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FACULDADE DE LETRAS



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Margarita Stefanova Dimitrova

Orientador(es): Prof^ª. Doutora Maria Manuela Furtado Ambar

Tese especialmente elaborada para obtenção do grau de Doutor em Linguística

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Abstract

In recent years the syntax of yes-no questions has been subject to some intriguing discussions capitalising on the relation between questions and polarity and on the existence of a Pol(arity) head that encodes the polarity value of the structure (Holmberg 2012). Adopting the idea that polarity is in the core of yes-no questions formation, here we explore the properties of yes-no questions in Bulgarian and Portuguese.

Portuguese has traditionally been addressed as a language in which the licensing of yes-no questions relies on the rising intonation with which they are produced (Frota 2000, 2002). Bulgarian, on the other hand, displays the particle *li*, which follows the Verb or XPs different from the verb, the latter being the case of the so called *focused yes-no questions*. Nevertheless, the question of what exactly the syntactic expression of V-*li* and XP-*li* questions is and what triggers the focused meaning of the latter is yet to be settled.

Contrary to the traditional assumptions on Portuguese yes-no questions, we argue with Ambar (2012, 2013) that these structures display V-movement to Int(errogative)P and project PolP (Holmberg 2012). A similar line of inquiry is adopted for Bulgarian *li*-questions: we propose that *li* is externally merged in PolP and denotes the polarity algorithm $[x, \neg x]$ (Hamblin 1973). Based on some well-known assumptions on pronominal clitics, we claim that *li* can be both an X^0 and an XP (Chomsky 1994). The distinction between Bulgarian V-*li* and XP-*li* questions is accounted for accordingly: in V-*li* questions, the verb attaches to *li* in Pol 0 while in XP-*li* questions, an XP different from the verb attaches to *li* in Spec, PolP. Both structures display movement to IntP triggered by the existence of given features in need of valuation.

Besides the properties of standard yes-no questions, in this work we also explore data from negative and subjunctive yes-no questions focusing on the way yes-no questions codify speaker-related properties. The discussion of these structures thus stresses on the relation to *evaluation* and (*non*)*veridicality* (Ambar 1996, 1999, 2000, 2003, 2016, Cinque 1999, Giannakidou 2016).

Key words: yes-no questions, syntax, polarity, evaluation, (*non*)*veridicality*.

Resumo

O objetivo central desta tese é discutir as estruturas conhecidas na literatura como perguntas polares, ou sim-não, comparando as suas propriedades em línguas tradicionalmente consideradas tipologicamente distintas como o português e o búlgaro.

Nos últimos anos, as discussões dedicadas à sintaxe das interrogativas sim-não têm incidido nas propriedades de polaridade que estas estruturas revelam. Considerando tais propriedades inerentes às perguntas totais, Holmberg (2012) propõe que a expressão sintática destas interrogativas envolve uma cabeça funcional chamada Pol(arity) P(hrase). Para além de a projeção PolP ser considerada o domínio responsável pela codificação dos traços de polaridade, o movimento do verbo para PolP tem sido visto como o fator que condiciona o tipo de sistema responsivo que uma dada língua exhibe (Martins 1994, Holmberg 2012). Assim, nas línguas com movimento do verbo para T, e posteriormente para Pol, o sistema responsivo é aquele designado pelo autor como *polarity-based answering system*, i.e. as partículas ‘sim’ e ‘não’ concordam com o valor de polaridade da proposição. Em contraste, em línguas como o chinês em que o verbo não se move para T, o sistema responsivo é aquele conhecido como *truth-based answering system*, i.e. ‘sim’ e ‘não’ correspondem ao valor de verdade da frase.

Tendo por base dados do búlgaro e do português, o presente trabalho visa contribuir para o estudo das interrogativas sim-não considerando com Holmberg (2012) que a cabeça funcional PolP é o domínio onde a polaridade, intrinsecamente presente nestas estruturas, é codificada.

Desde Rudin (1986) o licenciamento das interrogativas sim-não do búlgaro tem sido considerado resultado da ocorrência da partícula *li*. Curiosamente, em contraste com outras partículas interrogativas que normalmente ocupam uma posição fixa na frase, *li* pode seguir o verbo ou constituintes XPs diferentes do verbo, sendo a última a ocorrência tradicionalmente associada com a atribuição de traços de foco. Assim, dois tipos de interrogativas sim-não em búlgaro podem ser distinguidos: (i) as interrogativas V-*li* neutras em que a partícula segue o verbo e (ii) as interrogativas XP-*li* focalizadas em que *li* segue um constituinte diferente do verbo.

No entanto, estas propriedades aparentemente simples das perguntas polares búlgaras têm constituído um problema para as propostas de análise. Verificou-se assim a necessidade de se explicar não só as propriedades de foco e interrogação inerentes a *li*

como também a correlação entre a distribuição da partícula e a leitura (neutra ou de foco) que a estrutura denota.

As interrogativas sim-não do português, por outro lado, têm sido geralmente abordadas na perspectiva das propriedades entoacionais e prosódicas que exibem (Frota 2000, 2002). Notou-se ainda que em línguas como o português, o italiano ou o espanhol não se verificam mecanismos sintáticos visíveis para o licenciamento das interrogativas polares. Provavelmente por esta razão, estas perguntas não foram abordadas sob o prisma das características sintáticas que as distinguem das frases declarativas e o seu licenciamento passou a ser relacionado com a atribuição de uma entoação crescente com a qual são sistematicamente produzidas.

No entanto, alguns trabalhos recentes, nomeadamente Ambar (2012, 2013), mostraram que uma proposta de análise baseada exclusivamente em considerações de ordem fonética e não sintática, na realidade, não consegue dar conta das propriedades das perguntas totais em português. Considerando as evidências do comportamento de quantificadores e de itens de polaridade como também a distribuição do deíctico locativo *lá* que funciona como marcador de negação, Ambar (2013) observa que as perguntas polares na realidade partilham algumas propriedades com as interrogativas-qu, particularmente no que se refere ao movimento do verbo. Assim, a autora propõe que a estrutura sintática das interrogativas sim-não envolve movimento do verbo para IntP desencadeado pela existência de um operador interrogativo, tal como nas interrogativas qu.

Considerando a análise proposta em Ambar (2013) e baseando-nos nas ideias de Holmberg (2012), segundo o qual, como discutido acima, a análise sintática das interrogativas sim-não envolve a projeção PolP, nós propomos que a ocorrência da partícula *li* está associada ao conceito de polaridade. Assim, nós assumimos que a função de *li* é, crucialmente, a de denotar o algoritmo de polaridade $[x, \neg x]$ (Hamblin 1973) em que $[x]$ pode ser o verbo, como nas perguntas V-*li*, ou um XP diferente do verbo, como nas perguntas XP-*li*. Baseando-nos nas assunções prévias sobre o estatuto dos clíticos pronominais (Kayne 1991, Chomsky 1994), propomos que a partícula *li* pode ser uma cabeça ou uma projeção máxima. Nas interrogativas V-*li*, a partícula é *external merged* em Pol°. O verbo move-se e adjunge-se a *li* absorvendo o algoritmo de polaridade $[x, \neg x]$. O constituinte complexo formado pelo verbo e a partícula move-se para a cabeça de IntP que tem os traços *unvalued* [*uPol*] e [*uV*].

Por outro lado, nas interrogativas *XP-li*, *li* é *external merged* em Spec, PolP. Como nas interrogativas *V-li*, o constituinte *XP* adjunge-se a *li*, sendo o resultado a criação das alternativas [*XP*, \neg *XP*]. Como referido acima, a cabeça de IntP tem os traços *unvalued* [*uPol*] e [*uV*] que desencadeiam, respetivamente, movimento do constituinte complexo *XP-li* para a posição Spec de IntP e o movimento do verbo para a posição de Int^o. Visto que, nas interrogativas *XP* o *set* de alternativas formado na sequência da adjunção do *XP* a *li* é [*XP*, \neg *XP*], a interpretação destas estruturas é aquela que tradicionalmente tem sido relacionada com a atribuição de foco. Note-se que o set de alternativas, de facto, consiste na formação do par composto pelo *XP* e a sua negação \neg *XP*.

O contraste entre as interrogativas *V-li* e *XP-li* revela-se ainda quando consideramos o comportamento do sistema responsivo. As perguntas *V-li* exibem o que Holmberg (2012, 2016) chama de *polarity-based answering system* que é visto como resultado da adjunção do verbo a *li*: sendo T a cabeça da frase, o algoritmo de polaridade aplica-se a toda a proposição. Em contraste, as respostas às interrogativas *XP-li*, referem-se ao constituinte *XP* que se adjunge a *li* in Spec, PolP, criando assim um paralelo entre estas estruturas e as interrogativas-*qu*.

No que diz respeito às interrogativas *XP-li* ainda discutimos algumas propriedades relacionadas com o conceito de foco. Considerando o comportamento da partícula *li* em estruturas que contêm quantificadores e constituintes-*qu*, verificamos que a partícula *li* *exibe* uma forte sensibilidade à quantificação. Segundo Szabolcsi (2015) e Giannakidou (2006) os quantificadores universais, por um lado, e os quantificadores positivos e negativos, por outro, envolvem um *set* de alternativas que se relacionam com os conhecimentos prévios do falante. Baseando-nos nestas análises, propomos que o constituinte *XP* que se adjunge a *li* é uma pressuposição que faz parte daquilo que o falante sabe. Assim, assumimos ainda que o constituinte composto pelo *XP* e a partícula *li* se move para a projeção AssertiveP (Ambar 2003) que dá conta dos conhecimentos prévios do falante.

A codificação dos valores relacionados com o falante tornou-se particularmente relevante na discussão de mais dois tipos de interrogativas: as interrogativas sim-não negativas e as interrogativas de conjuntivo. Por um lado, as interrogativas sim-não negativas têm sido largamente discutidas em relação à expressão de *positive bias* e ao valor expletivo do marcador de negação. As interrogativas de conjuntivo, por outro lado, denotam diferentes valores relacionados com modalidade epistémica. Curiosamente, as

interrogativas sim-não negativas e as interrogativas de conjuntivo parecem exibir uma forte relação com os conceitos de *evaluative* e de *non-veridicality* (Ambar 1996, 1999, 2000, 2003, 2016, Cinque 1999, Giannakidou 2016).

Além disso, no que se refere à seleção do modo conjuntivo em frases interrogativas, tal só se verificou nas línguas balcânicas. Em línguas como o búlgaro e o grego nada impede o licenciamento das interrogativas de conjuntivo. Em português, por outro lado, tais perguntas consistem em estruturas agramaticais. Explorando as propriedades do conjuntivo em línguas românicas e balcânicas, propomos que este contraste é resultado de as frases de conjuntivo nas línguas balcânicas exibirem propriedades do conjuntivo e do infinitivo.

Palavras-chave: interrogativas sim-não, sintaxe, polaridade, avaliação, *(non)veridicality*

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1. INTRODUCTION

The syntax of interrogative sentences has always been of interest to generative linguists. Two major groups of interrogative structures have been distinguished: *wh*-questions and yes-no questions.

The complex interaction between several phenomena involved in these structures has led to the establishment of typological classes of languages in what concerns their formation. More specifically, *wh*-questions have been approached from the perspective of central syntactic operations, such as *wh*-movement, verb movement, *do*-insertion, subject-verb inversion (*stylistic inversion*, *clitic inversion* and *complex inversion*, cf. Kayne & Pollock 1978, 2005, Rizzi & Roberts 1996) and *operator-variable relation*, as well as from the perspective of some discourse categories such as *focus* and *presupposition*. In given languages, *wh*-movement is obligatory, in others it is impossible or *apparently* optional. Likewise, verb movement and subject-verb inversion appear to be either obligatory or forbidden across languages (Ambar 2003). Cross-linguistic comparison has further shown that variation concerning the position of the *wh*-constituent (the *ex-situ* - *in-situ* alternation) may be associated, on the one hand, with general properties of natural languages (e.g. V-to-T and T-to-C movement; overt *vs.* covert movement, Kayne 1998) and, on the other hand, with discourse-related factors, such as links with the speaker's previous knowledge and presuppositions (Ambar 2000, 2003, Cheng & Rooryck 2000, Etxepare & Uribe-Etxebarria 2005, a.o.).

Considering the amount of literature dedicated to *wh*-questions and, more generally, to *wh*-movement (Chomsky 1977), it is surprising to observe how little is known about the syntax of yes-no questions. Typological studies (Dryer 2005) have shown that languages display different strategies for the formation of yes-no questions (interestingly, some of them available for *wh*-questions as well, cf. Miyagawa 2010 on Japanese *ka*): insertion of a question particle, particular word order, proper intonational contour, among others. This rich cross-linguistic variation has been, without doubt, a problem for the identification of a uniform syntactic structure able to capture, in a unified way, these divergent behaviours of languages.

Some recent analyses (Holmberg 2012, Ambar 2013) have made an attempt to fill this gap by stressing the existence of a specific syntactic representation for these

structures, building on the properties of a polarity head (or ΣP (Laka 1990) as in Kramer & Rawlins 2010): the domain in which the polarity of the question is encoded. What is more, it has been unanimously agreed that the Q-operator (the question particle, the verb, or the intonational morpheme, cf. Cheng 1991, Cheng & Rooryck 2000, a.o.) activates the CP-domain for reasons related to clause-typing.

Note that rising intonation has been deemed a prime condition for the expression of yes-no questions in a group of major Romance languages such as Italian, Portuguese and Spanish, i.e. languages that do not exhibit overt interrogative markers and that apparently display the declarative SVO order. Yet, as observed in Ambar (2012, 2013), a given intonational contour does not overlap with the syntactic mechanism of a given structure, rather each syntactic structure has its own intonational contour, as will become clear in what follows.

In light of the above observations on yes-no questions, the goal of this dissertation is to contribute towards a better understanding of these structures, capitalizing on data from two typologically distinct languages: Bulgarian and Portuguese. Reference to other languages (from the Slavic and Romance groups, and others) will be made when required.

As mentioned above, there exists a long tradition that considers that the structure of yes-no questions in languages such as Portuguese resembles that of declaratives. Accordingly, Portuguese has always been addressed as a language in which yes-no questions are formed by assigning rising intonation to the structure, while keeping the declarative SVO order. Nevertheless, recent studies, namely Ambar (2012a, 2013), point out that intonation is present in all sentences (as declarative intonation in declarative sentences) and stress the existence of some strong restrictions within the structure of Portuguese yes-no questions which suggest a derivation patterning wh-questions.

In Bulgarian the insertion of the Q-particle *li* is what enables the licensing of yes-no questions. The works that have analysed the distribution of *li* have moreover stipulated a relation with focus-assignment. Nevertheless, some aspects concerning the syntactic expression of Bulgarian polar questions and the structural position occupied by *li* – (i) the complementizer position, (ii) the position of head of FocusP and (iii) that of a clitic adjoined to its host by External Merge – remain unsettled. The picture gets even more complicated when one considers the expression of focus, confined to the opposition between V-*li* and XP-*li* questions. V-*li* and XP-*li* questions differ sharply with respect to information structure, the XP-*li* combination being the one associated with the contrastive

focus reading. This aspect of the characterisation of the particle gives rise to further important questions concerning the way in which focus is accounted for under the syntactic structure of polar questions.

Putting aside the variation in the strategies displayed by the languages under scrutiny, one unifying property of polar questions across languages concerns the fact that these structures are most commonly answered by the particles “yes” or “no” (although certain languages exhibit preference for other answering patterns which confirm or contradict the polarity of the question, cf. Holmberg 2012, Martins 1994). Hence, in contrast to wh-questions, in which the occurrence of the wh-word – “who, what, where, etc.” – restricts the identification of the variable requirement, provided by the answer (1), in polar questions the variable corresponds to the *full proposition* and to the alternatives [p, ¬p], (cf. Hamblin 1973), i.e. the answer relates to the truth of the proposition (2):

(1) Q: What did John buy?

A: John bought the book.

(2) Q: Did John buy the book?

A1: Yes. (John bought the book.)

A2: No. (John didn't buy the book.)

Consequently, our main goal is to understand how the existence of the alternatives [p, ¬p] is accounted for, exploring the variation between the languages under study and comparing this with other languages such as Chinese. Interestingly, Chinese displays the so-called A-not-A questions, in which the positive and the negative alternative are made explicit in the question itself.

Apart from the central topics concerning polarity, the alternatives [p, ¬p] and the fundamental properties of Bulgarian and Portuguese yes-no questions, a closer look at the data reveals the need to consider several additional phenomena and the way that they interact with polar questions. In what follows, we will outline some of these additional topics, the thorough discussion of which will be pursued in the next chapters.

1.1. Focus in Yes-No Questions

As briefly referenced above, the syntactic expression of Bulgarian yes-no questions turns out to be particularly challenging when it comes to accounting for the dual nature of the particle *li*. Besides being considered the licenser of Bulgarian yes-no questions, *li* is also responsible for assigning contrastive focus whenever it attaches to XPs different from the verb. Thus, two types of *li*-questions can be distinguished: the neutral V-*li* questions and the focused XP-*li* questions in which the XP incorporating the particle is the contrastively focused constituent.

The term *focus* has traditionally been approached from the perspective of the dichotomy *focus-topic* or new and old information, respectively. In Jackendoff (1972), it was defined as “the nonpresupposed part of the sentence”. Later works (Ambar 1996, Kiss 1998, Roberts 1998, Zimmermann 2008, among others) have distinguished between two types of focus: *information* focus and *identification* focus, the latter being more commonly known as *contrastive*. Both refer to the identification of the ‘new’ information. However, contrastive focus has been further defined as [+exhaustive] since the identification of the new information is given through an opposition with other elements.

The licensing of focus in polar questions has not been subject to much research. The works dedicated to its syntactic properties have capitalized on data from languages like Bulgarian (Rudin et al. 1999) or Finnish (Holmberg 2014, 2016) in which the identification of the focalised constituent relies on the occurrence of the particles *li* and *ko*, respectively, i.e. on languages that display overt syntactic mechanisms underlying the focused interpretation.

Holmberg (2014) dubs focus in yes-no questions *questioned focus*, as opposed to *asserted focus*, considering the following data from Finnish¹:

(3) a. Olli-ko ajoi illalla kaupunkiin?
Olli-Q drove evening-ADE town-ILL
‘Did OLLI drive into town in the evening?’

b. Kaupunkiin-ko Olli ajoi illalla?

¹ In the examples in (3), we keep Holmberg’s abbreviations which are as follows: ADE = Adessive, INE = Inessive, ELA = Elative, ILL = Illative.

town-ILL -Q Olli drove evening-ILL
'Did Olli drive into TOWN in the evening?'

c. Illalla-ko Olli ajoi kaupunkiin?
evening-ADE-Q Olli drove town-ILL
'Did Olli drive into town in the EVENING?' (Holmberg 2014: 266)

Putting aside languages like Finnish, in which the identification of the focused constituent depends on the distribution of the particle *ko*, we can observe that the expression of focus in polar questions may be also encoded in cleft structures. As pointed out by the author, the meaning of the above examples in (3) can be felicitously expressed in the following way:

- (4) a. Was it Olli that drove into town in the evening?
- b. Was it into town that Olli drove in the evening?
- c. Was it in the evening that Olli drove into town?

The strategy illustrated in (4) is precisely that which can be observed in those languages (e.g. Portuguese², Brito 2003) in which no '*ko*-like' particle determines the focused element.

Coming back to the structures in (3), several important questions arise:

- (i) Which is the syntactic domain licensing questioned focus?
- (ii) Which are the properties of particles such as Finnish *ko* (or Bulgarian *li* cf. Chapter 2) which permit them to function as both Q and Foc-operators?
- (iii) What explains the sensibility of such particles to the type of host to which they adjoin, given that only XPs different from the verb acquire the focus meaning?

² In European Portuguese, focus in yes-no questions can also be expressed by prosodic means (see Frota 2000, 2002).

In addition, another issue concerning *questioned focus* appears when a broader perspective towards this topic is assumed. Note that the term *focus* has been traditionally associated with the speaker's knowledge and with assertions, which is why it is rather controversial for it to be so freely available in questions. *Questioned focus*, then, seems to simultaneously express a question and knowledge. This observation is consistent with the claim made in Zimmermann (2008) according to which contrastive focus mirrors the relation speaker-hearer.

Discussing the semantics of negative polar questions, Reese (2006) argues that they are complex speech acts consisting of an assertion and a question. The interpretation confined to the structure of *questioned focus* leads us to adopt a similar line of inquiry considering projections of the Left Periphery responsible for accounting for the speaker's knowledge.

All these topics, as well as some intriguing parallels between the so called focused yes-no questions and wh-questions, will be discussed in Chapters 2 and 3.

1.2. Negative Yes-No Questions

Another topic we will highlight here concerns negative yes-no questions. Ever since Ladd (1981) and his well-known distinction between Inner and Outer negation, it has been commonly agreed that the occurrence of negation in yes-no questions gives rise to ambiguous structures denoting the speaker's bias towards the positive value of the proposition. Therefore, in contrast to positive yes-no questions in which no such ambiguities are observed, negative yes-no questions consist in a rather complex matter which involves the interplay between semantic, syntactic and pragmatic factors. Compare (5a) and (5b):

(5) a. Did John buy the book?

b. Didn't John buy the book? (I think he did)

In (5b) negation does not contribute to the negative interpretation of the question. As a consequence, these cases have been traditionally associated with the semantic *expletiveness* of negation (Espinal 1997, 2000; Brown and Franks 2005; among others),

i.e. since negation is semantically void of negative content, it does not assign a negative value to the proposition.

Nevertheless, when the behaviour of the polarity items and the licensing of negative concord in negative yes-no questions is considered, it seems that the positive bias acquired through the occurrence of negation is not an outcome of the semantics of the negation marker itself, as has been previously argued, but is rather a consequence of the syntactic mechanisms underlying its expression.

The data from the so-called *strict negative concord languages* (Giannakidou 2001) (such as Bulgarian, Russian and Serbian-Croatian, a.o.) are of particular import here. In Bulgarian, it appears that negative concord is blocked in negative yes-no questions:

- (6) Petăr ne pročete li *ništo / nešto ?
Peter not read.3sg Q nothing / something
'Didn't Peter read something?'

What is more, the licensing of the negative polarity items which are banned in (6), involves their placement in a pre-verbal position in which *li* is attached to them, as illustrated in (7):

- (7) Ništo li ne pročete Petăr ?
Nothing li not read.3sg Peter
'Didn't Peter read anything?'

The examples in (6) and (7) hint at an intricate puzzle concerning (i) the blocking of negative concord, which is rather unexpected for a strict negative concord language like Bulgarian, and (ii) the licensing of the negative polarity items which seem to pattern focus phrases. Our goal is to understand what triggers (i) and (ii). Moreover, we will compare the Bulgarian data with some intriguing cases from Portuguese negative yes-no questions establishing a relation with a given type of modality and other speaker-related aspects which underlie the positive bias of these structures.

These questions will be explored in Chapter 4.

1.3. Subjunctive Questions

The last topic we will devote our attention to concerns the opposition of indicative vs. subjunctive and, more particularly, the *(un)selection* of subjunctive in yes-no questions and other types of main clauses.

Mood selection has been widely discussed with respect to complement clauses (Picallo 1985, Raposo 1985, Ambar 1988, 1999, 2005a, 2012b, 2016a, Quer 1998, Giannakidou 1998, Kempchinsky 2009, Portner 2009, a.o) and traditionally related to the semantic contrast *realis - irrealis*. Moreover, it has been shown that the selection of subjunctive correlates with the speaker's attitude and with the expression of evaluation, questions which have been convincingly associated with a given type modality and with the concept of *(non)veridicality* (Giannakidou 1998, 2009, 2016, Marques 2009, 2010, Palmer 2001, Ambar & Jiménez-Fernández 2014, Ambar 2016a, Ambar, Dimitrova and Amaral 2017).

What is more, it is well-known that languages vary with respect to the expression of the subjunctive mood: while Romance languages display specialised verbal morphology for this mood, Slavic and Balkan languages codify the subjunctive in the employment of special subjunctive particles (Giannakidou 2009 on Modern Greek *na*, Dobrovie-Sorin 1994, 2001 on Romanian *să*, Krapova 2001 and Smirnova 2011 on Bulgarian *da*, Mezhevich 2006 on Russian *by*).

Without entering into further details with regards to the properties of the subjunctive mood and its expression across languages – a task which we will leave for Chapter 5 – our goal is to address the factors triggering the selection of the subjunctive in yes-no questions and other main clauses, focusing on the following contrast between Bulgarian (8) and Portuguese (9):

(8) Ivan da otide li na kino?
John SUBJ go.Perfective.Present.3sg Q to movies
'Should/May John go to the movies?'

(9) * O João vá ao cinema?
The John go.SUBJ.3sg to-the cinema

Bulgarian licenses the subjunctive in questions, while in Portuguese subjunctive questions are ruled out. In order to explain what conditions this contrast, we will adopt some recent studies on the subjunctive, namely Ambar (2016a), Giannakidou (2016) and Ambar, Dimitrova and Amaral (2017), and will approach the variation illustrated by (8) and (9), considering further comparisons with other languages from the Slavic and Balkan groups and capitalizing on the properties of subjunctive particles such as the Bulgarian subjunctive particle *da*. Thus, we will argue that the so called subjunctive particles display properties of Romance subjunctive and infinitival structures.

In addition, we will discuss some aspects of the behaviour of another subjunctive-related element, namely the Bulgarian interrogative complementizer *dali* (Krapova 2002). *Dali* is a morphologically complex element that integrates the subjunctive particle *da* and the interrogative particle *li*. However, even though *dali* contains an instantiation of the subjunctive particle *da*, it differs from *da* with respect to two central aspects: (i) verb-adjacency and (ii) tense.

As for Portuguese, although the subjunctive is ruled out in questions, as illustrated by (9) above, it is felicitous in other types of main clauses. As pointed out in Ambar (2016a), this aspect of the characterization of the subjunctive creates an apparent controversy concerning the definition of this mood as *dependent* or *defective* (Piccallo 1984, Raposo 1985 a.o). According to Ambar (2016a)'s seminal work, the subjunctive mood is consistently associated with the speaker's evaluations: a line of inquiry that we will follow here.

Further discussion of these challenging topics will be provided in Chapter 5.

Summarising the above subsections and considering the wide range of phenomena and their implications for the object of our study, this work will focus on the syntax-pragmatics interface and on what has been defined as the Left Periphery of the sentence from the cartographic perspective (Ambar 1996, 1997, 2000, 2003, Cinque 1999, Rizzi 1997, 2001, Cinque & Rizzi 2008, a.o.).

In the next section we will establish some theoretical assumptions and the relevant background we adopt in this work.

1.4. Theoretical Framework

In this subsection, we will outline the theoretical framework adopted in our work. First, we will briefly discuss the central ideas of the minimalist model of grammar and the syntactic operations *Merge* and *Agree* (Chomsky 1995, 2000, 2001, 2005, 2007, 2008). Next, we will consider the Split CP Hypothesis (Rizzi 1997, 2001) and some of the works that have contributed towards a better understanding of the projections constituting the highest sentential domain defined as the Left Periphery of the sentence.

1.4.1. Minimalism: the syntactic operations *Merge* and *Agree*

Ever since the Principles and Parameters framework (Chomsky 1981) and the influential works preceding it, namely Chomsky (1964, 1965, 1975, a.o.), languages have been seen as instruments of a faculty humans are endowed with: the faculty of language, which consists in humans' innate capacity to perceive and use language. The faculty of language is therefore considered a 'language organ': a component of the human brain responsible for language. Accordingly, this theory of language postulates the existence of principles that are universal to all natural languages and parameters accounting for linguistic variation. The study of cross-linguistic variation therefore turns out to be one of the central strategies for understanding the parametrization languages are subject to and the Faculty of Language itself.

Moreover, under this view of language, the set of principles that make up a child's innate and unconscious knowledge is captured under the notion of *Universal Grammar*. The Universal Grammar consists in the initial state of the faculty of language, with particular grammars being acquired in the later stages of acquisition.

The Minimalist Program (Chomsky 1995) appears as an extension of the Principles and Parameters Theory and has been defined as a linguistic model of which the central advantage is 'economy'. By virtue of this property, it is designed in a way which means that only a minimum of operations is required. Linguistic expressions are generated by the faculty of language and sent to the 'interface levels': (i) the articulatory-perceptual level and (ii) the conceptual-intentional level. The computation of a given derivation therefore *converges* if it is interpretable at the interface levels. Otherwise, the derivation *crashes*.

Importantly, under Minimalism the central syntactic operation responsible for the construction of linguistic expressions is *Merge*, an operation which is “indispensable in some form for any language-like system” (Chomsky 2000: 101). *Merge* takes two syntactic objects and brings them together, giving rise to the formation of a new syntactic object:

$$(10) (\alpha, \beta) = \gamma (\alpha, \beta)$$

What is more, Chomsky (2001) distinguishes between two types of *Merge*: External *Merge* and Internal *Merge* (i.e. *Move*). Accordingly, under External *Merge* the two syntactic objects α and β are independent of one another, while under Internal *Merge* one syntactic object is part of the other. Therefore, Internal *Merge* captures the property of ‘displacement’, i.e. the operations giving rise to the derived structure and can be regarded as complex operation which combines *Merge* and *Agree*.

Agree is the operation responsible for the matching of features. It is understood as a matching relation between linguistic items and features in need of valuation. It is a probe-goal relation defined in Chomsky (2000) in the following way:

‘Matching is a relation that holds of a probe P and a goal G. Not every matching pair induces *Agree*. To do so, G must (at least) be in the domain of D(P) of P and satisfy locality conditions.’ (Chomsky 2000: 122)

Accordingly, the probe seeks for a matching goal in a given space, i.e. in its c-commanding domain. *Agree* between the probe and the goal applies when both the probe and the goal are active for it and it also deletes the uninterpretable features of the matching goal. The probe-goal system therefore obeys to the assumptions that follow:

- a) Matching is feature identity.
- b) D(P) is the sister of P.
- c) Locality reduces to closes c-command. (Chomsky 2000: 122)

In the next subsection, we will put aside the central topics concerning Minimalism briefly discussed above and will proceed with the discussion of the works developed under the cartographic framework.

1.4.2. The Left Periphery of the sentence

The Left Periphery is the highest structural layer of the sentence. This is the domain in which a wide range of discourse-related categories are encoded: focus, various types of topics, previous knowledge and the speaker's evaluations, as well as complementizers and other elements responsible for clause-typing.

A large number of works developed under the cartographic framework have been conducted in an effort to move towards a better understanding of this domain and the hierarchy of the functional projections it consists of. In what follows, we will briefly discuss two of those approaches, focusing on the position of the functional heads they discuss. We will start with the seminal work of Rizzi (1997) (section 1.4.2.1). Then, we will focus on the analysis proposed in Ambar (1996, 1999, 2000, 2003) and on the functional projections AssertiveP and EvaluativeP (section 1.4.2.2).

1.4.2.1. Rizzi (1997, 2001)

As previously shown, domains may be split into subdomains (Pollock 1989 on the IP layer). Rizzi (1997) makes such a proposal for splitting the CP layer. Based on data from Italian, the author shows how discourse categories are encoded into syntax. Rizzi's (1997) proposal for a Left Periphery follows below:

(11) [Force [Top [Foc [Top [Fin [TP

According to (11), ForceP is the projection responsible for clause typing and accommodating various types of complementizers. FinP, on the other hand, establishes the relation with the proposition, i.e. with the TP layer. The Force-Finiteness system is supported by evidence from the distribution of Italian complementizers *che* and *di*. Their placement differs with respect to left-dislocated elements (namely topics and foci): *che* always precedes such constituents, while *di* follows them, a fact which has motivated

their distinct structural positions with respect to (11). Another important observation appears with regards to the discourse categories focus and topic: there can be multiple topics in a sentence, but focus projects only once. What is more, as shown in (11), topics can occur in a position either preceding or following the focus phrase.

Later developments, namely Rizzi (2001), present evidence in favour of the existence of another functional projection: InterrogativeP:

(12) [Force [Top [Int [Top [Foc [Top [Fin [TP

Hence, while Rizzi's Force accommodates complementizers such as Italian *che* 'that', and Fin is the domain dedicated to the elements introducing infinitival structures such as Italian *di*, InterrogativeP is the domain responsible for accounting for the position occupied by interrogative complementizers such as Italian *se* 'if, whether'. As will be discussed in Chapter 2, the analysis proposed for Bulgarian yes-no questions considers InterrogativeP as the domain in which the interrogative operator originates.

1.4.2.2. Ambar (1996, 1997, 2000, 2003, 2016)

Another proposal for the structure of the highest sentential domain was put forward in Ambar (1996) and developed in later works, namely Ambar (2000, 2003):

(13) XP [Evaluative [Assertive [XP [Wh [Focus [XP [TP

EvaluativeP and AssertiveP are the speaker's projections. In Ambar's (1996) proposal, EvaluativeP, inspired by Barwise and Cooper (1981), is motivated by the opposition between pure and evaluative quantifiers. AssertiveP, on the other hand, encodes 'what the speaker knows' (Grimshaw 1977) and has been supported by a wide range of data concerning, essentially, the behaviour of the Hungarian complementiser *hogy* 'that', the properties of Romance *wh-in-situ* structures and the factivity of exclamation sentences, among others.

Moreover, Ambar's Evaluative and Assertive are part of the domain defined as the Common Ground (Heim 1982). The projections dedicated to focus and topic

constituents, on the other hand, are situated below the high speaker's projections. Topicalised constituents (labelled XPs) can project multiply as shown by (13).

As mentioned in the previous sections, EvaluativeP and AssertiveP are of particular interest for our work. We will not enter into further details on the projections of the Left Periphery, discussed in these and other works, nor on the evidence supporting the conclusions made therein. The thorough discussion of the relevant data supporting the postulation of the given projections that we consider will be provided whenever required in the remainder of the dissertation.

1.5. Outline of the Dissertation

The dissertation is organised as follows.

In Chapter 2 we start by providing a detailed description of Bulgarian and Portuguese yes-no questions focusing on previous analyses dedicated to their syntactic expression. Following the proposals of Holmberg (2012) and Ambar (2013), we will put forward an analysis of Bulgarian *V-li* and *XP-li* questions that involves the projection PolP. In addition to *li*-questions, we will discuss the properties of yes-no questions displaying the interrogative words *dali* and *nali*.

In Chapter 3 we concentrate particularly on the so-called focused *XP-li* questions. With the claim that focus is not what we are dealing with in these structures, we will observe the behaviour of *li* when co-occurring with *wh*-words and quantifiers. The discussion will be heavily based on the work of Szabolcsi (2015), who focuses on the distribution of so-called *Quantifier particles*. Although we argue that Bulgarian *li* is not a quantifier particle in Szabolcsi's (2015) terms, we will show that it displays a strong sensibility to quantification and to the elements invoking the set of alternatives present in the universe of discourse.

In Chapter 4 we turn our attention to negative yes-no questions. As mentioned in Section 1.2, we are concerned, on the one hand, with the blocking of negative concord in Bulgarian yes-no questions and, on the other, with the behaviour of Bulgarian negative quantifiers. The Bulgarian data will also be compared with data from Serbian and Russian. Moreover, Portuguese negative yes-no questions will be discussed from the perspective of the distribution of the *qualquer*-series. The expression of the so-called

positive bias will be then seen as a result of the relation to *evaluation* (Ambar 2003) and *nonveridicality* (Giannakidou 1998) negative yes-no questions seem to display. This line of inquiry will also be extended to the structures commonly known as Degree Wh-exclamatives (Espinal 1997, 2000).

Through questions concerning the expression of evaluation and the domain of *nonveridicality*, in Chapter 5 we will extend the discussion to the selection of the subjunctive mood, focusing on yes-no questions and other types of main clauses. Our main goals in this chapter will be to explain the intriguing contrast between Bulgarian and Portuguese regarding the selection of the subjunctive in polar questions. Our discussion will be based on the observations put forth in Ambar (2016a) and Giannakidou (2016) and on the expression of evaluation and epistemic modality. Moreover, we will discuss Bulgarian *dali*-questions, arguing that the so called interrogative complementizer *dali* (Krapova 2002) in fact displays a relation to the subjunctive. This relation will be regarded as the trigger for the wondering flavour it systematically conveys in yes-no questions.

Chapter 6 lays out the concluding remarks and sketches out some questions for future research.

2. BULGARIAN AND PORTUGUESE YES-NO QUESTIONS

In this chapter we discuss yes-no questions in Bulgarian and Portuguese. As mentioned above, the languages under study differ significantly with respect to the strategy they rely on for the expression of polar questions. In what follows, we will examine in detail the behaviour of Bulgarian (section 2.1.) and Portuguese (section 2.2.) yes-no questions and will make an attempt to establish their main properties under the analyses proposed in Holmberg (2012) and Ambar (2013) (section 2.3). In addition, in section 2.4 we will refer to other types of yes-no questions in Bulgarian: those formed by rising intonation, *dali*-questions and *nali*-questions. Although their properties are not central concerns of this study, they give us some important insights regarding the nature of the particle *li*. Therefore, it will be shown that, even though the interrogative elements *dali* and *nali* morphologically contain an instantiation of *li*, they convey distinct meanings to the structure. What is more, their distribution in the sentence suggests that *dali* and *nali* occupy positions different from that in which *li* is generated.

