





# The Syntax-Prosody Interface: Catalan interrogative sentences headed by *que*\*

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## Abstract

*This article explores the syntactic and prosodic characteristics of polar questions headed by unstressed particles such as que 'that' or o 'or' in different Catalan dialects (vg. Que plou? 'Is it raining?'). The presence or absence of the conjunction, together with suprasegmental information, are used variously to encode a variety of systematic pragmatic meanings. In the case of neutral polar questions, while dialects such as Central Catalan, Majorcan and Eivissan express a modality difference between two types of polar questions through differences in the suprasegmental information and optionally through the presence of que, other dialects such as Minorcan, Northern Central Catalan and Valencian cue the modality distinction mainly through the intonation pattern. From a syntactic point of view, we claim that Catalan polar questions are headed by a force operator that occupies a peripheral position in the complementizer zone and that contains prosodic features. In this way we explain why in some dialects it is exclusively the suprasegmental information that distinguishes the two types of interrogatives and expresses the different modality meanings.*

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## 1. Introduction

It is well known that linguistic variation and therefore dialectal diversity are a direct and unavoidable consequence of the very nature of human language. Moreover, the degree of variation allowed by the human linguistic capacity can only be understood through the comparison of different grammatical systems. Just as the contrasting of languages that belong to different families allows us to characterize the human faculty of language, the study of the syntactic diversity offered by dialects of a language helps us to better understand the limits of variation in the structuring of sentences. It is for this reason that the study of variation is necessary. As Hale (1997:72) argued, we will only be able to detect what is invariant in the grammars if we study and delimit what is variable.

The main aim of this article is to explore the syntax-prosody interface in Catalan polar (or yes/no) questions headed by the unstressed word *que* ‘that’ and other sentences related to them, together with their discursive and pragmatic implications. Catalan<sup>1</sup> has some particles – the conjunctions *que* ‘that’ and *o* ‘or’ – which can head polar questions under certain conditions, as shown in (1):

- |     |    |   |                            |
|-----|----|---|----------------------------|
| (1) | a. | Que plou?<br>that rains<br>‘Is it raining?’   | Central Catalan            |
|     | b. | O vindran a Ciutadella?<br>or will-come to Ciutadella<br>‘Are they coming to Ciutadella?’ | Menorcan, Majorcan Catalan |

In this respect, Catalan behaves differently from some neighbouring Romance languages such as Spanish, French, Italian and Portuguese, which do not allow for the presence of such particles. Yet other Romance languages such as Sardinian and (Aranese) Occitan have been reported to display similar types of interrogative particles such as *a* or *e*, as the examples in (2) show:<sup>2</sup>

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<sup>1</sup> Catalan is a Romance language spoken in northeastern Spain: in Catalonia, the Valencian Community and the Balearic Islands. It is the official language in Andorra, and it is still spoken in the Rosselló region of southern France, and also in Italy, in the city of l’Alguer, located on the western coast of the island of Sardinia. Catalan comprises a collection of mutually intelligible dialects. The main Catalan dialects are organized in two dialectal blocks: Western and Eastern Catalan. The Western Catalan block comprises two dialects, Northwestern Catalan and Valencian, whereas the Eastern Catalan block comprises four dialects: Rossellonese, Central Catalan, Balearic and Alguerese. Dialects can be subdivided into different subdialects (e.g., Balearic is subdivided into Majorcan, Minorcan and Eivissan Catalan).

<sup>2</sup> In Bearnese Occitan, simple declarative sentences are headed by the conjunction *que* ‘that’, which acts as an assertive modality marker: *Que me’n vau tà casa* ‘I’m going home’.

- (2) a. A bi venit Juanne? Sardinian (Jones 1993: 1.2.2)  
 part. there comes John  
 ‘Is John coming?’
- b. E vies tu? Aranese Occitan (Ané Brito et al. 1994: 73)  
 part. come you  
 ‘Are you coming?’

Catalan interrogatives headed by *que* display a substantially rich intra- and interdialectal variation which relates to the presence of the particle *que* together with its prosodic and semantic/pragmatic properties. The first goal of this article is to sketch a descriptive picture of polar questions in a variety of Catalan dialects, paying special attention to the interface between prosody, syntax and semantics. These patterns of variation have not been systematically studied in the literature. Previous research has either focused on the intonational form of such utterances in different Catalan dialects (see Bonet 1984, Prieto 1998, 2002; also, Martínez-Celdrán *et al.* 2005 for Northwestern Catalan, Mascaró i Pons 1986 for Minorcan Catalan, Payà & Vanrell 2005 for Majorcan and Minorcan Catalan, Prieto & Pradilla 2004 for Tortosí, Vanrell 2004 for Majorcan Catalan), or alternatively on its syntactic (Bonet & Solà 1986, Rigau 1984, Hualde 1992, Hernanz & Rigau 2006) and semantic/pragmatic properties (Cuenca 1997, Payrató 2002, Payà 2003). In this article, we describe polar questions in a variety of Catalan dialects (namely, Central Catalan, Northwestern Catalan, Valencian, Rossellonese, Majorcan, Minorcan and Eivissan Catalan), considering both their form (syntactic and prosodic patterns) and their semantic and pragmatic content.

In order to describe the prosodic and semantic characteristics of yes-no questions headed by *que* in the different dialects, we have relied on existing research and on first-hand interviews with our consultants from different dialectal areas. Also, to gather the data on the dialectal variation on the prosodic and semantic/pragmatic properties of *que* questions, we prepared a specific questionnaire especially designed to trigger semispontaneous replies on the part of the speaker. We developed a set of situations which trigger semispontaneous responses on the part of the informants, and which include a wide variety of yes-no questions and reiterative yes-no questions. Importantly, the context of use is given to the speaker, which has to respond adequately to the situation presented. The data was collected in 12 locations belonging to the three main geographical varieties: Central Catalan, Western Catalan and Balearic Catalan (which comprises Majorca, Minorca and Eivissa). Subjects surveyed were mostly educated women aged between 25 and 45.<sup>3</sup>

Results reveal a substantial amount of dialectal variation in the prosodic realization and pragmatic meaning of *que* questions. For example, while in Rossellonese, Northern Central Catalan and Valencian the use of polar ques-

<sup>3</sup> An interactive map with the results and intonation patterns from the survey can be found at <http://seneca.uab.es/atlesentonacio>

tions headed by *que* is exclusively restricted to anti-expectational meaning, Northwestern Catalan, other subdialects of Central Catalan and Balearic dialects can resort to these utterances for neutral or non-presuppositional polar questions. Moreover, the dialects which use *que* for neutral polar questions differ in the way they express pragmatic differences related to proximity relations in the discourse. While in (non-Northern) Central Catalan the presence of the conjunction *que* appears optionally with the falling intonation pattern to express proximity and a low-cost interaction for both the speaker and the hearer, in Majorcan the use of the conjunction *que* is the exclusive mark of such an expression of modality, as the falling pattern is the general intonation pattern for yes-no questions. Finally, Minorcan uses sentences with *que* with a falling intonation pattern systematically for yes-no questions and resorts to other cues (namely pitch range relationships) to express such cost relationships in the discourse.

In Central Catalan, as well as in Majorcan Catalan, there is an optional presence of the particle *que* in neutral polar questions, as shown in (3). Crucially, when *que* is not overt, intonation (or the suprasegmental information) is the only property that allows us to detect the discourse function of this type of question.

