SALVI, G. (ed.). **Current studies in Italian syntax: essays offered to Lorenzo Renzi**. Amsterdam: Elsevier North-Holland, 2001. p. 287-296.
- RIZZI, L. The Fine Structure of the Left Periphery. *In*: HAEGEMAN, L. **Elements of Grammar: a handbook of generative syntax**. Kluwer: Dordrecht, 1997. p.281–337.
- RIZZI, L. Residual Verb Second and the Wh criterion. *In*: BELLETTI, A.; RIZZI, L. (ed.). **Parameters and Functional Heads**. Oxford: New York: Oxford University Press, 1996. p. 63–90.
- RIZZI, L. **Relativized minimality**. Cambridge, Massachusetts: The MIT Press, 1990.
- RIZZI, L.; BOCCI, G. The left periphery of the clause: primarily illustrated for Italian. *In*: EVERAERT, M.; VAN RIEMSDIJK, H. C. (ed.). **The Wiley Blackwell Companion to Syntax**. 2nd ed. Oxford: Blackwell, 2017. p. 589–638.
- SHLONSKY, U.; SOARE, G. Where's 'why'?. **Linguistic Inquiry**, Cambridge, v. 42, n. 4, p. 651-669, 2011.
- TSAI, W. D. On the Topography of Chinese Modals. *In*: SLHONSKY, U. (ed.). **Beyond Functional Sequence: The cartography of syntactic structures**. Oxford: Oxford University Press, 2015. v.10. p. 275-294.

YANOVICH, I. **Epistemic Modality**. Draft. 2015. Disponível em: http://www.sfs.uni-tuebingen.de/~yanovich/papers/Yanovich_SemCom_epistemic_draft_March2015.pdf. Acesso em: 7 Mar. 2022.

Received on October 2, 2020

Approved on June 11, 2021