2.1. Yes-No Questions in Bulgarian

Traditional grammars (Bulgarian Academy of Science Grammar 1983, Boyadziev, Kutsarov, Penčev 2004) have distinguished between three types of yes-no questions in Bulgarian: (i) *li*-questions, (ii) *dali*-questions and (iii) *nali*-questions. They differ not only with respect to the interrogative element they are licensed by, but also with respect to the meaning they convey to the structure. The interrogative words *dali* and *nali* have been considered complementizers (Rudin 1986, Tiševa 2003) and are morphologically complex elements containing an instantiation of *li*. *Li*, on the other hand, is a particle which commonly occurs in a position following the inflected verb.

In this section we will concentrate on the distribution of the particle *li*, considering as a starting point the detailed description of Bulgarian *li*-yes-no questions (section 2.1.1). Next, we will revise some of the central studies dedicated to the particle's distribution

distinguishing between two main lines of inquiry: (i) *li* in C° and (ii) *li* in Foc° (section 2.1.2).

2.1.1. Yes-no questions and the particle *li*

It has been commonly agreed that the element responsible for the licensing of Bulgarian yes-no questions is the interrogative particle *li*. Traditional grammars refer to *li* as a particle, i.e. as a deficient element whose function in the sentence is, to a large extent, dependent on the constituents it adjoins to. Later studies (Izvorski et al. 1997, Rudin et al. 1999, Bošković 2001) treat *li* as an interrogative (*en*)clitic considering that it always occurs in *enclisis* to the verb or to constituents different from the verb. *Li* forms a prosodic word with the element it encliticises to (cf. Rudin et al. 1999), i.e. nothing can intervene between *li* and its host, as shown in (1):

- (1) *Marija vidja včera li Ivan?
Mary saw.3p.sg. yesterday Q John
Intended reading: “Did Mary see John yesterday?”

Nevertheless, although *li* indeed shares with pronominal clitics the property illustrated in (1), a closer look at its distribution shows that *li*'s behaviour in fact differs from that of other clitics. As illustrated by the examples in (2) and (3) below, Bulgarian clitics are proclitics and, thus, always occur in *proclisis* to the verb. Nevertheless, they obey to the so called *Tobler-Mussafia law* according to which they are banned from occurring sentence-initially, as shown in (2) below. In such cases, clitics rather follow the verb as in (2a):

- (2) a. Vidjax go.
Saw.1p.sg cl.acc
“I saw him.”
b. *Go vidjax.
cl.acc saw.1p.sg

(3) a. Ivan go vidja.
 John cl.acc saw.3p.sg
 “John saw him.”

b. * Ivan vidja go.
 John saw.3p.sg. cl.acc

In contrast to pronominal clitics, *li* cannot occur in proclisis to the verb and, also, reveals a particular sensibility to the constituent it immediately follows:

(4) a. Marija vidja li Ivan?
 Mary saw.3p.sg. Q John
 “Did Mary see John?”

b. Marija li vidja Ivan?
 Mary Q saw.3p.sg. John
 * “Did Mary see John?”
 “Did MARY see John?” / “Was it Mary that saw John?”

As shown by (4b), the position *li* occupies affects the meaning of the question it occurs in. The pre-verbal occurrence of *li* gives rise to an ungrammatical sentence. Nevertheless, the question in (4b) is plausible when *li* associates with the XP *Marija* it immediately follows. Note that, in contrast to (4a) in which the question is about whether Mary saw John, the question in (4b) rather concentrates on whether Mary was the person that saw John. Structures like (4b) have been therefore commonly associated with focus-assignment: *li* assigns contrastive focus to its host. The topics concerning *li*'s distribution and the differences between V-*li* and XP-*li* questions are discussed in more details shortly below.

With these brief observations showing that *li*'s behaviour is indeed distinct from that of pronominal clitics, we will assume that, although this element exhibits a *clitic-like* behaviour and displays strict adjacency to the element it follows, it is different from pronominal clitics. Throughout this work, we will therefore refer to *li* as particle.

Let us now consider the properties of Bulgarian yes-no questions displaying the particle *li*. The works that have analysed the distribution of the particle (Rudin 1997, Rudin et al. 1999, Bošković 2001, Izvorski 1995, Franks & Bošković 2001, Dimitrova 2013, in press, a.o.) have distinguished between two positions that it occupies: (i) following the verb, as in (5a), and (ii) following XPs different from the verb, as in (6a). As illustrated by the examples in (5b) and (6b), nothing can intervene between *li* and the constituent it follows:

(5) a. Ivan kupi li knjigata?

John bought Q book.def

‘Did John buy the book?’

b. *Ivan kupi včera li knjigata?

John bought yesterday Q book.def

Intended: ‘Did John buy the book?’

(6) a. Ivan li kupi knjigata?

John Q bought book.def

‘Did JOHN buy the book?’

b. *Ivan včera li kupi knjigata?

Ivan yesterday Q bought book.def

Intended: ‘Did JOHN buy the book?’

The above questions in (5) and (6) differ in terms of information structure: the example in (5a) is a neutral yes-no question; in (6a), on the other hand, the particle assigns focus to its host (marked by capital letters³). This distinction has led to the generalisation that whenever *li* follows the inflected verb, the resulting structure consists in a neutral yes-no question. In contrast, whenever the particle follows a constituent XP different from the verb, the XP is focalised.

³ Throughout the work, focus will be marked by capital letters in the English translation unless stated otherwise.

What is more, the licensing of focus in these structures appears to be associated with an obligatory movement to a pre-verbal position. Observe the data in (7a), (7b) and (8):

(7) a. Ivan knigata li kupi?
John book.def Q bought
'Did John buy THE BOOK?'

b. Knigata li kupi Ivan?
Book.def Q bought John
'Did John buy THE BOOK?'

(8) *Ivan kupi knigata li?
John bought book.def Q
Intended reading: "Did John buy THE BOOK?"

The examples in (7a), (7b) and (8) show that the focalisation of the DP *knigata* 'the book' is restricted to structures in which the focalised constituent occurs pre-verbally. Therefore, the example in (8) is infelicitous, since the sentence-final position of *li* and the XP *knigata* "the book" is implausible for the expression of focus.

Considering these examples, the expression of focus in Bulgarian polar questions can be described as a mechanism of which the licensing must fulfil the following requirements:

- (i) the focalised constituent must move to a pre-verbal position;
- (ii) the focalised constituent must incorporate *li*;

Note, however, that when we consider a reading slightly different from the one intended in (8), the structure turns out to be well formed. Observe that when the example in (8) acquires a meaning associated with a confirmation-like interpretation, in which *li* scopes over the entire proposition and not only over the constituent that it immediately follows, the structure is grammatical:

- (9) Ivan kupi knigata li?
 John bought book.def Q
 ‘So, John bought the book, didn’t he/right?’

We will dub structures like (9) *li-final questions*. They will be discussed in section 2.3.

Going back to so-called focused yes-no questions, we can see that the behaviour of focalised XPs patterns that of wh-words. It is well known that Bulgarian belongs to the group of languages displaying obligatory overt wh-movement (10a) and obligatory subject-verb inversion (10b) in wh-questions (Rudin 1988 a.o.). Bulgarian therefore lacks *wh-in-situ* questions (10c). Accordingly, as shown in (10d), Bulgarian displays *Multiply Fronted Wh-Questions*:

- (10) a. Kakvo kupi Ivan?
 What bought.3p.sg John
 ‘What did John buy?’
- b. *Kakvo Ivan kupi?
 What John bought.3p.sg
- c. *Ivan kupi kakvo?
 John bought. 3p.sg. what
- d. Koj kakvo kupi?
 Who what bought.3p.sg
 ‘Who bought what?’

Consider now *XP-li* questions. Curiously, the occurrence of *li* in a position following an XP different from the verb results in a new-formed constituent which behaves like a wh-word. Note that, as shown by the examples in (7) and (8) above, focus phrases in yes-no questions are obligatorily fronted. What is more, they function like variables whose value must be confirmed or denied in the answer.

Another property they share with *wh*-questions is obligatory subject-verb inversion. Compare (10a-b) above with (11a-b):

- (11) a. *Knigata li pročete Ivan?*
 Book.def Q read.3p.sg. John
 “Did John read THE BOOK?”
- b. * *Knigata li Ivan pročete?*
 Book.def Q John read.3p.sg

As previously discussed in the literature (Ambar 1988, Costa 1998, 2004), subject-verb inversion has been associated with verb-movement to C° . Post-verbal subjects therefore remain in Spec, TP. An alternative view towards the position occupied by post-verbal subjects is the one proposed in Barbosa (1995, 2001) according to which, in Null Subject Languages, subjects do not raise to Spec, TP and remain in Spec, VP. What is more, it has been argued that *wh*-movement itself is an instance of focus-movement (Bošković 1998, 2003 a.o.), which suggests that focus is the trigger of the above similarities between the two structures.

A question that arises here concerns the function the particle *li* performs in these situations. The patterns shared by focused yes-no questions and *wh*-questions suggest that *li* is the core assigner of a given property both structures display. Observe moreover that the data above creates an interesting parallel between Bulgarian *li* and other particles such as the Japanese *ka* (Miyagawa 2010). As noticed by Szabolcsi (2015), besides functioning as an interrogative sentence-final particle, *ka* plays a role in the denotation of existential quantification and disjunction among other cases discussed in Szabolcsi’s work:

- (12) *dare-KA* - “someone”
A-ka-B-(ka) - “A or B” (Szabolcsi 2015:160)

Thus, in Szabolcsi (2015) *ka* is dubbed *Quantifier particle* (cf. Chapter 3). Likewise, when *li* adjoins to an XP different from the verb, it assigns [+Int(errogative)] and [+focus]. Accordingly, the new-formed constituent starts functioning as an

interrogative word. Notice that *li* is at the core of focus assignment: as shown in (13), focalisation does not occur when the particle is not attached to the given XP:

- (13) *IVAN kupi li knjigata?
John bought Q book.def
Intended reading: ‘Did JOHN buy the book?’

For the time being, we will leave open the question concerning the correct definition of XP-*li* questions, as well as the question of whether *focus* is term capturing the properties of such XPs. We will return to these issues in Chapter 3.

2.1.1.1. A Note on Wh-Questions with *li*

As observed in the preceding section, focused XPs and wh-words appear to share some important similarities concerning their distributions in yes-no and wh-questions, respectively: (i) both focused XPs and wh-words are obligatorily fronted and (ii) both XP-*li* questions and wh-questions display obligatory subject-verb inversion. In Chapter 3 we will show that these similarities are not coincidental.

Interestingly, despite the fact that *li* has been regarded as the licenser of Bulgarian yes-no questions, it can also appear in wh-questions. Wh+*li* questions are particularly intriguing when it comes to the characteristic flavour of wondering and doubt they consistently denote. Although these structures have been generally taken as another case in which the particle assigns focus (Rudin 1986, Dukova-Zheleva 2010), a closer look at the data suggests that it is not focus what we are dealing with here.

As opposed to yes-no questions, wh-questions’ licensing does not depend on the particle’s occurrence. Consider again the examples in (10), repeated below for convenience:

- (14) a. Kakvo kupi Ivan?
What bought.3p.sg John
‘What did John buy?’

- b. *Kakvo Ivan kupi?
 What John bought.3p.sg
- c. *Ivan kupi kakvo?
 John bought. 3p.sg. what
- d. Koj kakvo kupi?
 Who what bought.3p.sg
 ‘Who bought what?’

In contrast to yes-no questions where *li* can attach to the verb or to XPs different to the verb, in wh-questions it is restricted to adjoining to the wh-word:

- (15) a. Koj li se obadi na Marija?
 Who Q refl. called.3p.sg to Mary
 ‘Who called Mary (I wonder)?’
- b. * Koj se obadi li na Marija?
 Who refl. called.3p.sg Q to Mary

A challenging point of the analysis of wh+*li* questions concerns the wondering flavour these structures denote. Rudin (1986) was the first to notice this property of wh+*li* questions. Nevertheless, this author does not discuss the syntactic mechanisms accounting for this reading.

In Dimitrova (2013, in press) we made an attempt to explain the meaning wh+*li* questions convey, suggesting that these structures are similar to Romance wh-*in-situ* questions (Ambar 2000, 2003, Cheng & Rooryck 2001, Etxepare & Uribe-Etxebarria 2005, a.o.). Thus, we argued that, like Romance wh-*in-situ* questions, wh+*li* questions denote the speaker’s previous knowledge or presuppositions concerning the value of the wh-word. The incompatibility with negative answers was therefore used as a diagnosis of the existence of presuppositions.

What is more, adopting Obenauer’s (2006) classification of *nonstandard wh-questions* and his distinction between three different types, namely (i) *cannot-find-the-*

value-for-x questions; (ii) *rhetorical questions* and (iii) *surprise-disapproval questions*, we argued that Bulgarian *wh+li* questions and the effect of ‘wondering’ they have been characterised by ever since Rudin (1986) best fit into the first group which, in Obenauer’s (2006) terms, has the following definition: *the speaker expresses that he is unable to come up with a (plausible, acceptable) value, though he has tried to find one (or more)*. [Obenauer 2006: 367].

According to Obenauer’s (2006) account of the *nonstandard wh-questions* distinguished above in (i), (ii) and (iii), there exist high projections (for instance *SurprP* for surprise-disapproval questions) in the Left Periphery which account for each structure and for the particular interpretation it denotes. According to this author, *cannot-find-the-value-for-x questions* activate *IntForceP*:

$$(16) \text{Int(errog.)ForceP} > \text{G(round)P} > \text{Op(erator)P} > \text{Top(ic)P} > \text{IP}$$

(Obenauer 2006: 346)

Following Obenauer (2006), in Dimitrova (2013, in press) we assumed that the licensing of Bulgarian *wh+li* questions relies on the activation of projections of the Left Periphery. With the analysis put forward in Ambar (2000, 2003) on *wh-in-situ* in European Portuguese, we argued that the *wh*-element and the particle *li* move to *AssertiveP*, the projection accounting for ‘what the speaker knows’ (Ambar 2003).

Nevertheless, a question that remained unsettled in Dimitrova (2013, in press) concerns the function *li* performs in *wh+li* questions. Assuming that *li* is an interrogative operator displaying a relation to focus-assignment, it remains unclear how these characteristics of the particle correlate with the expression of wondering and with the fact that *wh+li* questions involve the speaker’s previous knowledge.

These are the questions that we make an attempt to give a plausible answer to in Chapter 3, where the relation between *li* and the existence of a set of alternatives will be considered.

2.1.2. Previous analyses of *li*-questions

Putting aside *wh+li* questions, in section 2.1 we showed that the distribution of *li* is determined with respect to the different types of constituents it adjoins to, i.e. with

respect to the combinations V-*li* and XP-*li*. The relation between *li* and focus-assignment raises important questions concerning the structural position this element occupies. In light of the puzzling data illustrated above, the fact that *li* is associated with both question and focus consists in a challenging matter which has been subject to many discussions ever since the early 90s.

In this section, we will focus on the previous analyses of Bulgarian *li*-questions. Two lines of inquiry can be distinguished:

(i) *li* is a complementizer generated in C° (Rivero 1993; Rudin et al. 1999; Bošković 2001, a.o).

(ii) *li* heads F(ocus)P situated below CP (Izvorski 1995; Dukova-Zheleva 2010).

In the following subsections we discuss some of the analyses arguing in favour of the theses proposed by (i) and (ii).

2.1.2.1. Rivero (1993): *li*-lowering

Considering the distribution of *li* in Bulgarian and Serbian-Croatian, Rivero (1993) argues that the particle is a complementizer generated in C°. Accordingly, V-*li* questions are derived by V-raising to C°.

However, observing the behaviour of the pronominal clitics in both languages, Rivero (1993) claims that in Bulgarian there exist cases in which *li* must lower to the Verb in IP. According to the author, the lowering is necessary in those contexts in which the V cannot raise to *li* in C°, given that other intervening heads, namely negation (17) and the future particle *šte* (18), block V-movement. Observe the examples below:

(17) Ne mu li izpratix kniga?
Neg. cl.dat. Q send.PAST.1sg book
'Didn't I send him a book?' (Rivero 1993: 573)

(18) Šte go viždaš li?

FUT. cl.acc. see.PRES.2sg Q

‘Are you going to see him?’

(Rivero 1993: 574)

According to Rivero’s analysis, the data in (17) and (18) illustrate those special cases in which it is not the verb that follows *li* in C° but, instead, the particle that lowers to the verb in I°. This assumption is motivated above all by the fact that *li* precedes the verb in (17) and does not follow it, as it always does.

The same approach is assumed for (18). Even though *li* follows the verb, it is suggested that the presence of the future particle *šte*, which is analysed as a head of a Modal Phrase in Rivero’s paper, blocks verb-movement in the same way that negation does in (17). The contrast in the placement of *li*, i.e. the occurrence in a position preceding or following the verb, as in (17) and (18), respectively, is explained in Rivero (1993) by associating each one of these positions to the different type of verb-adjunction *li* displays: left-adjunction when occurring with negation, as in (17), and right-adjunction when occurring with the future particle *šte*, as in (18).

This analysis, however, comes up against several problems. Besides the fact that lowering is generally considered problematic given that the moved element does not c-command its trace (Chomsky 1993, 1995), Izvorski et al. (1997) discusses several additional empirical problems with the analysis of Rivero (1993). Among others, Izvorski et al. (1997) underscores the fact that the pre-verbal occurrence of *li* in negative yes-no questions – the main argument for the lowering – only takes place in the presence of pronominal clitics. Observe in (19a) that *li* occupies the canonical post-verbal position in the absence of clitics, a fact which is in conflict with the analysis proposed by Rivero. If Rivero (1993) were correct, it would be expected that structures such as (19b) would be well-formed, which is clearly not the case:

(19) a. Ne znae li anglijski?

not. know.3sg Q English

‘Doesn’t he/she know English?’

b.* Ne li znae anglijski?

(Izvorski et al. 1997: 190)

What is more, as pointed out by Izvorski et al. (1997), the analysis according to which *li* lowers and left-adjoins to the verb in I° predicts that *li* would follow the pronominal clitics when they appear in a cluster. This is again not the case, as shown below:

(20) a. Ne go li e viždal?

Not him.acc. Q aux.3sg seen

‘Didn’t he see him?’

b. Ne mu li go dadoxte?

Not him.dat Q it.acc gave.2pl

‘Didn’t you give it to him?’

(Izvorski et al. 1997: 191)

In (20), *li* is placed in the position following the negation marker and the first clitic, which is another challenging matter that may be related to a special property of the Bulgarian negation marker. Rudin et al. (1999: 562) shows that although the Bulgarian negation marker cannot bear stress, it is always followed by a stressed element. That is why when it is followed by one or more clitics, it assigns stress to the first clitic. As a consequence, the sequence [neg + cl] forms a prosodic word which bears stress and is, therefore, a suitable host for *li*. Observe Rudin’s examples below, in which the capital letters show the position of the stress:

(21) a. ne ME boLI.

neg me.acc hurts.3sg

‘It doesn’t hurt me.’

b. ne MI se STRUva če

neg me.dat. refl. seems.3sg that

‘It doesn’t seem to me that.’

c. ne SÂM ti go DAla

neg am.1sg you .dat it.acc given.f.sg

‘I haven’t given it to you.’

(Rudin et al. 1999: 562)

- (23) a. *Go vidja li? Bulgarian
 b. Vidja li go?
 Saw.3sg Q him.acc
 ‘Did (s)he see him?’ (Rudin et al. 1999: 543)

In (22) and (23) the striking difference in the placement of *li* in Bulgarian and Macedonian appears as an outcome of the different distribution of the clitics in these languages. As noted by the authors, in the absence of pronominal clitics, Macedonian and Bulgarian follow the same pattern:

- (24) a. Kniga li čita Anna? Macedonian
 Book Q read.3sg Anna
 b. Kniga li čete Anna? Bulgarian
 Book Q read.3sg Anna
 ‘Is Anna reading A BOOK?’
- (25) a. Zboruvate li angliski? Macedonian
 Speak.3pl Q English
 b. Govorite li anlijski? Bulgarian
 Speak.2pl Q English
 ‘Do you speak English?’ (Rudin et al. 1999: 544)

Rudin et al. (1999) claims that *li* is a complementizer in both languages. In neutral yes-no questions, the verb rises to *li* in C° by right adjunction. Then, the mechanism of Prosodic Inversion applies and gives rise to the correct word order, namely the V-*li* order.

How about focused yes-no questions?

As discussed above, the most challenging point in analysing the behaviour of *li* concerns the fact that this element displays properties of both question and focus. In the preceding sections we showed that the expression of focus in Bulgarian yes-no questions

is enabled when an XP different from the verb incorporates the particle. The precise way in which this happens remains unsettled.

Rudin et al. (1999) claim that both neutral and focused yes-no questions target the CP. The authors suggest that *li* always remains in the complementiser position, being focus derived by the raising of the focused XP to the Specifier position of the CP where it bears a focus feature.

Such an analysis however runs up against several difficulties when it comes to accounting for the correct word order in focused questions. Recall that subject-verb inversion is obligatory in these structures (a point of parallelism with wh-questions):

- (26) a. Knigata li čete Ana?
Book.def. Q read.3sg Ana
'Is Ana reading THE BOOK?'
- b. * Knigata li Ana čete?

When the topicalisation of the subject does not take place, the inversion is obligatory. This is, however, not accounted for under Rudin et al's analysis of *li* as a C° element. In the next subsection, we explore the analysis of Izvorski (1995) which proposes a solution for this problem.

2.1.2.3. Izvorski (1995): *li* in F(ocus)°

Izvorski (1995) put forward a unified analysis of Bulgarian yes-no and wh-questions, arguing that both yes-no and wh-questions are derived by focus-movement to F(ocus)P situated below the CP.

Considering the long tradition in assuming that the landing site of wh-words in Bulgarian wh-questions is the Spec of CP (Rudin 1986, 1988), Izvorski (1995) concentrates on data illustrating the behaviour of the adverbs and the subjects in these structures which challenge the V-raising to C° view. As for Bulgarian yes-no questions, on the other hand, she distinguishes between *dali* and *li* questions, claiming that they both consist in the lexical realisation of the [Q]-feature.

With respect to *li*-questions, Izvorski assumes that *li* is the head of F(ocus)P. One of the main arguments for this claim concerns the behaviour of the subjects in these structures and, particularly, the obligatory subject-verb inversion observed in XP-*li* questions:

- (27) * Na kino li decata bjaxa?
 At cinema Q the-children were
 ‘Was it to the movies that the children went?’ (Izvorski 1995: 63)

As observed by this author, an analysis according to which *li* heads the CP faces some problems with regards to the obligatory subject-verb inversion observed in XP-*li* questions. I°-to-C° movement and the incorporation of the verb to *li* in C° cannot explain the obligatory inversion in XP-*li* questions, nor the correct word order.

An additional argument discussed in Izvorski’s (1995) analysis surfaces with respect to *dali*-questions. As noticed by the author, *dali*-questions sharply differ from *li*-questions in terms of subject-verb inversion:

- (28) Dali te vidjaxa knjigata?
 Whether they saw the-book
 ‘Did they see the book?’
 ‘Was it the book what they saw?’ (Izvorski 1995: 63)

Therefore, even if one considers that the ungrammaticality of (27), due to the lack of subject-verb inversion, arises from the interruption of the chain possibly existing between the [Q]-feature in C° and the verb in I°, the data from *dali*-questions in which such a case is not observed (the subject *te* “they” felicitously intervenes between *dali* and the verb in (28)), creates a problem for this assumption.

Thus, considering the above problems with the analysis of *li* as a complementiser, Izvorski (1995) suggests that the particle is actually generated in F(ocus)°, situated below C. Accordingly, in so-called “neutral” yes-no questions, the V incorporates to *li* in F°. Focused yes-no questions are then derived by fronting the focalised constituent in the Spec, FP:

(29) [_{FP} [_F *li* [_{IP...}]]]]

The distinction between *li*-questions and *dali*-questions is, then, encoded in the structural positions occupied by the two elements. According to Izvorski (1995), *dali* is an interrogative complementizer situated in C°. FP also projects in these structures. Thus, CP selects FP: the domain to which focalised constituents move.

(30) [_{CP} [_C *dali* [_{FP} XP [_{F°}]]]]

Although Izvorski's (1995) proposal felicitously points out some of the central aspects of the behaviour of the particle *li* and the relevant problems in its treatment as a complementiser, the assumption that the unique operation deriving Bulgarian polar questions is focus-movement may not seem much less problematic. We agree with Izvorski (1995) that focus-movement is involved in the derivation of these structures, particularly when we consider the strong relation between questions and information structure (take the answering system, for instance). However, an analysis that relies on this unique mechanism for the expression of questions fails to capture the fact that these structures are requests for information. What is more, the proposal that focus-movement is the only operation we need in order to derive these structures, fails to account for some fine-grained differences between *questioned focus* and other types of focus (Ambar 1988, 1996, Kiss 1998, a.o.) such as the *information focus* and the *identification* or *contrastive focus* mentioned in Chapter 1. Ambar (1996) discusses the existence of a third type of focus that occurs in partial answers. It has been characterised as *non-restrictive/non-exclusive contrastive focus*.

In addition, the postulation that *dali* and *li*-questions both consist in the lexical realisation of the Q-feature is another aspect of Izvorski's analysis that raises problems. Ever since Rudin (1986) it has been noticed that, in contrast to *li*-questions, the occurrence of *dali* in yes-no questions conveys a dubitative flavour to the structure. As far as we know, this property has not been accounted for by any of the previous analyses dedicated to *dali*.

Importantly, as discussed in Smirnova (2011), *dali* is a morphologically complex element that displays the subjunctive particle *da* and the interrogative particle *li*. That is why, *dali* occurs felicitously under *nonveridical* predicates and in embedded questions.

In our view, the relation to the subjunctive is a particularly important aspect in the analysis of *dali*-questions. We leave these questions for Chapter 5.

2.1.2.4. Summary

Two central views of *li* have been outlined here: the analysis of *li* as a complementizer and the analysis of *li* as a head of FocusP. As shown in the preceding sections, both of these positions face problems in accounting for the complex properties of this element.

In what follows we will turn to Portuguese yes-no questions. Differently from Bulgarian, the syntactic structure of Portuguese yes-no questions has not been subject to any systematic analysis, as it is commonly agreed that a given intonation contour is what triggers the interrogative interpretation in these structures. However, as we will observe in subsection 2.2.2, Ambar (2013) proposes an analysis based on evidence from the behaviour of subjects and some special adverbs which suggest that polar questions parallel with wh-questions.

2.2. Portuguese Yes-No Questions

As pointed out in Chapter 1, there exists a long tradition which considers that the structure of yes-no questions in languages such as Portuguese, Italian and Spanish patterns with that of declarative sentences, the distinction between them being encoded in a rising final intonation:

(31) a. O João foi ao cinema.

The John went to-the cinema

‘John went to the cinema.’

b. O João foi ao cinema?

The John went to-the cinema

‘Did John go to the cinema?’

As for the expression of focus in these structures, it can be marked by prosodic stress as in (32a) or codified in the structure of clefts as in (32b-c):

(32) a. A Inês vai a Lisboa AMANHÃ?

The Inês goes to Lisbon tomorrow

‘Is Inês going to Lisbon TOMORROW?’

b. É amanhã que a Inês vai a Lisboa?

Be.3sg tomorrow that the Inês goes to Lisbon

‘Is it tomorrow that Inês is going to Lisbon?’

c. Amanhã é que a Inês vai a Lisboa?

Tomorrow be.3sg that the Inês goes to Lisbon

‘Is it tomorrow that Inês is going to Lisbon?’

(Brito 2003:462)

Subject-verb inversion is acceptable in Portuguese yes-no questions, though it is limited to given types of predicates. Moreover, the different word order in (33a) and (33b) conveys distinct readings in terms of information structure:

(33) a. O António telefonou?

The António called

‘Did António call?’

b. Telefonou o António?

Called the António

‘Was it António that called?’

As illustrated by (33b), subject-verb inversion underlies a focus-like interpretation. While in (33a) the speaker asks if António called or not, it being unclear whether an actual phone call took place, in (33b) the speaker knows that someone called and presupposes (based on context or previous information) that this someone was António.

However, inversion is not always productive in Portuguese yes-no questions. As shown in Ambar (1988: 62), subject-verb inversion in Portuguese yes-no questions is generally ruled out, one exception being the structures with verbs in Future or Conditional (traditionally associated with the expression of a given type of modality):

- (34) a. * Gosta a Joana de ir à praia?
 Likes the Joana to go to-the beach
 Intended: ‘Does Joana like to go to the beach?’
- b. Gostará / Gostaria a Joana de ir a praia?
 Like.FUT.3sg / Like. Cond.3sg the Joana to go to-the beach
 ‘Would Joana like to go to the beach?’

Lusini (2013) on yes-no questions in Italian dialects observes that some non-standard varieties of Portuguese display strategies that are different from ‘the intonation alone’, such as the insertion of the sentence-initial ‘é que’. As pointed out by this author, Portuguese ‘é que’ somehow resembles French *est-ce que*:

- (35) É que (tu) o fazes?
 Be-Pres.3sg that you it.cl. do.Pres.2sg
 ‘Are you doing it?’ (Rudder 2012:110 *apud* Lusini 2013:20)

We will leave aside such cases since they appear to be only marginally accepted by native speakers. In what follows we will (i) briefly refer to the central prosodic properties of Portuguese neutral and focused yes-no questions and (ii) explore the pioneering work of Ambar (2013) for a fine-grained discussion of the syntactic structure of polar questions.

2.2.1. Intonation and focus in yes-no questions (Frota 2000, 2002, 2002a, 2015)

In this section we will briefly refer to some of the studies dedicated to the thorough analysis of Portuguese yes-no questions' intonational properties. Although these aspects of Portuguese yes-no questions' characterisation are not central to our study, we acknowledge their importance for the better understanding of the structures being researched. What is more, since at first glance Portuguese does not display any overt interrogative elements or mechanisms encoding the interrogative meaning of these structures, the full understanding of their intonational properties reveals its significant importance.

Frota (2002) concentrates on intonation of yes-no and wh-questions. As pointed out by this author, ever since Cruz-Ferreira (1980, 1998) and Viana (1987), it has been shown that these two structures differ with respect to the intonational contour they exhibit: yes-no questions display an obligatory final rise while wh-questions are usually characterised by a final fall.

Focusing on yes-no questions, Frota (2002) notes that apart from the obligatory final rise, the remaining material intonationally resembles a declarative. The final rise is therefore preceded by a high plateau and the last stressed syllable draws a falling movement. Therefore, what has traditionally been referred to as 'higher rising' is actually, as shown by this author, a final fall-rise (HLH). This HLH complex tone occurs on the last syllable of the intonational phrase. The fall aligns with the nuclear syllable and is followed by a boundary rise.

As shown in Frota et al. (2015) this is not the case with most Portuguese varieties. While in Standard European Portuguese (36a) a falling nuclear accent also found in declarative sentences takes place, in other varieties of Portuguese, such as the Northern variety in (36b), the falling nuclear accent is less frequent and usually replaced by a rising nuclear accent. This is shown by the figures below (Frota et al. 2015: 256):

(36) a.

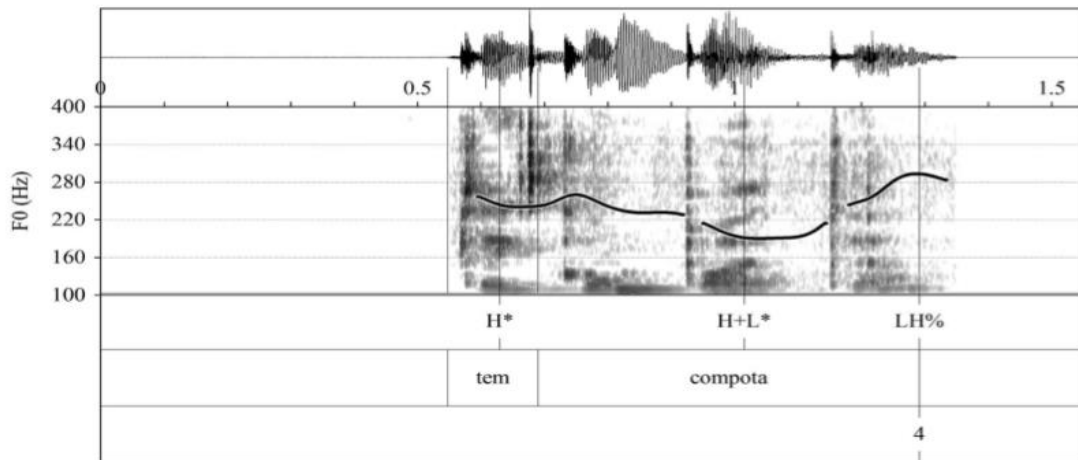


FIG. 7.14 Waveform, spectrogram, and F0 contour of the information-seeking yes/no question *Tem compota?* ‘(Do you) Have compote?’, produced by a speaker of SEP (EP, Standard variety)

b.

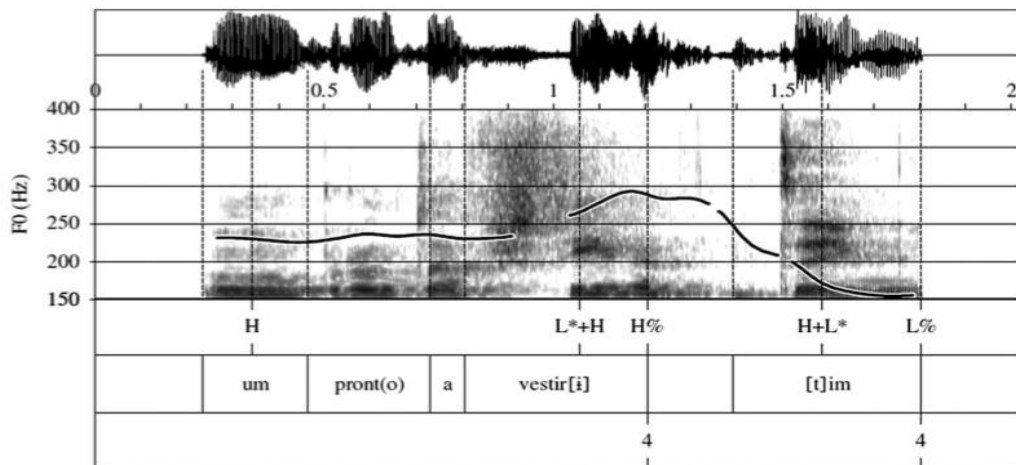


FIG. 7.13 Waveform, spectrogram, and F0 contour of the information-seeking yes/no question *Um pronto-a-vestir?* ‘A ready-to-wear?’, produced by a speaker of POR (EP, Northern variety) during the Map Task

Another intriguing matter previously referred to in the literature arises with respect to the prosody of focus. Frota (2000, 2002a) shows that focus can be reflected on the levels of both the intonational phrase and the phonological phrase. Starting with the effects on the level of the intonational phrase, one of the arguments that convincingly show how discourse categories correlate with intonation refers to the realisation of the

sandhi effects. Observe the following data which illustrate Fricative Voicing. In (37a) the material is part of a unique intonational phrase. In contrast, the examples in (37b) show the effects on Fricative Voicing of the topicalisation of, respectively *as angolanas* ‘the Angolans’ and *as angolanas ofereceram especiarias* ‘the Angolans gave spices’:

(37) a. [A[z] angolana[z] ofereceram especiaria[z] aos jornalista[f]]I (neutral)

The Angolans gave spices to the journalists

b. [A[z] angolana[f]]I [ofereceram especiaria[z] aos jornalista[f]]I (topic)

b. [A[z] angolana[z] ofereceram especiaria[f]]I [aos jornalista[f]]I

Importantly, as shown in Frota (2002a), the realisation of focus does not affect the way sandhi is processed:

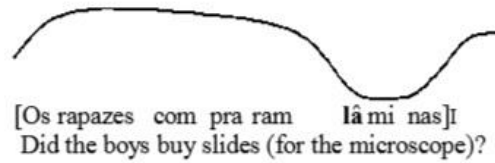
(38) a. [A[z] ANGOLANA[z] ofereceram especiaria[z] aos jornalista[f]]I

b. [A[z] angolana[z] ofereceram especiaria[z] AOS JORNALISTA[f]]I

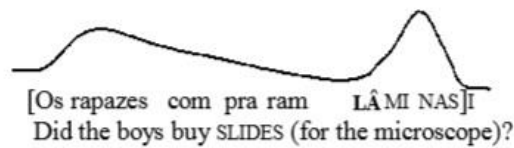
At the phonological phrase level, the realisation of focus is associated with prominence and high stress.