- (3) (Que) plou?  
that rains  
'Is it raining?'

We will argue that the conjunctions *que* and *o* in (1) are the 'visible' lexical indicator of the illocutionary force or meaning of the sentence. Crucially, depending on the dialect, the polar interrogative force may be realized either through an interrogative operator containing the suprasegmental information plus the segmental material – the particles *que* and *o* in (1) – or simply through the operator alone with suprasegmental information: *Plou?* 'Is it raining?'

The article is organized as follows. Section 2 describes the prosodic features and pragmatic uses of neutral polar interrogative sentences in several dialects, whether headed by *que* 'that' or not. Usually, two types of neutral polar questions that have different modality meanings are identified. Our data corroborate the hypothesis that *que* and/or certain intonation features (falling intonation or pitch range, depending on the dialect) are associated with a 'low cost' in Leech's (1983) scale. Crucially, the presence of *que* being optional in some cases, intonation patterns are the main indicators of these modality effects. Section 3 is devoted to alternative polar questions, while Section 4 discusses different types of biased questions, mainly confirmatory and anti-expectational questions. Finally, Section 5 presents the basic syntactic analysis of the main polar interrogatives described in this article, taking into consideration the role of suprasegmental information and the presence of particles *o* and *que*.

## 2. Neutral Polar questions in some Catalan dialects

The presence of the complementizer *que* in neutral (or anti-expectational) polar questions in Catalan varies depending on the regional variety and on the semantic value of the sentence. For example, while the sentence in (4a) can be interpreted as a neutral polar question in varieties such as Central Catalan (Barcelonese, Tarragonese), Northwestern Catalan and Balearic Catalan, other dialects do not allow for such an interpretation. In Northern Central Catalan and Rossellonese Catalan, as well as in Valencian, neutral yes-no questions cannot begin with the complementizer *que*, as (4b) shows. In such dialects, *Que plou?* ‘Is it raining?’ can only be interpreted as an anti-expectational question (see § 3 below), that is, an expression of the lack of agreement between the facts and the speaker’s own expectations (‘I thought it would not rain’). As we will see in the following sections, the intonation pattern of questions optionally headed by *que* is characterized by a falling final intonation. Thus, a sentence like (4b) with a falling question intonation will be interpreted differently by the two groups of dialects (i.e. either as a neutral yes-no question or as an anti-expectational question)

- |     |    |  |   |
|-----|----|--|---|
| (4) | a. | Que plou?<br>that rains<br>‘Is it raining?’  | (as neutral polar) Central Catalan, Balearic,<br>Northwestern Catalan   |
|     | b. | *Que plou?<br>that rains<br>‘Is it raining?’ | (as neutral polar) Northern Central Catalan,<br>Rossellonese, Valencian |

In the following sections, we describe the differences between the use of *que* in yes-no questions in dialects that interpret *que* polar questions as non-presuppositional utterances, namely, Central Catalan (mainly Barcelonese) and the Balearic Catalan dialects.<sup>4</sup> We will consider both their intonational patterns and their meaning (semantic and pragmatic uses).

### 2.1. Neutral polar questions in Central Catalan

Some Catalan dialects, such as Central Catalan, allow for two types of neutral or non-presuppositional polar questions, exemplified in (5). While type (a) sentences are characterized by a sharp intonation rise at the end, type (b) sentences are pronounced with a falling question intonation, as shown by the graphs in (6) and (7). Although the rising pattern has usually been considered the “canonical” intonation for polar interrogatives in Catalan (see Badia i

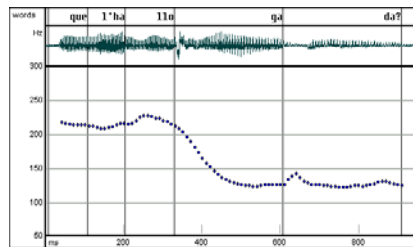
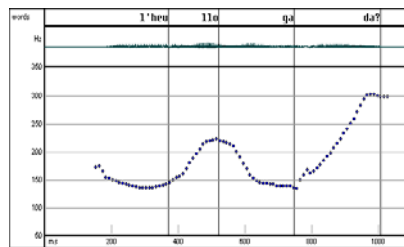
<sup>4</sup> In Northwestern Catalan and in Tortosí Catalan, non-presuppositional polar questions can also be optionally headed by *que*. Yet *que* questions in these varieties can either have a falling or a rising intonation. In this article, we will not deal with these two subdialects of Western Catalan. For a description of the intonational form of such utterances in Northwestern Catalan and Tortosí, see Martínez-Celdrán *et al.* (2005), Prieto (1998), and Prieto & Pradilla (2004).

Margarit 1994:257), other authors such as Bonet (1984) have acknowledged the use of both types of intonation patterns for neutral polar questions. Crucially, the presence of the complementizer *que* is incompatible with the rising intonation pattern. Consider the neutral polar questions in (5):

- (5) a. (Que) l'heu llogada?  
 (that) it (her) have.2pl rented.fs  
 'Did you rent it?'  
 b. L'heu llogada?  
 it have.2pl rented.fs  
 'Did you rent it?'

As exemplified in (5a), Central Catalan allows for an optional presence of the particle *que*. As has been noted in the literature, the speaker's selection of sentences such as (5a) communicates a different type of pragmatic meaning than would be conveyed by (5b) (see, for example, Payrató 2002: §3.4.3). Crucially, when *que* is not overt, intonation is the only property that allows us to detect the discourse function of this type of question. Thus what distinguishes the two types of interrogatives and expresses the different discursive meanings is the suprasegmental information.

The two graphs in (6) and (7) show the waveforms and intonation contours of the two types of intonation patterns found in neutral polar questions in Barcelonese. The panel in (6) illustrates the typical falling intonation pattern of the polar question in (5a) *Que l'heu llogado*. This intonation contour is characterized by a steady high tone which spans from the beginning of the sentence to the syllable preceding the stressed syllable. After that, a falling pitch movement is aligned with the last stressed syllable in the utterance and by a low boundary tone sequence which reaches the bottom of the speaker's range. The panel in (7) illustrates the rising intonation pattern with the question in (5b), *L'heu llogado?*: the first stressed syllable of the utterance is pronounced with a falling tone followed by a rise, and the last stressed syllable is pronounced with a low tone followed by a sharp rise.

(6) Falling pattern(7) Rising pattern



Previous work on the pragmatic value of *que* together with a falling intonation pattern in Central Catalan has proposed that sentences with *que* are characterized as being polite in general (Payrató 2002: §3.4.3, Prieto 2002 and Payà 2003). Payrató (2002) further claims that the selection of neutral polar questions with the falling intonation pattern (and optionally headed by *que*) in Central Catalan is sensitive to the pragmatic cost-benefit scale on which the cost or benefit of the proposed action to the hearer is estimated, and which is related to politeness (see Leech 1983: 107ff). As Leech (1983:109) points out, “the propositional content of a given sentence is discourteous to the hearer in so far as it attributes some effort, trouble, or cost to the hearer”. These descriptions are informed by studies on politeness within the pragmatics field, namely Brown and Levinson’s (1987) theoretical model of politeness and Leech’s politeness principle theory (1983).