Let us now take a look at the data from focused yes-no questions. It appears that these structures differ greatly from their neutral counterparts. According to the data described in Frota (2002), the divergences between neutral and focused yes-no questions concern two important facts: (i) the falling nuclear accent in neutral yes-no questions is replaced by a low-rising pitch in the focused one and (ii) while in neutral yes-no questions the final rising boundary tone is obligatory, in focused questions, apart from the final rise, a final fall can also be displayed. Observe the figures below in which (39a) illustrates the intonational contour of neutral yes-no questions and (39b) shown how focalised *lâminas* ‘slides’ is produced:

(39) a.



b.



2.2.2 The syntax of Portuguese yes-no questions (Ambar 2013)

The study of Portuguese yes-no questions has been directed towards a thorough analysis of their prosodic characteristics (Frota 2000, 2002, 2002a, 2015, a.o.). Nevertheless, to the best of our knowledge, the precise way in which intonation is encoded into the syntactic structure of Portuguese polar questions has not previously been discussed. An attempt to capture the relation between the syntactic expression of yes-no questions and rising intonation was made in Cheng & Rooryck (2000). These authors claim that *wh-in-situ* questions and yes-no questions pattern with respect to their intonational properties. Considering data from French, these authors observe that both structures display rising intonation. What is more, both involve a presuppositional context⁵. According to this work, which also features comparisons with other languages, namely Mandarin Chinese, an underspecified intonational morpheme [Q:] is merged in C°. The underspecified intonational morpheme can acquire the values [yes-no] or [wh] which are assigned to it at LF. Moreover, it is regarded as a counterpart of other strategies

⁵ Note that differently from Portuguese, French also displays yes-no questions with *est-ce que* and yes-no questions with clitic inversion. Cheng & Rooryck (2000) however discuss rising intonation yes-no questions of the type in (i):

(i) Tu as vu Marie?
You have.2p.sg see.PART. Mary
'You saw Mary?' (I believe that you did)

involved in yes-no questions' formation, such as the insertion of the Q-particle *ma* in Mandarin Chinese (Cheng 1991).

An attempt to fill the apparent gap concerning the syntax of Portuguese polar questions has been made recently by Ambar (2013), who convincingly argues that their underlying structure patterns that of wh-questions. The proposal put forth in Ambar (2013) is based on some intriguing data concerning the distribution of quantified subjects and the so called 'special adverbs' (Ambar, Gonzaga and Negrão 2004, Ambar 2008) such as *lá* 'there' and *sempre* 'always'. The evidence from the behaviour of these elements in yes-no questions supports the claim that the structure of Portuguese yes-no questions (and, by hypothesis, of yes-no questions in other languages of the Portuguese type, i.e. Spanish and Italian, among others) is more sophisticated than traditionally assumed. Crucially, Ambar (2013) argues that, like wh-questions, yes-no questions involve verb-movement to C.

2.2.2.1. Portuguese *lá* and *sempre*

Let us start by considering some previous observations concerning the distributions of *lá* 'there' and *sempre* 'always' in European (EP) and Brazilian (BP) Portuguese.

It is well known (Ambar, Gonzaga and Negrão 2004, Ambar 2008) that in EP, besides the temporal reading, *sempre* displays another confirmation-like meaning confined to cases in which it occurs in a pre-verbal position. Notice that, in contrast to EP, BP does not display the confirmative reading of *sempre*. As illustrated by the examples in (40), only the temporal *sempre* is available in BP:

(40) a. O João sempre vai a Paris. (confirmative: EPok; BP*)

The John always goes to Paris
'John is really/indeed going to Paris'

b. O João vai sempre a Paris. (confirmative: EP*;BP*)

The John goes always to Paris (temporal: EPok; BPok)
'John always goes to Paris.'

(Ambar 2013: 19)

According to the analysis proposed in Ambar, Gonzaga and Negrão (2004), the confirmative reading of *sempre* in EP (36a) is derived by *sempre*-V raising to AssertiveP: the projection codifying ‘what the speaker knows’ in Ambar’s (2000, 2003) terms (cf. Chapter 1). In their terms, this reading is ruled out in BP due to the fact that BP lacks T-to-C movement.

Turning now to the adverb *lá*, we can observe that it behaves similarly to *sempre*, i.e. it is associated with two distinct readings. On the one hand, it functions as a locative deictic. On the other, it is a metalinguistic negation marker (Ambar 2008, Martins 2010, 2014). Compare the structures in (41a) and (41b):

(41) a. O João vai lá.
The John goes there
‘John goes there.’

b. O João vai lá a Paris!
The John goes there to Paris
‘John doesn’t go to Paris!’

(Ambar 2013: 20)

In (41b) the occurrence of *lá* is associated with an evaluative-like reading which, moreover, conveys a negative meaning. According to Ambar (2013), *lá* is a type of polarity item which is probed by AssertiveP. Then, EvaluativeP – which codifies the speaker’s evaluations into the syntax – probes the verb. Consider Ambar’s (2013) proposal in (42) below:

(42) [TopP o João_j [EvaluativeP vai_i [AssertiveP lá_k [Assert’ vai_i [FocP vai_i [*XP
o João_j [PolP lá_k [Pol’ vai_i [TP o João_j vai_i a Paris]]]]]]]]]]

(Ambar 2013: 20)

With these observations in mind, we can now turn to the behaviour of *lá* and *sempre* in yes-no questions.

The confirmation reading of *sempre* is available in yes-no questions, as shown by (43). However, the negative reading of *lá* is ruled out, as illustrated by (44):

(43) O João sempre vai a Paris?

The John always goes to Paris

‘Is John really going to Paris?’

(44) * O João vai lá a Paris?

The John goes there to Paris

Intended: ‘Is John not going to Paris?’

The ungrammaticality of (44) is particularly intriguing. In Ambar’s (2013) proposal *lá* is infelicitous in yes-no questions due to an intervening Q operator situated above PolP. The Q operator blocks verb movement to EvaluativeP. Note that (44) is predicted to be well formed under the ‘intonation’ analysis of Portuguese yes-no questions, i.e. under the claim that yes-no questions syntactically pattern declaratives.

2.2.2.2. Quantified subjects and the positive indefinite *alguém*

Before focusing on the proposal for derivation of Portuguese yes-no questions put forth in Ambar (2013), let us consider one additional issue concerning the syntax of yes-no questions, namely the position occupied by subjects.

According to the analysis proposed in (42) for structures displaying the metalinguistic negation *lá*, the subject John is a sentence-initial topic. This claim is supported by evidence from the distribution of quantified subjects. Observe that quantified subjects such as *todos os alunos* ‘all the students’ are infelicitous with both *sempre-V* structures (45a) and *V-lá* structures (46b). The floating quantifier strategy improves the sentence as shown in (45b) and (46b):

(45) a. * Todos os alunos sempre vão a Paris.

All the students always go to Paris

b. Os alunos sempre vão todos a Paris.

The students always go all to Paris

‘All the students really go to Paris.’

(46) a. *Todos os alunos foram lá a Paris!

All the students went there to Paris

b. Os alunos foram lá todos a Paris!

The students went there all to Paris

‘The students did not go all to Paris.’

(Ambar 2013: 19-21)

Now observe yes-no questions. It appears that the quantified subjects are infelicitous here as well (47a). Again, the floating quantifier strategy improves the result (47b):

(47) a. ?? Todos os alunos compraram o livro?

All the students bought the book

b. Os alunos compraram todos o livro?

The students bought all the book

‘Did all the students buy the book?’

These data confirm that both yes-no questions and structures displaying the special adverbs *lá* and *sempre* involve movement and that pre-verbal subjects must be analysed as topics. Nevertheless, the latter faces some problems that arise from the structures displaying positive indefinites. According to the observations concerning the behaviour of quantified subjects, positive indefinites are expected to be banned from occurring sentence-initially in questions, due to the fact that, like quantifiers, they cannot be topicalised. The data from wh-questions confirm this prediction. Observe that the positive indefinite *alguém* ‘someone’ is ruled out of wh-questions:

(48) ?? Alguém que livro comprou?

Someone which book bought

This expectation is not borne out with yes-no questions, though. The below example in (49) illustrates that the positive indefinite *alguém* ‘someone’ is felicitous in polar questions:

- (49) *Alguém comprou o livro?*
Someone bought the book
‘Did someone buy the book?’

Since positive indefinites like the Portuguese *alguém* ‘someone’ cannot be topicalised, the unexpected grammaticality of (49) suggests that Portuguese yes-no questions do not involve V-to-C movement and, thus, as traditionally assumed, pattern declaratives.

However, an important observation with respect to the function positive indefinites perform in yes-no questions shows that Ambar’s analysis is on the right track here. Consider the below wh-question in (50) and the yes-no question with *alguém* ‘someone’ in (51):

- (50) Q: *Quem vai contigo ao cinema?*
“Who goes with you to the movies?”
A: *Vai o Pedro.*
goes Peter
Peter does

- (51) Q: *Alguém vai contigo ao cinema?*
“Someone is going with you to the movies?”
A: *Vai o Pedro.*
goes Peter
Peter does

The wh-question in (50) and the yes-no question with the indefinite *alguém* in (51) pattern in the way that they are answered. Differently from other yes-no questions⁶, those

⁶ Typically, yes-no questions are answered by the particles ‘yes’ or ‘no’, which confirm or contradict the polarity of the question (Martins 1994, Holmberg 2012, 2016).

displaying positive indefinites appear to behave similarly to wh-questions: as in wh-questions, the value of the variable is identified by the answer. In this context, Japanese turns out to be particularly revealing. Japanese topicalized constituents always bear the morpheme *wa*. Nevertheless, this is not the case of the Japanese positive indefinite *dare* which is incompatible with this morpheme. The incompatibility of Japanese *dare* with *wa* therefore confirms Ambar's (2013) observations with respect to Portuguese *alguém* 'someone'. The data from Bulgarian are also in line with the claim that positive indefinites behave as wh-phrases in yes-no questions. In contrast to negative indefinites which obligatorily incorporate the co-occurring particle (cf. Chapter 4), their positive counterparts are unable incorporate *li*. The triggers for this intriguing contrast will be discussed in Chapter 3.

In conformity with the analysis discussed in the following subsection, Ambar (2013) suggests that the Portuguese *alguém* 'someone' raises from Spec, PolP to Spec, IntP and functions in questions as a wh-word.

2.2.2.3. The Syntactic Analysis of Portuguese yes-no questions

Ambar (2013) proposes that Portuguese yes-no questions have the structure laid out below in (52):

(52) [TopP [IntP [FocP [TopP [PolP [TP

Following Holmberg (2012) (cf. section 2.3.2), Ambar (2013) considers that a polarity head Pol is situated above TP. However, differently from Holmberg (2012), in Ambar's (2013) terms, Pol has two possible values – affirmative and negative – whose valuation derives from V-to-Pol raising, the V being the carrier of both tense and event features (Ambar 2005, 2007). The interrogative operator originates in FocP and is represented in (53):

(53) <T,aff, neg, Faff, neg>

The value of the interrogative operator therefore consists in a bundle of features (Chomsky 2001). In (53) T and F correspond to, respectively, True and False. These features are valued by the answer. The features *aff* and *neg*, on the other hand, concern the value of the polarity head. The verb undergoes movement to Pol^o where it assigns the corresponding *aff* or *neg* value to Pol and to the heads of FocP and IntP. Consider the question in (54a) and the derivation in (54b):

(54) a. O João comprou o livro?

The John bought the book

‘Did John buy the book?’

b. [TopP O João_i [IntP <T_{aff}, F_{aff}> [Int' comprou_k aff [FocP <T_{aff}, F_{aff}> [Foc' comprou_k aff [TopP O João_i [PolP [Pol' comprou_k <aff, neg> [TP O João_i comprou_k o livro]]]]]]]]]

As mentioned above, the values of T and F are assigned by the answer. Ambar (2013) suggests that answers to yes-no questions involve the functional projections AssertiveP and EvaluativeP (Ambar 2000, 2003).

2.3. Towards an analysis of Bulgarian *Li*-Questions

Our goals in this section are (i) to discuss some previous analysis of yes-no questions, namely Holmberg (2012) and (ii) to make a proposal for derivation of Bulgarian yes-no questions with *li*.

2.3.1. More on polar questions and their answers: the set of alternatives, the comparison with wh-questions and the projection PolP

2.3.1.1. The alternatives {p, ¬p} and focused yes-no questions

Ever since Hamblin (1958, 1973) and Karttunen (1977) it has been commonly agreed that yes-no and wh-questions semantically denote a set of propositions expressed

by their possible answers⁷. With respect to neutral yes-no questions, they denote the alternatives $\{p, \neg p\}$. Non-neutral yes-no questions (cf. negative yes-no questions, *declarative questions* a.o.), on the other hand, are biased towards p or $\neg p$ (Ladd 1981, Gunlogson 2001).

Nevertheless, it appears that focused yes-no questions do not fit in with the classification of yes-no question as carriers of a set of alternative propositions. Whereas in standard yes-no questions the scope of interrogation falls on the entire proposition, in focused yes-no questions only one constituent takes part in the questioned material. In a way, this behaviour of focused yes-no questions resembles wh-questions.

Note that focused yes-no questions display a somewhat dual nature. On the one hand, these structures consist in yes-no questions since, apparently, they do not display wh-words. On the other hand, the scope of interrogation does not involve the entire proposition and its polarity value but is restricted to one constituent, namely the so called focused one.

Interestingly, as shown in section 2.1, Bulgarian XP-*li* questions share a number of properties with wh-questions. Some of these properties concern the obligatory fronting of both the focused constituent and the wh-word and obligatory subject-verb inversion. In our view these intriguing similarities are not coincidental. Moreover, considering the denotation of the alternatives $\{p, \neg p\}$ which focused yes-no questions seem to lack, one important question arises: are focused yes-no questions a version of wh-questions?

Building on the well-known fact that wh-questions semantically denote a set of alternatives (Karttunen 1977), it seems to us that focused yes-no questions are nothing but structures in which one of these alternatives is being presupposed. Imagine we want to know who bought the book and we have a set of alternatives among which {Mary, Peter, John}. In addition, we know that, although all of them are good candidates, only Mary is a passionate reader. Then we can choose to make a request for confirmation of this presupposition which is based on our previous information. Therefore, our presupposition will result in a focused yes-no question of the type: ‘Did MARY buy the book?’ in which Mary is the focalised constituent.

We return to these intriguing questions in Chapter 3.

⁷ In Hamblin (1973) it was assumed that questions represent a set of propositions expressed by their possible answers. In Karttunen (1977) on the other hand, the set of propositions refers to the true answers only. In the present work we assume the former view.

2.3.1.2. The syntactic properties of yes-no questions: previous analyses

Besides the characteristics unifying yes-no questions across languages, it has also been shown that languages display different strategies for the expression of these structures. These strategies have been generally associated with the activation of the CP-domain. For instance, Cheng (1991) argues that the Mandarin Chinese particle *ma* is merged in C° for reasons related with clause typing. English yes-no questions, on the other hand, display obligatory subject-auxiliary inversion. Likewise, the insertion of the Bulgarian particle *li* has been generally related to the valuation of given interrogative features of the C domain.

In Holmberg (2012) another interesting aspect concerning the structure of yes-no questions is considered, namely yes-no answers. According to this author, yes-no answers are elliptical expressions which roughly display the following structure:

(55) yes Foc [IP..x..]

(Holmberg 2012:52)

Following Kramer and Rawlins (2010) on the existence of a sentence-internal polarity projection which they dub Σ P, inspired in Laka (1990), Holmberg (2012) assumes that the syntactic structure of polar questions involves a projection accounting for the polarity value of the structures, namely Pol(arity)P(hrase), which, according to him, has three possible values: affirmative, negative and open, the last of which is neither affirmative nor negative.

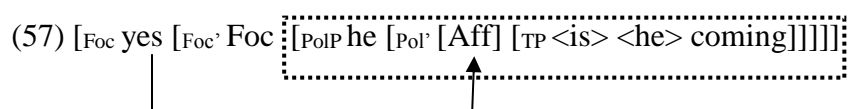
In his terms, PolP has open polarity in positive yes-no questions, the given affirmative or negative value being provided in the answer. Observe Holmberg's (2012: 57) analysis in (56):

(56) a. Is he coming?

b. Q [_{FocP} [_{uPol}] [_{Foc}' is [_{PolP} he [_{Pol}' < is [_{uPol}] > [_{TP} <is> <he> coming]]]]]]

According to the structure in (56b) the open polarity of PolP is probed by Foc and undergoes Pol-to-C movement. Q establishes the illocutionary force defined as *Tell me*

the value of the focused variable (i.e. [*uPol*] in this case), such that the proposition *P* is true (Holmberg 2012: 58). *PolP* is then valued in the answer by the particles ‘yes’ or ‘no’, as shown below:



In (57) the affirmative particle ‘yes’ is merged in *FocP* and establishes a relation with *Pol* by assigning [*Aff*] to *Pol*^o. Then, *PolP* is deleted or spelled out as null.

The same mechanism is proposed for yes-no questions with open polarity which receive a negative answer. In these cases, the negative particle ‘no’ is merged in *FocP* and assigns [*Neg*] to *Pol*^o, everything else being equal.

Before discussing Holmberg’s (2012) proposal for negative yes-no questions, which diverge from their positive counterparts in several aspects, let us first consider three parameters of cross-linguistic variation concerning yes-no answers.

The first parameter refers to the way languages answer yes-no questions. Here two main patterns can be distinguished: (i) answers by the particles ‘yes’ and ‘no’ or (ii) by other means, such as echoing the finite verb, as in EP (Martins 1994)⁸.

The second and third parameters are related to negative yes-no questions. The second concerns the way negative yes-no questions are answered. Here, Holmberg (2012) observes that languages can be divided into two groups which display two distinct systems for answering, namely the polarity-based system and the truth-based system. In languages which display a polarity-based system, the answers ‘yes’ and ‘no’ confirm the polarity of the question. Both Bulgarian and EP, considered in the present study, display the polarity-based answering system. The truth-based answering system, on the other hand, refers to those cases in which the answers ‘yes’ and ‘no’ refer to the truth of the question, as illustrated by the example from Cantonese Chinese that follows:

(58) Q: keoi-dei m jam gaafe?
 he/she-PL not drink coffee
 ‘Do they not drink coffee?’

⁸ For a discussion of the aspects concerning the acquisition of answers to yes-no questions in European Portuguese we refer the reader to Santos (2006).

A: hai.

yes [‘They don’t drink coffee.’] (Holmberg 2012: 53)

The third and final parameter of variation considered in this work concerns the way negative yes-no questions are contradicted. Again, two systems can be distinguished. On the one hand, contradicting a negative yes-no question takes place by inserting the particle ‘yes’ obligatorily followed by the verb in its positive form. Another mechanism is the one in which contradiction is expressed by special particles such as French ‘si’ which disagrees with the negative polarity of the question.

Let us now turn to the structure of negative yes-no questions and their answers. The second and third parameters described above show that the occurrence of negation has some important consequences for the interaction between the value of PolP and the answering system. In languages such as English, EP or Bulgarian, which have a polarity-based answering system, the particle ‘no’ agrees with the negative polarity of the question. Contradicting a negative yes-no question, on the other hand, does not derive from the bare ‘yes’ answer. Observe the example below, in which (59a) and (59b) illustrate what has been defined ever since Ladd (1981) as, respectively, Outer and Inner Negation (Chapter 4 for more details):

(59) a. Q: Didn’t John write the article?

A: a. No.

b. *Yes.

c. Yes, he did.

b. Q. Did John not write the article?

A: a. No.

b. *Yes.

c. Yes, he did.

In contrast to positive yes-no questions which, according to Holmberg (2012), display open polarity later valued by the answering particles ‘yes’ and ‘no’, negative yes-no questions have [neg] value in Pol^o. The negative particle ‘no’ therefore agrees with [negPol], giving rise to the confirmation of negation. A bare ‘yes’ however, does not

agree with the negatively valued Pol°. That is why, the longer answer in which the positive verb occurs must be selected. Then the affirmative ‘yes’ assigns a value to the open polarity of Pol° as illustrated below:

(60) [_{FocP} yes [_{Aff}] [_{Foc°} FOC [_{PolP} he [_{Pol°} did [_{Aff}]:[TP <did> <he> write the article]]]]]

(adapted from Holmberg 2012: 61)

Note that in (60) only the TP can be deleted, PolP is obligatorily spelled out.

In the previous section, dedicated to Portuguese yes-no questions, we discussed the work of Ambar (2013) which follows Holmberg (2012) in considering the projection PolP. However, the idea for polarity valuation is implemented in a slightly different way. Note that, differently from Holmberg (2012), according to which positive yes-no questions have open polarity, in Ambar (2013) PolP displays two possible values, namely affirmative and negative. Although Ambar (2013) does not discuss the derivation for yes-no answers, it is suggested that the features T(rue) and F(alse) receive a value in the answer encoded in the speaker’s projections AssertiveP and EvaluativeP.

In what follows, we will discuss a possible derivation for Bulgarian *li*-questions concentrating on the properties of the particle *li* and adopting a version of Ambar (2013) and Holmberg’s (2012) analyses.

2.3.2. A proposal for analysis of Bulgarian *li*-questions

Let us now take a look at Bulgarian *li*-questions. In section 2.1 we discussed the previous analyses dedicated to these structures, distinguishing between two types of views towards the structural position occupied by *li*:

(i) According to Rivero (1993) and Rudin et al. (1999), *li* is a complementizer generated in C°. In Rivero’s analysis the particle ‘lowers’ to the verb in IP whenever V-raising to *li* is blocked by an intervening negative or modal head. As pointed out in subsection 2.1.2.2, the complementizer view is problematic for several reasons, some of which concern the obligatory subject-verb inversion in focused *li*-questions.

(ii) According to Izvorski (1995), as opposed to *dali* (cf. Section 2.4) which is considered the true interrogative complementizer, *li* is inherently focused and heads FocP. This was also the hypothesis we adopted in Dimitrova (2013). In this work, in the line of Izvorski (1995), we claimed that *li* is inherently focused and is therefore generated in FocP situated above TP. However, a problem arise from such a claim. In spite the fact that *li* seems to display a relation to focus assignment, it does not seem feasible to assume that focus-movement is the unique mechanism deriving Bulgarian yes-no questions, especially when one considers that the particle's occurrence is crucial for the formation of these interrogative structures.

In this section, we focus on the particle *li*, following the recent observations on yes-no questions and considering the projection PolP. As discussed in the preceding section 2.3.1.2, PolP encodes the polarity consistently present in yes-no questions and was originally proposed in Zanuttini (1994, 1997) with regard to the distribution of the polarity items in Romance languages (cf. Chapter 4).

Since Holmberg (2012) it has been assumed that PolP is involved in the syntactic expression of yes-no questions and their answers. Nevertheless, Holmberg (2012, 2016) does not discuss an obvious question, namely whether PolP that projects in yes-no questions is the projection PolP proposed in Zanuttini (1994, 1997) for the licensing the sentential negation and Negative Concord. Considering the relations between polarity, questions and quantification, discussed in Chapter 3 and Chapter 4, and the data illustrating the occurrence of the subjunctive mood in interrogative structures, explored in Chapter 5, we hypothesise that this is indeed the case. However, for the time being, we leave this question open for future research.

Our analysis of Bulgarian *li*-questions will adopt Holmberg's (2012) idea that PolP projects in yes-no questions. Here, we will propose that the particle *li* is externally merged in the head of PolP and is therefore responsible for the denotation of the alternatives p and $\neg p$ (Hamblin 1973) which, in our view, are the core ingredient for the expression of polarity in yes-no questions.

This view towards the position occupied by the particle *li* strongly diverges from the previous accounts dedicated to the syntax of Bulgarian yes-no questions given that those studies have generally associated the occurrence of the particle with the valuation of interrogative features (an exception is Izvorski (1995) arguing that *li* is generated in Foc° , as mentioned above, see also Section 2.1.2.3).

Note that, as mentioned in Section 2.1, standard Bulgarian yes-no questions always display *li*. In the absence of *li*, yes-no questions appear to be biased towards the positive or the negative value of the proposition (cf. Section 2.4) displaying a flavour of surprise or disapproval. In our view, the absence of *li* in a way prevents the structure from denoting the alternatives $[p, \neg p]$ (Hamblin 1973) crucial for the expression of polarity.

What is more, it is interesting to observe that while *li* is in the core of yes-no questions' formation, its occurrence in wh-questions somehow prevents the structure from denoting the true interrogative reading. As mentioned in section 2.1.1.1, wh-questions' licensing is not a result of the occurrence of *li*. Rather, *li* gives rise to the so called *nonstandard* (Obenauer 2004, 2006) or *non-pure* (Ambar 2000, 2003) *wh-questions* conveying a characteristic flavour of wondering and doubt. This contrast with respect to *li*'s distribution in yes-no and wh-questions suggests that what triggers *li*'s obligatory presence in yes-no questions (though not in wh-questions) is a specific property that only this type of questions display, namely *polarity*. This aspect of the particle's characterization shows that *li* is somehow distinct from other Q-particles, such as Japanese *ka* (cf. Chapter 3, Section 3.1, Miyagawa 2010), which occur in both yes-no and wh-questions.

Therefore, although it seems reasonable to propose that *li* is externally merged in Int° and functions as an interrogative operator licensing yes-no questions, we will rather argue that its obligatory occurrence in Bulgarian yes-no questions has to do with polarity, i.e. with the denotation of the set of alternatives p and $\neg p$ (Holmberg 1973).

An important question that arises from the assumptions above concerns the way *li* relates with the denotation of the set of alternatives. In the preceding section, we went back to Hamblin (1973) and Karttunen (1977) who argue that questions involve a set of alternative propositions. In yes-no questions, the alternatives are $[p, \neg p]$. In wh-questions, they consist in the possible answers corresponding to the wh-word (Karttunen 1977), i.e. the variable of the question. In Ambar (2013), it is proposed that yes-no questions display an interrogative operator representing the features Taff.neg ; Faff.neg . The features affirmative and negative probe the corresponding value of PolP . The features T(rue) and F(alse) , on the other hand, are valued in the answer and concern the speaker's knowledge and evaluation (i.e. Common Ground, the projections AssertiveP and EvaluativeP).

Here, we will propose a similar representation for Bulgarian *li*. However, instead of T and F, we will suggest that *li* introduces the algorithm $[x, \neg x]$, in which $[x]$ is the

element that attaches to *li* in PolP. According to our proposal, [x], which may be the verb or an XP different from the verb, rises to *li* and absorbs the polarity algorithm *li* carries.

However, this does not seem to be the whole story. As discussed above, V-*li* and XP-*li* questions sharply differ with respect to the meaning conveyed to the structure. V-*li* is the *unmarked* combination that gives rise to the so called *neutral yes-no questions*. XP-*li* questions, on the other hand, display what has been considered the so called *focus* meaning.

Below, we argue that these divergences stem from the properties of the type of constituent that attaches to *li* in PolP.

2.3.2.1. V-*li* questions

Let us start by the so-called neutral V-*li* questions.

In our view, the sharp difference between the meanings denoted by V-*li* and XP-*li* questions is a result of the properties of V and XP, respectively. Therefore, this difference is an outcome of the fact that T is the head of the proposition. Therefore, whenever the verb attaches to *li* in Pol° the algorithm [x, ¬x] applies to the entire proposition. This is, however, not the case in XP-*li* questions, where an XP different from the verb raises to *li*. As will be shown in the following subsection, in such cases, it is the XP that absorbs the polarity algorithm, the result being the creation of the alternatives [XP, ¬XP].

With these assumptions and following Holmberg (2012, 2016) and Ambar (2013), we claim that Bulgarian V-*li* questions display the structure in (61) below:

(61) [IntP [Int° [uPol], [uV] [PolP [Pol° **li** [x, ¬x] [TP [T° [vP [v° [VP [V°

With Holmberg (2012) and Ambar (2013), we assume that the polarity projection PolP is situated above TP. The particle *li* is externally merged in Pol° and denotes the polarity algorithm [x, ¬x]. The verb raises to Pol° and attaches to *li* absorbing the algorithm the particle denotes. The formation of the alternatives [V, ¬V] then takes place. Int displays an unvalued [uPol] and an unvalued [uV] feature. The valuation of these features therefore triggers the movement of the verb and the particle *li* to which it has adjoined. *Li* values the [uPol] feature while V values the [uV] feature.

the book. As claimed above, given that the T is the head of the proposition, the polarity algorithm applies to the entire proposition.

Let us now take a look at XP-*li* questions. In our view, the syntactic expression of these structures patterns, to a large extent, the analysis proposed above for V-*li* questions. In such structures, a constituent different from the verb raises to PolP and absorbs the polarity algorithm of *li*. As discussed in Chapter 2, XP-*li* questions are about the constituent that attaches to *li*, i.e. about the XP. Note that answers to such questions confirm or disconfirm the XP attached to *li* and not the entire proposition:

(64) Q: Ivan li kupi knigata?

John Q bought book.def

‘Did JOHN buy the book?’

A: a. Da.

Yes (It was John who bought the book.)

b. Ne.

no (It wasn’t John who bought the book.)

The negative counterpart of (64) is particularly revealing. Observe below that in (65) negation does not have any effect on the way answers to XP-*li* questions are provided:

(65) Q: Ivan li ne kupi knigata?

John Q not bought book.def

‘Did JOHN not buy the book?’

A. a. Da.

Yes (It was John who didn’t buy the book.)

b. Ne.

no (It wasn’t John who didn’t buy the book.)

In both the positive (64) and the negative (65) XP-*li* question, the answers ‘yes’ and ‘no’ refer to the XP attached to *li* and not to the entire proposition as they do in V-*li* questions. Under Holmberg’s (2012) notion of a *polarity-based answering system* (Holmberg 2012), the answers ‘yes’ and ‘no’ are expected to agree with the positive or

negative value of the verb. In (64) and (65), the answers however confirm or disconfirm the XP that attaches to *li* which lays further support to our proposal that *li* is responsible for assigning polarity in yes-no questions. As claimed above, here, we see polarity as an algorithm consisting of an XP and its negation, in XP-*li* questions, and a proposition and its negation, in V-*li* questions. Note that this proposal felicitously explains the data discussed so far and the behaviour of the answering system in XP-*li* questions in (64) and (65).

However, a problem appears when considering the way XPs in XP-*li* questions attach to *li*. The idea that *li* is externally merged in Pol^o creates an obvious problem: even if we assume that *li* attaches to the XP internally merged in Spec, PolP via some kind of affixation, we fail to account for the obligatory verb-movement XP-*li* questions display. Recall the examples discussed in Section 2.1.1 repeated below for convenience:

(66) a. Knigata li pročete Ivan?

Book.def Q read.3p.sg. John

“Did John read THE BOOK?”

b. * Knigata li Ivan pročete?

Book.def Q John read.3p.sg

Under the analysis according to which *li* is merged in Pol^o, it would be expected that XP-*li* questions do not display subject-verb inversion which, as illustrated by (66a-b), is not confirmed by the data.

The issue pointed out above leads us to assume that *li* displays a somewhat dual nature and behave as, both, a head and a maximal projection. This is not a new idea especially when considering the nature of pronominal clitics which, in a way behave as both X^o and XP (Dobrivie-Sorin 1994, Kayne 1991, Chomsky 1994).

Note that the analysis according to which *li* is a head and a maximal projection, solves the issue concerning verb-movement pointed out above: assuming that, in XP-*li* questions, *li* is externally merged in Spec, PolP, nothing prevents V-to-Int movement.

Consider the XP-*li* question in (67) and the derivation proposed in (68a-b):

(67) Ivan li kupi knjigata?

John Q bought book.def

‘Did JOHN buy the book?’

(68) a. [IntP [Int° [uPol], [uV] [PolP Ivan_j li [John, ¬John] [Pol° [TP Ivan_j [T° kupi_i John Q bought
[vP Ivan_j [v° kupi_i-knjigata]]]]]]]]]]
the book

b. [IntP Ivan_j li_k [John, ¬John] [Int° kupi_i [PolP Ivan_j li [John, ¬John]
John bought
[John, ¬John] [Pol° kupi_i [TP Ivan_j [T° kupi_i [vP Ivan_j [v° kupi_i
knjigata]]]]]]]]]]
the book

The derivation proposed in (68a-b) proceeds in the following way: the particle *li* is externally merged in Spec, PolP. As in V-*li* questions, it denotes the polarity algorithm [x, ¬x]. The XP *Ivan* then raises to Spec, PolP and attaches to *li* absorbing the polarity algorithm [x, ¬x]. The formation of the alternatives [John, ¬John] then takes place. As in V-*li* questions, Int displays an unvalued [uPol] feature and an unvalued [uV] feature. Movement of the particle *li* and the attached XP *Ivan* then values the unvalued [uPol] feature. Verb-movement to Int°, on the other hand, values the [uV] feature. Note that this assumption felicitously accounts for the obligatory subject-verb inversion of XP-*li* questions, illustrated in (66) above, that remained unsettled in the previous analyses of *li*-questions.

An intriguing matter concerning XP-*li* questions is whether *focus* is the term that correctly characterises these structures. Seeing as the term ‘focus’ is associated with ‘knowledge’ and ‘new’ information, its free distribution in yes-no questions appears to be rather unexpected. In (67) the subject ‘John’ is at the core of the interrogation. Nevertheless, it is not a new or unknown element, being instead part of the speaker’s knowledge.

Such cases are not new to the literature. Turning to wh-questions, it is well known that these structures are able to codify a variety of meanings, some of which are related

to the expression of wondering, surprise or presupposed information (cf. Ambar 2003, Obenauer 2006, a.o.). Importantly, these special types of wh-questions seem to combine different types of speech acts: although they are still questions, they involve the speaker's knowledge and evaluation. For instance, many scholars (Ambar 2000, 2003, Cheng & Rooryck 2000, Exteparre & Uribe-Extebarria 2005) have argued that wh-*in-situ* questions in Romance involve a strong presupposition context based on 'what the speaker knows' (Ambar 2003), i.e. they are not pure requests for information.

In our view, Bulgarian XP-*li* questions are not pure requests for information either. Rather, the so-called *focused* XP is a presupposition in need of confirmation. Note that, in view of the proposal sketched under (68a-b) the so called *focused* flavour of XP-*li* questions is a result of the fact that it is the XP and not the verb the element that absorbs the polarity algorithm denoted by the particle *li*. As a consequence of the denotation of the alternatives [XP, ¬XP] the structure conveys the meaning of contrastive focus. Note that the set of alternatives formed via XP-raising to Spec, PolP invokes the opposition between that given XP and its negation, which, we argue, is what triggers the alleged focused meaning of such structures.

Considering the above assumptions regarding the so called focused yes-no questions and in view of the proposal for analysis drawn in (68a-b) above, in the remainder of this thesis we will refer to these structures as XP-*li* questions. We leave the discussion of further arguments supporting the idea that it is not focus what we are dealing with in XP-*li* questions for Chapter 3, where we will also explore those XP-*li* questions in which *li* co-occurs with quantifiers.

2.3.2.3. *Li*-final questions

Besides V-*li* and XP-*li* questions, in which the verb or an element different from the verb attaches to *li* in, respectively Pol^o and Spec, PolP, there is another type of *li*-questions, namely those in which the particle *li* occurs sentence-finally. Although, as far as we know, this type of *li*-questions has not been subject to any systematic research, in this subsection, we will propose that the syntactic mechanisms licensing such structures pattern those discussed with respect to XP-*li* questions.

Consider the structure in (69) below, which we dubbed a *li*-final question:

(69) Ivan kupi knigata li?
John bought book.def Q
'John bought the book, right?'

As opposed to *V-li* questions and *XP-li* questions discussed in the preceding sections, in the example in (69) the particle occurs sentence-finally, in a position following the entire proposition. Interestingly, despite the fact that the verb also takes part of the material preceding *li*, the meaning conveyed by the structure is not the neutral one displayed by *V-li* questions. In (68) the speaker believes that John has indeed bought the book and wants to confirm this presupposition⁹. It seems that, as opposed to *V-li* questions, in *li-final* questions the speaker has more information and knowledge about the state of affairs described.

The behaviour of the answering system is particularly revealing when it comes to the differences between *V-li* and *li-final* questions. At first glance, the way answers are provided to, respectively *V-li* questions, in (70), and *li-final* questions, in (71), is the same:

(70) Q: Ivan kupi li knigata?
John bought Q book.def
'Did John buy the book?'

A: a. Da.
Yes (John bought the book)

b. Ne.
No (John didn't buy the book)

(71) Q: Ivan kupi knigata li?
John bought book.def Q
'John bought the book, right?'

⁹ Besides the confirmation reading, the sentence-final position of *li* can also convey the meaning of surprise or doubt. The different readings *li-final* questions acquire are dependent on their prosodic characteristics. We will not go through a detailed analysis of these intonation-related aspects of *li-final* questions and will assume that the unifying property that underlies the various meanings is related to the fact that these structures involve the speaker's previous knowledge.

A: a. Da.

Yes (John bought the book)

b. Ne

No (John didn't buy the book)

Although the apparent similarity between (70) and (71) suggest that these structures do not display any differences, evidence from the behaviour of adverbs like *naprotiv*, roughly translated as 'on the contrary', or expressions such as *točno taka* 'that's right', suggests that this is not the case.

Note that both *naprotiv* and *točno taka* are felicitous with assertions (72), though not with V-*li* questions (73):

(72) - Marija otide v Paris.