Based on the results of our questionnaire and our observations, we confirm Payrató’s hypothesis. Speakers use the falling intonation pattern when the cost of the proposed action to the hearer is considered *low* (and also if its benefit is considered high for the hearer). As soon as the cost of the action is believed to be relatively high, the use of *que* and the falling intonation pattern is not as felicitous as the sentences not headed with *que* and produced with a rising intonation pattern, as the examples in (8) show. The sentences with *que* will only be felicitous in the discourse if indeed the hearer has previously offered the apartment or his or her help with the kids:

- (8) a. # (Que) em deixes el teu apartament de la platja, aquest cap de setmana?  
/ Em deixes el teu apartament de la platja, aquest cap de setmana?  
‘Would you lend me your apartment in the beach this weekend?’  
b. # (Que) et puc deixar els nens, aquest cap de setmana? / Et puc deixar els nens, aquest cap de setmana?  
‘Would you take care of the kids this weekend?’

Likewise, depending on whether it follows a falling or rising intonation pattern, the utterance *Puc fumar?* in (9) will lead the hearer to infer two different beliefs on the part of the speaker. If he or she utters *(Que) puc fumar?* with a falling intonation pattern, as in (9a), the speaker is convinced that the hearer will interpret the action as low-cost, and thus will have no objection to inhaling tobacco smoke. Thus (9a) would not be appropriate when addressed to a person who is trying to quit smoking. On the other hand, *Puc fumar?* uttered with a rising intonation pattern, as in (9b), reveals that the speaker believes that the hearer will not necessarily interpret the action as a low-cost action.

- (9) a. (Que) puc fumar? (with a falling intonation pattern)  
b. Puc fumar? (with a rising intonation pattern)  
‘Can I smoke?’

The existence of pragmatic restrictions on the cost-benefit scale explains why sentences with *que* are used extensively in invitations and offers, where the benefit of the proposed action is estimated to be relatively high for the hearer.

- (10) a. *Que vols més cafè?*  
that want.2s more coffee  
'Would you like more coffee?'
- b. *Que vol que li ho emboliqui?*  
that want.3s that to-you it wrap.1s  
'Do you want me to wrap this up for you?'
- c. *Que vindreu amb mi?*  
that would-come.2pl with me  
'Would you come with me?'

Conversely, when participants in a court of law ask questions, something which generally implies a higher-cost interaction, the same intonation pattern and the use of *que* would be considered inappropriate (i.e. impolite). In general, polar sentences headed by *que* are not found in formal speech styles, for instance in a court of law, as the examples in (12) show.

- (11) a. *#Que he de declarar, senyoria?* (cf. *He de declarar, senyoria?*)  
that have.1s of declare, Your Honor?  
'Am I supposed to make a statement, Your Honor?'
- b. *#Que jureu dir la veritat i només la veritat?*  
that swear.2p tell.inf the truth and only the truth  
'Do you swear to tell the truth and nothing but the truth?'
- c. *Us considereu innocent?*  
you consider.2pl innocent  
'Do you consider yourselves innocent?'
- d. *Coneixeu l'acusat?*  
know.2pl the accused  
'Do you know the accused?'

Similarly, neutral polar questions optionally headed by *que* and produced with a falling intonation pattern are also absent in ceremonial formulas where people are committing themselves or engaging:

- (12) *Joan, vols per esposa la Maria i promets ser-li fidel...?*  
John, want.2s as wife the Mary and promise.2s be-her loyal...  
'John, do you take Mary to be your wife and promise to be faithful to her forever..?'

We would like to point out that the condition of proximity or familiarity between the speaker and the hearer does not crucially select the use of *que* utterances. Polar questions with a falling intonation pattern and optionally headed by *que* are used both in contexts where the speaker wishes to convey complicity or emotional attachment with the hearer, as in (13a), and in contexts where the hearer is a stranger to the speaker, as in (13b), which constitutes an offer or an invitation. In the latter, notice that the third person singular (the so-called ‘courtesy person’) is used (*vol* ‘want.3s’) instead of the unmarked second person singular.

- (13) a. *Que vol seure?*  
 that want.3s sit.inf  
 ‘Do you want to sit here?’  
 b. *Que vol que li ho emboliqui?*  
 that want.3s that to-him it wrap.1s  
 ‘Do you want me to wrap this up for you?’

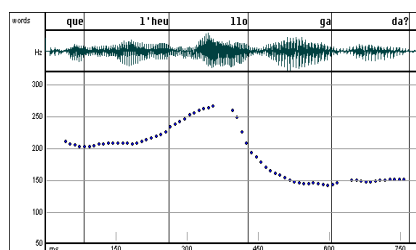
Thus, in Central Catalan, both the use of *que* and the intonation choice can be regarded as lexical and prosodic markers that help guide the pragmatic interpretation of anti-expectational polar questions and help the addressee in inferring the specific illocutionary force of the utterance.

## 2.2. Neutral polar questions in Balearic Catalan

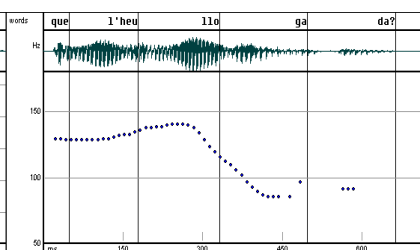
The situation in Majorcan, Minorcan and Eivissan Catalan differs from that of Central Catalan. These Balearic dialects use the falling intonation pattern exclusively in neutral polar questions, that is, these dialects generally use the rising pattern for other types of interrogatives. The graphs in (15) and (16) show the waveforms and intonation contours of the neutral polar questions in (14) in Majorcan and Minorcan Catalan, respectively.

- (14) a. *(Que) l’heu llogada?* Majorcan  
 ‘Did you rent it?’  
 b. *Que l’heu llogada?* Minorcan  
 ‘Did you rent it?’

(15) Majorcan Catalan



(16) Minorcan Catalan



As we can see, the two dialects usually use a canonical falling pattern similar to the one used in Central Catalan (see the Central Catalan contour in (6)). The main difference between the two contours is the height of the leading tone associated with the pretonic syllable, which is upstepped in the case of yes-no questions in Majorcan Catalan (see Vanrell 2005 for a detailed description of this intonation contour). On the other hand, the intonation pattern found in Minorcan is identical to the one used in Central Catalan, that is, with a falling tone in the nuclear accent and a non-upstepped leading tone (see Mascaró i Pons 1986 for a description of this contour type).

A crucial difference between the two dialects is the degree of use of the conjunction *que*. While in Minorcan the use of *que* is practically obligatory, in Majorcan and in Eivissan it is used as a pragmatic marker.<sup>5</sup> In Eivissan Catalan, it seems to be exclusively the use of the particle *que* (and not the choice of intonation pattern) that encodes similar pragmatic and discourse functions found in Central Catalan (see also Mascaró i Pons 1986 and Vanrell 2004 for potential differences according to idiolectal and sociolinguistic factors). Yet in Majorcan the use of *que* is very infrequent, and it is typically used in low-cost interactions, that is, in questions which imply an invitation or offer, as well as in questions addressed to children, as follows (see also Vanrell 2004):

- (17) a. (Que) vols quedar amb noltros?  
           that want.2s to stay with us  
           ‘Do you want to stay with us?’  
       b. (Que) vols ser nostre?  
           that want.2s to be ours  
           ‘Do you want to be part of us?’  
       c. (Que) anam a fer un cafè?  
           That go.2p to do.inf a coffee  
           ‘Do you want to go for some coffee?’

Importantly, the low-cost meaning is also expressed through a difference in the intonation pattern. As noted above, in Majorcan Catalan, neutral polar questions are characterized by a falling nuclear accent preceded by an *upstepped* leading tone aligned with the pretonic syllable. When yes-no questions express low-cost interactions, as in the case of invitations or offers, then they show an intonational difference with neutral polar questions, namely, that they do not show an upstepped leading tone, as the intonation of the utterance *Voleu un caramel·lo?* ‘Do you want a sweet?’ shows:

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<sup>5</sup> As Mascaró i Pons (1986:30-31) points out, “while in Menorcan *que* is a particle that characterizes neutral polar questions (...), in Majorcan *que* has a more restrictive use, usually with a reiterative meaning; in Majorcan neutral polar questions are generally uttered without *que*.”

(18) Majorcan Catalan (offering yes-no question intonation)

As in Central Catalan, when participants in a court of law ask questions (which generally imply higher-cost interaction), the use of *que* would be considered inappropriate (i.e. impolite), as the examples in (19) show.

- (19) a. #*Que* he de declarar, senyoria? (*cf.* He de declarar, senyoria?)  
 that have.1s of declare, Your Honor?  
 ‘Am I supposed to make a statement, Your Honor?’  
 b. #*Que* jureu dir la veritat i només la veritat?  
 that swear.2p tell.inf the truth and only the truth  
 ‘Do you swear to tell the truth and nothing but the truth?’

By contrast, in Minorcan Catalan, the use of *que* is practically obligatory in polar questions (written texts are perhaps the exception). In this dialect, *que* is a marker of neutral polar questions, and speakers use it in out-of-the-blue sentences without any previous contextual knowledge and regardless of the cost of the action (see Mascaró i Pons 1986: 30-31).<sup>6</sup>

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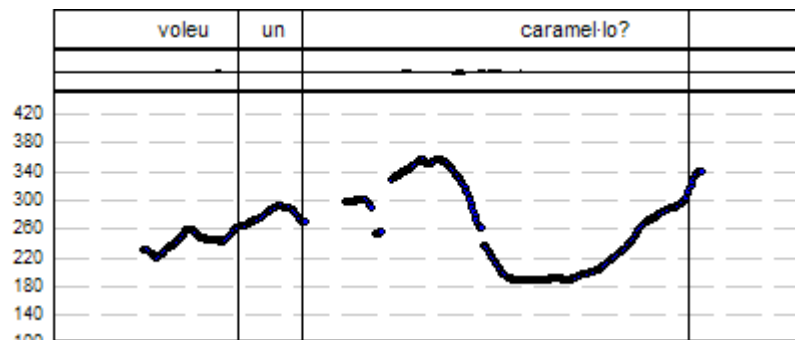
<sup>6</sup> However, sometimes Minorcan polar questions appear without the conjunction *que*, as shown in the examples below. Yet in these cases, the questions are not really neutral: the speaker is presupposing that the event or situation expressed by the sentence is true and wants to get some information about it. Thus, in (a) the speaker believes that the hearer has seen John and is therefore asking how John is. In (b), the speaker is trying to find out how the interlocutor is doing, and his hope is that the interlocutor and his family are well. In both cases, intonation contours are characterized by a sentence-final rise in pitch (see also the rising intonation contour of a Minorcan anti-expectative utterance headed by *o* in the next section).

- (i) a. *Vas veure en Joan?*  
 saw.2s the John  
 ‘Did you see John?’  
 b. *Què tal l’estiu? Esteis tots bé?*  
 How the summer. Are.2pl all well  
 ‘How was the summer? Are you all well?’

- (20) a. Que he de declarar, senyor jutge? Minorcan  
 that have.1s of declare, mister judge?  
 ‘Am I supposed to make a statement, Your Honor?’

In Minorcan Catalan, neutral polar questions are quite systematically headed by *que* and characterized by a falling nuclear accent followed by a low boundary tone (see the example in 16). Invitations or offers, that is, utterances that express estimated low-cost interactions, are produced with a different intonation pattern and sometimes not preceded by *que*. The intonation contour of the utterance *Voleu un caramel·lo?* ‘Do you want a sweet?’, uttered by a speaker from Es Migjorn, reveals that both the pitch range of the nuclear falling accent and the boundary tone choice (a rising boundary tone) might convey this difference:

- (21) Minorcan Catalan (offering yes-no question intonation)



### 2.3. A summary of neutral polar questions across some of the Catalan dialects

As we have seen in the preceding sections, different dialects show different ways of encoding two types of neutral interrogatives. The table in (22) summarizes the different typology of dialectal strategies to convey type A questions (that is, prototypical polar questions) and type B questions (that is, neutral polar questions which express a low estimated cost or benefit of the action for the hearer). The use of the two variables, namely, the use of the *que* particle and the intonation contour, is codified. In Central Catalan, the difference between the two types of questions is expressed through intonation: while a falling nuclear accent with a low boundary tone conveys type A questions, a low nuclear accent accompanied by a rising boundary tone conveys type B questions. Central Catalan allows for an optional presence of the particle *que* with falling intonation patterns. Crucially, when *que* is not overt, intonation is the only property that allows us to detect the discourse function of this type of question.

In Majorcan, the difference between the two types of questions is expressed through an intonational difference. While type A utterances typically show a

falling intonation contour with an upstepped leading tone associated with the pretonic syllable, type B utterances are typically produced with non-upstepped leading tones. Minorcan Catalan also express the difference between the two utterance types through intonation, using pitch range and the type of boundary tone to express this contrast. Finally, Northern Central Catalan and Valencian also use differences in the scaling of the boundary tone to express these discursive meanings: that is, the higher the boundary tone, the stronger the belief on the part of the speaker that the action presupposes clear benefits for the listener.

(22) Summary of dialectal strategies to convey neutral yes-no questions (type A vs. type B)

Catalan dialects	Neutral yes-no question (type A)		Neutral yes-no question (type B)	
	<i>que</i> particle	intonation	<i>que</i> particle	intonation
Central Catalan	No	Rising question intonation	Optional	Falling question intonation
Majorcan, Eivissan	No	Falling question intonation with upstepped leading tone	Optional	Falling question intonation with non-upstepped leading tone
Minorcan	Yes	Falling question intonation	Yes	Falling question intonation (increased pitch span in nuclear accent and/or rising boundary tone)
Northern Central Catalan, Valencian	No	Rising question intonation	No	Rising question intonation (increased pitch span in rising boundary tones)

Thus in Central Catalan, Majorcan and Eivissan, both the presence of *que* and the suprasegmental information are the cues that distinguish the two types of yes-no questions. Since in the latter two dialects the presence of *que* is optional, it is the suprasegmental information that distinguishes the two types of interrogatives and expresses the different modality meanings. In Minorcan, Northern Central Catalan and Valencian, the increased pitch span is the main cue to this modality distinction.

### 3. Alternative questions

Alternative polar questions express an explicit disjunction of the two possible answers to a neutral polar question, namely *yes* or *no*, as shown in (23), which belongs to Central Catalan.

- (23) Véns a dinar, sí o no?  
 come.2s to have-lunch, yes or no  
 ‘Are you coming for lunch or not?’