'Mary went to Paris.'

- Naprotiv. / Točno taka

On the contrary / That's right

(73) Q: Marija otide li v Paris?

Marija went Q to Paris?

'Did Mary go to Paris?'

A: *Naprotiv / *Točno taka

On the contrary / That's right

Interestingly, it appears that *li*-final questions behave differently from V-*li* questions when it comes to the occurrence of the adverbs *naprotiv* and *točno taka*. Note that, in fact, they are compatible with these adverbs patterning the assertion in (72) above:

(74) Q: Marija se srešta s Ivan li?

Mary REFL meets with John Q

'Mary is going out with John, correct/right?'

A1: Naprotiv. Vljubena e v Martin.

'On the contrary! She is in love with Martin.'

A2: Točno taka.

‘That’s right’

The compatibility between the *li*-final question in (74) and the adverbs *naprotiv* and *točno taka* supports our claim that such structures are indeed not neutral yes-no questions and rather involve the speaker’s previous knowledge and presuppositions with respect to the truth of the question.

Similar observations concerning the compatibility between yes-no questions and answers like ‘that’s right’ have been made in Asher and Reese (2007) and in Holmberg (2016). Asher and Reese (2007) consider negative yes-no questions, suggesting that, like Tag-questions, they consist in complex speech acts simultaneously denoting an assertion and a question. Due to this property, positively biased negative yes-no questions (Ladd 1981), are compatible with answers such as ‘so it is’ or ‘that’s right’. Holmberg (2016), on the other hand, discusses the syntax of Mandarin Chinese *ma*-questions proposing that these structures display a valued Pol head. As a consequence, *ma*-questions are compatible with the answering particle *dui* which denotes the meaning of ‘that’s right’. We return to the data discussed by these authors in Chapter 4.

Another piece of evidence supporting the claim that *li*-final questions are indeed distinct from *V-li* questions concerns negation. Ever since Ladd (1981) it is well known that negative yes-no questions are consistently ambiguous with regard to true and expletive negation. Observe that Bulgarian negative *V-li* questions convey the speaker’s belief in the positive value of the proposition:

- (75) Ivan ne pie li kafe?
John not drink_{3sg} Q coffee
‘Doesn’t John drink coffee?’

As illustrated by the example in (76) below, negative *li*-final questions do not display such readings but rather consist in requests for confirmation of the assumption that John does not drink coffee:

- (76) Ivan ne pie kafe li?
John not drink._{3sg} coffee Q?

The complex constituent formed by the XP *knigata* “book.def.” and the particle *li* moves to Spec, IntP which, as discussed above for V-*li* and XP-*li* questions, displays an unvalued [*uPol*] feature and an unvalued [*uV*] feature. Then, the remaining material undergoes Remnant TP movement to a projection XP, higher than IntP, thus giving rise to the presuppositional flavour *li*-final questions denote.

Recall however that the analysis proposed for XP-*li* questions in Section 2.3.2.2 above, involves verb movement to Int° triggered by the existence of an unvalued [*uV*] feature in need of valuation. Here, we will follow Ambar (2003) on Portuguese *wh-in-situ* questions in assuming that in *li*-final questions the [*uV*] feature of Int° is valued by the higher domain, the properties of which we discuss in Chapter 3.

The analysis discussed above is heavily based on Ambar’s (2000, 2003) proposal for Portuguese *wh-in-situ* questions. Note that, besides the properties concerning the existence of previous knowledge both *li*-final questions and *wh-in-situ* questions share, a characteristic aspect of both structures concerns the sentence-final occurrence of the interrogative element. Considering that Portuguese *wh-in-situ* questions denote speaker’s previous knowledge, Ambar (2003) proposes that these structures involve Remnant TP Movement to a projection accounting for such properties, namely AssertiveP originally proposed in Ambar (1996) and developed in later work, namely Ambar (1997, 1999, 2000, 2003). In her terms, such structures display a [+assertive] feature checked through Remnant TP movement. For the time being we will not discuss whether AssertiveP also projects in yes-no questions. We leave the discussion of this matter for Chapter 3.

2.4. On Other Types of Yes-No Questions in Bulgarian

Putting aside Bulgarian *li*-questions, in this section we will briefly discuss three other types of yes-no questions: (i) yes-no questions with rising intonation; (ii) *dali*-questions; (iii) *nali*-questions.

The questions in (i) are of significant import given that they clearly illustrate the consequences for the structure **in the absence of *li***. *Dali*-questions and *nali*-questions, on the other hand, evidently display a relation to the particle *li*. Yet, a closer look at the

distributions of the interrogative words *dali* and *nali* suggests that they are structurally distinct from *li*.

2.4.1. Questions without *li*

According to the analysis proposed in the preceding section, *li* is crucial for the denotation of polarity and the algorithm $[x, \neg x]$ in which $[x]$ may be the verb or an element different from the verb. In this section we will discuss some data supporting this claim, focusing on cases in which *li* is not part of the structure and observing the consequences of its absence.

Crucially, Bulgarian yes-no questions lose their interrogative character, associated with the denotation of the set of alternatives p and $\neg p$ (Hamblin 1973), whenever *li* is missing. Compare the examples in (79) and (80) below:

(79) Ivan kupi li knjigata?
John bought Q book.def
'Did John buy the book?'

(80) Ivan kupi knjigata?!
John bough book.def
'John bought the book!'

The structure in (80) without *li* loses its true interrogative interpretation and is rather biased towards the positive value of the proposition. In conformity with its intonational contour, (80) can acquire an exclamation-like reading associated with the denotation of surprise, or can consist in a declarative sentence. Notice that, as opposed to (79), which is a true yes-no question, the structure in (80) without *li* can be seen as a counterpart of English 'declarative questions' (Gunlogson 2002) which, in contrast to standard yes-no questions, do not display subject-verb inversion but rather keep the

declarative SVO order¹⁰. According to Gunlogson (2002), this strategy codifies the speaker's high level of commitment to the truth of the proposition.

Importantly, the data above supports the proposal that *li* is merged in PolP, as it clearly introduces the set of alternative propositions $[p, \neg p]$ to the structure. Nevertheless, this is not the case of other languages displaying *li*, namely Russian, Serbian-Croatian and Macedonian, in which the particle occurs somewhat optionally. As discussed in Rudin et al. (1999), when it comes to Macedonian, speakers exhibit a preference for structures without *li*. Russian and Serbian-Croatian behave similarly. Szabolcsi (2015) shows that in Russian, *li* is not obligatory in yes-no questions. Therefore, she argues that Russian *li* introduces alternatives as those involved in alternative questions. We will leave the discussion of this topic for Chapter 3.

One question that arises here concerns the reasons why *li* is obligatory in Bulgarian but not in Russian, Serbian-Croatian and Macedonian. Under the analysis discussed above, *li* introduces the alternatives $[x, \neg x]$ into the syntax, i.e. *li* is a polarity particle. Considering that Russian, Serbian-Croatian and Macedonian display yes-no questions without *li*, it may be suggested that *li* in those languages is not in the core of polarity features assignment, but is only active for higher domains accounting for the speaker's presuppositions.

2.4.2. *Dali*-questions

Another type of yes-no questions we discuss in this section are those displaying the interrogative word *dali*.

Traditional grammars (Bulgarian Academy of Science grammar 1983) regard *dali*-questions as counterparts of *li*-questions, i.e. as structures consisting in simple requests for information. *Dali* has therefore been considered an interrogative word whose function in the sentence patterns that of the particle *li*. Consider the example in (81) below:

- (81) *Dali* Ivan kupi knigata?
Dali John bought.3sg book.def

¹⁰ These divergences are captured under the English translations of the examples in (79) and (80), respectively.

‘Did John buy the book? (I wonder)’

As shown in Krapova (2002), *dali* also licenses embedded yes-no questions. Following Rizzi (1997, 1999), Krapova (2002) suggests that *dali* is an interrogative complementizer, i.e. it is the counterpart of the Italian *se*. Accordingly, it heads IntP (Rizzi 1999).

Curiously, in spite of the fact that *dali* has been treated uniformly with *li*, it has been noted (Rudin 1986) that, in contrast to the particle, *dali* adds a certain flavour of wondering and doubt to the structure. This property of *dali* has not been accounted for by any of the previous analyses dedicated to the syntactic position of this element (some of which we discussed in Section 2.1.2). Rudin (1986) and Izvorski (1995) propose that *dali* is a complementizer generated in C°. Nevertheless, besides the fact that it has a complementizer-like behaviour, the analyses that argue that *dali* is generated in C° fail to account for another property of this element, namely the sensibility to *nonveridicality* (Giannakidou 1998) it displays: as pointed out in Smirnova (2011) *dali* is a morphologically complex element that results of the incorporation of the subjunctive particle *da* and the particle *li*.

In what follows, we will discuss (i) the distribution of *dali* and some of the previous analyses dedicated to its occurrence in matrix and embedded clauses (subsection 2.4.2.1) and (ii) the divergences between *dali* and *li* with respect to their occurrences in matrix and embedded clauses (subsection 2.4.2.2).

2.4.2.1. The distribution of *dali*

As mentioned above, it has been commonly agreed that *dali* is the interrogative complementiser *par excellence* patterning the English ‘whether’ (Dukova-Zheleva 2010: 1) or the Italian *se* (Krapova 2002):

(82) a. Popitax dali Ivan kupi knigata.
 Asked.1sg dali John bought.3sg book.def
 ‘I asked whether John bought the book.’

b. Čudja se dali Ivan pročete pismoto.
 Wonder.1sg refl dali John read.3sg letter.def

well as occurring in embedded questions, *dali* is also plausible in the scope of negated predicates such as *ne sām sigurna* ‘I am not certain’ or *ne e očividno* ‘it is not obvious’:

(86) a. Ne sām sigurna [da-li ima teč v rezervoara].
NOT be.1SG.PRES certain SUBJ-Q have.3SG.PRES leak in oil.tank
‘I’m not certain whether there is a leak in the oil tank.’

b. Ne e očividno [da-li ima teč v rezervoara].
NOT be.3SG.PRES obvious SUBJ-Q have.3SG.PRES leak in oil.tank
‘It is not obvious whether there is a leak in the oil tank.’

Smirnova (2011: 274)

In her view, the employment of *dali* in these cases correlates with the expression of epistemic modality and, particularly, with the speaker’s low level of commitment to the truth of the proposition. Observe that the examples in (86) are equally well formed when the subjunctive-like *dali* is substituted by the indicative *če*:

(87) a. Ne sām sigurna [če ima teč v rezervoara].
NOT be.1SG.PRES certain that have.3SG.PRES leak in oil.tank
‘I’m not certain that there is a leak in the oil tank.’

b. Ne e očividno [če ima teč v rezervoara].
NOT be.3SG.PRES obvious that have.3SG.PRES leak in oil.tank
‘It is not obvious that there is a leak in the oil tank.’

However, differently from (86), in the examples in (87) the occurrence of the indicative complementizer suggests that the speaker considers the proposition in the embedded domain a fact, i.e. ‘there is a leak in the oil tank’ is taken to be true.

These contrasts concerning the selection of the indicative complementizer *če* and the interrogative complementizer *dali* cannot be explained under the analysis proposed in Krapova (2002). It looks like *dali* does not function as an interrogative complementizer in these cases. Rather, the occurrences of *če* and *dali* contribute towards the expression of the speaker’s beliefs with respect to the truth of the proposition. Moreover, the contrast

between (86) and (87) strongly resembles the intriguing cases of some predicates in Romance, such as Portuguese *acreditar* ‘believe’, which select both indicative and subjunctive (Giannakidou 1998, Quer 1998, 2009, Marques 2009, 2010, Ambar 2016, a.o.).

In view of these observations, the fact that *dali*’s morphological make-up reveals a relation to subjunctive mood is, evidently, not coincidental. Our suspicion is that the fact that *dali* contains the subjunctive *da* is precisely what triggers not only its intriguing behaviour in embedded clauses, but also the so called ‘wondering’ effect conveyed by its occurrence in main yes-no questions (cf. ex. (81)). However, in order to account for its relation with the subjunctive, we need to examine not only the properties of the compound *dali*, but also those of the subjunctive particle *da*.

The following questions arise:

(i) What type of element is *da*? Where is *da* generated? What is the function of *da*: is it part of the complementation, a modal element or part of the verbal inflection?

(ii) Is *dali* formed in syntax by incorporation of the subjunctive *da* to the interrogative *li* or rather does it merge in a given projection of the Left Periphery?

(iii) How can we account for the special interpretation *dali* conveys to matrix and embedded yes-no questions?

We will discuss these and other related questions in Chapter 5.

2.4.2.2 *Dali* and *li*: embedded clauses and *nonveridicality*

As shown above, besides the fact that it is plausible in embedded yes-no questions, *dali* also occurs in special types of embedded clauses in which it conveys the speaker’s low degree of belief with respect to the truth of the proposition. Nevertheless, as pointed out above, the relation to *nonveridicality* *dali* exhibits is not captured under the assumption that it is an interrogative complementizer generated in Int^o (Krapova 2002).

An additional problem for the idea that *dali* is the interrogative complementizer licensing embedded yes-no questions is related to the fact that these structures can also be licensed by the particle *li*. Observe that in the embedded questions in (82), repeated below for convenience, *dali* can be replaced by *li*:

(88) a. Popitax Ivan kupi li knjigata.
Asked1sg John bought3sg Q book.def
'I asked whether John bought the book.'

b. Čudja se Ivan kupi li knjigata.
Wonder.1sg refl John bought.3sg Q book.def
'I wonder whether John bought the book.'

In addition, *li* is also able to replace *dali* in the low-degree of commitment to the truth of the proposition structures discussed in Smirnova (2011):

(89) a. Ne sām sigurna ima li teč v rezervoara.
Not be.1sg certain have.3sg Q leak in oil tank.
'I'm not certain whether there is a leak in the oil tank.'

b. Ne e očevidno ima li teč v rezervoara.
Not be.3sg obvious have.3sg Q leak in oil tank
'It is not obvious whether there is a leak in the oil tank.'

Although *dali* and *li* can both occur in embedded clauses, we should point out that, in contrast to *dali*, which takes in its scope the entire embedded proposition, the elements attaching to the particle are either the verb as in (89), or to XPs different from the verb, as in (90). This behaviour of *li* is consistent with what was observed above with respect to its distribution in matrix yes-no questions:

(90) Ne sām sigurna teč li ima v rezervoara.
Not be.1sg certain leak Q have.3sg in oil tank.
'I am not certain whether there is A LEAK in the oil tank'

Moreover, embedded and matrix *li* clauses pattern with respect to the behaviour of the XP that attaches to *li*. Besides acquiring the so called *focused* reading, the XP attaching to *li* must be obligatorily fronted. Compare (90) with the ungrammatical examples in (91):

(90) a. * Ne sãm sigurna ima v rezervoara [teč li].
 Not be.1sg certain have.3sg in oil tank leak Q

b. * Ne sãm sigurna ima [teč li] v rezervoara.
 Not be 1sg certain have.3sg leak Q in oil tank

These data cause another problem for the assumption that *dali* is the interrogative complementiser *par excellence*. As far as we know, the occurrence of the particle *li* in embedded clauses has not been previously discussed in the literature. Therefore, our goal here is to understand to what extent structures with *li* and *dali* pattern. The questions that arise from the data above concern (i) the positions in which *dali* and *li* are generated and (ii) the contexts in which *dali* and *li*-embedded clauses are felicitous, i.e. whether the structures embedded under *dali* or *li*, respectively, acquire distinct readings.

Let us start with (i). Note that the fact that the particle *li* licenses both main and embedded yes-no questions is in agreement with the data from other languages from the Slavic group. Remember that the Russian *li* occurs in yes-no questions somewhat optionally (Szabolcsi 2015, cf. Chapter 3). Nevertheless, as noticed by Bailyn (2012), it is obligatory in Russian embedded questions:

(92) Ja sprosil [+q]' [CP: [+q] smotrit li_[+q] [TP Ivan _____ televizor]].
 I asked [watches Q [Ivan TV]]

‘I asked if/whether Ivan is watching TV.’

(Bailyn 2012:86)

Likewise, Polish matrix yes-no questions can, somehow optionally, display the sentence-initial particle *czy* (93a). In embedded clauses, however, *czy* is obligatory (93b-c):

(93) a. (Czy) on idzie na impreze?

Q he go.3sg to party

‘Is he going to the party?’

b. Zapytałem czy on idzie na impreze.

Asked.1sg Q he go to party

‘I asked whether he is going to the party.’

- c. Nie jestem pewna czy on idzie na impreze.
 Not be.1sg certain Q he go to party
 ‘I am not certain whether he is going to the party.’

Considering the analysis proposed above and the structural position occupied by *li*, and following Krapova’s (2002) proposal for *dali*, it may be suggested that *li* is merged in Pol° and *dali* is merged in Int°. The questions embedded under *dali* take in their scope the entire TP, as in (94):

- (94) PopitaX [_{IntP} [_{Int°} dali [_{TP} Ivan_j [_{T°} kupi_i [_{VP} Ivan_j [_{V°} kupi_i knigata]]]]]]]
 Asked.1sg dali John bought book.def

Questions embedded under *li*, on the other hand, trigger V-movement to *li* in Pol°. The complex V-*li* constituent then raises to Int°:

- (95) PopitaX [_{IntP} [_{Int°} kupi_i li_k [_{PolP} [_{Pol°} kupi_i li_k [_{TP} Ivan_j [_{T°} kupi_i [_{VP} Ivan_j [_{V°} kupi_i knigata]]]]]]]]]
 Asked.1sg bought Q John
 kupi_i knigata]]]]]]]
 book.defr

At first glance, the structures in (94) and (95) account for the data. However, further differences concerning the subjunctive nature of *dali* and some differences in the meaning of *dali* and *li*-questions are not accounted for.

Let us consider the question in (ii) concerning the divergent meanings¹¹ triggered by the occurrence of *li* and *dali*. Rudin (1986) notices that structures with *dali* convey an effect of ‘wondering’ which those with *li* lack. The derivations in (94) and (95) do not account for this effect, which is particularly visible in matrix yes-no questions:

¹¹ Similar divergences arise when considering the distributions of ‘if’ and ‘whether’ in English embedded questions. Ever since Bolinger (1978) it has been noticed that these elements differ with respect to the expression of bias. Thus, it has been observed that whereas clauses embedded under ‘if’ are biased towards *p*, the complementizer ‘whether’ denotes the existence of two alternatives, namely {*p*, ¬*p*}. This property of ‘whether’ triggers, according to Krifka (2011), the oddness of the structure in (ii):

- (i) Bill asked Jill if she wants to marry him.
 (ii) Bill asked Jill whether she wants to marry him. (Krifka 2011: 1778)

(96) a. Marija zamina li za Sofia?

Mary went Q to Sofia

‘Did Mary go to Sofia?’

b. Dali Marija zamina za Sofija?

Dali Mary went to Sofia

‘Might it be the case that Mary went to Sofia?’

‘Did Mary go to Sofia? (I wonder)’

Interestingly, along with the contrasts with respect to the denotation of wondering consistent with *dali*-questions, the structures in (96a) and (96b) also differ with respect to the insertion of the coda ‘or not’. Notice that the ‘or not’ coda is felicitous with *li*-questions (97a) but not with *dali* questions (97b):

(97) a. Marija zamina li za Sofia ili ne?

Mary went Q to Sofia or not

Did Mary go to Sofia or not?’

b. ?? Dali Marija zamina za Sofija ili ne?

Dali Mary went to Sofia or not

The same pattern is at stake in embedded questions. Note that only the proposition embedded under *li* in (98a) is compatible with the coda:

(98) a. Popitax Ivan vidja li kartinata ili ne.

Asked Ivan saw Q painting.the or not

‘I asked whether John saw the painting or not.’

b. ?? Popitax dali Ivan vidja kartinata ili ne.

Asked.1sg dali Ivan saw painting.def or not

In our view, the fact that *li* matrix and embedded clauses are consistently compatible with the coda “or not” stems from the fact that the particle *li* indeed denotes

the polarity algorithm $[x, \neg x]$. In fact, the data illustrating the occurrence of the coda “or not” in *li*-questions supports the analysis proposed in the preceding section, namely that the particle is responsible for the denotation of the set of alternatives p and $\neg p$ (Hamblin 1973).

As for the consistent incompatibility between the coda and *dali*, in our view, it is a result of the relation to the subjunctive *dali* displays. As pointed out by Giannakidou (2016), who discusses the occurrence of the subjunctive in Modern Greek interrogatives, subjunctive yes-no questions are ‘about the possibility of p , rather than p itself’ [Giannakidou 2016: 200]. In her terms, what we are dealing with in such structures is what she calls the *epistemic subjunctive*. Indeed, this assumption explains the above data and, moreover, accounts for the ‘wondering’ effect conveyed by *dali*. Given that *dali* denotes ‘possibility’, the questions involving this element do not denote the set of alternative propositions of *li*-questions, hence their incompatibility with the coda ‘or not’.

The data in (97) and (98) above can be furthermore considered in the light of the observations put forward in Adger & Quer (2001) who consider the distribution of English ‘if’ and ‘whether’ in the so called *Unselected Embedded Clauses*. Whereas both ‘if’ and ‘whether’ are felicitous with predicates of wondering (99), only whether-complements appear to be plausible under assertive predicates such as ‘tell’ (100), if-complements being ruled out (101):

(99) a. John asked/wondered if Mary was happy.

b. John asked/wondered whether Mary was happy.

(100) a. The bartender told me who was drunk / whether I was drunk.

b. The bartender told me that I was drunk.

(101) *The bartender told me if I was drunk.

(Adger and Quer 2001: 109)

According to Adger and Quer (2001) the contrast between ‘if’ and ‘whether’ illustrated above arises from the fact that the former is polarity sensitive, while the latter is not. Since predicates such as ‘tell’ select a proposition taken to be true (Groenendijk &

Stokhof 1982, Giannakidou 1998) the incompatibility of ‘if’ in such contexts suggests that it is only plausible in so-called *nonveridical* contexts. If-clauses are therefore restricted to occurring under predicates of wondering and under negated predicates.

Particularly intriguing are the examples from Catalan discussed by these authors. Catalan *si* ‘if’, like English ‘if’, is infelicitous in *Unselected Embedded Clauses*:

- (102) Han confessat [que / *si s’han endut diners].
Have.3pl confessed [that/ *if SE-have.IND.3p taken money
‘They confessed that /*if they took any money.’

Nevertheless, it is plausible in questions (103a), where it can also alternate with the complementizer *que* ‘that’ selecting the subjunctive mood (103b):

- (103) a. Han confessat [si s’han endut diners]?
Have.3pl confessed [if SE-have.IND.3pl taken money]
‘Did they confess if they took any money?’
- b. Han confessat [que s’hagin endut diners]?
Have.3pl confessed [that SE-have.SUBJ.3pl taken money
‘Did they confess if they took any money?’

In a way, the examples in (103) confirm the relation to *nonveridicality* such complementizers display. The thorough discussion of these questions and, particularly, of those concerning the selection of the subjunctive mood in interrogatives, will be provided in Chapter 5.

2.4.3. *Nali*-questions

Lastly, we briefly refer to the structures licensed by the interrogative word *nali*.

According to traditional grammars, *nali*-questions, like *dali*-questions, are another type of yes-no questions. In fact, *nali*-questions are TAG-questions consisting in the

speaker's request for confirmation of the proposition. In this subsection, we will focus particularly on the distribution of the TAG *nali*.

At first glance, it seems that *nali* parallels with *dali* in terms of its complex morphological representation. Both elements contain an instantiation of the particle *li*. According to Tiševa (2003), the Bulgarian Tag *nali* derives from the incorporation of the negation marker *ne*, the copula verb *săm* inflected in Present.3p.sg, namely *e* 'is' and the interrogative particle *li*. Nevertheless, with the exception of Tiševa's (2003) work, the distribution of *nali* and the syntactic expression of *nali*-questions have not been subject to much discussion.

Let us consider some examples illustrating the distribution of this element. As in TAG-questions in other languages, the Bulgarian TAG *nali* occurs sentence-finally in a position following the entire proposition:

- (104) Ivan kupi knigata, nali?
John bought book.def. NALI
'John bought the book, didn't he?'

Interestingly, in contrast to other TAGs, such as English *isn't it*, Bulgarian *nali* can also appear sentence-initially, being preceded by sentence-initial topics:

- (105) Ivan nali zamina za Paris?
John NALI left to Paris
'As for John, he left for Paris, didn't he?'

Nevertheless, sentence-initial and sentence-final *nali* display some differences when it comes to assigning focus. Consider the examples in (106):

- (106) Včera nali IVAN se obadi?
Yesterday NALI John SE called
'Yesterday it was John who called, wasn't it?'

As illustrated by (106), the constituent immediately following the so-called sentence-initial *nali* can also be focalised. Thus, the structure in (105) is not a request for

confirmation of the entire proposition but rather consists in a confirmation of whether it was JOHN who called yesterday.

Such readings are, however, limited to those elements that occur on the right of *nali*. In (107) below, the constituent *knigata* ‘the book’ cannot acquire the focus-like interpretation. Pre-*nali* elements appear to function, therefore, as sentence-initial topics:

- (107) *KNIGATA nali Ivan kupi včera?
BOOK-DEF NALI John bought yesterday
Intended: “It was the book what John bought yesterday, wasn’t it?”

Crucially, the sensibility to focus of sentence-initial *nali* is not displayed by the sentence-final *nali* which functions as a standard TAG denoting a request for confirmation of the entire proposition.

According to the proposal put forth in Tiševa (2003), sentence-final and sentence-initial *nali* occupy distinct structural positions. In her terms, the sentence-final occurrence of *nali* is not a result of verb-movement. Rather, *nali* adjoins at the end of the proposition.

In contrast, the sentence-initial *nali* splits the proposition in two: (i) the material preceding *nali* is the shared material, i.e. topics and left dislocated constituents and (ii) the material following *nali* which consists in the information in need of confirmation. Following Krapova (2001) on the distribution of *dali*, Tiševa (2003), proposes that *nali*, like *dali*, merges in IntP.

One of the properties of *nali* that was not discussed in Tiševa (2003) is the morphological make-up of this element. As mentioned above, *nali*, like *dali*, is morphologically complex: it results of the incorporation of the negation marker *ne*, the copula in 3p.sg. *e* ‘is’ and the interrogative particle *li*. Notice that *nali* patterns *dali* in the fact that it is formed by the adjunction of *li* to other elements.

The fact that *nali* morphologically contains negation is of particular import when it comes to dealing with the expression of the speaker’s belief in the truth of the proposition. This property of *nali* is left unaccounted for under Tiševa’s (2003) proposal. Moreover, as claimed by Asher & Reese (2005) and by Reese (2007), TAG-questions and negative yes-no questions are complex speech acts: they are simultaneously assertions and questions. The morphological make-up of *nali* supports the parallels between TAG-questions and negative yes-no questions.

2.5. Some Brief Conclusions

Our central goal in this chapter was to discuss the properties of yes-no questions, focusing on data from Bulgarian and Portuguese. Following Holmberg (2012) who argues that the syntactic expression of polar questions involves the projection PolP, we proposed a derivation of Bulgarian *V-li* and *XP-li* questions. According to the analysis proposed in this chapter, we suggested that the particle *li* is externally merged in Pol^o and denotes the polarity algorithm $[x, \neg x]$ in which $[x]$ can be the verb or an XP different from the verb.

Discussing the well-known contrast between the *V-li* and *XP-li* questions, and the relation to focus the latter display, we suggested that the divergent meanings they convey are a result of the way the polarity algorithm applies in each structure. Thus, we claimed that in *V-li* questions, the polarity algorithm the verb absorbs applies to the entire proposition given that T is the head of the proposition. In contrast, whenever an XP different from the verb raises to *li* in Spec, PolP, the polarity algorithm gives rise to the formation of the alternatives $\{XP, \neg XP\}$. In contrast to *V-li* questions in which the algorithm *li* introduces applies to the entire proposition, assuming that T is the head of the proposition, in *XP-li* questions, it is absorbed by the XP. The formation of the alternatives $[XP, \neg XP]$ consisting in the opposition between the given XP and its negation therefore affects the so called “focused” meaning of *XP-li* questions.

In addition to the central topic concerning the syntactic expression of yes-no questions and, to some extent, their answers, we also discussed some additional types of yes-no questions, namely those formed by the morphologically complex interrogative words *nali* and *dali* which display a relation to negation and the subjunctive, respectively. We proposed that the special meanings they convey to the structure are a result of their morphological make-up.

In the next chapter, we will extend the discussion on Bulgarian *XP-li* questions, focusing on some special cases, namely those in which *li* co-occurs with wh-words and quantifiers. These data support the proposal put forth in this chapter, namely that it is not focus that we are dealing with in *XP-li* questions.

3. QUANTIFICATION AND QUESTIONS: FURTHER PUZZLES ON THE DISTRIBUTION OF QUESTION PARTICLES

In the preceding chapter, we discussed thoroughly the function of the particle *li* in Bulgarian yes-no questions. According to the analysis we proposed, *li* introduces the polarity algorithm $[x, \neg x]$ where $[x]$ can be the verb or an XP different from the verb. In V-*li* questions, the verb attaches to *li* in Pol^o. The complex constituent formed by *li* and the attached verb raises to Int^o. In XP-*li* questions, on the other hand, an XP different from the verb attaches to *li* in Spec, PolP. Similarly to V-*li* questions, the constituent XP-*li* raises to Spec, IntP in order to value the unvalued $[uPol]$ feature of the head Int^o. The inflected verb then moves to Int^o in order to value the unvalued $[uV]$ feature of Int. Accordingly, the systematic interpretational and structural differences between V-*li* and XP-*li* questions¹² were identified as an outcome of the properties of, respectively, the V and the XP: given that T is the head of the proposition, the alternatives $[V, \neg V]$ apply to the entire proposition, reason why V-*li* questions convey the so called *neutral* meaning.

In contrast, in XP-*li* questions, an XP different from the verb raises to Spec, PolP and absorbs the polarity algorithm of *li* giving rise to the formation of the alternatives $[XP, \neg XP]$. We propose that the so-called *focus* meaning of such structures is an outcome of the formation of the alternatives $[XP, \neg XP]$ which denote the opposition between the XP and its negation $\neg XP$. As shown in Chapter 2, the XP is a constituent different from the verb. If we take this to be an NP like ‘John’, the result is $[John, \neg John]$. In the case that it is an adverb like ‘fast’, the alternatives we obtain are $[fast, \neg fast]$. Notice that the newly formed pair of variables always denotes the opposition between the given XP its negation: $[John, \text{not John}]$ giving rise to the alleged focus reading such structures consistently convey.

Nevertheless, although this analysis felicitously captures the main facts about the distribution of *li* in Bulgarian yes-no questions, there are some remaining puzzles concerning the nature of the particle and its distribution in Bulgarian interrogatives.

¹² Recall that XP-*li* questions have been traditionally associated with focus. What is more, these structures share a number of properties with wh-questions, as shown in Chapter 2. For further details, see section 2.1.1 of the preceding chapter.

As already mentioned in the previous chapters, *li* displays a particular sensibility towards a special group of constituents such as wh-words and different types of quantifiers (universal, existential and negative). This suggests that the behaviour of *li* in yes-no questions and wh-questions is conditioned by a more general property it carries. At first glance, it seems that this special *trait* is related to quantification. In this chapter we will therefore focus on the relation between the particle and constituents such as those enumerated above.

The discussion that follows is heavily based on Szabolcsi's (2015) observations concerning the intriguing distribution of a group of special elements dubbed *Quantifier Particles*. Following Szabolcsi's (2015) analysis, our goal is (i) to understand whether the Bulgarian particle *li* qualifies as such an element and (ii) to explain its distribution in yes-no questions with quantifiers and in wh-questions.

The chapter is organised as follows. In section 3.1, we consider Szabolcsi's (2015) work, focusing on the properties of the elements dubbed 'KA particles' by the author. In section 3.2, we concentrate on (i) *li*-questions and alternative questions with the morphologically complex disjunction *ili* 'or' and on (ii) the interaction between *li* and different types of quantifiers and wh-words in, respectively, yes-no and wh-questions. In section 3.3, we discuss the factors triggering the particle's distribution in the contexts in (ii), putting forward an analysis that relies on the activation of functional projections of the Left Periphery. Section 3.4 summarises the chapter.

3.1. What is a Quantifier Particle (Szabolcsi 2015)?

In this section we discuss the analysis put forth in Szabolcsi (2015). As noted by this author, it appears that "the same particles that form quantifier words also serve as connectives, additive and scalar particles, question markers, roots of existential verbs, and so on." [Szabolcsi 2015: 159]. Szabolcsi (2015) dubs such elements *Quantifier Particles* and distinguishes between two types: KA particles and MO particles where the capitalised KA and MO are used as generic representatives for each group, although they coincide with the Japanese morphemes *ka* and *mo* discussed below.

Let us consider the data illustrating the behaviour of these particles. Discriminating between the two groups, namely Szabolcsi's (2015) KA and MO particles, we can distinguish between: (i) Hungarian *vala/vagy* and Japanese *ka*, as in (1), and (ii) Hungarian *mind/is* and Japanese *mo*, as in (2):

<u>Hungarian</u>	<u>Japanese</u>	
(1) a. vala -ki	dare- ka	'someone'
b. (vagy) A vagy B	A- ka B(- ka)	'A or B'
c. vagy száz	hyaku-nin- toka	'some one hundred = approx. 100'
d. val- , vagy-	--	'be' participial and finite stems
e. --	dare-ga V...- ka	'Who Vs?'
f. S-e	S-ka	'whether S'
(2) a. mind -en-ki	dare- mo	'everyone/anyone'
b. mind A mind B	A- mo B- mo	'A as well as B, both A and B'
A is (és) B is		'A as well as B, both A and B'
c. A is	A- mo	'A too/even A'

(Szabolcsi 2015:160)

Notice that the paradigms above illustrating the distributions of Hungarian *vagy/vala* (1) and *mind/is* (2) and Japanese *ka* (1) and *mo* (2) encompass a wide range of contexts. As shown by the examples in (1), Hungarian *vagy/vala* and Japanese *ka* take part in the formation of positive indefinites (1a), denote disjunction (1b), form approximate numerals (1c) and, moreover, license yes-no and wh-questions, as in the Japanese examples in, respectively, (1e) and (1f). These elements belong to the group of the **KA particles**: the particles expressing existential quantification and disjunction, as generalised by Szabolcsi.

As for the examples in (2), Hungarian *mind/is* and Japanese *mo* participate in the morphological make-up of universal quantifiers (2a) and can also function as conjunctions (2b-c). They enter the group of the **MO particles**: the elements involved in the denotation of universal quantification and conjunction.

Considering the paradigms in (1) and (2) and using the algebraic operations join (\cup) and meet (\cap), Szabolcsi (2015) assumes that the KA particles denote lattice-theoretic

join (\cup), while the MO particles denote lattice-theoretic meet (\cap). In light of the theory of Inquisitive Semantics, the semantic contributions of the KA and the MO particles are presented in (3) and (4) respectively. If the universe consists of Kate, Mary and Joe, the following representations are derived:

(3) a. Who dances?, Someone dances, Kate or Mary or Joe dances

[[Kate dances]] \cup [[Mary dances]] \cup [[Joe dances]]

b. whether Joe dances

[[Joe dances]] \cup [[¬Joe dances]]

(4) a. Joe dances

[[Joe dances]]

b. Everyone dances

[[Kate dances]] \cap [[Mary dances]] \cap [[Joe dances]]

(Szabolcsi 2015:163)

In (3a) the wh-word ‘who’, the existential quantifier ‘someone’ and the disjunction ‘Kate or Mary or Joe’ denote the alternatives [Kate dances], [Mary dances], [Joe dances] which basically consist in the speaker’s information regarding the elements available in the discourse. As shown in (1) in languages such as Hungarian and Japanese, wh-words, existential quantifiers and disjunctions morphologically combine or co-occur with a KA particle. The function of the KA particle, according to Szabolcsi (2015), is to indicate that the given constituent is part of a larger set of presuppositions, namely the set [Kate, Mary and Joe], by introducing the operation join (\cup).

Note that this line of inquiry is extended to yes-no questions, as in the example in (3b): the interrogative operator ‘whether’, represented by a KA particle in Hungarian and Japanese, indicates the existence of two alternatives, namely [Joe dances] and [¬Joe dances], i.e. Hamblin’s (1973) set of alternatives. According to Szabolcsi (2015), the Hungarian and Japanese morphemes *-e* and *ka*, respectively, indicate the formation of these alternatives. What is more, the distribution of the KA particles in Hungarian and Japanese supports the idea that yes-no and wh-questions are not the only contexts

denoting sets of alternatives. As proposed by Alternative Semantics (Kratzer & Shimoyama 2002, a.o), given quantifiers and disjunctions also invoke sets of propositions. Further on in this chapter we will observe that this assumption is crucial when dealing with elements such as the particle *li* and its distribution in Bulgarian interrogatives.