In Central Catalan, these sentences are not introduced by *que*. Pragmatically, these questions can only be used under certain conditions (that is, when the hearer is not acting according to what he or she said previously, when the hearer does not answer questions clearly, etc.). With (23), the speaker is essentially forcing the hearer to answer, to make a decision.

Under the same pragmatic conditions, an alternative polar interrogative sentence can be built as a disjunction of the predicate, and the latter negated. Sometimes, repetition of the predicate is avoided in the disjunction, but negation has to be present:

- (24) a. Que véns a dinar o no (véns a dinar)?  
 that come.2s to have-lunch or not (come.2s to have-lunch)  
 ‘Are you coming for lunch or not?’  
 b. \*Que véns o no vindreu?  
 that come.2s or not will-come.2.pl  
 c. Que parlarà, en Pere, o no parlarà?  
 that will-speak the Peter or not will-speak  
 ‘Is Peter going to speak or not?’  
 d. Que parlarà o no parlarà, en Pere?  
 that will-speak the Peter or not will-speak the Peter  
 ‘Is Peter going to speak or not?’  
 e. \*Que parlarà, en Pere, o no parlarà, en Joan?  
 that will-speak the Peter or not will-speak the John

On the other hand, the disjunction in a alternative non-polar interrogative sentence can contain two opposite poles of a semantic or pragmatic scale



appearing in one or the other element of the disjunction, as in (25a), which belongs to Central, Northwestern and Balearic Catalan. Moreover, in alternative interrogatives the disjunction can be established between two different verbal phrases, as in (25b), or between two different complements of the same verb, as in (25c):

- (25) a. *Que és gran o petit?*  
 that is big or small  
 ‘Is it big or small?’  
 b. *Que estudies o fas feina, ara?*  
 that study.2s or do.2s work now  
 ‘Are you studying or working now?’  
 c. *Que vols sucre o sacarina?*  
 that want sugar or saccharine  
 ‘Would you like sugar or saccharine?’

In Majorcan, Minorcan and Eivissan, alternative questions are generally introduced by *que*. In Central Catalan, we have discerned a difference between two subdialects: while in Tarragonese alternative questions are usually headed by *que*, this is not the case in Barcelonese. In the latter subdialect, the questions in (25b) and (25c) are preferably built without the conjunction *que*. Finally, in Valencian, Rossellonese and Northern Central=Catalan, alternative questions cannot be headed by *que*, e.g. *Véns o no vén?* ‘Are you coming or not?’

#### 4. Biased Polar questions in Catalan

Huddleston and Pullum (2002:876s) oppose neutral questions to biased questions. In the latter, the speaker is biased in favour of one answer over another. In this section, we describe two types of biased questions, namely, anti-expectational questions and confirmatory questions.

##### 4.1. Anti-expectational questions.

Anti-expectational questions are used when the facts or the situation do not agree with the speaker’s expectations. They can convey an additional meaning of surprise and astonishment (and even incredulity) on the part of the speaker. These sentences can either be headed by *que* and be pronounced with the canonical falling question intonation pattern described in (6) above (see 26a) or adopt a distinctive intonation pattern (see 26b).

- (26) a. *Que us n’aneu?* Jo em pensava que dinàriem junts.  
 Central Catalan  
 that you cl. go2.pl I-myself thought that we would-dine together  
 ‘Are you leaving? I thought we were going to have lunch together!’

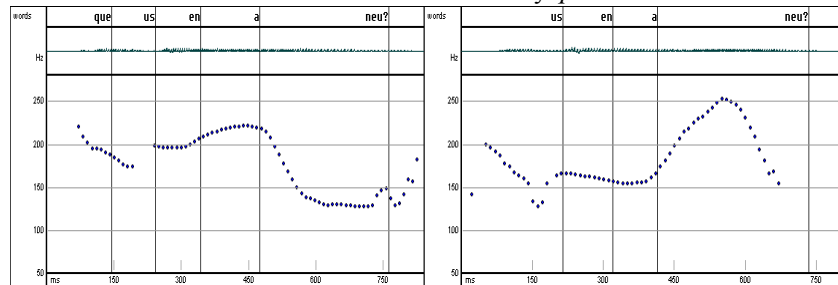
- b. *Us n'aneu?* Jo em pensava que dinariem junts.

Central Catalan

you cl. go2.pl I-myself thought that we would-dine together  
 'Are you leaving? I thought we were going to have lunch together!'

The graphs in (27) and (28) illustrate the waveforms and intonation contours of the anti-expectational questions in (26) in Central Catalan. As we can see, the question *Que us n'aneu?* headed by *que* in (27) uses the canonical falling pattern used for neutral yes-no questions. The other possibility is to pronounce the utterance with no complementizer and using the intonation pattern in (28). Typically, the contour starts with a low tone that continues low until the beginning of the last stressed syllable in the utterance. This syllable is pronounced with a prominent rising tone, which then falls until the end of the utterance. Crucially, the presence of the complementizer *que* is incompatible with the intonation contour illustrated in the right panel (for a detailed description of this intonational contrast, see Prieto 2002).

- (27) Anti-expectational headed by *que*      (28) Anti-expectational not headed by *que*



Anti-expectational questions can also be negative, as shown in (29). The intonation patterns shown by the sentences in (27-28) are similar to those shown in the panels above.

- (29) a. *Que no t'ho havien dit?* Doncs jo em pensava que ho sabies.

Central Catalan

that not to-you it had.3pl said. So I-myself thought that it knew.2s  
 'Didn't they tell you? I thought you knew.'

- b. *No t'ho havien dit?* Doncs jo em pensava que ho sabies.

Central Catalan

not to-you it had.3pl said. So I-myself thought that it knew.2s  
 'Didn't they tell you? I thought you knew.'

In Northern Central Catalan and in Rossellonese, where neutral polar questions cannot be headed by *que*, this conjunction is used to head anti-expectational questions. Typically, the anti-expectational questions in (30) use the canonical falling question intonation found in neutral polar questions in Barcelonese (see (6) above). As we know, this contour is characterized by a steady high tone which spans from the beginning of the sentence to the last stressed syllable falling pitch movement aligned with the last stressed syllable in the utterance, and by a low boundary tone sequence.

- (30) a. *Que vindràs a Barcelona?* No em pensava pas que ens acompanyassis.  
 that will-come.2s to Barcelona. not I-myself thought neg. that us go-with.2s  
 ‘Are you coming to Barcelona? I didn’t think you were coming with us.’

Northern Central Catalan

- b. *Que vindràs pas a Barcelona?* Me pensavi que nos acompanyaries.  
 that will-come.2s neg. to Barcelona. I-myself thought neg. that us would-go-with.2s  
 ‘Aren’t you coming to Barcelona? I thought you were coming with us.’

Rossellonese

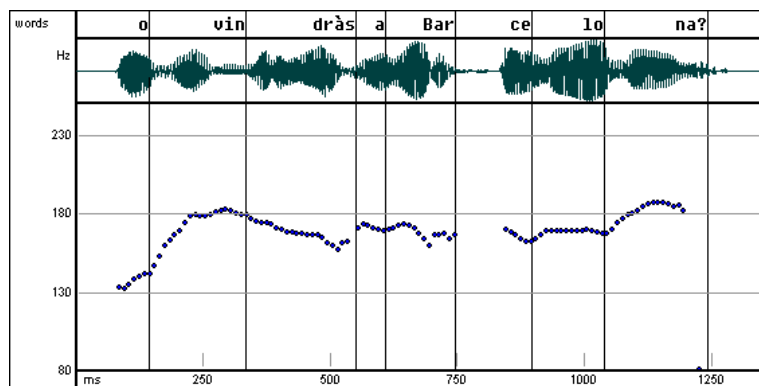
In Minorcan Catalan, anti-expectational questions are usually headed by the disjunctive conjunction *o* ‘or’, which is prosodically grouped together with the clause. The sentence in (31a) is the paraphrase of (29a) and (31b) is the paraphrase of (29b).

- (31) a. *O vindràs a Barcelona?* No m’esperava que mos acompanyassis.  
 Minorcan  
 or will-come.2s to Barcelona. not I-myself expected.1s that us go-with.2s  
 ‘Are you coming to Barcelona? I didn’t think you were coming with us.’
- b. *O no vindràs a Barcelona?* M’esperava que mos acompanyaries.  
 or not will-come.2s to Barcelona. I-myself expected.1s that us go-with.2s  
 ‘Aren’t you coming to Barcelona? I thought you were coming with us.’

Graph (32) illustrates the intonation contour of the Minorcan anti-expectational utterance in (31a) headed by *o*. The contour is characterized by

a falling tone on the nuclear part of the intonation contour (the stressed syllable in *vindràs*); however, this falling tone descends to a mid-level tone rather than a low tone (compare with the unmarked Minorcan falling intonation contour in (16), uttered by the same speaker). After that, the second prosodic phrase ends on a mid tone on the last stressed syllable followed by a scooped high boundary tone.

(32) Anti-expectational question headed by *o* (Minorcan)



In Majorcan Catalan, anti-expectational questions can be headed by the conjunction *o* ‘or’ and also by the conjunction *que*. They can also be introduced by the sequence *Que és que...?* ‘That is that...’. The anti-expectational question in (33c) has the flavor of a reproach.

- (33) a. O no estàs bo? Majorcan  
 or not are.2s good  
 ‘Aren’t you well?’  
 b. Que no estàs bo?  
 that not are.2s good  
 ‘Aren’t you well?’  
 c. Que és que no estàs bo? Jo pensava que vendries amb jo.  
 that is that not are.2s good. I thought that would-come.2s with I  
 ‘Aren’t you well? I thought you were coming with me.’

Graph (34) illustrates the intonation contour of the Majorcan anti-expectational utterance in (33a) headed by *o*. The contour starts with a mid tone and is characterized by a final rising tone that continues rising until the end of the sentence (see a similar description in Vanrell 2004:19).



- |    |  |   |
|----|--|---|
| b. | Eh que vindràs?<br>Op. that will-come.2s<br>'You're coming, aren't you?'         | Western Catalan; Central Catalan,<br>Rossellonese |
| c. | No que vindràs?<br>not that will-come.2s<br>'You're coming, aren't you?'         | Central Catalan (Tarragonese)                     |
| d. | Veritat que vindràs?<br>Truth that will-come.2s<br>'You're coming, aren't you?'  | Valencian   |
| e. | Fa que vindràs?<br>makes that will-come. 2s<br>'You're coming, aren't you?'      | Northern Central Catalan                          |
| f. | És ver que vindràs?<br>is true that will-come.2s<br>'You're coming, aren't you?' | Minorcan  |

The element acting as an interrogative operator can belong to several categories: it can be a polarity adverb (*no* 'not' and probably *oi* 'yes'), a noun (*veritat* 'truth'), a verbal form (*fa* 'makes/does'), the copulative form *és* 'is' plus the adjective *ver* 'true'), etc.<sup>8</sup>

#### 4.3. Other biased questions

##### 4.3.1. Rhetorical questions

Rhetorical questions are pragmatically equivalent to an assertion or a statement because typically the speaker knows the answer very well. With these questions, the speaker attempts to engage the hearer in the conversation. A response that is contrary to what he or she anticipates is not impossible, but it is unlikely and provocative. Rhetorical questions in a non-formal discourse can be optionally introduced by *que*, as shown in (36). When rhetorical questions are negative and headed by *que*, the expected answer is 'yes', but if they are positive they strongly presuppose a negative answer:

<sup>8</sup> Alternatively, the interrogative operator can appear at the end of the clause, as in the following examples. In this case, the conjunction *que* does not appear and the sentence shows a question tag structure (see Cuenca 1997).

- |    |  |                                  |
|----|--|----------------------------------|
| a. | Vindràs, eh?<br>'You're coming, aren't you?' | Western Catalan, Central Catalan |
| b. | Vindràs, oi?                                 | Central Catalan (Barcelonese)    |
| c. | Vindràs, no?                                 | Central Catalan (Tarragonese)    |
| d. | Vindràs, veritat?                            | Valencian                        |
| e. | Vindràs, fa?                                 | Rossellonese                     |
| f. | Vindràs, és ver?                             | Minorcan                         |



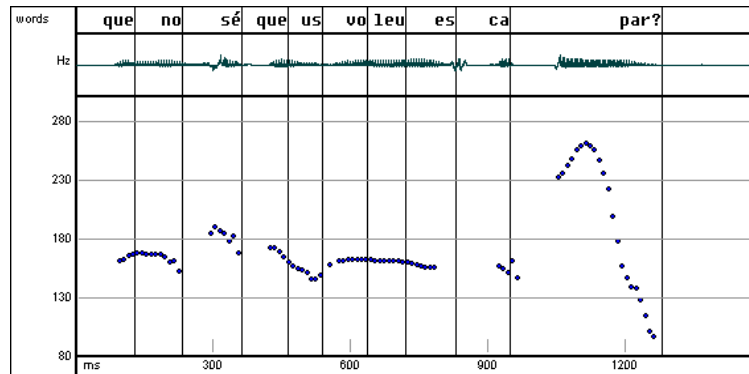
- (39) a. (Que) us penseu que no sé que us voleu escapar?  
 that you think.2pl that not know.1s that yourselves want.2pl to escape  
 ‘Do you think I don’t know you want to escape?’  
 b. Heu de saber que sé que us voleu escapar.  
 have.2pl of know that know.1s that yourselves want.2pl to escape  
 ‘You ought to know I am aware that you want to escape.’

Another example of an exploratory question is given in (40), which is a paraphrase of (39a). The conjunction *que* heading the second question in (40) syntactically acts as the complementizer of the subordinate clause in (39a). This conjunction is obligatory in all Catalan dialects because it is a constituent of a subordinate clause.

- (40) Què us penseu? *Que no sé que us voleu escapar?*  
 that yourselves think.2pl That not know.1s that yourselves want.2pl to escape  
 ‘What do you think? That I don’t know you want to escape?’

In Central Catalan, exploratory questions receive a special intonation contour that is similar to the one used for anti-expectational questions (see § 4.1 above). The graph in (41) shows the waveform and intonation contour of the utterance in *italics* in (40). The contour starts with a low tone that continues low until the beginning of the last stressed syllable in the utterance, in this case the syllable *par* in *escapar*. This syllable is pronounced with a very prominent rising tone (more prominent than that found in anti-expectational questions), which falls after that until the end of the utterance.