As for the examples in (4), the central operation lattice-theoretic meet \cap draws the opposite scenario. The MO particles are regarded as indicators of the operation meet \cap , which signals the interpretation of pairs. Thus, in (4b) the universal quantifier ‘everyone’ invokes an interpretation that brings together the existing alternatives. Therefore, considering that the universe consists of the constituents Kate, Mary and Joe, the universal quantifier ‘everyone’ in (4b) indicates that the proposition captures all alternatives: [Kate dances], [Mary dances] and [Joe dances].

We will not enter into any further detail regarding the analysis of quantifier particles proposed by Szabolcsi (2015). Instead, we will turn our attention to KA particles and their occurrence in yes-no questions. In the following subsection we will consider Szabolcsi’s (2015) observations with regard to the distribution of the Hungarian interrogative morpheme *-e* and the Russian interrogative particle *li*, focusing on the arguments supporting their classification as KA particles.

3.1.1. Not all Q-particles are KA particles

Szabolcsi (2015) pays particular attention to the behaviour and distribution of KA particles in yes-no questions. In her terms, the Hungarian interrogative morpheme *-e* and the Russian interrogative particle *li* must be classified as KA particles. Nevertheless, she observes that not all Q-particles qualify as KA particles. The paragraph quoted below sheds some light on this issue, highlighting the necessary requirements and diagnostics discriminating between standard Q-particles and KA particles:

“It will be useful to emphasize that not all question particles (i.e. particles whose characteristic habitat is in main-clausal or complement interrogatives) need to be KA particles in our sense. The formation of a set of multiple alternatives is just one step in the derivation of questions: a step that is shared by the derivation of declaratives involving

disjunctions and indefinites. According to Ciardelli, Groenendijk & Roelofsen (2012) and AnderBois (2012), questions are distinguished from declaratives, including inquisitive ones, by the fact that the alternatives fully cover the logical space. This literature introduces two ? operators, open non-informative closure ?_o and presuppositional, closed non-informative closure ?_c to achieve that effect. If a particle were found to correspond to ?_o or ?_c, it would be a question particle, but not a KA-particle. [...] Based on Hungarian data, I will argue that polarity questions are formed directly with the ? operator of Inquisitive Semantics, whereas alternative questions are built as disjunctions. While the resulting semantics is basically the same in the two cases, they differ in that only in the latter case is KA needed to bleed default U.”

(Szabolcsi 2015:189)

According to the quotation above, a crucial aspect of the characterization of a Q-particle as a KA particle has to do with the formation of alternatives. Yes-no questions in which a KA particle occurs are, by nature, alternative questions, i.e. they denote disjunctions. In contrast, simple Q-particles, i.e. not KA particles, signal the existence of a question operator ?, which can be ?_o open or ?_c closed, i.e. neutral or presuppositional.

Szabolcsi’s claim is further supported by data illustrating the different types of yes-no questions in Hungarian and Russian. Crucially, polar questions in these languages can be formed **with or without** the respective particle. Consider first the Hungarian data in (5) and (5’):

(5) Main clause question

- | | |
|-------------------------------|-----------------------------|
| a. Táncolt Mari? ↑ | ‘Did Mary dance?’ |
| b. Táncolt Mari vagy nem? ↓ | ‘Did Mary dance or not?’ |
| c. Táncolt-e Mari? ↓ | ‘Did Mary dance-KA?’ |
| d. Táncolt-e Mari vagy nem? ↓ | ‘Did Mary dance-KA or not?’ |

(5’) Interrogative complement

- | | |
|--------------------------------------|---|
| a. *... hogy táncolt Mari. | ‘... lit. that Mary danced’ |
| b. ... hogy táncolt Mari vagy nem. | ‘... that Mary danced or not = whether’ |
| c. ... hogy táncolt-e Mari. | ‘... whether Mary danced-KA’ |
| d. ... hogy táncolt-e Mari vagy nem. | ‘... whether Mary danced-KA or not’ |

Hungarian main yes-no questions in (5) can be licensed by rising intonation, as indicated by the arrow in (5a), or by the interrogative morpheme *-e* which incorporates into the verb, as in (5c). Alternative questions, on the other hand, are formed with the disjunction *vagy* ‘or’, as shown in (5b), or with the disjunction *vagy* ‘or’ and the co-occurring morpheme *-e*, as in (5d).

The crucial divergences between the examples in (5) and, particularly, between the polar questions in (5a) and (5c), stem from the behaviour of the answering system. Consider first the structure in (5a). As shown below, the question in (5a) is felicitous with a bare ‘yes’ or with a nod:

(6) Táncolt Mari? ↑	‘Did Mary dance?’
Igen.	‘Yes’
gesture: nod of the head	
Táncolt.	‘She danced’
Igen, táncolt.	‘Yes, she danced’

(Szabolcsi 2015: 190)

Based on Krifka (2001), who distinguishes between two types of polar questions: polarity questions and alternative questions, Szabolcsi (2015) argues that questions formed by rising intonation, belong to the former type, namely to polarity questions. Importantly, polarity questions are those that can be answered by the particles Yes or No (cf. (6)), i.e. they introduce an open non-informative closure $?_o$, which means that they are non-presuppositional. Moreover, it can be noticed that the question in (5a), formed by rising intonation, is ruled out from embedded clauses, as in (5’a), which, according to Szabolcsi (2015), shows that yes-no questions formed by rising intonation are a main-clause phenomenon.

In contrast to (5a), the alternative questions in (5b) and (5d) with the disjunction *vagy* ‘or’ must be answered by echoing the finite verb. This behaviour is not surprising given that in alternative questions, the two alternatives are overt. Interestingly, the yes-no question in (5c), in which the interrogative morpheme *-e* occurs, also requires echoing of the finite verb, patterning the questions formed with *vagy* ‘or’. The structure in (5c) is

therefore incompatible with a bare ‘yes’ or with a nod, just like the alternative questions in (5b) and (5d). These data suggest that the particle *-e* behaves like the disjunction *vagy* in Hungarian.

Consider now Hungarian classical alternative questions. Observe that the four strategies available for the formation of the yes-no questions in (5a-d) are also displayed by the alternative questions in (7a-d) below:

- (7) a. TEÁT akar? ↑
 b. TEÁT vagy KÁVÉT akar? ↓
 c. TEÁT akar-e? ↓
 d. TEÁT akar-e vagy KÁVÉT(*-e)? ↓
 ‘Is it TEA or {COFFEE / the OTHER option} that he wants?’

(Szabolcsi 2015:191)

Accordingly, in (7a) the alternative question is formed with a rising intonation¹³, i.e. it does not involve the particle *-e* or the disjunction *vagy* ‘or’. On the other hand, the interrogatives in (7b), (7c) and (7d) display the strategies of the questions in, respectively, (5b), (5c) and (5d): (i) the disjunction *vagy* ‘or’, as in (5b)/(7b), (ii) the insertion of the morpheme *-e*, as in (5c)/(7c), and (iii) the combination of *-e* and *vagy* ‘or’, as in (5d)/(7d).

The answers to the questions in (5) and (7) also pattern. The alternative questions with *vagy* ‘or’ are, as expected, only compatible with answers echoing one of the alternatives of the question. Importantly, the questions in (5c) and (7c), in which the morpheme *-e* occurs, also require echoing of the alternative of the question, implying that the morpheme *-e* is consistently responsible for the denotation of disjunctions in the same way that *vagy* ‘or’ is.

The unexpected behaviour of the answering system with respect to the insertion of the interrogative morpheme *-e* in polar and alternative questions, as in (5c) and (7c) respectively, is regarded as an argument in favour of the assumption that *-e* is a Quantifier Particle. As claimed by the author, the occurrence of *-e* systematically results in the formation of disjunctions patterning the disjunctive conjunction *vagy* ‘or’. The morpheme *-e* is therefore seen as a marker of the algebraic operation join (\cup), i.e. as a KA-particle.

¹³ Notice that this structure can also be characterised as a focused yes-no question, a counterpart of Bulgarian XP-*li* structures discussed in Chapter 2. For more details, see section 3.3 below.

A piece of evidence supporting Szabolcsi's (2015) observation with respect to Hungarian, comes from the different types of yes-no questions in Russian. The Russian particle *li* is regarded as a counterpart of the Hungarian *-e*. What is more, the Russian *li* is part of the morphological make-up of the disjunction *ili* 'or', which further supports its characterization as a KA particle. Observe the data illustrating the formation of Russian yes-no questions:

- (8) a. Tancevala Masha? ↑
 b. Tancevala-li Masha? ↓
 c. Tancevala Masha ili net? ↓
 d. Tancevala-li Masha ili net? ↓
 'Did M dance or not?' and 'whether M danced or not'
 (Adapted from Szabolcsi 2015:165, ex. (13))

Notice that Russian fully patterns Hungarian with respect to the formation of yes-no questions. It displays the following types of structures: (i) yes-no questions formed by rising intonation, as in (8a), (ii) yes-no questions formed by the insertion of the particle *li*, as in (8b), (iii) alternative yes-no questions with the disjunction *ili* 'or' as in (8c) and (iv) alternative questions formed *via* the combination of the particle *li* and the disjunction *ili* 'or', as in (8d). Accordingly, as was argued in the case of Hungarian, the distinction between the first two types of questions, namely (8a) and (8b), follows from the claim that the yes-no questions formed by the insertion of the particle *li* denote disjunctions the same way that Hungarian *-e* questions do.

With Szabolcsi's observations in mind, we will concentrate on the properties of *li* and its distribution in Bulgarian interrogatives, comparing this with the data from Hungarian and Russian. As discussed in Chapter 2, *li* is obligatory in Bulgarian yes-no questions. Hence, its absence gives rise to exclamation-like structures displaying the speaker's belief in the positive or negative value of the proposition (see Section 2.4.1) Thus, unlike Hungarian and Russian, Bulgarian does not display true yes-no questions formed by rising intonation. If we assume that Bulgarian *li* is a KA particle like its Russian counterpart (cf. (8)), the fact that it is obligatory in Bulgarian yes-no questions may suggest that these structures systematically denote disjunctions, i.e. compositionally they consist in alternative questions (much like Mandarin Chinese A-not-A questions).

Nevertheless, as will become clear below, the behaviour of the answering system indicates that this is not the case.

In what follows, we will consider the disjunction *ili* ‘or’, which is formed by the conjunction *i* ‘and’ and the particle *li*, concentrating on its distribution in alternative questions (subsection 3.2.1). Next, we will turn our attention to the behaviour of the particle in yes-no questions, examining its interaction with different types of quantifiers (subsection 3.2.2). On the basis of the evidence discussed below, we will argue that, although Bulgarian *li* doesn’t seem to be a true KA-particle, it does display a relation to quantification and to the set of presuppositions available in the discourse.

3.2. Bulgarian *Li* and Quantifier Particles

As shown in the preceding section, not all Q-particles qualify as KA particles. According to Szabolcsi (2015), the core requirement for such classification correlates with the claim that KA particles denote disjunctions, in the sense of those displayed by alternative questions, whereas standard Q-particles introduce an interrogative operator.

In this section, we aim to compare the Bulgarian data with the examples from Hungarian and Russian illustrated above in order to provide an answer to the question “Is Bulgarian *li* a KA particle?” Although such a classification of the particle is not itself central to the goals of this study, the relation to quantification systematically displayed by Szabolcsi’s ‘Quantifier Particles’ is crucial for a better understanding of the properties of Bulgarian *li*.

3.2.1. The disjunction *ili* ‘or’ and alternative yes-no questions

We start by discussing Bulgarian yes-no and alternative questions, comparing these structures with the data from Hungarian and Russian.

As mentioned above, in contrast to yes-no questions in languages such as Hungarian and Russian, in Bulgarian these structures obligatorily involve the presence of *li*. Given that the rising intonation strategy is unavailable in Bulgarian yes-no questions, one might assume that these structures always denote disjunctions like those present in

alternative questions. However, a closer look at the data and, particularly, at the evidence from the answering system, implies that this is not the case.

Let us begin by considering the examples in (9), illustrating the formation of Bulgarian yes-no questions and alternative questions with the coda ‘or not’:

- (9) a. *Marija prodade kartinata?
Mary sold.3p.sg painting.def
‘Did Mary sell the painting?’
- b. Marija prodade li kartinata?
Mary sold.3p.sg Q painting.def
‘Did Mary sell the painting?’
- c. *Marija prodade kartinata ili ne?
Mary sold.3p.sg. painting.def or not
‘Did Mary sell the painting or not?’
- d. Marija prodade li kartinata ili ne?
Mary sold.3p.sg. Q painting.def. or not
‘Did Mary sell the painting or not?’

The yes-no question formed by rising intonation in (9a) is ungrammatical. As discussed in Chapter 2, *li* must obligatorily feature in Bulgarian polar questions, giving rise to structures like those in (9b)¹⁴.

Consider now the examples in (9c) and (9d). Alternative questions in Bulgarian are formed by the disjunction *ili* ‘or’. As in Russian, the Bulgarian disjunction *ili* ‘or’ contains an instantiation of the particle *li*, which is adjoined to the conjunction *i* ‘and’. Note however that, differently from Hungarian and Russian (respectively, (5b) and (8c) above), Bulgarian *li* must obligatorily co-occur with the disjunction *ili ne* ‘or not’, as

¹⁴ As shown in Chapter 2, the verb or an XP different from the verb can raise to *li* in, respectively Pol^o or Spec, PolP. In this section we will focus on the examples illustrating the former case, namely V-*li* questions. The cases in which XPs different from the V rise to *li* will be considered in the next subsection.

shown in (9c) and (9d). Therefore, as opposed to Hungarian and Russian, only two types of structures can be distinguished in Bulgarian:

- (i) yes-no questions formed by the particle *li*, as in (9b);
- (ii) alternative questions formed by the particle *li* and the co-occurring disjunction *ili* ‘or’, as in (9d).

Let us now take a look at the behaviour of the answering system. Recall that the crucial aspect of the identification of Hungarian *-e* as a KA particle concerns the fact that answering yes-no questions with *-e* involves echoing the finite verb. Thus, Hungarian *-e* questions are infelicitous with ‘Yes’ or a nod.¹⁵ This aspect successfully confirms Szabolcsi’s claim that yes-no questions with *-e* behave as alternative questions with *vagy* ‘or’. Moreover, as noted by the author, the questions formed by *-e* pattern Hungarian alternative questions in expressing the ‘cornering effect’ typical in English questions featuring ‘or not’. This property is taken as another argument in favour of the claim that Hungarian *-e* indicates the existence of disjunctions like those expressed by alternative questions.

The Bulgarian data, however, diverges from what has been observed in Hungarian. Notice that Bulgarian *li*-questions are felicitous with a bare ‘yes’ or ‘no’:

- (10) Q: Marija prodade li kartinata?
Mary sold Q painting.def
‘Did Mary sell the painting?’
- A: a. Da.
yes
b. Ne.
no
c. (Da), prodade ja¹⁶.

¹⁵ Importantly, Portuguese yes-no questions which, as discussed in Chapter 2, do not display any overt interrogative markers, also exhibit a preference towards answers echoing the finite verb (Martins 1994 a.o.). However, in contrast to Hungarian *-e* questions, Portuguese yes-no questions are compatible with the answering particles ‘yes’ and ‘no’.

¹⁶ Bulgarian does not display VP-ellipsis, therefore the accusative clitic *ja* referring to the object ‘the painting’ cannot be omitted.

(yes) sold cl.acc

d. (Ne), ne ja prodade.

No, not cl.acc sold

The alternative question in (9d) above, on the other hand, requires echoing of the finite verb, as shown by the examples in (11). Therefore, it is infelicitous with a bare ‘yes’, as in (11a):

(11) Q : Marija prodade li kartinata ili ne?

Mary sold.3p.sg Q painting.def or not

‘Did Mary sell the painting or not?’

A: a. ?? Da.

Yes

b. Prodade ja.

Sold.3p.sg cl.acc.

c. Ne.

no

d. Ne, ne ja prodade.

No, not cl.acc. sold.3p.sg

Considering the above data, it seems to us that Bulgarian *li* is not a counterpart of the Hungarian interrogative morpheme *-e*. If that were the case, we would expect a full correspondence between the answers in (10) and (11), i.e. we would expect *li*-questions to be infelicitous with a bare ‘yes’ and that they would require an answer echoing the verb, just like the alternative question in (11). This expectation is, however, not confirmed by the data. What is more, no particular ‘cornering effect’ is conveyed by the *li*-question in (9b) above or by *li*-questions in general, which is another argument leading us to the conclusion that the Bulgarian particle *li* is a standard interrogative particle.

Therefore, on the basis of the data above, we will assume that Bulgarian *li*, unlike Hungarian *-e* and Russian *li*, is not a KA particle. Although it participates in the formation of the disjunction *ili* ‘or’, its function in yes-no questions does not imply the formation of disjunctions such as those available in alternative questions formed by *ili* ‘or’. Rather, its

obligatory occurrence in Bulgarian polar question is due to the introduction of the polarity algorithm $[x \neg x]$ crucial for the expression of polarity.

In the following subsection we will, however, observe some intriguing data suggesting that *li* somehow displays ‘Quantifier Particle’ behaviour when it comes to co-occurring with given types of quantifiers and wh-words, i.e. with elements denoting sets of alternatives (Hamblin 1973, Karttunen 1977, Kratzer & Shimoyama 2002, a.o.).

3.2.2. Quantifiers and wh-words

Here we will focus on the distribution of the particle *li*, considering structures in which it co-occurs with quantifiers and wh-words. Although the data discussed in the preceding subsection suggests that *li* is not a KA-particle, its interaction with such elements implies that it has a strong connection with the presuppositions existent in the discourse. Below, we will observe that this property affects its distribution in yes-no questions with quantifiers and in wh-questions.

Below we will focus on the occurrences of *li* in the following types of contexts:

- (i) wh-questions (section 3.2.2.1);
- (ii) yes-no questions with universal quantifiers (section 3.2.2.2);
- (iii) yes-no questions with negative and existential quantifiers (section 3.2.2.3).

Note that the scenarios in (i)–(iii) involve sets of alternatives encoded in the occurrence of the wh-word, as in (i), or in the occurrence of the quantifiers, as in (ii) and (iii). Curiously, an intriguing pattern seems to be at play when it comes to dealing with contexts such as those referred to in (i)–(iii): the constituent denoting the alternatives, i.e. the wh-word or the quantifier, obligatorily attaches to *li*.

We argue that this intriguing behaviour is not coincidental. In our view, it is symptomatic of the relation *li* establishes with the presuppositions existent in the universe.

3.2.2.1. Wh-words

Let us start by re-examining the data concerning the occurrence of *li* in wh-questions.

In Chapter 2, we showed that, besides being crucial for the formation of Bulgarian yes-no questions, the particle *li* can also occur in wh-questions. Consider again example (11a) from section 2.1.1.1 in Chapter 2, repeated below for ease:

- (12) Koj li se obadi na Marija?
Who Q refl. called.3p.sg to Mary
'Who called Mary (I wonder)?'

Differently from standard wh-questions, structures like (12) are particularly interesting because of the strong wondering effect they convey. Such an effect is absent in standard wh-questions. In Dimitrova (2013, in press) these structures were classified as a type of *nonstandard wh-questions* (Obenauer 2004, 2006) or *non-pure wh-questions* (Ambar 2003). What is more, based on Obenauer's (2006) proposal, wh+*li* questions belong to the group of the *cannot-find-the-value-for-x* questions: structures denoting the speaker's wondering regarding the value of the variable.

Recall, however, that an important aspect concerning the occurrence of *li* in wh-questions is the position it occupies. As shown in Chapter 2, in contrast to yes-no questions, in which the verb or an XP different from the verb raises to the particle in PolP, in wh-questions this is obligatory the wh-word. Compare (12) with the ungrammatical (13) below:

- (13) * Koj se obadi li na Marija?
Who refl called.3p.sg Q to Mary

It should be further noted that the restriction regarding the obligatory movement of the wh-word to *li* is at play in questions containing D-linked constituents (Pesetsky 1987, 1989):

(14) a. Koj li film e gledala Marija?
 Which Q movie is see.PAST.PART Mary
 ‘Which movie did Mary see (I wonder)?’

b. * Koj film li e gledala Marija?
 Which movie Q is see.PART.PART Mary

As far as we know, the data in (14) has not been previously discussed in the literature. These examples are, however, particularly revealing when dealing with the internal structure and referentiality of *wh*-phrases (Ambar 1983, 1988, 2003)¹⁷.

In our view, the behaviour of *wh*-words when co-occurring with *li* that we illustrate above is not coincidental. Ever since Hamblin (1973) and Karttunen (1977), it has been assumed that *wh*-questions denote sets of alternatives. In the examples in (3a) above, we referred to the representation proposed in Szabolcsi (2015) with respect to the characterization of KA particles as markers of the algebraic operation join (\cup). Observe the example in (3a) repeated below as (15) for ease:

(15) Who dances?
 [[Kate dances]] \cup [[Mary dances]] \cup [[Joe dances]]

Accordingly, if the universe consists of Kate, Mary and Joe, the set of alternatives denoted by the *wh*-constituent ‘who’ corresponds precisely to the alternatives [Kate dances], [Mary dances] and [Joe dances], as illustrated by (15). Crucially, since *wh*-words denote the alternatives present in the Common Ground, their behaviour with respect to *li* suggests that the particle must create a relation with these alternatives.

Interestingly, we must note that, in contrast to standard *wh*-questions, in which the set is in a way restricted to the alternatives available in the discourse (cf. (15)), in

¹⁷ As noted in Ambar (1983, 1988, 2003), *wh*-phrases have a complex structure. According to the author they are associated with the feature [$\pm r$]. It has been observed that *wh*-phrases of the type [-r] like Portuguese *que* ‘what’ behave differently from *wh*-phrases displaying the feature [+r], like *quem* ‘who’ [+human], *quando* ‘when’ [+tense] etc, and from those of the type [Que N’], like *que livro* ‘what book’, in terms of subject-verb inversion in root and embedded clauses. What is more, as shown in Ambar (2003), only [Q N’] and [+r] *wh*-phrases are compatible with the feature [+assertive]. Since the bare *que* [-r] ‘what’ is incompatible with feature [assertive], it is ruled out from exclamation sentences (**Que o João comprou!* vs. *O que o João comprou!* ‘What John bought!’). For further details on the proposal for the structure of the Left Periphery proposed in Ambar (1997, 2000, 2003) and the feature [\pm assertive], see section 3.3.

wh+*li* questions the set somehow goes beyond them. The characteristic property of wh+*li* questions has to do with the fact that they denote a reading under which none of the alternatives present in the universe is a good candidate for identifying the value of the variable. Therefore, the plausible identification of the variable implies considering alternatives that are new and unknown to the speaker, and which do not take part of the familiar set. Here we will argue that this is the property triggering the particular wondering effect wh+*li* questions convey.

In Section 2.1.1.1, we briefly referred to the analysis of wh+*li* questions proposed in Dimitrova (2013, in press). According to this analysis, such structures activate the functional projection AssertiveP (Ambar 2000, 2003). However, in Section 2.1.1.1 we left open an important question concerning the way *li* associates with the characteristic wondering effect discriminating wh+*li* questions from standard wh-questions. In order to explain the relation between the particle and the set of alternatives, we will adopt the proposal made in den Dikken & Giannakidou (2002) with regards to the properties of wh-constituents such as *what the hell* or *who on earth*. According to den Dikken & Giannakidou (2002) “when attached to a wh-word, the modifier the-hell, we argue, extends the domain of quantification to include familiar and novel values. [...] As a result of domain extension, the domain of quantification for wh-the-hell is the entire domain D, and not just a presupposed subset of it, as with regular wh-words.” [den Dikken & Giannakidou 2002: 43]

Here we will follow this line of inquiry claiming that the occurrence of *li* in wh-questions triggers an interpretation similar to the one enabled by the occurrence of the modifier *the hell*. Den Dikken & Giannakidou (2002) dub the operation codifying such meanings *Domain Extension*. Following their proposal, we argue that *li*, similarly to the modifier *the hell*, gives rise to the extension of the domain of quantification. Therefore, in wh+*li* questions the wh-phrase invokes not only the familiar values, say Kate, Mary and Joe, but also the unknown and novel ones.

What is more, the assumption that such structures denote *Domain Extension* felicitously explains another aspect of wh+*li* questions’ characterization. As shown in Dimitrova (2013, in press), wh+*li* questions are incompatible with negative answers. This property has been regarded as an outcome of the strong presuppositional context they involve. Thus, as opposed to standard wh-questions, wh+*li* questions appear to parallel wh-*in-situ* questions in some Romance languages (Ambar 2000, 2003 on European

Portuguese, Cheng & Rooryck 2001 on French, Etxepare & Uribe-Etxebarria 2005 on Spanish, a.o). Observe the Bulgarian data below:

(16) Q: Koj li se obadi na Marija? Wh+*li* Question
Who Q refl. called.3p.sg to Mary
'Who called Mary (I wonder)?'
A: ? Nikoj.
No one

(17) Q: Koj se obadi na Marija? Wh-question
Who refl.called.3p.sg to Mary
'Who called Mary?'
A: Nikoj.
No one

Accordingly, the extension of the domain of quantification on the one hand gives rise to the strong wondering effect displayed by the structure in (16) and, on the other hand, expresses the speaker's belief that someone did indeed call Mary, i.e. the speaker knows that the phone call took place, which explains the incompatibility of the structure with negative answers (cf. (16A)).

Nevertheless, although *wh+li* questions and *wh-the-hell* questions both seem to denote *Domain Extension*, they diverge with regards to the negative presupposition encoded by the occurrence of the modifier *the hell*. As observed in den Dikken & Giannakidou (2002), *wh-the-hell* questions convey the speaker's negative attitude towards the value of the *wh*-constituent. Such a negative presupposition is missing in Bulgarian *wh+li* questions.

The above observations regarding the way *li* acts on the set of alternatives are crucial for this study and provide an explanation of the fact that the *wh*-constituent is the element that attaches the particle in these structures (cf. (13) and (14)).

This behaviour of the particle is, however, not restricted to *wh*-words. In the next section, we will concentrate on the interaction between *li* and universal quantifiers.

3.2.2.2. The universal quantifier *vsički* ‘all’

In this subsection we will examine the interaction between the particle *li* and the universal quantifier *vsički* ‘all’. As discussed in Szabolcsi (2015) with respect to the identification of MO particles, universal quantifiers, similarly to *wh* and yes-no questions, invoke sets of alternatives. Consider again Szabolcsi’s example in (4b) above, repeated below as (18), in which Kate, Mary and Joe are the elements present in the universe:

(18) Everyone dances

[[Kate dances]] \cap [[Mary dances]] \cap [[Joe dances]]

Here, we will take a look at the distribution of the universal quantifier *vsički* ‘all’ in Bulgarian yes-no questions. Curiously, the placement of *li* in yes-no questions in which universal quantifiers occur somehow patterns what we observed above with respect to its placement in *wh*-questions: similarly to *wh*-words, the most plausible host for *li* is the universal quantifier. Observe the data below:

(19) a. ? *Vsički gledaxa li filma?*

All watched.3p.pl Q movie.the
‘Did everyone watch the movie?’

b. *Vsički li gledaxa filma?*

All Q watched.3p.pl movie.def
‘Did everyone watch the movie?’

c. ? *Gledaxa li vsički filma?*

Watched.3p.pl Q all movie.def
‘Did everyone watch the movie?’

d. ? *Gledaxa li filma vsički?*

Watched.3p.pl Q movie.def. all
‘Did everyone watch the movie?’

The examples in (19) draw an intriguing pattern with *wh*-questions. It appears that the preferred structure is the one in which the universal quantifier *vsički* ‘all’ merges with *li*, as in (19b)¹⁸. This evidence creates an important parallel with the data illustrating the placement of the particle in *wh*-questions. Consider again the examples in (12) and (13) above, repeated below for ease:

(20) Koj li se obadi na Marija?
 Who Q refl. called.3p.sg to Mary
 ‘Who called Mary (I wonder)?’

(21) * Koj se obadi li na Marija?
 Who refl called.3p.sg Q to Mary

Evidently, the questions in (19a), (19c) and (19d) are not ungrammatical in the sense of the *wh*-question in (21). However, they seem to be somehow less felicitous or even, for some speakers, marginal when compared to the structure in (19b) in which the universal quantifier attaches to *li*.

In our view, although in a less straightforward way, the marginality of the structures in (19c) and (19d), as opposed to (19b), occurs for the same reasons that the ungrammaticality of the structure in (21) does: *li* must be merged with the universal quantifier in order to act on the set of alternatives denoted by it. Observe that this assumption is supported by the data from the answering system. For ease, we will again suppose that the universe contains the constituents Kate, Mary and Joe, as in Szabolcsi’s examples above:

(22) Q: Vsički li gledaxa filma?
 All Q watched.3p.pl movie.def
 ‘Did everyone watch the movie?’
 A: a. Da
 Yes

¹⁸ The results concerning the grammaticality of the examples in (19) are in agreement with the intuitions of the native speakers consulted, who considered the structures in (19a), (19c) and (19d) somewhat less natural (although not ungrammatical) than the structure in (19b).

b.? Ne.

No

c. Ne, Mary beše zaeta, no Kate i Joe go gledaxa.

No, Mary was busy but Kate and Joe cl.acc watched

‘No, Mary was busy but Kate and Joe watched it.’

The claim that the particle does indeed interact with the set of alternatives in questions containing universal quantifiers is supported by the data from the answering system in (22). As shown in (22b) the bare answer ‘No’ appears to be pragmatically odd. Considering that the universe consists of Kate, Mary and Joe, the negative answer to such a question requires further specification. The felicitous answer is illustrated by the structure in (22c), in which the speaker further specifies that Mary was busy, hence not *everyone* watched the movie. Therefore, we assume that the marginality of the structures in (19c) and (19d), where the quantifier *vsički* ‘all’ follows the verb or the verb and its complement, derives from the fact that the particle *li* does not operate on the alternatives denoted by the quantifier.

Let us, however, take a look at the example in (19a). In our view, the marginality of (19a) is an outcome of a different structural requirement which is in line with the observations of Ambar (2013) on Portuguese yes-no questions. Recall that, according to Ambar’s (2013) analysis, discussed in Chapter 2, sentence-initial subjects in yes-no questions are topics. This claim is supported by Ambar’s (2013) data in (23) below. Notice that the structure in (23a) improves when the floating quantifier strategy applies, as in (23b):

(23) a. ?? Todos os alunos compraram o livro?

All the student bought the book

b. Os alunos compraram todos o livro?

The students bought all the book

‘Did all the students bought the book?’

(Ambar 2013: 22)

The Bulgarian example in (19a) above is consistent with Ambar's data in (23a). The Portuguese example in (23b), on the other hand, somehow parallels the Bulgarian (19b): the floating quantifier strategy seems to be a counterpart of the structure in which the universal quantifier attaches to *li*, as in (19b), in what concerns the scope of interrogation. Consequently, the question takes scope over the universal quantifier.

Moreover, note that Bulgarian does not display floating quantifiers (Ambar 1987, Sportiche 1988 a.o.):

- (24) a. Vsički učenitsi kupixa knigata.
 All students bought.3p.pl book.def
 'All the student bought the book.'
- b. * Učenitsite kupixa vsički knigata.
 Students.def bought.3p.pl all book.def
- c. * Učenitsite kupixa knigata vsički.
 Students.def. bought.3p.pl. book.def all

Thus, as illustrated below in (25), the quantified subject *vsički učenitsi* 'all students' follows the pattern observed with regard to the above examples in (19) with bare *vsički* 'all', i.e. the universal quantifier must incorporate *li*, as in (25b):

- (25) a. ? Vsički učenitsi gledaxa li filma?
 All students watched.3p.pl Q movie.def
 'Did all students watch the movie?'
- b. [Vsički li] učenitsi gledaxa filma?¹⁹

¹⁹ Note that, differently from D-linked wh-words, in which the wh-constituent is the only plausible host for the particle (cf. (14b)), the structure in (25b) is felicitous also when *li* attaches to the NP *učenitsi* 'students':

- (i) [Vsički učenitsi li] gledaxa filma?
 All students Q watched.3p.pl. movie.def
 'Did all STUDENTS watch the movie?' (or all PROFESSORS)

However, it appears that in (i) *li* operates on the NP it immediately follows. What is more, in (i) the constituent *učenitsi* 'students' is pronounced with a high stress. Differently from (25b), in (i) the scope of

All Q students watched.3p.pl. movie.def
'Did all students watch the movie?'

c. ? Gledaxa li vsički učenitsi filma?
Watched.3p.pl Q all students movie.def
'Did all students watch the movie?'

d. ? Gledaxa li filma vsički učenitsi?
Watched.3p.pl Q movie.def all students
'Did all students watch the movie?'

Note moreover that this revealing behaviour of the quantified subjects in Bulgarian and Portuguese is not restricted to yes-no questions. As shown in Ambar (2013), similar results are obtained when quantified subjects move to a position higher than IntP in wh-questions:

(26) a. ?? Todos os alunos que livro compraram?

All the students what book bought

b. Os alunos que livro compraram?

The students what book bought

(Ambar 2013: 22)

Again, the Bulgarian data confirms Ambar's intuitions with respect to Portuguese. Notice that the structure in (27a) improves with the non-quantified subject *učenitsite* 'the students', as in (27b):

the questions falls on the constituent 'students', i.e. the speaker wants to confirm that all STUDENTS watched the movie.

(27) a. ?? Vsički učenitsi koja kniga kupixa?²⁰

All students what book bought

b. Učenitsite koja kniga kupixa?

Students.def. what book bought

‘Which book did the students buy?’

The data above may be taken to suggest that universal quantifiers pattern wh-words when it comes to co-occurring with *li*. In our view, this intriguing similarity is a result of the fact that, like wh-words, universal quantifiers invoke sets of alternatives. Considering that the particle displays a particular sensibility to the alternatives available in the discourse, the constituent denoting the alternatives obligatorily attaches to *li*.

Considering the evidence from wh-words and universal quantifiers, in the next subsection, we extend this line of inquiry to negative and existential quantifiers.

3.2.2.3. Negative and existential quantifiers

In the preceding sections we showed that there exists a pattern concerning the behaviour of the particle *li* when co-occurring with wh-words and universal quantifiers. As illustrated by the data above, in such cases the constituent denoting the set of alternatives, i.e. the wh-word or the universal quantifier, attaches to *li*.

In this subsection we consider negative and existential quantifiers. In basic terms, we argue that negative quantifiers invoke a set of alternatives in the same way that wh-words and universal quantifiers do. As for existential quantifiers, we will discuss the factors preventing them from attaching to *li*.

Let us begin with negative quantifiers. First, note that Bulgarian is a *strict negative control language* (Giannakidou 1998, 2001) i.e. n-words (Laka 1990) must always co-occur with clause-mate negation, as illustrated by the examples in (28):

²⁰ The Bulgarian informants judged the wh-question in (27a) strongly marginal compared to the yes-no question in (25a).

(28) a. Ivan *(ne) vidja nikoj.

John not saw.3p.sg. no one

‘John didn’t see anyone.’

b. Nikoj *(ne) kupi ništo.

Noone not bought.3p.sg nothing

‘No one bought anything.’

Interestingly, as mentioned in Section 1.2, an unexpected blocking of negative concord takes place in Bulgarian negative yes-no questions. Compare (29a) and (29b):

(29) a. * Ivan ne vidja li nikoj?

John not saw.3p.sg. Q no one

Intended: ‘Didn’t John see anyone?’

b. Ivan ne vidja li njakoj?

John not saw.3p.sg Q someone

‘Didn’t John see someone?’

In (29a) the n-word *nikoj* ‘no one’ is infelicitous post-verbally, i.e. negative concord is somehow blocked. In order to obtain a grammatical structure, the n-word *nikoj* ‘no one’ must be replaced by the existential quantifier *njakoj* ‘someone’. Importantly, the structure in (29b), in which negation co-occurs with the positive indefinite *njakoj* ‘someone’, expresses the speaker’s positive bias towards the truth of the proposition, i.e. it conveys the speaker’s belief in the positive value of the proposition. Here we will not enter into further details regarding the negative yes-no question in (29b) and the fact that it is positively biased (Ladd 1981). We leave the discussion of all the intriguing questions concerning the expression of positive and negative bias in negative yes-no questions for Chapter 4.

The position occupied by the negative quantifier *nikoj* ‘no one’ in Bulgarian negative polar questions turns out to be particularly interesting. Observe that, as illustrated by (29a), *nikoj* is infelicitous in a position following the negated verb (at first glance, it looks like the intervening *li* blocks the relation between the n-word and the

negation marker, cf. Chapter 4). Interestingly, the negative quantifier *nikoj* ‘no one’ is licensed in those structures in which it attaches to the co-occurring *li*. Consider the examples below:

- (30) a. * *Nikoj ne kupi li knjigata?*
 No one not bought.3p.sg. Q book.def
 Intended: ‘Did no one buy the book?’
- b. [*Nikoj li*] *ne kupi knjigata?*
 No one Q not bought.3p.sg. book.def
 ‘Did no one buy the book?’
- c. * *Ne kupi li knjigata nikoj?*
 not bought.3p.sg. Q book.def no one
 Intended: ‘Did no one buy the book?’
- d. * *Ne kupi li nikoj knjigata?*
 not bought.3p.sg. Q no one book.def
 Intended: ‘Did no one buy the book?’

The examples in (30) roughly describe the familiar pattern identified in the preceding subsections: the negative quantifier must attach to *li*, as illustrated in (30b). Observe that both the pre and the post-verbal positions of *nikoj* ‘no one’ give rise to ungrammatical results as noticed above for universal quantifiers and wh-words. Here we will assume that the ungrammaticality of (30a) is a consequence of the fact that quantifier phrases cannot precede IntP, i.e. they cannot be topicalised, as shown for the universal quantifier *vsički* ‘all’, in line with Ambar’s (2013) observations on Portuguese²¹.

²¹ Note that Portuguese *ninguém* ‘no one’ patterns *todos os alunos* ‘all students’ when it comes to occurring sentence-initially in wh-questions:

(i) **Ninguém que livro comprou?*
 No one what book bought

On the other hand, it behaves like the positive indefinite *alguém* ‘someone’ in regard to its occurrence in yes-no questions and the assumption that it somehow behaves like a wh-word (Ambar 2013):

Following the line of inquiry advocated above for wh-words and universal quantifiers, we will assume that n-words are quantifiers that denote a set of alternatives (Giannakidou 1998, 2006). Therefore, like wh-words and universal quantifiers, negative quantifiers occurring in Bulgarian yes-no questions must obligatorily attach to the particle *li*, given that they denote a set of alternatives present in the universe. Consequently, when the negative quantifier *nikoj* ‘no one’ in (30b) attaches to *li*, the particle operates on the alternatives invoked by this constituent.

Considering again that the universe consists of Kate, Mary and Joe, the representation in (31) follows:

(31) No one bought the book.

[¬Kate bought the book] [¬Mary bought the book] [¬Joe bought the book]

As mentioned above, we leave a closer examination of the intriguing opposition drawn by the examples in (29a) and (30b) above for Chapter 4. Note, however, that the assumption that negative quantifiers cannot follow the negated verb in yes-no questions, as in the example in (29b), is not entirely correct. It can be observed that when a constituent different from the negated verb or the negative quantifier merges with *li*, nothing goes wrong in terms of licensing negative concord (Dimitrova 2017):

(32) Ivan li ne vidja nikoj?

John Q not saw.3p.sg. no one

‘Was is John that didn’t see anyone?’

As discussed in Dimitrova (2017), the grammaticality of (32), as opposed to the ungrammatical (29a), is confined to the position of *li*. The particle clearly blocks the relation between the negation marker and the n-word in (28a). Nevertheless, as noticed in Dimitrova (2017), the structure in (32) is not a true negative yes-no question. Although it

(ii) Q: Ninguém comprou o livro?
 No one bought the book
 A: Comprou o Pedro
 Peter did

contains negation, negation does not participate in the questioned material. The question in (32) focuses on whether John was the one who didn't see anyone. That is why, in our view, structures like the one in (32) do not consist in a counterargument of the thesis we advocate here, namely that negative quantifiers must obligatorily merge with *li* in negative yes-no questions. Again, these intriguing cases will be more thoroughly explored in Chapter 4.

Let us now turn to existential quantifiers. As argued in the literature (Kratzer & Shimoyama 2002, Szabolcsi 2015), existential quantifiers also invoke the existence of alternatives. Therefore, they pattern wh-words and universal quantifiers. Observe again Szabolcsi's (2015) example in (3), repeated below as (33):

(33) Someone dances

[[Kate dances]] ∪ [[Mary dances]] ∪ [[Joe dances]]

Considering the Bulgarian data presented so far, which unambiguously showed that the Bulgarian particle *li* always merges with wh-words and universal and negative quantifiers, we might expect the same behaviour of the particle to be at play in the cases in which it co-occurs with existential quantifiers.

Curiously, this expectation is not borne out. In fact, as illustrated by (34) below, the exact opposite occurs:

(34) a. Njakoj kupi li knjigata?

Someone bought.3p.sg Q book.def

'Did someone buy the book?'

b. * Njakoj li kupi knjigata?

Someone Q bought.3p.sg. book.def

Intended: 'Did someone buy the book?'

c. Kupi li njakoj knjigata?

Bought.3p.sg Q someone book.def

'Did someone buy the book?'

d. Kupi li knigata njakoj?
 Bought.3p.sg Q book.def. someone
 ‘Did someone buy the book?’

The data in (34) illustrates that *njakoj* ‘someone’ is felicitous in any structural position but the one in which it attaches to *li*, i.e. it sharply diverges from wh-words and universal and negative quantifiers, which, as shown in the preceding sections, always attach to the co-occurring particle. The strong ungrammaticality of (34b) constitutes an obvious problem for the claim we advocate in this chapter. The claim that the particle *li* is an element interacting with the set of alternatives denoted by constituents such as wh-words and quantifiers is challenged by the fact that existential quantifiers cannot attach to the particle.

A solution for this problem is to assume that existential quantifiers do not *always* denote sets of alternatives. We will argue that yes-no questions are among the contexts in which positive indefinites are unable to correlate with the speaker’s knowledge or presuppositions. This claim is based on the observations concerning the distribution of positive indefinites made in Haspelmath (1997).

Haspelmath (1997) notices that two main groups of positive indefinites can be distinguished: **specific** and **non-specific positive indefinites**. Given languages, such as those referenced below in (35), display different indefinite series for each type, i.e. they discriminate between specific and non-specific positive indefinites²²:

(35)	specific	non-specific
Russian	WH- <i>to</i>	WH- <i>nibud’</i>
Lithuanian	<i>kaž</i> -WH	WH <i>nors</i>
Modern Greek	<i>kápjos</i> , etc	<i>kanénas</i> , etc
Georgian	WH- <i>γac</i>	WH- <i>me</i>
Kannada	WH- <i>oo</i>	WH- <i>aadaruu</i>

(Haspelmath 1997: 38-39)

²² In the examples in (35) the capital letters WH stand for ‘wh-word’. As illustrated by (35), indefinite pronouns in the above languages are composed by a wh-word and a given particle.

Let us take a look at some examples illustrating the difference in the distribution of the elements of each group. In the Russian and the Lithuanian data in (36) and (37) the (a) examples illustrate the occurrence of the specific indefinite, while the (b) examples illustrate the non-specific indefinite pronoun:

Russian

(36) a. Ivan xočet spet' **kakoj-to** romans.

Ivan wants sing which-INDEF romance

'Ivan wants to sing some [specific] romance.'

b. Ivan xočet spet' **kakoj-nibud'** romans.

Ivan wants sing which-INDEF romance

'Ivan wants to sing some [non-specific] romance.'

Lithuanian

(37) a. Ji norėjo įsigyti **kaž-kokią** prekę (bet jos negavo).

She wanted acquire INDEF which thing but it not:got

'She wanted to acquire some [specific] object (but she didn't get it).'

b. Ji norėjo įsigyti **kokią nors** prekę (*bet jos negavo).

She wanted acquire INDEF which thing but it not:got

'She wanted to acquire some [non-specific] object (*but she didn't get it).'

(Haspelmath 1997: 39)

As exemplified by (36) and (37), specific and non-specific indefinites convey distinct readings to the structure. In (36a) Ivan wants to sing a specific romance, which means that the romance is identifiable by the speaker. By contrast, in the example in (36b), Ivan wants to sing a romance which is unknown and, consequently, unidentifiable by the speaker. The contrasts between the (a) and the (b) examples in (36)-(37) can, then, be taken as arguments in favour of the claim that only the specific series denote a set of alternatives.

The distributions of the two series of indefinite pronouns however appear to be more complex. Especially relevant is the strong dependence they display on the semantic

contrast *realis/irrealis*. Generally speaking, only specific indefinites are available in *realis* contexts such as affirmative declarative sentences in perfective past (38a) or in ongoing present (38b):

Lithuanian

(38) a. ***Kas nors** atėjo. (OK: **Kaž-kas** atėjo.)
 Who INDEF came. INDEF.who came
 ‘Somebody came.’

b. ***Žiūrė-k, kas nors** bėga. (OK: **Kaž-kas** bėga.)
 Look-IMPV who INDEF runs INDEF-who runs
 ‘Look, somebody is running.’

(Haspelmath 1997: 39)

As claimed in Haspelmath (1997), “In such prototypical *realis* sentences the speaker is committed to the existence and identifiability of the entity, and indefinites of the non-specific series are simply unacceptable.” [Haspelmath 1997: 39]. Besides the *realis* contexts, limited to specific indefinites, there exist a number of *irrealis* contexts in which both specific and non-specific indefinites felicitously occur. Some of these contexts are: (i) future sentences, (ii) various types of non-indicative modality, such as those induced by the verb ‘can’ and (iii) perfective past and ongoing present sentences with epistemic modality, among others²³.

Interestingly, imperatives, questions and conditionals are reserved for the non-specific series, the specific ones being infelicitous for pragmatic reasons. Observe the Russian yes-no questions below:

Russian

(39) a. Uvideli li vy kogo-nibud’?
 Saw Q you whom-INDEF
 ‘Did you see anyone?’

²³ For further details and relevant data concerning the *irrealis* contexts in which both specific and non-specific pronouns can occur, we refer the reader to Chapter 3, section 3.2. of Haspelmath (1997).

b. *Uvideli li vy kogo-to?

Saw Q you whom-INDEF

(Haspelmath 1997:43)

The specific *kogo-to* ‘someone’ is ruled out of the question in (39b). As observed by the author, “Pragmatically, questions are closely related to imperatives. They are requests by the speaker to the hearer to supply missing information. By using the specific indefinite phrase in a question, the hearer would withhold some crucial information from the hearer, thereby violating Grice’s cooperative principle.” [Haspelmath 1997: 43].

Haspelmath’s (1997) distinction between specific and non-specific indefinites and the close relation to the semantic contrast *realis/irrealis* they display are crucial when dealing with the Bulgarian data illustrating the co-occurrence of *li* and positive indefinites. Before we return to the discussion of these questions, observe that the morphological make-up of Bulgarian indefinites closely resembles what has been shown in Russian and Lithuanian in (35) above. Bulgarian indefinites contain a wh-word prefixed by the particle *nja*, as illustrated in (40):

(40)	specific/non-specific
Bulgarian	<i>nja</i> -WH

Importantly, Bulgarian does not distinguish between specific and non-specific indefinite pronouns. Hence, Bulgarian *nja*-series is a counterpart of both Russian WH-*to* (specific) and WH-*nibud’* (non-specific). This is confirmed by the data in (41) which is ambiguous between the specific and non-specific reading of the indefinite:

(41)	Ivan	iska	da	izpee	njakakäv	romans.
	Ivan	wants	SUBJ	sing.PNP.3p.sg.	some	romance
					‘John wants to sing some [specific/non-specific] romance.’	

Moreover, Bulgarian *njakoj* ‘someone’, is available in both the affirmative declarative sentence in past perfect in (42a) and in ongoing present in (42b), as well as in the yes-no question in (43), i.e. in *realis* and *irrealis* contexts, respectively. This fact

further demonstrates that the Bulgarian *nja*-series denote both specific and non-specific meanings:

(42) a. *Njakoj dojde.* [specific reading]
 Somebody came.3p.sg
 ‘Somebody came.’

b. *Viž, njakoj tiča.* [specific reading]
 Look-IMPER.2p.sg. somebody run.3p.sg
 ‘Look somebody is running.’

(43) *Vidja li njakoj?* [non-specific reading]
 Saw.2p.sg. Q somebody
 ‘Did you see anyone?’

Returning to the examples in (34) illustrating the co-occurrence between *li* and indefinite pronouns, the ungrammaticality of the example in (34b), repeated below as (44), is not so unexpected anymore:

(44) * *Njakoj li kupi knjigata?* [non-specific]
 Someone Q bought.3p.sg. book.def
 Intended: ‘Did someone buy the book?’

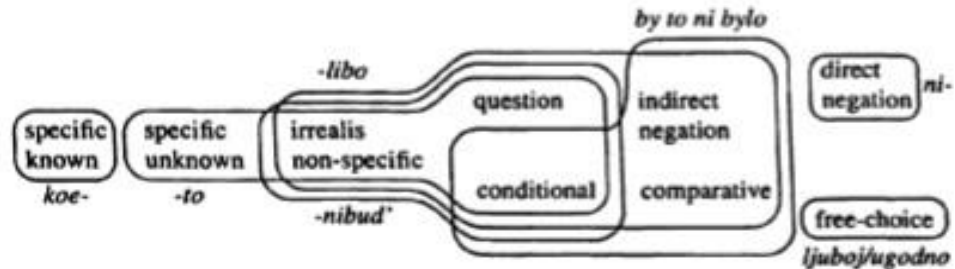
Following Haspelmath’s (1997) observations, thoroughly considered above, the ungrammaticality of the structure in (44), in which *li* adjoins to the existential quantifier, is explained by virtue of the non-specificity of the positive indefinites occurring in yes-no questions. As shown above, in Russian only the non-specific WH-*nibud*’ series are felicitous in questions. Thus, assuming that the indefinite *njakoj* ‘someone’ in (44) obligatorily acquires the non-specific reading, we argue that it does not denote the set of alternatives displayed in other contexts, as in the affirmative declarative sentence in (45) below:

(45) *Njakoj tantsuva.* [specific]
 Someone dance.3p.sg
 ‘Someone dances.’

In contrast to (45), the non-specificity of the indefinite *njakoj* ‘someone’ in (44), implies that the alternatives present in the universe are not identifiable by the speaker, i.e. no presuppositions regarding the value of the indefinite are available. This factor, we argue, triggers the incompatibility between positive indefinites and the particle *li*.

Moreover, note that the non-specific series in Russian and Lithuanian considered above are not equivalents of the English *any*-items (Giannakidou 1999)²⁴. Observe that, besides the non-specific WH-*nibud’*, Russian has a rich paradigm of indefinite pronouns and displays free-choice items that are counterparts of English ‘any’. Consider Haspelmath’s (1997) diagram illustrating the detailed distribution of Russian indefinite pronouns:

(46)



(Haspelmath 1997: 71)

According to Haspelmath (1997), the *nibud’*-series and the *libo*-series are both plausible in questions, as shown in (46), the distinction between them being related to the fact that the latter is somewhat more formal.

Interestingly, Portuguese yes-no questions also appear to be compatible with two types of indefinites, namely the *alg*-items and the *qualquer*-items, as in (47):

²⁴ Giannakidou (1999) claims that English *any*-series are Affective Polarity Items occurring in nonveridical contexts. For more details, see Chapter 4.

(47) Você ouve alguma coisa / qualquer coisa?

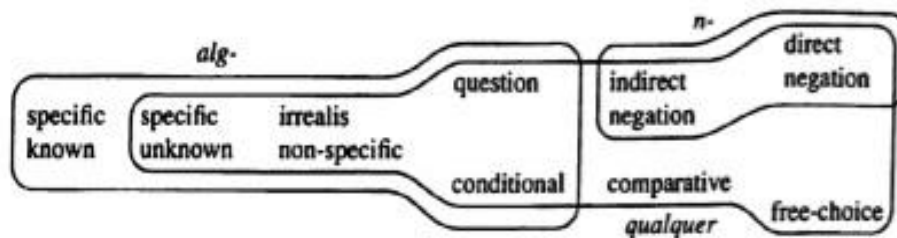
You hear some thing any thing

“Can you hear anything?”

(Haspelmath 1997: 257)

In fact, the Portuguese *qualquer* displays a rather complex distribution. Observe the figure presented in Haspelmath (1997) illustrating that this element felicitously occurs in a wide range of contexts:

(48)



(Haspelmath 1997:69)

Nevertheless, it seems to us that the optionality between *alguma coisa* and *qualquer coisa* in the yes-no question in (47) is only apparent. It looks like it resembles the distinction between the English *some* and *any* series concerning the meaning they display when occurring in questions.

According to Haspelmath (1997), the distributions of the English *some* and *any* series correlate with the speaker's expectations (Bolinger 1960, Lakoff 1969). Consider the data below:

(49) a. Do you think these men want to do some work?

(Because my road needs to be repaired.)

b. Do you think these men want to do any work?

(Because they've been standing around all morning telling dirty jokes.)

(Haspelmath 1997: 82)

In Haspelmath's (1997) terms, the occurrence of the positive indefinite *some* in (49a) expresses the speaker's belief that the men would indeed want to repair the road. In contrast, the sentence in (49b) with the affective polarity item *any* (Giannakidou 1999) contributes towards the expression of the speaker's belief that the men will not do the work. The Portuguese data in (47) seems to be in conformity with these observations. In this way, *qualquer coisa* in (47) seems to correlate with the belief that the interlocutor did not hear anything. In addition, note that Portuguese *qualquer* functions as a type of negative polarity item as shown in (50) below:

- (50) O João não tem qualquer interesse em ler o livro de Chomsky.
The John not has any interest in read the book of Chomsky.
'John does not have any interest in reading Chomsky's book.'

In (50) *qualquer* co-occurs with clause-mate negation acquiring a negative meaning. Assuming that it behaves like the English *any* by being ruled out from realis (veridical) contexts, it can be suggested that it is an affective polarity item in Giannakidou's (1999) terms and therefore displays a sensibility to *nonveridicality* (Giannakidou 1998) (cf. Chapter 4).

We will not enter into further detail regarding the distribution of Bulgarian and Portuguese indefinites and the discrimination between the specific and the non-specific indefinite pronouns. Importantly, the data discussed in this subsection empirically support the claim that the constituent denoting the set of alternatives available in the discourse obligatorily attaches to *li* in questions. Particularly revealing are the data illustrating that the non-specificity of the positive indefinites occurring in yes-no questions prevents them from attaching to the particle *li*. In view of the data above, it seems to us that the behaviour of such constituents with respect to their co-occurrence with the particle *li* is due to a requirement concerning the scope of interrogation. Our suspicion is that, given that such elements denote a set of alternatives, they must take part of the questioned portion of the structure, i.e. they attach to *li* in order to absorb the polarity algorithm $[x, \neg x]$ of the particle.

Nevertheless, the claim that *li* exhibits a strong sensibility towards quantifiers and wh-words does not mean that it is a quantifier particle in Szabolcsi's (2015) terms. Note that, although it somehow relates to the set of alternatives available in the discourse, this

behaviour of the particle is restricted to questions. As opposed to Hungarian and Japanese quantifier particles, Bulgarian *li* is not part of the morphological make-up of quantifiers. Rather such elements attach to the particle when co-occurring in yes-no questions for reasons related with the claim that they denote the set of alternatives present in the universe of discourse.

Based on the revealing data discussed in this section, in the next section we will propose an analysis for these structures considering Ambar's (1996, 1999, 2000, 2003) functional projection AssertiveP. In addition, the observations above will be extended to XP-*li* questions, i.e. focused yes-no questions. Recall that many intriguing similarities between XP-*li* questions and wh-questions were noted in Chapter 2. In what follows, we will return to the discussion of these structures, arguing that what has been called 'focused' constituent is rather presupposed.

3.3. Focus or Presupposed information. Analysis

So far we have shown that Bulgarian *li* is not a KA particle in Szabolcsi's (2015) terms. Nevertheless, the data illustrating its co-occurrence with some special elements such as wh-words, and universal, existential and negative quantifiers have unambiguously demonstrated that the particle displays a strong relation to quantification: such elements obligatorily attach to *li* when co-occurring in questions. Following these observations concerning the co-occurrence between *li* and wh-words, and universal, existential and negative quantifiers, here we will extend the discussion to the structures we dubbed XP-*li* questions in Chapter 2.

As discussed in Chapter 2, XP-*li* questions have been traditionally classified as focused yes-no questions under the assumption that the XP attaches to the particle for reasons related to focus assignment. Interestingly, however, XP-*li* questions share a number of properties with wh-questions. Some of these properties concern the obligatory pre-verbal position of the so called focused XP²⁵, as in (51) and (52) below, and obligatory subject verb inversion (Ambar 1988), as in (53a-b):

²⁵As mentioned in Chapter 2, Bulgarian belongs to the group of languages displaying obligatory overt wh-movement. Wh-*in-situ* structures are therefore unavailable in Bulgarian. What is more, Bulgarian displays Multiply Fronted Wh-Questions, as shown in Rudin (1988) and Bošković (1999, 2002), among others.

- (51) a. Ivan [knigata li] kupi?
 John book.def Q bought
 ‘Did John buy THE BOOK?’
- b. [Knigata li] kupi Ivan?
 Book.def Q bought John
 ‘Did John buy THE BOOK?’
- (52) *Ivan kupi knigata li?
 John bought book.def Q
 Intended reading: “Did John buy THE BOOK?”
- (53) a. Knigata li pročete Ivan?
 Book.def Q read.3p.sg. John
 “Did John read THE BOOK?”
- b. * Knigata li Ivan pročete?
 Book.def Q John read.3p.sg

As suggested in Chapter 2, these similarities are not accidental. Although such patterns can be straightforwardly explained by virtue of the well-known relation between wh-words and focus phrases, we suspect that the term ‘focus’ does not correctly capture the data above, at least not in the sense attributed to it by seminal works such as Jackendoff (1972), Ambar (1988, 1996, 1999), Rochemont & Culicover (1990) Kiss (1998), Roberts (1998) *inter alia*. According to Jackendoff’s (1972) definition, focus is “the nonpresupposed part of the sentence”. What is more, the term focus has been traditionally approached from the perspective of the dichotomy focus-topic, or “new” and “old” information, respectively. In XP-*li* questions, however, the “new” information is part of the questioned portion of the structure, which is itself contradictory. Basing on data from Finnish, Holmberg (2016) defines such occurrences of focus as ‘questioned focus’ (cf. Chapter 1). Nevertheless, Holmberg’s classification is also rather controversial. Notice that ‘questioned focus’ implies the combination of two types of illocutionary force, namely question and knowledge.

In our view, the fact that *XP-li* questions share some important properties with *wh*-questions is an outcome of the fact that the *XP* hosting *li* consists in presupposed information, i.e. the *XP* attaching to the particle is part of the speaker's knowledge and presuppositions. In this section we will explore this hypothesis. Moreover, we will suggest that the combination of question and knowledge is indeed at play in such structures.

3.3.1 *XP-li* questions vs. alternative questions

Our goal here is to discuss some arguments in favour of the claim that *XP-li* questions behave like yes-no questions with quantifiers and *wh+li* questions i.e. we will suggest that the constituent *XP*, that attaches to *li* in such structures, is part of the set of alternatives available in the discourse, i.e. it is part of the speaker's background knowledge. Therefore, we will claim that the *XP* attaching to the particle *li* in *XP-li* questions is a *presupposition* that takes part of the speaker's previous knowledge.

As shown in Section 2.1.1, *XP-li* questions closely resemble *wh*-questions. The constituent attaching to *li* must obligatory raise to a pre-verbal position patterning *wh*-words occurring in Bulgarian *wh*-questions. Also, like *wh*-questions, *XP-li* questions display obligatory subject-verb inversion (cf. ex. (51)-(53) above). Notice that the *presupposed* or *focused* *XP* in *XP-li* questions must obligatorily attach to *li* in order to be identified as such. As shown by the examples in (54a) and (54b) below, the particular reading the *XP* acquires in such structures is not available when it does not attach to *li*, i.e. the focused or presupposed constituent cannot be identified as such by any means (prosodic or otherwise) other than its attachment to *li*:

(54) a. *KAFE iska li Ivan?
 Coffee wants.3p.sg Q John
 Intended reading: 'Does John want COFFEE?'

b. Kafe li iska Ivan?
 Coffee Q wants.3p.sg John
 'Does John want coffee?'

In our view, the patterns between XP-*li* questions and wh-questions referred above imply the existence of a given property shared by XPs attaching to *li* in yes-no questions and wh-words.

Another argument supporting the thesis we advocate here comes from the similarities between Bulgarian XP-*li* questions and alternative questions.

As shown in Szabolcsi (2015), alternative questions are among the contexts denoting a set of alternatives. In section 2.4.2, we discussed Bulgarian alternative questions formed by the disjunction *ili ne* ‘or not’. Such structures consist in a V-*li* question followed by the coda “or not” and therefore always require the co-occurrence between the particle *li* and the disjunction *ili ne* ‘or not’. Consider the examples in (9) from section 3.2.1, repeated below as (55):

(55) a. *Marija prodade kartinata ili ne?
Mary sold.3p.sg. painting.def or not
‘Did Mary sell the painting or not?’

b. Marija prodade li kartinata ili ne?
Mary sold.3p.sg. Q painting.def. or not
‘Did Mary sell the painting or not?’

In contrast, the examples that follow in (56) below illustrate the formation of the so called ‘classical alternative questions’ (Szabolcsi 2015). Differently from the structures in (55), in classical alternative questions two constituents are opposed to one another. For ease, we dub the alternatives ‘coffee’ and ‘tea’ in (56), alternative A and alternative B, respectively. Accordingly, we can distinguish between three strategies for the formation of such structures:

- (i) structures of the type A or B formed by the disjunction *ili* ‘or’ as in (56a),
- (ii) structures of the type A-*li* or B formed by the co-occurring *li* and *ili* ‘or’ (56b)
- (iii) structures of the type A-*li* V or B in which the verb occurs between the two alternatives, as in (56c):

- (56) a. Kafe ili čaj iskaš? A or B
 Coffee or tea want.2p.sg
 ‘Do you want coffee or tea?’
- b. [Kafe li] ili čaj iskaš? A-*li* or B
 Coffee Q or tea want.2p.sg
 ‘Do you want coffee or tea?’
- c. [Kafe *(li)] iskaš ili čaj? A-*li* V or B
 Coffee Q want.2p.sg. or tea
 ‘Do you want coffee or tea?’
- d. *Kafe ili [čaj li] iskaš? *A or V B-*li*
 coffee or tea Q want.2p.sg

Differently from the alternative questions with ‘or not’ in (55), in which *li* must always co-occur with the disjunction *ili ne* ‘or not’, alternative questions of the type A or B are plausible with and without the particle²⁶. As exemplified by the data in (56a) and (56b), when both alternatives occur in a position preceding the verb, *li* can be omitted. Nevertheless, when present, it must obligatorily follow the **first alternative**. As shown by the example in (56d), the cases in which *li* follows the second alternatives consist in ungrammatical sentences.

The example in (56c) is particularly intriguing. Note that the particle *li* cannot be omitted from the structure in (56c), in which the verb occurs between the two alternatives. In such structures *li* must obligatorily adjoin to the first alternative, probably a consequence of obligatory movement to Spec, IntP.

Crucially, a closer look at the data in (56c) reveals that the structure in fact consists in an XP-*li* question followed by the coda *ili B* ‘or B’ in which B is the overtly realised second alternative. In this way, comparing the examples in (54b) and (56c), repeated

²⁶ Recall that the Bulgarian disjunctive conjunction *ili* ‘or’ morphologically contains an instantiation of the particle *li*. This aspect can be seen as a condition allowing the omission of the particle in this type of alternative question. We leave the discussion of these questions for future research.

below as, respectively, (57) and (58), we can observe that the only point of divergence between the two structures concerns the presence *vs.* absence of the coda *ili čaj* ‘or tea’:

(57) Kafe li iska Ivan? XP-*li* question
 Coffee Q wants.3p.sg John
 ‘Does John want coffee?’

(58) Kafe li iskaš ili čaj? Alternative question
 Coffee Q want.2p.sg. or tea
 ‘Do you want coffee or tea?’

Considering the above similarities, we propose that Bulgarian XP-*li* questions are nothing but alternative questions in which the second alternative is not spelled out, therefore the question only scopes over the overt alternative.

Similar assumptions have been made in Szabolcsi (2015) regarding the data from Hungarian. Note that the Bulgarian examples under (56) above pattern the Hungarian data discussed in section 3.1.1. Observe again the examples in (7), repeated below as (59) for ease:

(59) a. TEÁT akar? ↑
 b. TEÁT vagy KÁVÉT akar? ↓
 c. TEÁT akar-e? ↓
 d. TEÁT akar-e vagy KÁVÉT(*-e)? ↓
 ‘Is it TEA or {COFFEE / the OTHER option} that he wants?’
 (Szabolcsi 2015:191)

In section 3.1.1, we discussed the main properties of the structures in (59), concentrating on Szabolcsi’s observations regarding the behaviour of the answering system. As discussed in section 3.1.1, Szabolcsi’s claim that the particle *-e* gives rise to the formation of alternatives patterning the disjunction *vagy* ‘or’ is supported by the data from the answering system: questions like (59c) require echoing one of the alternatives, as opposed to (59a) which can be answered by *Yes* or a nod. Thus, according to Szabolcsi

(2015), structures like (59c) “are probably alternative questions which require the logical reconstruction of the second alternative” [Szabolcsi 2015:191]

In section 3.2 we proposed that the Bulgarian particle *li* does not qualify as a KA particle in Szabolcsi’s (2015) terms. Based on the data from the answering system and following Szabolcsi’s assumptions with regards to Hungarian, we claimed that Bulgarian *li*-questions (both V-*li* and XP-*li* questions) are not disjunctions in the way alternative questions are. Observe below that Bulgarian XP-*li* questions can be felicitously answered by a bare *Yes*:

(60) Q: Kafe li iska Ivan?

Coffee Q want.3p.sg. John

‘Does John want COFFEE?’

A: a. Da.

Yes

b. Ne.

No

c. Da, kafe iska.

Yes coffee want.3p.sg.

For the time being, we will assume that Bulgarian *li* is a particle denoting the polarity algorithm $[x, \neg x]$ crucial for the expression of polarity in yes-no questions, though not a KA-particle in Szabolcsi’s (2015) sense. Still, considering the data discussed throughout this chapter, it is evident that the particle *li* displays a strong sensibility to elements denoting sets of alternatives. Therefore, we will assume that the difference between Bulgarian XP-*li* questions and alternative questions with the disjunction *ili* ‘or’ correlates with the overt presence of the second alternative. Thus, when the second alternative is not overt (even though it is, by hypothesis, present in the universe and is part of the speaker’s knowledge, Szabolcsi (2015)), the question only takes scope over the overt alternative. The result is the compatibility of XP-*li* questions with answers like *Yes* or a nod.

In the next subsection we will proceed with a proposal for analysis of the structures discussed above. We will suggest that the underlying structure of XP-*li*

questions involves the activation of a higher functional projection accommodating the presupposed constituent attached to the particle *li*.

3.3.2. The speaker's presuppositions and the Left Periphery

The data explored so far have shown that, apart from being crucial for the formation of Bulgarian yes-no questions, the particle *li* displays a strong relation to the speaker's previous knowledge and presuppositions. As shown above, constituents such as wh-words and quantifiers, i.e. elements denoting a set of alternatives, obligatorily attach to *li*.

In the preceding sections, evidence from two types of contexts was considered:

(i) On the one hand, we considered data illustrating the behaviour of the particle when co-occurring with quantifiers and wh-words. As discussed in the literature, such elements denote sets of alternatives, i.e. the speaker's presuppositions in regard to the alternatives that can value the variable of the question. Considering that the alternatives are part of the speaker's knowledge regarding the state of affairs described, we observed that, when co-occurring with *li*, wh-words and quantifiers obligatory attach to the particle. The evidence from the co-occurrence between *li* and quantifiers and wh-words therefore supports the idea that *li* is sensitive to quantification and to the speaker's background knowledge.

(ii) On the other hand, we explored data from XP-*li* questions and observed that these structures share a number of properties with alternative questions and wh-questions. Following Szabolcsi's (2015) observations on Hungarian and Russian, we proposed that XP-*li* questions are a subtype of alternative questions in which the second alternative is not spelled out. Importantly, we claimed that XP-*li* questions are not an instantiation of focus assignment. The so called focused meaning is rather a consequence of the denotation of the polarity algorithm $[x, \neg x]$ which the XP absorbs when raising to *li* in Spec, PolP. With the parallels between the behaviour of the XP in XP-*li* questions and those of quantifiers and wh-words when co-occurring with *li*, we suggested that XPs in

With the proposal in (62a-b), we claimed that the central distinction between *V-li* and *XP-li* questions concerns the fact that T is the head of the proposition. In (62) the verb raises to Pol° where it attaches to *li*. As a consequence of the polarity algorithm *li* introduces, the alternatives [kupi, ¬kupi] are formed. Given that the T is the head of the proposition, the polarity algorithm applies to the entire structure.

In contrast, in *XP-li* questions, an XP different from the verb raises to *li* in Spec, PolP where it absorbs the polarity algorithm, the result being the creation of the alternatives [XP, ¬XP]. As in *V-li* questions, the head of Int° has an unvalued [*u*Pol] feature that gets valued by *XP-li* movement to Spec, IntP and an unvalued [*u*V] feature valued by verb-movement to Int°. Consider again the derivation we proposed in (67)-(68) in section 2.3.2 of Chapter 2, repeated below as (63) and (64):

(63) Ivan li kupi knigata?

John Q bought book.def

‘Did JOHN buy the book?’

(64) a. [IntP [Int° [*u*Pol], [*u*V] [PolP Ivan_j li [John, ¬John] [Pol° [TP Ivan_j [T° kupi_i John Q bought
[vP Ivan_j [v° kupi_i-knigata]]]]]]]]]]
the book

b. [IntP Ivan_j li_k [John, ¬John] [Int° kupi_i [PolP Ivan_j li [John, ¬John]
John bought
[Pol° kupi_i [TP Ivan_j [T° kupi_i [vP Ivan_j [v° kupi_i-knigata]]]]]]]]]]
the book

As suggested in Section 2.3.2, the characteristic focus-like flavour of *XP-li* questions is an outcome of the formation of the alternatives [XP, ¬XP] which consist in the opposition between the given XP and its negation. Nevertheless, in Chapter 2 we suggested that the derivation of structures like (63) does not stop in IntP. Considering the data from *wh*-questions and *li*-questions with quantifiers discussed in this chapter, here we are in a position to provide the missing part of that analysis.

In this chapter we suggest that XPs in *XP-li* questions like (63) are part of the speaker's previous knowledge, basing on the intriguing data from quantifiers discussed above. In our view, XPs in *XP-li* questions are not 'new' information but rather presuppositions in need of confirmation. In order to account for this property, we propose that the derivation in (64b) involves the activation of another functional layer accounting for the speaker's previous information.

As briefly mentioned in Section 2.3.2, it appears that structures like *XP-li* questions combine two distinct types of illocutionary force, namely question and knowledge. This combination is not new to the literature, especially when it comes to dealing with distinct types of interrogative sentences. In Dimitrova (2013), the characteristic wondering effect of *wh+li* questions has been derived by *wh*-movement to AssertiveP (Ambar 2000, 2003): the domain accounting for "what the speaker knows", as formulated in Ambar (2003). Such characterisation of this functional projection captures the above observations concerning the behaviour of the constituent XP attaching to *li* in *XP-li* questions. Let us consider some important points of the proposal made in Ambar (1997, 2000, 2003 and Ambar & Veloso (2001).

As shown in the literature (Rizzi 1997, 2001 a.o.), the CP domain encodes the relation between the Discourse and the propositional content. An important advantage of the proposal made in Ambar (1997, 2000, 2003) concerns the fact that the projections of the domain of the Split CP capture two types of properties of the Discourse: the properties associated with the Common Ground and those related to the Universe of Discourse (Heim 1982). The central distinction between these two domains is the fact that only the information captured by the latter concerns the direct interaction between the speaker and the hearer and, consequently, it is defined as such through the interaction itself. Observe the structure of the Left Periphery proposed in Ambar (2003):

(65) XP [EvaluativeP [Evaluative' [AssertiveP [Assertive' [XP [WhP [Wh'
[FocusP [Focus' [XP [IP

(Ambar 2003:211)

In (65) the projections labelled XP stand for dislocated elements. In Ambar (2003) it is assumed that XP is a topic-like projection whose properties have to be defined for each position.

WhP is the projection accommodating wh-phrases. It has two features: a wh feature and a V-feature. They trigger wh-movement and V-movement, respectively. The projections XP, WhP and FocusP (or Topic/FocusP as in Ambar 1997) participate in the domain of the Universe of Discourse, i.e. they are activated through the interaction between the speaker and the hearer.

The functional projections EvaluativeP and AssertiveP, on the other hand, participate in the domain of the Common Ground, i.e. they concern the speaker alone, rather than the interaction speaker-hearer. EvaluativeP is the projection encoding the speaker's evaluations and has been regarded as the domain accounting for the divergences between wh-exclamatives and wh-questions: in exclamatives the wh-element raises higher in order to check [+evaluative], cf. Ambar (2000). The postulation of such a domain has been supported by the fact that wh-elements such as the bare *que* 'what', in contrast to the [+referencial] *o que*, cannot check the evaluative reading in wh-exclamatives, i.e. this reading is restricted to wh-words displaying an adjectival or an [+r] feature. Compare (66) and (67) below:

(66) O que o Pedro disse!

What the Pedro said.3p.sg

(67) * Que o Pedro comprou!