(41) Exploratory question (Central Catalan)



Other biased questions such as **exhortative questions** cannot be headed by *que*. Exhortative questions endeavor to advise the hearer earnestly or even



force him or her towards a given response. They can have the illocutionary force of an order, as in (42), which is equivalent to *Calleu!* 'Be quiet!'.

- (42) *Voleu callar d'una vegada?*  
 'Would you please be quiet once and for all?'

The intonation of exhortative questions depends on the illocutionary force of the utterance: the intonation contours found in these sentences range from the canonical rising and falling question intonation pattern to a series of distinctive intonation patterns (for a review, see Prieto 2002).<sup>9</sup>

### 5. On the syntactic properties of polar questions

In this section we analyze the structure of the main types of Catalan polar interrogative questions described above. We assume that the word *que* 'that' found at the beginning of some polar Catalan questions is the conjunction *que*, which appears in some subordinate finite clauses, as in the examples in (43). In both sentences, the conjunction acts as a complementizer which connects the subordinate proposition with a constituent in the higher clause.

- (43) a. *Ella no vol que tu vinguis amb mi.*  
 she not wants that you come with me  
 'She doesn't want you to come with me'  
 b. *Jo estic content que tu vinguis amb mi.*  
 I am happy that you come with me  
 'I am happy that you are coming with me'

However, the Catalan complementizer *que* is not restricted to subordinate clauses. It also appears heading simple clauses together with some other elements such as emphatic focused elements (44a), modality adverbs (44b) and quantified temporal expressions (44c) (see Rigau 2001). Its presence is related to sentential modality:<sup>10</sup>

<sup>9</sup> In this article, we will not deal with other types of questions, such as repetitive questions, which Bolinger (1957) classifies as echo questions, ditto questions and reclamatory questions. Interestingly, the conjunction *que* cannot appear heading an echo question. For more on repetitive questions, see Rigau & Prieto (2005).

<sup>10</sup> The complementizer *que* is also present in simple clauses in other Romance languages:

- |    |                                      |         |
|----|--------------------------------------|---------|
| a. | <i>Peut-être que Marie viendra.</i>  | French  |
|    | perhaps that Mary will-come          |         |
|    | 'Perhaps Mary will come.'            |         |
| b. | <i>Seguramente que María vendrá.</i> | Spanish |
|    | surely that Mary will-come           |         |
|    | 'Mary will surely come.'             |         |

- (44) a. La Maria sí que ve.  
Mary yes that comes  
'Mary *is* coming.' (though somebody else is not)
- b. Segurament que ella ho sap.  
surely that she it knows  
'Surely she knows.'
- c. Tot avui que plou.  
all today that rains  
'It has been raining all day.'

Given the data in (44) it is not surprising that sentences with an interrogative or exclamative marker (or operator) select the complementizer *que* in order to link the force marker (or operator) with the clause. This is the case of the confirmatory question in (45a) (see also § 4.2 above), and the exclamative sentence in (45b).

- (45) a. Oi que m'estimes?  
Op. that me love.2s  
'You love me, don't you?'
- b. Quin fred que fa!  
which cold that does  
'How cold it is!'

If we assume that Catalan polar questions are headed by a force operator with prosodic features, we will be able to properly analyze the intriguing presence of the complementizer *que* 'that' in initial position in *Que plou?* 'Is it raining?'<sup>11</sup> Actually, as mentioned before, many Catalan dialects can optionally use the complementizer *que* to mark a specific type of interrogative sentence. What is not optional is the use of a specific intonation pattern, which varies depending on the dialect.

### 5.1. The syntax of the neutral polar questions

In this section we focus on the basic syntactic properties of neutral polar interrogative sentences in one of the main Catalan dialects, Central Catalan, described in § 2.1 above. (46) repeats the examples given in (3). The conclusions of this analysis can be applied *mutatis mutandis* to other Catalan dialects.

- (46) a. Plou?  
rains  
'Is it raining?'

<sup>11</sup> Questions headed by *que* must always be complete sentences: *Que vindrà demà, la Maria?* 'Is Mary coming tomorrow?'. Consequently, constructions such as *\*Que demà?* 'that tomorrow' and *\*Que la Maria?* 'that Mary' are ungrammatical, in contrast to *Demà?* and *La Maria?*, which are well-formed.

- b. Que plou?  
that rains  
'Is it raining?'

From a syntactic point of view, both types of interrogative sentences are headed by an interrogative operator visible not by segmental material, but only by suprasegmental or prosodic information. Because of its modal properties, the interrogative operator occupies a peripheral position in the complementizer zone. We assume the proposal put forth by Rizzi (1997, 2001) on the complexity of the peripheral positions that head a sentence. The articulation of the complementizer zone proposed by Rizzi (2001) is reproduced in (47):

- (47) [ Force (Topic) (Focus) (Modifier) (Topic) Finiteness [ IP ]]

The Inflectional Phrase (IP) expresses the propositional content of the sentence, whereas the positions at the left of IP correspond to the complementizer zone. They allow for the expression of sentential modality and for the articulation of the discourse. Sentence modality is related to Force position. Focus, Modifier and Topic positions can remain inactivated. Finiteness reflects the finite or non-finite character of the sentence.

In (48) we roughly represent the syntactic structure of (46a). Force Phrase (ForceP) shows neutral polar interrogative features and a neutral polar interrogative operator appears in its specifier position. This operator is realized by prosodic means that can vary depending on the dialect. ForceP in (48) confers a neutral polar question meaning to the sentence. The head of Fin(iteness) Phrase, with the [+ finite] feature, is not phonologically realized.

- (48) [<sub>ForceP</sub> *Operator*' [<sub>Force</sub> +neutral interrogative [<sub>FinP</sub> *e* [<sub>IP</sub> ... t' *plou*]]]]

Similarly, (49) schematically represents the syntactic structure of (46b). Now the specifier position in ForceP is also occupied by an operator with a neutral polar interrogative meaning and specific prosodic features, which vary depending on the dialect. However, in this case, Force head is realized by the conjunction *que*, and the verb moves to Fin head position.

- (49) [<sub>ForceP</sub> *Operator*' [<sub>Force</sub> +neutral *que* [<sub>FinP</sub> *plou* [<sub>IP</sub> ... t' ... t<sub>v</sub>]]]]

Following Rigau (1984), we assume that the interrogative operator in neutral polar questions is a yes-no quantifier originating inside IP, in the same position as polarity items *yes* and *not*, i.e. in Sigma (or Polarity) Phrase. Consequently, polar interrogative questions are neither true nor false. They are sentences that express a disjunction between the affirmation and the negation of their propositional content.

The movement of the yes-no quantifier from Sigma Phrase in IP to the specifier position in ForceP attracts the verb similarly to what happens with the movement of Wh- elements to the complementizer zone.<sup>12</sup> Consequently, when the interrogative sentence has an explicit (or non-elliptical) subject, it appears in a left or right peripheral position, as in (50). In both cases, the clause and the subject are produced with two separate intonational phrases. It does not matter if the conjunction *que* is present or not.

- (50) a. En Joan, (que) viu a Barcelona?  
 the John (that) lives in Barcelona  
 ‘Does John live in Barcelona?’  
 b. (Que) viu a Barcelona, en Joan?  
 (that) lives in Barcelona, the John?  
 ‘Does John live in Barcelona?’