What the Pedro bought3p.sg

(Ambar 2003:237-238)

Lastly, AssertiveP is the projection encoding the speaker's knowledge and presuppositions. It is seen as the projection accounting for the 'factive' interpretation of wh-*in-situ* questions and wh-exclamatives. Importantly, it has been shown that languages vary with respect to the way they activate Assertive. According to Ambar (2003), given languages, such as European and Brazilian Portuguese, have the capacity to move wh-phrases to Assertive. Other languages, such as Hungarian, merge given particles or complementizers (like Hungarian *hogy* 'that') in Assertive. Let us consider the derivation proposed in Ambar (2003) for Portuguese wh-*in-situ* structures which, as proposed by the author, convey a 'factive' meaning, i.e. the speaker's knowledge. Ambar (2000, 2003)

argues that *wh*-phrases always move to WhP, the *in-situ* effect being a result of Remnant IP movement to AssertiveP. Observe the derivation in (68b) below:

(68) a. O Pedro encontrou quem?

Peter met who

b. (i) XP [AssertiveP [Assertive' [XP [WhP quem_i [Wh' [FocusP t_i [Focus' [XP [IP O Pedro encontrou t_i]]]]]]]]]

(ii) XP [AssertiveP O Pedro encontrou t_i]_k [Assertive' [XP [WhP quem_i [Wh' [FocusP t_i [Focus' [XP [IP t_k]]]]]]]]]

(Ambar 2003:217)

According to (68b), the factive interpretation of *wh-in-situ* questions in European Portuguese is a result of Remnant IP movement to Spec, AssertiveP where [+assertive] is checked.

With the hypothesis that the *li* is sensitive to elements denoting sets of alternatives and thus, to the existence of presuppositions part of the speaker's previous knowledge, we propose that Ambar's (2003) AssertiveP projects in yes-no questions.

Building on the derivation of XP-*li* questions, proposed in (64), after raising to Spec, IntP, the complex constituent formed by the XP and the particle *li* moves to Spec, AssertiveP. Consider the proposal in (69) below:

(69) a. Ivan li kupi knjigata?

John Q bought book.def

'Did JOHN buy the book?'

b. [AssertiveP Ivan_j li_k [Assertive° kupi_i [IntP Ivan_j-li_k [John, ¬John] [Int°

John Q bought

kupi_i [PolP Ivan_j-li_k [John, ¬John]-[Pol° kupi_i [TP Ivan_j [T° kupi_i [vP Ivan_j [v° kupi_i knjigata]]]]]]]]]

the book

By hypothesis, the verb also undergoes movement to Int^o and Assertive^o accounting for the obligatory subject-verb inversion such structure display.

The proposal in (69) can be moreover extended to the co-occurrence between *li* and quantifiers considering that when co-occurring in yes-no questions the quantifier always attaches to *li* and absorbs the algorithm [x, ¬x], as shown in (69b). However, the creation of the variables [x, ¬x] appears to be particularly interesting when it comes to dealing with quantifiers. Differently from presupposed XPs, universal quantifiers such as Bulgarian *vsički* ‘all’ denote a set of alternatives. Therefore, whereas in (69) we are dealing with just one constituent, namely the presupposed XP *knigata* ‘the book’, we assume that the attachment of the quantifier ‘all’ to *li* results in the formation of a more complex configuration of variables.

Let us suppose again that the universe consists of Kate, Mary and Joe, i.e. Kate, Mary and Joe are the alternatives denoted by the universal quantifier. As argued in Chapter 2, *li* is responsible for the denotation of the polarity algorithm [x, ¬x]. However, when the universal quantifier *vsički* ‘all’ attaches to it, as in (70) below, the result is not [vsički, ¬vsički]. If that were the case, we would expect that a bare *No* would be a plausible answer to such a question. As shown by (22) above, repeated below for ease, bare *No* is somewhat odd:

- (70) Q: Vsički li gledaxa filma?
All Q watched.3p.pl movie.def
‘Did everyone watch the movie?’
- A: a. Da
 Yes
 b.? Ne.
 no
 c. Ne, Mary beše zaeta, no Kate i Joe go gledaxa.
 No, Mary was busy but Kate and Joe cl.acc watched
 ‘No, Mary was busy but Kate and Joe watched it.’

In our view, when universal quantifiers attach to the particle, as above in (70), the algorithm [x, ¬x] applies to each alternative invoked by the quantifier. Accordingly, the incorporation of the particle to the universal quantifier *vsički* ‘all’ does not result in the

[x, ¬x]. However, as pointed out in Section 2.1.1.1 of Chapter 2, a challenging point in the analysis of *wh+li* questions concerns the particular way *li* acts on the set of alternatives denoted by the *wh*-word. In section 3.2.2.1, we observed that *wh+li* questions share some properties with *wh-the-hell* questions that suggest that the particle is responsible for the extension of the domain of quantification in these structures in a similar manner to that proposed for *wh-the-hell* questions in den Dikken & Giannakidou (2002). Accordingly, on par with the alternatives present in the universe, the domain also includes novel and unknown ones. *Domain extension* is therefore regarded as the trigger for the characteristic wondering effect of *wh+li* structures.

Curiously, there appears to be another property *wh+li* questions share with *wh-the-hell* questions. Den Dikken & Giannakidou (2002) show that there exist many intriguing parallels between *wh-the-hell* elements and polarity items. As discussed by the den Dikken & Giannakidou (2002: 32-35), *wh-the-hell* questions differ from standard *wh*-questions when it comes to dealing with the contexts in (i)-(iv) below:

(i) Negative answers with modals:

- (73) a. Who would buy that book?
b. Who the hell would buy that book?

Considering the pair in (73), the authors notice that the standard *wh*-question in (73a), though not the *wh-the-hell* question in (73b), can be considered a genuine information request and can, therefore, receive an answer such as *John*. The *wh-the-hell* question in (73b) cannot be used as an information question and is only compatible with a negative rhetorical answer.

(ii) The occurrence of *wh-the-hell* in complements of positive veridical verbs;

- (74) a. I know who would buy that book.
b. *I know who the hell would buy that book.

Only standard *wh*-questions, as in (74a), can occur in complements to positive veridical verbs, *wh-the-hell* questions (74b) being ruled out.

(iii) The possibility for a pair-list answer:

- (75) a. Who is in love with who? [single-pair echo or pair-list]
b. (?)Who the hell is in love with who? [single-pair echo only]

Likewise, a contrast appears when considering the possibility for pair-list and single-pair answers, as in (75a-b). While the standard wh-question in (75a) is compatible with both answers, the wh-*the-hell* question in (75b) is only compatible with the single-pair answer.

(iv) The interaction with quantifiers:

- (76) a. What did everyone buy for Max?
b. What the hell did everyone buy for Max?

The pair in (76) illustrates another sharp contrast between wh-questions and wh-*the-hell* questions. As noticed by the authors, the wh-question in (76a) displays both the reading under which the universal quantifier takes scope over the wh-word, and, therefore, each person bought something for Max, and the reading under which it is the wh-word that takes wide scope and according to which all people bought one thing for Max. Differently, when it comes to the structure in (76b) only the latter reading is available, namely the one under which all people bought one thing for Max.

Building on these and other properties of wh-*the-hell* questions, den Dikken & Giannakidou (2002) propose that wh-*the-hell* is a polarity item and is, therefore, sensitive to (*non*)*veridicality* (Giannakidou 1998).

Curiously, Bulgarian wh+*li* questions behave like wh-*the-hell* questions with respect to the contexts considered above in (i)-(iv). Bulgarian wh+*li* questions with modals are only compatible with negative rhetorical answers (77):

- (77) Q: Koi li može da kupi тази книга?
Who Q can.Pres.3p.sg buy this book
“Who can buy this book?”

A: ? a.Ivan

John

b. Nikoj – negative rhetorical answer

no one

Also, when it comes to complements of positive veridical verbs, the occurrence of *wh+li* questions gives rise to strongly ungrammatical structures:

(78) * Az znam koj li kupi knjigata.

I know who Q bought book.def

What is more, like *wh-the-hell* questions, *wh+li* questions are not compatible with pair-list answers as illustrated below:

(79) Q: ? Koj li kogo celuna?

Who Q who.acc kissed

A: a. Marija celuna Ivan.

[single-pair answer]

Mary kissed John

b. ?? Marija celuna Ivan, Katja celuna Petär. [pair-list answer]

Mary kissed John, Katja kissed Petär

Notice that, in contrast to *wh+li* questions, standard Multiple Wh-questions permit both single-pair and pair-list answers:

(80) Q: Koj kogo celuna?

Who who.acc kissed

A: a. Marija celuna Ivan.

[single-pair answer]

Mary kissed John

b. Marija celuna Ivan, Katja celuna Petär. [pair-list answer]

Mary kissed John, Katja kissed Petär

This view towards Bulgarian wh+*li* questions is further supported by the fact that *li* occurs in Degree wh-exclamatives (Espinal 1997, 2000, Portner & Zanuttini 2000, a.o.). Consider the example from Spanish in (83) below:

(83) A cuántas pessoas (no) habrá matado este dictador!
To how many people not have+FUT.3psg killed this dictator
“So many people must have been killed by this dictator!”

(Espinal 2000: 48)

A characteristic property of structures like (83) concerns the occurrence of the negation marker which does not contribute to the negative interpretation of the sentence. Rather, the exclamation in (83) conveys the meaning that the dictator killed many people. As will be shown in Chapter 4, the Bulgarian counterparts of (83) involve the obligatory presence of the particle *li* and the negation marker. Interestingly, the occurrence of *li* in Degree wh-exclamatives does not convey an interrogative interpretation to the structure. Rather, it contributes for the expression of extreme degree quantification

3.4. Summary of Chapter 3

Summarising the discussion presented in this chapter, our main goal here was to address and explain the puzzling data concerning the behaviour of *li* when co-occurring with constituents denoting sets of alternatives. Taking as a starting point Szabolcsi's (2015) observations with regard to the elements she dubs *Quantifier Particles*, we argued that, although *li* is not a Quantifier particle in Szabolcsi's (2015) terms, it definitely exhibits a particular sensibility to quantification. This assumption was supported by the evidence concerning the co-occurrence of the particle with quantifiers and wh-words. The fact that such constituents obligatorily attach to *li* was regarded as an argument in favour of the hypothesis that the particle creates a relation with the speaker's presuppositions regarding the value of the variable of the question. Accordingly, the analysis of XP-*li* questions put forth in this chapter sharply diverges from the previous accounts (Rudin et al. 1999, Izvorski 1995, a.o.). Crucially, XP-*li* questions were defined as structures in

which the XP raising to the particle is a presupposition in need of confirmation and not a focused constituent, as previously argued.

On the basis of these assumptions, we claimed that the structure of Bulgarian yes-no questions presented in Chapter 2 extends to involve the functional projection AssertiveP accounting for the speaker's knowledge (Ambar 1997, 2000, 2003).

In the chapter that follows, we will focus on more intriguing topics that concern the occurrence of negation in yes-no questions, the licensing of negative concord in Bulgarian negative yes-no questions and the syntactic mechanisms underlying the expression of positive bias in such structures, among other phenomena.

Many works have been dedicated to a better understanding of negative yes-no questions across languages. Ever since Ladd (1981) it has been recognised that negative yes-no questions are always associated with a given flavour of positive bias. Based on data from Bulgarian, Portuguese and Chinese, among other languages, we will argue that the characteristic positive bias displayed by such structures is not an outcome of the semantic properties of the negation marker but is rather related to the properties of the verb and verb-movement, on the one hand, and to the properties of n-words, on the other.

4. NEGATION AND YES-NO QUESTIONS

In this chapter we will address several intriguing topics related to negation and negative yes-no questions. Negative yes-no questions are well known for the positive bias they frequently denote. Many works have been dedicated to achieving a better understanding of the factors triggering this interpretation and to its relation with the semantic properties of the negation marker. Nevertheless, some aspects of the characterisation of negative yes-no questions remain unsettled.

Curiously, it appears that the most common and well-known approach towards the occurrence of negation in yes-no questions and their lack of negative reading has been that which treats it as an instantiation of expletive negation. According to this view, negation is semantically void of negative content. This approach towards negative yes-no questions felicitously accounts for the fact that these structures are not truly negative: as noted by many scholars, it seems that the negation marker loses its negative force whenever it occurs in yes-no questions.

Nevertheless, it is clear that negative yes-no questions are not equivalents of positive yes-no questions, as the expletive negation approach implies. In contrast to positive yes-no questions, which are generally neutral with respect to the expression of a given type of bias²⁷, negative yes-no questions systematically favour the positive reading of the structure. This property supports the claim that the negation marker is not a semantically empty element occurring only optionally in yes-no questions (Espinal 2000, Brown & Franks 1995). Its occurrence evidently plays a role in contributing to the positively biased interpretation of the structure and our goal here is to discuss the syntactic mechanisms underlying this reading.

A closer look at the data from negative yes-no questions confirms the claim that the biased interpretation these structures convey must be accounted for in the syntax. Curiously, it appears to be related to the position occupied by the negation marker. Notice that in English polar questions, the negation marker can occupy two distinct structural positions: it can occur TP-externally or TP-internally. According to Holmberg (2013), these distinct structural positions are at the core of the denotation of positive or negative

²⁷ Büring & Gunlogson (2000) show that, in fact, positive yes-no questions can also acquire a biased reading. According to these authors, it is a consequence of what they call *contextual evidence*.

bias, respectively. Moreover, this view is in line with the proposal put forth in Ladd (1981) and with his well-known distinction between Outer negation and Inner negation.

In view of the brief observations provided above, in this chapter, we will focus on the properties of negative yes-no questions in Bulgarian and Portuguese, comparing these, when possible, with other languages, namely English and Chinese. Following Holmberg's (2016) lead, we will assume that a positive bias is obtained in those cases in which negation occupies a high structural position. This is what happens in languages of the Bulgarian and Portuguese type, though not in Chinese where negation is structurally low. What is more, we will argue that whenever negation is high, it systematically loses its negative force and contributes to the expression of an evaluative-like flavour (Yoon 2011).

In the final part of this chapter, we will extend the discussion of negative yes-no questions to another intriguing context traditionally associated with the 'expletiveness' of the negation marker, namely the structures commonly known as Degree Wh-exclamatives (Espinal 1997, 2000, Porner & Zanuttini 2000, Zanuttini & Portner 2003). As in negative yes-no questions, the negation marker appearing in these structures is clearly not semantically vacuous. Focusing on the data illustrating the formation of degree wh-exclamatives in Bulgarian and Portuguese, we will also show that these structures differ from standard wh-exclamatives when it comes to the property of factivity. Thus, following Espinal (2000), we will argue that Degree wh-exclamatives display a relation to *nonveridicality* (Giannakidou 1998).

The chapter is organized as follows. In Section 4.1 we consider some of the influential works dedicated to the syntactic expression of negation and to the licensing of Negative Concord (henceforth, NC). In Section 4.2 we discuss the properties of negative yes-no questions focusing on the previous analyses concerned with the syntax and pragmatics of these structures (Asher & Reese 2005, 2007, Reese 2006, Holmberg 2016, Yoon 2011). Next, we will thoroughly discuss the data from Bulgarian (Section 4.3), Portuguese (Section 4.4) and Chinese (Section 4.5). On the basis of the differences displayed by these typologically distinct languages, in Section 4.6 we put forth a proposal for analysis, according to which the expression of positive bias is a result of the speaker's evaluation of the state of affairs described. Finally, in section 4.7, we discuss the core properties of Degree Wh-exclamatives. Section 4.8 sets out some conclusive remarks.

4.1. Negation and Negative Concord. Preliminaries

Many works have been dedicated to gaining a better understanding of the variation languages exhibit with regard to the expression of sentential negation and the licensing of NC (Laka 1990; Zanuttini 1991, 1994, 1997; Haegeman & Zanuttini 1991; Matos 1999; Martins 1997, 2000; Zeijlstra 2004; Giannakidou 1998, 2001; Peres 2000; among others). Since Pollock (1989), it has been agreed that negation heads its own projection: Neg(ation) P(hrase). In his terms, NegP is located below T. However, although this proposal accounts for the data from English, it has been shown that the distribution of the negation marker in other languages actually supports the idea that NegP dominates TP and not *vice-versa*. Due to different languages' divergent behaviours, it has remained unclear whether the position of NegP is fixed or varies across languages.

Another widely discussed topic concerns the co-occurrence between negation and the n-words and the mechanisms permitting the licensing of NC. In contrast to the Double negation reading, under which the co-occurrence of multiple negative elements yields an affirmative meaning, with NC it results in the expression of the same logical negation. Moreover, it is well-known that languages vary in allowing for the co-occurrence of the negation marker and n-words (Laka 1990). When it comes to licensing NC, roughly three groups of languages can be distinguished:

(i) languages like Standard English that do not display NC: in English only the *any*-series are allowed in the scope of negation. The co-occurrence of negation and n-words gives rise to ungrammatical sentences:

- (1) a. John didn't buy anything /*nothing.
b. Nobody *didn't see /saw the movie.

(ii) languages like Italian, Catalan, Portuguese and Spanish, among others, in which NC's licensing depends on the position occupied by the n-word. Thus, NC is reserved for the cases in which the n-words occur post-verbally as shown by the Portuguese example in (2a). Note that in (2a) the negation marker cannot be omitted. However, when the n-word occupies a preverbal position, as in (2b), it is banned from co-occurring with *não* 'not':

(2) a. O João *(não) viu ninguém.

The John not saw no one

‘John didn’t see anyone.’

b. Ninguém *(não) viu o João.

No one not saw the John

‘Nobody saw John.’

(iii) languages like Bulgarian, Russian, Greek, Romanian and others in which negation is obligatory with both pre (3b) and post-verbal (3a) n-words:

(3) a. Marija *(ne) kupi ništo.

Mary not bought nothing

‘Mary didn’t buy anything.’

b. Nikoj *(ne) otide na koncerta.

No one not went to concert-def

‘Nobody went to the concert.’

Throughout this chapter we will be mostly concerned with the languages of the (ii) and (iii) groups. Giannakidou (1998, 2001) dubs these two types *non-strict* and *strict negative concord languages*, respectively. Below, we briefly discuss some of the most influential analyses dedicated to the distribution of the negation marker, the divergences in the licensing of NC and the functional projections involved in the derivation of negative clauses.

4.1.1. Laka (1990)

Laka (1990) focuses on the expression of sentential negation in Basque. Consider the following examples from English (4) and Basque (5):

- (4) a. Mary left.
 b. Mary didn't leave.
 c. *Mary did leave.
 d. Mary did leave.

- (5) a. Mari joan da.
 Mary left has
 'Mary has left.'
- b. Mari ez da joan.
 Mary not has left
 'Mary hasn't left.'
- c. *Mari da joan.
 Mary has left
 'Mary has left.'
- d. Mari da joan.
 Mary has left
 'Mary has left.'

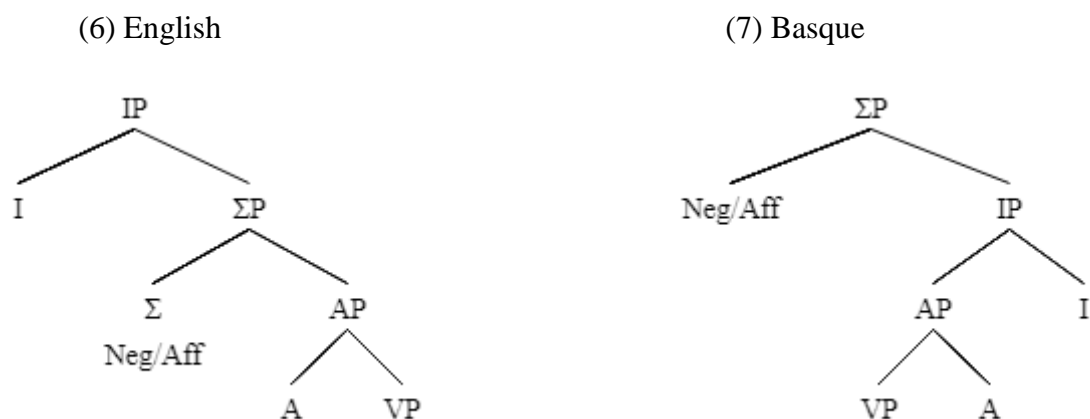
(Laka 1990: 86)

It is well known that the expression of sentential negation in English requires the presence of an auxiliary, cf. (4b). The examples in (5) illustrate that Basque behaves in the same way. Note that in the unmarked word order the lexical verb precedes the inflected auxiliary, as shown by (5a). However, when it comes to licensing negation, a word order alternation involving auxiliary movement to a position preceding the lexical verb obligatorily takes place (cf. (5b)). Moreover, whereas English do-insertion (4b) and Basque auxiliary fronting (5b) are generally ruled out of non-negative propositions (cf. (4c) and (5c), respectively), they appear to be the licensors of emphatic affirmation, as illustrated by the English (4d) and the Basque (5d).

According to Laka (1990), these similarities between English and Basque are not coincidental. Rather, they indicate that the strategies English and Basque exhibit have to

do with the activation of two heads in complementary distribution, namely Neg and Aff. Considering that Neg and Aff belong to the same syntactic category, dubbed by the author Σ , Laka (1990) argues that sentential negation and affirmation involve the projection ΣP .

According to Laka (1990), the position of ΣP is subject to parametric variation. As illustrated by the trees below, in English (6) ΣP is dominated by the IP, whereas in Basque (7) it dominates the IP:



(Laka 1990: 101)

Along with the Basque negation marker *ez* ‘not’, Laka (1990) observes that the particle *ba* is another candidate for Σ . *Ba* derives from the affirmative particle *bai* ‘yes’ and denotes emphatic affirmation. Notice that *ba*, like *ez*, involves auxiliary fronting:

- (8) Jon ba da etorri.
 John so has arrived.
 ‘John has so arrived.’

(Laka 1990:104)

Besides the intriguing questions concerning the functional projection ΣP and its placement in Basque and English sentences, Laka (1990) also discusses the licensing of NC in languages of the (ii) type, i.e. in *non-strict negative concord languages* such as Spanish, Italian and Portuguese. Consider the Spanish data below:

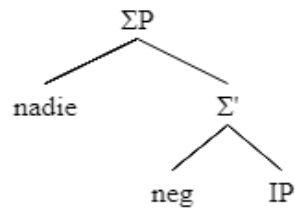
- (9) a. No vino nadie.
 Not came anybody
 ‘Nobody came.’
- b. Nadie vino.
 Nobody came
 ‘Nobody came.’
- c. *Vino nadie.
 Came nobody
 ‘Nobody came’
- d. Nadie non vino²⁸.
 Nobody not came
 ‘Nobody didn’t come’ (Laka 1990: 107)

As Laka (1990) points out, *nadie* ‘nobody’ in (9) above displays a dual nature. On the one hand, it behaves as a NPI that is licensed by clause-mate negation, as in (9a) and (9c). On the other hand, when occurring pre-verbally, it functions as a universal negative quantifier behaving like the English ‘nobody’ and denoting a negative meaning of its own.

Differently from Zanuttini (1989), who makes a partition between NPIs and Negative quantifiers, and claims that Romance negative indefinites display properties of both, Laka (1990) argues that n-words in Romance are NPIs, i.e. they are existential quantifiers licensed by negation. While this is indeed the case of post-verbal NPIs, when appearing in a pre-verbal position, their co-occurrence with negation is ruled out. In order to solve this problem, Laka (1990), following Bosque (1980), proposes that pre-verbal NPIs are licensed by a non-overt negative morpheme:

²⁸ Note that (9d), in which the pre-verbal n-word co-occurs with the negation marker is considered grammatical. Still, as noticed by the author, such structures denote a double negation meaning, i.e. (9d) conveys the interpretation of ‘Everybody came.’

(10)



(Laka 1990: 127)

As for the reason why post-verbal NPIs cannot also be licensed by the empty negative head, Laka (1990) assumes that the empty negative head is only available when an element rises to the specifier of ΣP . Since post-verbal NPIs do not undergo movement to $\text{Spec}\Sigma P$, they need to co-occur with the negation marker.

4.1.2. Zanuttini (1994, 1997), Haegeman & Zanuttini (1991)

Here, we will turn to the proposals concerning the licensing of NC developed in Zanuttini (1994, 1997) and Haegeman & Zanuttini (1991).

Let us start with the latter. Haegeman & Zanuttini (1991) address the licensing of NC in West Flemish (henceforth, WF). Focusing on the data in (11), they observe that the licensing of NC in WF requires that negative constituents are scrambled to a position preceding the finite verb, as illustrated by (11a). In their terms, this requirement concerns the scope of negation. Consider the following data:

(11) a. ... da Valère niemand nie kent. (Negative Concord)

that Valère nobody not knows

‘... that Valère does not know anybody.’

b. ... da Valère nie niemand kent. (Double Negation)

that Valère not nobody knows

‘...that Valère does not know nobody.’

(Haegeman & Zanuttini 1991: 235)

Observe that, as opposed to (11a), in (11b) the negative constituent *niemand* ‘nobody’ remains in its base position. As an outcome of the lack of scrambling, the structure denotes a Double Negation reading and not NC. In view of these data, Haegeman & Zanuttini (1991) assume that NC is licensed by a Spec-Head agreement relation: n-words are scrambled to Spec, NegP establishing a relation with the negative head.

On the basis of these data, Haegeman & Zanuttini (1991) propose a special condition for the licensing of NC dubbed the NEG-Criterion:

(12) The NEG-Criterion

- a. Each Neg X° must be in a Spec-Head relation with a Negative operator;
- b. Each Negative operator must be in a Spec-Head relation with a Neg X° ;

(Haegeman & Zanuttini 1991: 244)

The NEG-Criterion is a condition on Logic Form (LF). While it applies in S-structure in languages like WF, the NEG-criterion takes place at LF in languages such as Italian and French, which do not display n-words’ overt scrambling.

As pointed out by Matos (1999), some empirical problems arise from this definition of the NEG-criterion. Under the NEG-criterion, it is predicted that in languages like Italian, French and European Portuguese, pre-verbal n-words should be able to co-occur with the negation marker. As shown above, this prediction is not confirmed by the data.

Zanuttini (1994, 1997), on the other hand, focuses mainly on the expression of sentential negation in Romance languages. Two patterns with respect to the distribution of the negation marker are distinguished: (i) pre-verbal negation as in Italian, Spanish, Catalan, Portuguese and Romanian, as in (13), and (ii) post-verbal as in Occitan, Franco-Provencal, the Gallo-Italic languages of Northern Italy such as Piedmontese, Lombard and Veneto, Western Rhaeto-Romance and Central Rhaeto-Romance, as in (14):

- (13) a. Gianni *non* ha telefonato a sua madre. (Italian)
- b. Juan *no* ha llamado a su madre. (Spanish)
- c. El Joan *no* a trucat a su madre. (Catalan)
- d. João *não* ligou para sua mãe. (Portuguese)

e. Jon *nu-i* telefona mamei lui. (Romanian)
'John hasn't called his mother.'

(Zanuttini 1994: 431)

(14) a. Maria a mangia *nen*. (Piedmontese)
Mary cl._{subj} eats neg
'Mary doesn't eat.'

b. Lo film l'ère *pa* dzen. (Valdôtain)
The movie was neg beautiful
'The movie wasn't nice.'

(Zanuttini 1994: 433)

What is more, as illustrated by the examples in (15) below, in the presence of an auxiliary and a past participle, the post-verbal negation markers obligatorily follow the auxiliary:

(15) a. Maria a l'ha *nen* parla tant. (Piedmontese)
Mary cl has neg talked much
'Mary hasn't talked much.'

b. Dz'i *pa* mindza. (Valdôtain)
I have neg eaten.
'I haven't eaten.'

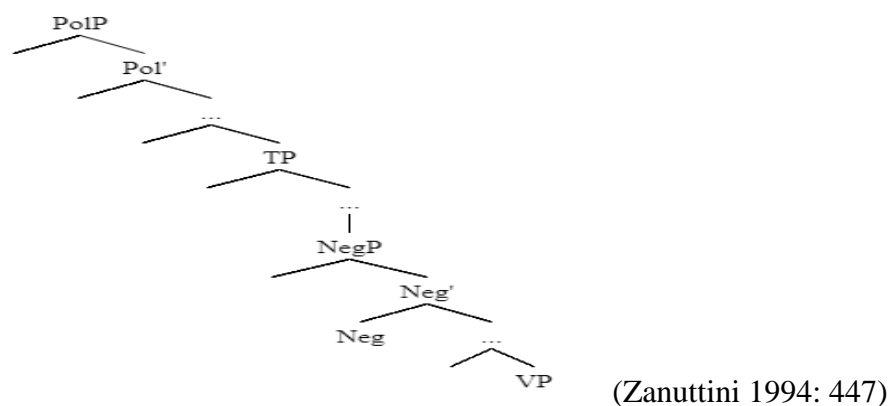
(Zanuttini 1994: 434)

According to Zanuttini (1994), both pre and post-verbal negation markers are generated in NegP situated below TP (Pollock 1989). Nevertheless, whereas the pre-verbal negation markers, such as those in (13), head NegP, post-verbal negation markers, like those in (14) and (15) are XPs which occur with an empty Neg^o.

Importantly, although Zanuttini (1994) considers that both pre and post-verbal negation makers are generated in NegP, she proposes that they are interpreted in another functional projection dubbed Polarity Phrase (PolP). As discussed in Chapter 2, PolP is

the projection accounting for the polarity value of the structure. Consider the structure in (16) below:

(16)



The crosslinguistic variation with respect to the position occupied by the negation marker (cf. (13) vs. (14-15)) is seen as an outcome of the strength of the polarity features of Pol. Following Chomsky (1993), Zanuttini (1994) claims that in languages with pre-verbal negation, PolP has strong features which have to be checked before Spell-Out. In contrast, in languages with post-verbal negation, PolP has weak polarity features which are therefore checked after Spell-Out, i.e. at LF.

The behaviour of negative indefinites is accounted for accordingly.

In languages displaying strong polarity features, the negative indefinite alone checks the polarity features, i.e. it does not need to co-occur with sentential negation as illustrated by (17) below.

In contrast, in languages with post-verbal negation, i.e. those displaying weak polarity features, negative indefinites remain in a post-verbal position. Moreover, as shown by (18), they occur on their own without being c-commanded by the negation marker:

(17) *Nessuno* ha detto *niente*. (Italian)

Nobody has said nothing

‘Nobody said anything’

(18) I l’hai vist *gnun*. (Piedmontese)

‘I have seen nobody.’

(Zanuttini 1994: 441)

The divergences concerning the position of the negative indefinite in Italian and Piedmontese are felicitously explained by the assumption that the variation illustrated by (17)-(18) derives from differences in the strength of their polarity features. In Italian, the strong polarity features are checked by movement of the negative indefinite to Spec, PolP. In Piedmontese, a language with post-verbal negation and weak polarity features, the feature-checking takes place at LF.

Although the analysis relying on overt *vs.* non-overt feature checking accounts for the variation between languages with pre and post-verbal negation, considering that the strength of polarity is at the core of the distribution of the negation marker and negative indefinites across languages, it is not clear how this analysis applies in *strict negative concord languages* like Bulgarian or Romanian. Notice that Romanian pre-verbal negative indefinites must co-occur with clause-mate negation:

(19) Nimeni *(nu) a venit la petrecere.

Nobody not has come to the-party

‘Nobody came to the party.’

(Martins 2000: 196)

Considering that Romanian, like Italian, displays pre-verbal negation (cf. (13e)), it is unclear which are the factors disallowing the omission of the negation marker in (19) above.

4.1.3. Martins (1997, 2000)

Like Zanuttini (1994, 1997), Martins (1997, 2000) accounts for the licensing of NC in Romance by adopting a system of polarity features.

Focusing on the distribution of the negative indefinites in Old and Modern Romance, the author considers two central aspects of variation: (i) the co-occurrence of preverbal negative indefinites with sentential negation and (ii) the licensing of negative

indefinites in non-negative modal contexts. The table below summarises Martins' (2000) results:

(20)

	Co-occurrence of pre-verbal negative indefinites with negation proper	Licensing of negative indefinites in non-negative modal contexts
Old Romance (earliest stages)	OK (obligatory)	OK
Modern Romanian Venetian	OK (obligatory)	*
Old Romance (later stages) Modern Catalan	OK (optional)	OK
Modern Galician	*	OK
Modern Spanish	*	OK
Modern Italian	*	OK
Modern French	*	OK
Modern Portuguese	*	*

* indicates an ungrammatical option

(Martins 2000: 202)

The table above illustrates the main facts about the behaviour of negative indefinites in Old and Modern Romance. Concentrating on Modern Romance, Martins (2000) distinguishes between three main groups of languages:

- (i) Romanian and Venetian, in which preverbal negative indefinites obligatorily co-occur with clause-mate negation and are disallowed from appearing in modal contexts;
- (ii) Galician, Italian, Spanish and French, in which preverbal negative indefinites are banned from co-occurring with negation and felicitously occur in modal contexts;
- (iii) Portuguese, in which preverbal negative indefinites do not co-occur with sentential negation and are ruled out of modal contexts;

Observe that although Catalan can be taken to belong to the group in (ii), it still optionally allows the co-occurrence of preverbal negative indefinites and negation, i.e. Catalan displays a somehow dual behaviour.

Adopting the feature system proposed in Rooryck (1994), Martins (1997, 2000) considers three types of possible polarity values: specified (+), non-variable underspecified (0) and variable underspecified (α). The non-variable underspecified (0) feature indicates that the element is unable to express the given property. For instance, Portuguese negative indefinites display a (0) value with regard to the property permitting them to occur in modal contexts. Compare the Portuguese example in (21) with the Spanish example in (22):

(21) *Divudo que venha ninguém. Modern Portuguese
I-doubt that might-come nobody
'I doubt that anybody will come.'

(22) Dudo que venga nadie. Modern Spanish
I-doubt that might-come nobody
'I doubt that anybody is coming.'

(Martins 2000:200-201)

The variable underspecified (α) value, on the other hand, is assigned to those elements that are able to express the given property only when entering into a relation with other elements. As discussed in Martins (2000), this is the case of preverbal negative indefinites in languages like Romanian. As shown by the table in (20), Romanian preverbal negative indefinites must obligatorily co-occur with the negation marker. Therefore, their [neg] feature is valued (α)-underspecified, i.e. they are unable to express negation on their own, hence they obligatorily co-occur with clause-mate negation:

(23) Nimeni *(nu) a venit la petrecere.
Nobody not has come to the-party
'Nobody came to the party.'

(Martins 2000: 196)

Following Zanuttini (1994, 1997), Martins (2000) considers that PolP is the domain accounting for the polarity value of the structure. In her terms, PolP has three possible features aff(irmation)-features, neg(ation)-features and mod(ality)-features, which correspond to the notions *veridicality*, *averidicality* and *non-veridicality*, respectively (Giannakidou 1998). Along with Zanuttini (1994), Martins also assumes that NegP is the projection where negation originates. Variation across languages is accounted for by virtue of the strength of their polarity features.

In the feature system proposed by Rooryck (1994), it is claimed that strong negative polarity features are those specified by the value [+neg]. Since they are able to express negation on their own, their co-occurrence with the negation maker is ruled out for reasons related to economy. In contrast, weak negative polarity items have the value [α neg], i.e. they express negation only when they enter into a relation with the negation marker. This is the case of languages such as Romanian, Venetian and old Romance (cf. (20)). The table below summarises Martins' (2000) conclusions on the characterisation of negative indefinites across Old and Modern Romance:

(24)

Old Romance (earliest stages)	WEAK NEGATIVE POLARITY ITEMS [0aff, α neg, α mod]	
Modern Romanian Venetian	[0aff, α neg, 0mod]	
Old Romance (later stages) Modern Catalan	WEAK NEGATIVE POLARITY ITEMS [0aff, α neg, α mod]	STRONG NEGATIVE POLARITY ITEMS [0aff, +neg, 0mod]
Modern Galician Modern Spanish Modern Italian Modern French	MODAL POLARITY ITEMS [0aff, 0neg, +mod]	STRONG NEGATIVE POLARITY ITEMS [0aff, +neg, 0mod]
Modern Portuguese	STRONG NEGATIVE POLARITY ITEMS [0aff, +neg, 0mod]	

(Martins 2000:208)

Note that the assumptions outlined in the table in (24) capture the fact that negative indefinites are ambiguous in given languages. In Modern Catalan negative indefinites are ambiguous between weak and strong negative polarity items, given that preverbal n-words in Modern Catalan can, somehow optionally, co-occur with the negation marker. Another case of lexical ambiguity is that of n-words in Modern Galician, Spanish, Italian and French. As shown above, in these languages preverbal n-words do not co-occur with the negation marker, which means that they have strong [+neg] features. On the other hand, they are felicitous in modal contexts which means that they can also be defined as Modal Polarity Items of the type [0aff, 0neg, +mod], as shown in (24).

Note that Martins' analysis solves the problems that we highlighted in Zanuttini's (1994) in the preceding subsection. The asymmetries concerning the co-occurrence *vs.* the non-co-occurrence of preverbal negative indefinites with clause-mate negation are accounted for by virtue of the notion of *underspecification*. Strong negative polarity items are specified for neg-features, therefore their co-occurrence with the negation marker is ruled out. Weak negative polarity items, on the other hand, are underspecified for neg-features, which means that they express negation only in the presence of the negation marker, as in Romanian and Venetian.