The sentences in (50) are neutral yes-no questions. However, when the subject appears in postverbal position and the utterance is produced as a single intonational phrase, the resulting sentences are not neutral, as in (51). Interestingly, no element is dislocated in either sentence. Thus such sentences cannot be used out of the blue because they are anti-expectative.

- (51) a. (Que) vindrà ella?  
 (that) will-come she  
 ‘She’s coming?’  
 b. (Que) ho ha portat en Joan?  
 (that) it has brought the John  
 ‘John brought it?’

In fact, the sentences in (51) constitute a strategy to manifest surprise or disapproval on the part of the speaker after a statement from the interlocutor which contradicts his or her initial assumptions. Hence, these questions solicit a confirmation or a refutation on the part of the hearer.

In Northern Central Catalan and in Rossellonese Catalan, as well as in Valencian, FinP in neutral yes/no questions cannot contain the conjunction *que*, as shown in § 2.3. In such dialects, *Que plou?* ‘Is it raining?’ can only be interpreted as an anti-expectational question, that is, as an expression of the lack of agreement between the facts and the speaker’s own expectations (‘I thought it would not rain’).

<sup>12</sup> In (i) the movement of *on* ‘where’ from its original position inside IP to the complementizer zone attracts the verb:

- (i) a. On va en Pere?  
 Where goes the Peter  
 ‘Where is Peter going?’  
 b. \*On en Pere va?  
 where the Peter goes

### 5.2. The syntax of alternative questions

In alternative questions, the yes-no quantifier originating inside IP (in the same position as polarity items) in polar questions is partially or totally explicit. For example, it is totally explicit in (52a) and partially so in (52b).

- (52) a. Ell ho sap, sí o no?  
           he it knows yes or no  
           ‘Does he know it or not?’  
       b. (Que) plou o no plou?  
           (that) rains or not rains  
           ‘Is it raining or not?’

Our claim is that in (52a) the yes-no quantifier – which has segmental and suprasegmental content: *sí or no*<sup>13</sup> – moves to specifier position in ForceP. After that, as an instance of remnant movement<sup>14</sup>, the IP node moves to a previous position to ForceP, i.e., to an extra Topic position, leaving the quantifier in specifier position in ForceP, as shown in (53).<sup>15</sup>

- (53) [<sub>TopicP</sub> [<sub>IP</sub>’ Ell t’ ho sap] ... [<sub>ForceP</sub> [<sub>Op</sub>’ sí o no] [<sub>Force +polar interrog.</sub> [<sub>FinP e</sub> [<sub>IP</sub> t’']] ]]]]

Crucially, question (52a) cannot be headed by *que*.

In (52b) the polar interrogative operator originating in Sigma (or Polarity) Phrase inside IP is rendered partially visible by segmental material, i.e., the disjunction of the VP (*plou o no plou*), but also through the suprasegmental properties expressed by the operator in the specifier position in ForceP.

### 5.3. The syntax of biased questions

The interrogative operators in biased questions, such as anti-expectative and confirmatory questions, do not affect the syntactic order in the sentence because they originate directly in ForceP, not inside IP. Consequently, their subject can appear in the preverbal or postverbal position, as shown in (54a)

<sup>13</sup> The structure of the disjunctive phrase that acts as an operator is (i), where *o* is its head.

(i) [ sí [ o no ] ]

<sup>14</sup> Remnant movement is movement of an XP  $\beta$  from which extraction of  $\alpha$  has taken place:

(i) [  $\beta_2$  ... t<sub>1</sub> ... ] ... [ ...  $\alpha_1$  [ ... t<sub>2</sub> ... ] ]

Remnant movement requires strict cyclicity and also requires that locality is checked directly after each movement operation (see Kayne 1998 and Müller 2002, among others).

<sup>15</sup> On the need for an extra Topic position on the left of ForceP, see Hernanz & Rigau (2006) and Mata (2007).

and (51). Moreover, in contrast with polar interrogative sentences, biased questions can be negative, as in (54b) or (54c).

- (54) a. Oi que en Pere no va a Barcelona? (confirmatory question)  
Op. that Peter not goes to Barcelona  
'Peter isn't going to Barcelona, is he?'
- b. Que no volies un collaret? (anti-expectative question)  
that not wanted.2s a necklace.  
'Didn't you want a necklace?'
- c. O no volies un collaret? (anti-expectative question)  
or not wanted.2s a necklace.  
'Didn't you want a necklace?'

In (55) we schematically represent the structure of the sentences in (54). In (55a) the specifier position in ForceP is occupied by an operator with segmental and suprasegmental properties (*oi*), while the operator in ForceP in (55b) only has suprasegmental properties. In both structures the conjunction *que* occupies Fin head (cf. Hernanz & Rigau 2006). On the other hand, (55c) shows that in Balearic Catalan the conjunction that relates the operator with suprasegmental features and the clause (IP) might be the disjunctive conjunction *o*, which we hypothesize that is originated in Fin head:

- (55) a. [<sub>ForceP</sub> [<sub>Operator</sub> *Oi*] [<sub>Force</sub> +confirmative interrogative [<sub>FinP</sub> *que* [<sub>IP</sub> *en Pere no va a Barcelona*]]]]
- b. [<sub>ForceP</sub> [<sub>Operator</sub>] [<sub>Force</sub> +anti-expect. interrogative [<sub>FinP</sub> *que* [<sub>IP</sub> ... *no volies un collaret*]]]]
- c. [<sub>ForceP</sub> [<sub>Operator</sub>] [<sub>Force</sub> +anti-expect. interrogative [<sub>FinP</sub> *o* [<sub>IP</sub> ... *no volies un collaret*]]]]

## 6. Conclusions

The linguistic diversity offered by the Catalan dialects with respect to the realization of neutral polar questions provides evidence that both syntactic properties and intonation, defined by interrogative operators, are used to encode a variety of systematic modality meanings. In this article, we have presented a detailed description of the presence or absence of the conjunction *que* in several types of questions in different Catalan dialects. In the case of neutral polar questions, dialects such as Central Catalan, Majorcan and Eivissan express a modality difference between two types of polar questions through the presence of *que* and through differences in the suprasegmental information. On the other hand, in Minorcan, Northern Central Catalan and Valencian, the intonation pattern is the main cue to this modality distinction. From a syntactic point of view, we have claimed that both types of interrogative sentences are headed by an interrogative operator that occupies a

peripheral position in the complementizer zone. These neutral interrogative operators determine the prosodic properties of the sentence; that is to say, they are 'visible' by virtue of not segmental material but rather suprasegmental or prosodic information.

The Catalan linguistic area is not very extensive geographically and Catalan dialects are not very distant typologically. Hence, Catalan dialects and subdialects constitute an excellent laboratory where we can detect and compare the grammatical properties that allow microvariation. The great dialectal variety of *que* questions reveals that in order to guarantee the reliability of linguistic descriptions it is necessary to take into account complementary linguistic information, namely prosody, syntax and semantics. Studies which analyze one particular aspect in an isolated way might run into a methodological problem because there is a risk of misinterpreting the linguistic data. This line of research is also advisable, not only because it enables us to fully understand languages and their dialects, but also because it paves the way for future studies on comparative syntax, prosody and pragmatics. It is through descriptions of sentences such as those analyzed in this article that we realize how much linguistic diversity exists among the dialects of a language.

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