Throughout this chapter, we will adopt Martins' (2000) proposal, assuming that Bulgarian n-words, like their Romanian counterparts, are underspecified for negation, thereby explaining why their licensing requires clause-mate negation.

4.2. Some facts about Negative Yes-No Questions

Bearing the above observations concerning the expression of sentential negation and the licensing of NC in mind, here we address negative yes-no questions focusing on their syntactic and pragmatic properties.

In subsection 4.2.1, we will focus on Holmberg's (2016) seminal work which, as far as we know, is the first to provide a thorough discussion of the syntactic properties of both positive and negative yes-no questions and their answers considering a large variety of typologically different languages.

In subsection 4.2.2, we will concentrate on the analyses addressing the discourse properties of negative yes-no questions considering the proposals put forth in Reese (2006) and Asher & Reese (2005, 2007).

4.2.1. The syntax of negative yes-no questions

A well-known property of negative yes-no questions concerns the fact that the negation marker occurring in these structures appears to be semantically vacuous:

(25) Isn't John going to the movies?

Despite the fact that (25) contains negation, the question is not about whether John is *not* going to the movies. Rather, the negative question in (25) favours the speaker's belief that John *is* going to the movies. Thus, as opposed to its positive counterpart in (26) below, the negative yes-no question in (25) is biased: a property which, in addition, disallows it from occurring *out of the blue*:

(26) Is John going to the movies?

Thus, it can be assumed that, in contrast to positive polar questions, which are pragmatically *unmarked*, negative questions consist in *marked* structures.

As mentioned above, Ladd (1981) was the first to discuss negative yes-no questions from the perspective of the existence of an ambiguity between the positive and the negative reading. In his terms this ambiguity is strongly conditioned by the context. Observe the scenarios in (27) and (28) below:

(27) (Situation: Kathleen and Jeff have just come from Chicago on the Greyhound bus to visit Bob in Ithaca)

Bob: You guys must be starving. You want to go get something to eat?

Kathleen: Yeah, isn't there a vegetarian restaurant around here—Moosewood, or something like that?

Bob: Gee, you've heard of Moosewood all the way out in Chicago, huh? OK, let's go there.

(28) (Situation: Bob is visiting Kathleen and Jeff in Chicago while attending CIS.)

Bob: I'd like to take you guys out to dinner while I'm here —we'd have time to go somewhere around here before the evening session tonight, don't you think?

Kathleen: I guess, but there's not really any place to go in Hyde Park.

Bob: Oh, really, isn't there a vegetarian restaurant around here?

Kathleen: No, about all we can get is hamburgers and souvlaki.

(Ladd 1981: 164)

Notice that the negative questions occurring under the contexts in (27) and (28) are biased towards different readings. In (27) the negative question is used as a request for confirmation of the belief that there is a vegetarian restaurant. In contrast, the negative question in (28) is uttered for different reasons. As discussed by Ladd (1981), once it is inferred that there isn't any place to have dinner in Hyde Park, the negative question in (28) is rather a request for confirmation of the belief that, there is indeed no vegetarian restaurant around.

In Ladd's terms, the different readings displayed by the negative questions in (27) and (28) are a result of the place in which negation is interpreted. In those structures denoting the belief in the positive value of the proposition, as in (27), negation is interpreted outside of the proposition, i.e. what we are dealing with is a case of *Outer negation*. On the other hand, negation in questions used as requests for confirmation of the negative inference is interpreted inside the proposition, i.e. it is an instantiation of *Inner negation*.

An important piece of evidence confirming these classifications of the two types of negation comes from the distribution of the polarity items. Consider (29a) and (29b) below:

(29) a. Isn't Jane coming too? (questions P)

b. Isn't Jane coming either? (questions ¬P)

(Ladd 1981: 166)

In (29a) the occurrence of the positive polarity item ‘too’ favours the reading under which negation is interpreted outside of the proposition. Therefore, the structure in (29a) is about confirming p , i.e. confirming the positive value of the proposition. In contrast, the occurrence of the negative polarity item ‘either’ in (29b), forces the interpretation under which negation is inside the proposition. Differently from (29a), (29b) consists in a confirmation of the negative value of the question, i.e. the alternative $\neg p$.

Following Ladd (1981), Holmberg (2016) observes that the expression of positive and negative biases in Standard English can also be triggered by the syntactic position occupied by the negation marker:

(30) Q1: Do you want coffee? (neutral)²⁹

Q2: Don’t you want coffee? (positive bias)

Q3: Do you not want coffee? (negative bias)

(Holmberg 2016: 40)

According to (30), positive bias appears to be encoded in the higher position of the negation marker. In (30Q2) negation attaches to the high auxiliary. In contrast, negative bias is restricted to those cases in which negation remains below T, scoping over the lexical verb, as in (30Q3).

Moreover, the position of negation also affects the behaviour of the answering system. Whereas positive yes-no questions are answered by the particles ‘yes’ or ‘no’ (Martins 1994, Kramer & Rawlings 2010, Holmberg 2012), as shown below in (31), negative yes-no questions employ the answering particles in conformity with the position of the negation marker and with the type of bias expressed. Questions with TP-internal negation are incompatible with a bare ‘yes’ (cf. (32a)). Thus, answers contradicting the negative value of the question rely on echoing the finite verb (32b). Curiously, positively biased negative yes-no questions in which negation occurs TP-externally (33), behave as positive yes-no questions with respect to the way answers are provided:

(31) Q: Do you drink coffee?

²⁹ Holmberg (2016) uses the label *neutral yes-no questions* when referring to positive yes-no questions considering that these structures are neutral with respect to bias.

A1: Yes.

A2: No

(32) Q: Do you not drink coffee?

A1: (??) Yes.

A2: Yes, I do.

A3: No.

(33) Q: Don't you drink coffee? (I believe you do, but I still want to double-check)

A1: Yes.

A2: No.

(Holmberg 2016: 41-42)

The positively biased question in (33) gives rise to many intriguing questions concerning the relation between this unexpected behaviour of the answering system and the position occupied by the negation marker. What is more, the example in (33) poses an important question related to the definition of the English answering system as *polarity based*. As discussed in the literature (Martins 1994, Holmberg 2012), when it comes to answering polar questions, languages can be divided into two groups: (i) languages with a polarity-based answering system and (ii) languages with a truth-based answering system. Consider the illustrative examples from, respectively, Swedish and Cantonese below:

(34) Q: Dricker dom inte kaffe?

[Swedish]

drink they not coffee

'Don't they drink coffee?'

A: Nej.

no ['They don't drink coffee.']

(35) Q: Keoi-dei m jam gaafe?

[Cantonese]

he/she-PL not drink coffee

'Do they not drink coffee?'

A: hai.

yes ['They don't drink coffee.']

(Holmberg 2012: 53)

In languages like Swedish the particles 'yes' and 'no' agree or disagree with the polarity of the question. In contrast, in languages with a truth-based answering system, such as Cantonese in (35), the answering particles 'yes' and 'no' refer to the truth of the proposition independently of the polarity of the question. Observe that, in (35), *hai* 'yes' confirms the proposition of the question, namely 'They don't drink coffee'. Curiously, the way answers are provided to the English example in (33) above actually supports the idea that English displays a truth-based and not a polarity-based answering system.

As pointed out by Holmberg (2016), what triggers the distribution of these systems across languages is another intriguing matter. In his view, the choice between a truth and a polarity-based answering system depends on the syntactic properties of the given language, namely on the position occupied by the negation marker. For instance, English is regarded as a language exhibiting the polarity-based answering system (Holmberg 2012). However, in certain cases, such as positively biased negative yes-no questions, the answering particles 'yes' and 'no' refer to the truth of the proposition and not to the polarity of question. This unexpected pattern is viewed as a consequence of the structural position occupied by the negation marker. Holmberg (2016) therefore proposes that there exist three structurally distinct types of negation in English.

4.2.1.1. Three types of negation in English

Capitalising on the data from English, Holmberg (2016) distinguishes between three types of 'not': *high not*, *middle not*, and *low not*.

Let us start by analysing the last two. Consider the negatively biased yes-no question in (36), in which negation occurs TP-internally:

(36) Q: Does he not drink coffee? [said when observing John decline the offer of a cup of coffee]

A1: Yes. ('He does not drink coffee')

A2: No. ('He does not drink coffee.')

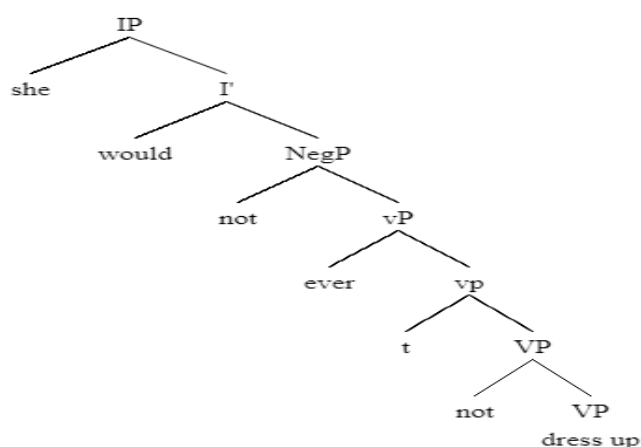
A3: Yes, he does.

Holmberg (2016) observes that there exists a systematic ambiguity in the interpretation of the bare 'yes' answer in A1. For some speakers, A1 means that John does not drink coffee. Another group of speakers, however, rejects the answer in A1, claiming that it is incompatible with the context given in (36). According to this group of speakers, the answer that felicitously confirms the negative polarity of the question is the one given under A2, namely the negative answer.

In Holmberg's view, the ambiguity regarding the use of the affirmative particle 'yes' in negative yes-no questions like (36) stems from the place in which negation is interpreted, i.e. whether it is analysed as *middle negation* or as *low negation*. Negation in English can occupy different structural positions: besides true sentential negation with scope over the entire proposition, negation in English can occupy another, somewhat lower position, in which the negation marker has scope over the VP only. Consider the example in (37a) and the corresponding structure in (37b):

(37) a. She would not ever not dress up for an occasion like that.

b.



(Holmberg 2016: 156)

The derivation in (37b) illustrates the syntactic positions occupied by *middle negation* and *low negation*. *Low negation* has scope over the VP only. *Middle negation*, on the other hand, has sentential scope. Coming back to the ambiguity denoted by the question in (36), Holmberg (2016) argues that the position in which negation is interpreted affects the way answers to negative yes-no questions are provided. Thus, in the cases in which the speaker interprets negation as *low*, the short 'yes' answer, as in

(36A1) above, does not actually confirm the negation but rather agrees with the polarity of the structure which, given that negation has scope over the VP only, is valued open [μ Pol]. In contrast, when negation is analysed as *middle*, i.e. as negation with sentential scope, the bare ‘Yes’ answer is ruled out due to a clash of features: in this case, Pol has the [neg] value, given that negation has scope over the entire proposition and not over the VP only.

Let us now turn to what has been defined in Holmberg (2016) as *high* negation. Recall that, in Ladd’s terms, high negation is, in fact, Outer negation, i.e. the negation marker is analysed outside of the proposition contributing to the expression of the speaker’s positive bias. According to the analysis provided in Holmberg (2016), *high negation* is reserved for cases in which the negation marker raises to C. This is what happens in positively biased negative yes-no questions where the negation marker attaches to the raising auxiliary.

As shown above, when it comes to answering a positively biased yes-no question, it turns out that the particles ‘yes’ and ‘no’ function the same way as in positive yes-no questions, i.e. the bare ‘yes’ confirms the positive value of the proposition:

(38) Q: Isn’t this the road to Lund?

A: Yes (‘This is the road to Lund’)

(Holmberg 2016: 182)

Clearly, the fact that the bare ‘yes’ answer in (38) functions as if the question were a positive polar question is an outcome of the high occurrence of the negation marker. According to Holmberg (2016), in positively biased questions negation scopes over the polarity value. Consequently, *high* negation does not negate the proposition but rather cancels the negative alternative of Pol. This cancellation of the negative alternative of the question gives rise to the expression of positive bias and triggers the behaviour of the answering system illustrated by (38) above.

Holmberg (2016) summarises the properties of positively biased negative yes-no questions in the following way:

(39) (a) They are yes-no questions, so they put two alternative propositions before the addressee, one the negation of the other;

(b) they contain a negation but the negation is not in the scope of the [\pm Pol], so the alternatives are p and $\neg p$ (this is why they are answered like neutral questions and also explains why they can contain positive polarity items);

(c) the negation questions the negative alternative, meaning that there is a higher order alternatives which is p ('there is no question: p is true')

(Holmberg 2016: 188)

According to the properties formulated in (39), negative yes-no questions with high negation are consistently ambiguous between the readings in 1 and 2 in (40) below:

(40) Q: Isn't this the road to Lund?

1. p or $\neg p$ (this is the road to Lund or this isn't the road to Lund) or,
2. $\neg(p$ or $\neg p)$ there is no question because there is no negative alternative:
this is the road to Lund

(Holmberg 2016: 188)

Roughly, English high negation yes-no questions are ambiguous between true questions (under the denotation in 1) and comments underlying the speaker's belief in the positive value of p (under the reading in 2).

4.2.1.2. Some crosslinguistic divergences

As well as the intriguing relation between the syntactic expression of positive and negative bias and its relation to the scope of negation, Holmberg (2016) also observes that languages differ in the type of negation they display. Considering *high*, *middle* and *low* negation to be associated with the domains of the CP, the PolP and the VP, respectively, Holmberg (2016) shows that, as opposed to English, which displays all three types, negation in languages like Mandarin Chinese and Japanese is systematically *low*, i.e. it scopes over the VP only. The truth-based answering system Chinese and Japanese display is seen as a result of low negation. As in the ambiguous English example in (36) above, in Mandarin Chinese the low position of the negation marker prevents it from

having sentential scope. As a consequence, the polarity head contains an unvalued [μ Pol] feature as in positive yes-no questions.

In contrast to Mandarin Chinese and Japanese, languages like Swedish and Finnish have *middle* negation and, therefore, lack what Holmberg (2016) calls *low* negation. In Section 4.3. we will observe that Bulgarian also lacks *low* negation. However, differently from English, the type of negation occurring in Bulgarian yes-no questions is always *high*.

4.2.2. The discourse function of negative yes-no questions

Interestingly, besides the questions arising with respect to the syntactic analysis of negative yes-no questions, another challenging matter appears when considering the discourse function of positively biased negative yes-no questions.

As mentioned above, these structures appear to be rather odd when uttered *out of the blue*, a property that creates a sharp contrast with their positive counterparts. Interestingly, Holmberg (2016) observes that positively biased questions share some similarities with Tag-questions. As noted by the author, both the yes-no question in (41a) and the Tag-question in (41b) denote the meaning of ‘‘I believe this is the road to Lund but I still want to double-check.’’ [Holmberg 2016: 183]:

- (41) a. Isn't this the road to Lund?
b. This is the road to Lund, isn't it?

Moreover, both the positively biased yes-no question in (42) and the Tag-question in (43) are compatible with answers like ‘So it is’ and ‘That’s right’, as opposed to the positive yes-no question in (44):

(42) Q: Isn't this the road to Lund? (‘I believe it is, but I still want to double-check’)

A1: ? So it is.

A2: ?That’s right.

(43) Q: This is the road to Lund, isn't it?

A1: So it is.

A2: That's right.

(44) Q: Is this the road to Lund?

A1: *So it is.

A2: *That's right.

(Holmberg 2016: 182-183)

The incompatibility of the positive yes-no question in (44) with the answers 'So it is' and 'That's right' stems from the fact that the structure denotes two alternatives, namely {p, ¬p}. In contrast, the Tag-question in (43) denotes only one alternative (the primary one which is positively specified) followed by the tag which indicates the negative alternative as well as the Q-force. Since positively biased negative yes-no questions, such as (42), display high negation, which invalidates the negative alternative of the question, they pattern Tag-questions.

In Asher & Reese's (2005, 2007) terms, Tag-questions and positively biased negative yes-no questions consist in complex speech acts: they simultaneously denote an assertion and a question. Moreover, Reese (2006) claims that negation in negative yes-no questions with positive bias, like (42), is an instantiation of Metalinguistic Negation (Horn 1989), i.e. it does not negate the proposition but rather expresses *correction* or *denial*. Observe that positively biased negative yes-no questions denote objection of a previous statement:

(45) a. A: None of the students turned in their assignment.

b. B: Jane turned in her assignment.

c. C: Didn't Jane turn in her assignment?

(Reese 2006: 339)

That both (45b) and (45c) successfully deny the statement in (45a) is regarded as an argument supporting the claim that positively biased negative yes-no questions are complex speech acts consisting of an assertion and a question. Interestingly, this view of

Outer negation yes-no questions is in line with Ambar's (2000, 2003) proposal concerning *wh-in-situ* questions and *non-pure* fronted *wh*-questions in European Portuguese. As discussed in Chapter 3, these structures constitute another case in which two types of speech act are combined. On the one hand, they are questions, but, on the other, they display the property of being *factive*, captured under the assumption that their syntactic expression involves the projection AssertiveP.

Having discussed the puzzling facts about the syntax and pragmatics of negative yes-no questions above, in the next sections we will focus on data from Bulgarian and Portuguese. The starting point for the discussion that follows is the intriguing blocking of NC in Bulgarian negative yes-no questions (Dimitrova 2017). Although Holmberg (2016) does not discuss the co-occurrence between the different types of negation and the positive and negative polarity items, the evidence from Bulgarian illustrates that their (in)compatibility can be taken as another diagnosis for the expression of bias.

The fact that post-verbal *n*-words are systematically excluded from Bulgarian negative polar questions suggests that these structures express Outer negation (Ladd 1981). Following Holmberg (2016), we will claim that the blocking of the NC in Bulgarian polar questions is not a consequence of the semantic properties of the negation marker and its alleged expletive nature, as suggested in some previous works (cf. Brown & Franks 1995). Rather, it will be proposed that it is a result of the combination of two important factors, namely the high position of the negation marker and the properties of the *n*-words.

In addition, we will compare the Bulgarian data with the data from negative yes-no questions in European Portuguese. Particular attention will be paid to the occurrences of the *qualquer*-series and the readings they acquire in negative yes-no questions.

Lastly, we will go back to Holmberg's (2016) seminal work, concentrating on the observations concerning the syntactic expression of Chinese negative yes-no questions.

4.3. Negation in Bulgarian: Negative Concord and Negative *Li*-Questions

4.3.1. Negation and Negative Concord

The expression of negation in Bulgarian relies on the insertion of the negation marker *ne* ‘not’ which always occupies a preverbal position:

(46) a. Petăr ne izjade tortata.
Peter not ate cake.def
‘Peter didn’t eat the cake.’

b. *Petăr izjade ne tortata.
Peter ate not cake.def

What is more, when the finite verb is associated to an auxiliary, the negation marker *ne* ‘not’ obligatorily precedes the auxiliary:

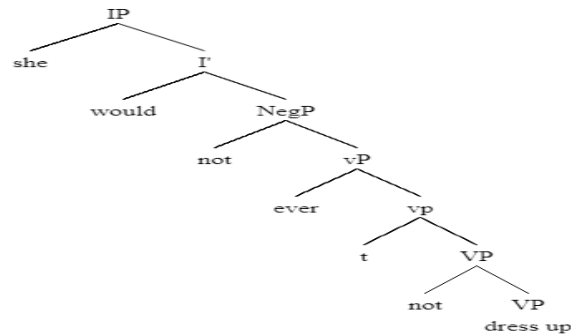
(47) a. Marija ne beše pročela vestnika.
Mary not was read.Past Part. newspaper.def
‘Mary hadn’t read the newspaper.’

b. *Marija beše ne pročela vestnika.
Mary has not read.Past.Part. newspaper.def

As discussed in Holmberg (2016), the different positions occupied by the negation marker in English have led to the classification of three different types of negation: high, middle and low. Evidence supporting the existence of the last two in English comes from the structure below, which displays two distinct instantiations of negation. Consider again Holmberg’s (2016) derivation in (37) above, repeated below as (48) for ease:

(48) a. She would not ever not dress up for an occasion like that.

b.



(Holmberg 2016: 156)

Interestingly, however, not all languages display the three types of negation. As shown in Holmberg (2016), Finnish does not have low negation with scope over the VP only. The example in (49a) illustrates that Finnish disallows multiple occurrences of negation and rather resorts to the use of the abessive case which roughly denotes the meaning of ‘without’, as shown in (49b):

- (49) a. Minä en voinut (* en / *ei) nauraa.
 I neg.1sg could neg.1sg / neg laugh
 Intended: I couldn’t not laugh.

- b. Minä en voinut olla naura-matta.
 I neg.1sg could be laugh-ABE.
 ‘I couldn’t help laughing.’

Differently from Finnish, Bulgarian allows multiple uses of negation. Observe that the example in (50) below contains two instantiations of negation associated with two distinct structural domains. This, however, does not mean that Bulgarian displays low negation in the sense of ‘negation scoping over the VP only’. Observe that in the example in (50) the lower negation marker takes part of a *da*-clause. The particle *da* has been commonly referred to as a ‘subjunctive particle’ (Krapova 2001, Ambar, Dimitrova and Amaral 2017, a.o.) which licenses Bulgarian subjunctive clauses. In fact, Bulgarian *da*-clauses seem to display properties of both Romance subjunctive and infinitival structures (cf. Chapter 5).

An important aspect of the particle *da*'s characterization concerns the selection of verbs in Present. Bulgarian, as the other Balkan languages such as Modern Greek, does not display morphology for the subjunctive mood. *Da*-clauses select verbs in Present which can be seen as an argument in favour of the hypothesis that they are [+T]:

(50) Ne možex da ne se zasjeja.

Neg. could.1sg DA not REFL. laugh.PERF.PRES.1sg

'I couldn't not laugh.'

Assuming that *da*-clauses have Tense (cf. Krapova 2001), as opposed to English infinitival structures, we will claim that the low instantiation of negation in (50) is not, in fact, *low negation* in Holmberg's (2016) terms. Rather Bulgarian patterns Finnish and displays the so called *middle* and *high negation*.

For the time being, we will assume with Zanuttini (1994) that negation originates in Neg^o. Considering that the Bulgarian negation marker is a clitic, i.e. it is prosodically deficient, we assume that it raises to the verb in T^o. Following the analysis proposed in Chapter 2, in negative *V-li* questions, the new-formed complex constituent [neg-V] raises to Pol^o where it attaches to the particle *li*.

However, it must be noted that under the analysis put forth in Zanuttini (1994) an issue appears with respect to the order neg-V displayed in languages with pre-verbal negation. Under the assumption that the negation marker heads NegP, verb-movement to Neg^o rather gives rise to the order V-neg which does not account for the data from the languages with pre-verbal negation.

A possible solution for this issue is to assume that the negation marker is generated in a position below VP. This is the idea put forth in Beghelli & Stowell (1997) dedicated to the syntax of the distributive quantifiers *each* and *every*. In their terms, there is an event argument syntactic position that occurs VP-internally and where Quantifier Phrases originate. Interrogative Quantifier Phrases and Negative Quantifier Phrase such as *whether* and *not*, respectively, originate VP-internally and move to their scope positions, namely Spec, CP and NegP (cf. Beghelli & Stowell 1997: 93). According to these authors the sentential negation maker *not*, like other Negative Quantifier Phrases such as *nothing*, *no man* etc, occurs in the Event argument position and moves to Spec, NegP in order to have its negative feature checked. Note that Beghelli & Stowell (1997) treat clausal

negation as a negative quantifier over event. For instance, a sentence like *John didn't come* receives a logical translation like 'there are no events of coming where John is the agent'. (Beghelli & Stowell 1997: 74, f.n. 3).

Note that this proposal seems to solve the problem outlined above with respect verb-movement and the order neg-V displayed in languages with pre-verbal negation. Following Beghelli & Stowell (1997), it may be claimed that the negation marker originates below VP in the head of a given projection probably related with the properties of event, as suggested by these authors. We leave the thorough discussion of this hypothesis for future research.

As mentioned in Section 4.1 Bulgarian also displays NC. In Giannakidou's (1998, 2001) terms, Bulgarian is a *strict negative concord language*. Consider again the examples in (3) above, repeated below as (51):

(51) a. Marija *(ne) kupi ništo.

Mary not bought nothing

'Mary didn't buy anything.'

b. Nikoj *(ne) otide na koncerta.

No one not went to concert-def

'Nobody went to the concert.'

Note, moreover, that Bulgarian n-words are ruled out of what Martins (2000) calls *non-negative modal contexts* (cf. section 4.1.3). Therefore, the distribution of Bulgarian n-words confirms Martins' (2000) observations on Romanian and Portuguese, as illustrated below by the non-negative polar negation in (52):

(52) Vidja li * ništo / nešto?

Saw.2p.sg Q nothing / something

Intended: Did you see anything?

The data in (51) and (52) show that Bulgarian fully patterns Romanian (Martins 2000) in terms of the distribution of n-words:

(i) Bulgarian n-words are licensed by clause-mate negation independently of the position (pre or post-verbal) they occupy;

(ii) Bulgarian n-words are ruled out of so-called *non-negative modal contexts*, as illustrated by (52).

In light of the properties described under (i) and (ii), we will adopt the proposal put forward in Martins (1997, 2000) for languages like Romanian and Venetian (cf. subsection 4.1.3), according to which the obligatory co-occurrence between n-words and negation is an outcome of the fact that they are unable to express negation on their own i.e. they have underspecified [*aneg*] features.

Without entering into any further details concerning the expression of negation in Bulgarian, in what follows we will proceed with the analysis of data from negative yes-no questions.

4.3.2. The blocking of Negative Concord in yes-no questions

As suggested in the preceding subsection, Bulgarian does not display the type of negation defined as *low negation* in Holmberg (2016). As expected, the lack of low negation results in the fact that negative yes-no questions are consistently ambiguous between Ladd's (1981) Outer and Inner negation. Observe that, depending on the context, the example in (53) can denote the speaker's positive or negative bias towards the value of the question; i.e. it can denote the speaker's belief that John indeed wants coffee or it can be seen as a request for confirmation of the presupposition that John does not want coffee:

(53) Ivan ne iska li kafe?

John not wants Q coffee

'Doesn't John want coffee?' / 'Does John not want coffee?'

Moreover, the lack of low negation in Bulgarian affects the behaviour of the answering system. As predicted under Holmberg's (2016) analysis, Bulgarian is a language with a polarity-based answering system:

(54) Q: Ivan ne pie li kafe?

John not drinks Q coffee

'Does John not drink coffee?'

A1: *Da.

Yes (Intended: 'John doesn't drink coffee.')

A2: Ne.

No (John doesn't drink coffee)

A3: Pie.

Drinks

'He does'

A4: Pie, pie

Drinks, drinks

The bare 'yes' answer in A1 is ungrammatical when a confirmation of the negative value of the question is intended: as shown in Holmberg (2016), this is a result of the fact that negation takes sentential scope and assigns a negative value to the Pol head.

The answers in A2 and A3 are also in conformity with what has been previously noted in languages with a polarity-based answering system: the answering particle 'No' in A2 confirms the negative polarity of the question, whereas the echoing of the finite verb in A3 is used as a strategy for contradicting the negative value of Pol. Moreover, the structure in A4 shows that Bulgarian is among the languages (European Portuguese, Finnish, a.o.) displaying Martins' (1994, 2007) 'emphatic disagreement'³⁰: the existence of two copies of the finite verb conveys an emphatic flavour to the answer.

The situation described so far is in line with Holmberg's (2016) observations on languages like Swedish and Finnish. On the basis of the data described above, it follows that Bulgarian, like Swedish and Finnish, has middle negation with sentential scope.

³⁰ Discussing data from European Portuguese, Martins (1994, 2007) argues that emphatic verb reduplication is only displayed in languages with verb movement to Σ P and verb movement to CP.

Observe that the absence of *low* negation in Bulgarian successfully explains the central properties of the answering system formulated in (55a) and (55b) below:

(55) a. Bulgarian displays a polarity-based answering system;

b. Bulgarian negative yes-no questions are infelicitous with a bare ‘yes’ answer (as opposed to English, cf. Section 4.2.1.1 ex. (36))

Nevertheless, a problem with the assumption that negation in Bulgarian negative yes-no questions is *middle* appears when the licensing of Bulgarian n-words is considered. According to Holmberg (2016), middle negation is the type of negation that has sentential scope. What is more, as discussed in the preceding subsection, Bulgarian is a *strict negative concord language* in Giannakidou’s (2001) terms. According to this definition, Bulgarian n-words are licensed by clause-mate negation, regardless of the position (preverbal *vs.* post-verbal) they occupy. However, it appears that NC is blocked in Bulgarian negative yes-no questions. Consider the examples in (56), (57) and (58) below:

(56) Ivan ne kupi ništo.

John not bought nothing

‘John didn’t buy anything.’

(57) *Ivan ne kupi li ništo?

John not bought Q nothing

Intended: ‘Didn’t John buy anything?’

(58) Ivan ne kupi li nešto?

John not bought Q something

‘Didn’t John buy something?’

The post-verbal n-word *ništo* ‘nothing’ is ruled out of the question in (57). Bulgarian negative yes-no questions are however compatible with post-verbal positive indefinites, such as *nešto* ‘something’ in (58). In Ladd’s (1981) terms, (58) displays Outer negation. Recall that according to this author the occurrence of positive indefinites in

negative yes-no questions signals the expression of the speaker's belief in the positive value of the proposition. Since Bulgarian negative yes-no questions are only compatible with positive indefinites, it may be suggested that these structures are always positively biased.

Importantly, the fact that Bulgarian negative polar interrogatives are systematically incompatible with post-verbal n-words creates an obvious problem for the characterisation of negation in such structures as *middle*, i.e. as negation with sentential scope in line with Holmberg's (2016) assertions. If that were the case, we would expect post-verbal negative indefinites to be successfully licensed in these structures.

The puzzle gets more intricate when considering the sharp asymmetries between yes-no questions and declaratives regarding the co-occurrence of positive/ negative indefinites and clause-mate negation. Observe the pairs in (59) and (60):

(59) a. Ivan ne kupi ništo.

John not bought nothing

'John didn't buy anything.'

b. *Ivan ne kupi li ništo?

John not bought Q nothing

Intended: 'Didn't John buy anything?'

(60) a. * Ivan ne kupi nešto.

John not bought something

'John didn't buy something.'

b. Ivan ne kupi li nešto?

John not bought Q something

'Didn't John buy something?'

The examples in (59) and (60) illustrate that in negative declaratives only negative indefinites are allowed under the scope of negation, as shown by the example in (59a). Positive indefinites are banned from co-occurring with sentential negation in these structures, as illustrated by (60a). Conversely, only positive indefinites can co-occur with

negation in negative yes-no questions (60b), their negative counterparts being ruled out of such structures (59b).

The data in (59) and (60), then, suggest that the asymmetries in the distribution of positive and negative indefinites derive from the different syntactic position occupied by the negation marker in negative declaratives and in negative yes-no questions. The fact that positive indefinites, but not n-words, are allowed under negation in Bulgarian negative yes-no questions signals that the negation marker and the positive indefinite do not share the same syntactic domain. On the basis of these data, it could be proposed that the type of negation we are dealing with in Bulgarian negative yes-no questions is the one classified in Holmberg (2016) as *high* negation, i.e. the negated verb rises to C.

A similar view of NC blocking in yes-no questions was proposed by Miličević (2006), who discusses Serbian-Croatian negative yes-no questions. In her terms, the high position occupied by the negation marker prevents it from licensing post-verbal n-words.

In fact, it can be noted that the ungrammaticality of post-verbal n-words in negative yes-no questions is not new to the literature, even though it has not received much attention in recent years. Consider the two types of analyses that have been put forward:

(i) Brown & Franks (1995) explain the blocking of NC in Russian negative yes-no questions assuming that negation in these structures is expletive (or pleonastic), i.e. it is void of negative content. As a consequence, the lack of negative force prevents the licensing of the n-words.

(ii) Miličević (2006) and Abels (2002) argue that the NPIs are not licensed because of the high structural position that the negated verb occupies in yes-no questions. In Miličević' (2006) terms, the higher rising of the negated verb is encoded in a high NegP, which semantically yields Outer Negation (a point of her analysis which again conveys a flavour of “expletive negation”).

Nevertheless, even though we agree that the type of negation we are dealing with in Bulgarian negative yes-no questions is, indeed, high negation, it still remains unclear what triggers the divergences in the licensing of NC in negative yes-no questions across languages. As will be discussed in Section 4.4, Portuguese also displays high negation. Yet, the high position negation occupies in these structures does not prevent it from

licensing post-verbal negative indefinites. NC is felicitously licensed in Portuguese negative yes-no questions.

4.3.3. Two hypotheses

In order to solve this puzzle we will consider two hypotheses.

According to Hypothesis 1, NC is blocked in Bulgarian due to the occurrence of *li* which is an intervener blocking the relation between the negated verb and the n-word.

According to Hypothesis 2, the behaviour of Bulgarian n-words is due to the fact that they are quantifiers denoting a set of alternatives present in universe of discourse, as proposed in Chapter 3. By virtue of this property, negative quantifiers raise to Spec, Pol where they absorb the algorithm denoted by *li*, namely $[x, \neg x]$, followed by movement to Spec, IntP.

4.3.3.1. Hypothesis 1

According to the first hypothesis, the blocking of NC in Bulgarian yes-no questions is a result of the occurrence of the interrogative particle *li*. As shown above, when the negated verb attaches to *li* NC is blocked.

An argument supporting this view, concerns examples such as those illustrated in (61) below. As noticed in Dimitrova (2017), nothing goes wrong for licensing NC when an element different from the verb attaches to the particle. The example in (61) is thus an XP-*li* question in which an element different from the verb attaches to *li* and raises to Spec, IntP. As discussed in Chapter 3, in such cases the question is about the XP attaching to *li*. Given that *li* does not intervene between the negated verb and the n-word, NC is licensed:

(61) Q: Ivan *li* ne kupi ništo?

John Q not bought nothing

‘Was is John the person who didn’t buy anything?’

A: Da.

Yes = “John didn’t buy anything.”

B: Ne, (Petăr).

No, (Peter) = “No, it was Peter who didn’t buy anything”

= * “Yes, John didn’t buy anything”

(Dimitrova 2017: 129)

The data in (61) supports Hypothesis 1 as it illustrates that when *li* does not intervene, NC is felicitously licensed. As proposed in Dimitrova (2017) structures like (61) contain a negative proposition but they are not true negative questions. Observe the behaviour of the answering system in (61). As discussed in Chapter 3, the particles ‘yes’ and ‘no’ do not agree with the polarity of the question, as expected for a language with a polarity based answering system like Bulgarian. Rather, they refer to the XP that attaches to the particle. We will, therefore, follow the line of inquiry pursued in Dimitrova (2017) assuming that the question in (61) is not a true negative yes-no question.

What is more, curiously, it can be noticed that the blocking of NC also takes place in Russian and Serbian-Croatian, i.e. in languages which, like Bulgarian, display *li* in yes-no questions (Miličević 2006 on Serbian-Croatian, Brown & Franks 1995 on Russian)³¹. Observe the data from Serbian-Croatian in (62) and (63) below. As discussed in Miličević (2006), Serbian-Croatian displays two types of yes-no questions:

(i) those in which the verb is fronted and attaches to *li*, as in (62);

(ii) those in which *li* follows the complementizer *da*³², as in (63);

³¹ As discussed in Chapter 3, Szabolcsi (2015) claims that the Hungarian interrogative morpheme *-e* patterns Russian *li*. Observe however, that NC is licensed in both questions with *-e* and questions without *-e*, i.e. although Hungarian displays an element intervening between the negation marker and the n-words, it does not preclude NC licensing:

(i) Nem látott Éva senkit?
Not saw Eva nobody
‘Didn’t Eva see anybody?’

(ii) Nem látott-e Éva senkit?
Not saw- Q Eva nobody
‘Didn’t Eva see anybody?’

³² The Serbian-Croatian complementizer *da* appears to be different from the Bulgarian subjunctive particle *da*, the properties of which will be discussed in Chapter 5. Differently from Bulgarian, *da* in Serbian-Croatian introduces both subjunctive and indicative clauses. What is more, Serbian-Croatian *da li* in (63) diverges from Bulgarian *dali* (cf. Chapter 2) in the expression of ‘wondering’. According to native speakers’ judgments, the question in (63) does not denote any wondering flavour, i.e. (63) is a neutral yes-no question.

(62) * Nije li Vera videla nikoga?
 neg+AUX Q Vera see.PART.F.SG noone
 ‘Didn’t Vera see anyone?’

(63) Da li stvarno nikog nije primetila?
 COMP Q really no one not-AUX notice.PART.F.SG
 ‘Did she really not notice anyone?’

(Miličević 2006: 32-33)

Observe that NC is blocked only in (62) where *li* intervenes between the negated auxiliary and the n-word. In (63), on the other hand, *li* follows *da*. Given that the particle does not intervene between the negated auxiliary and the n-word, nothing precludes NC licensing.

The data discussed so far supports the view that the blocking of NC in negative yes-no question is a result of the intervening particle *li*. The data from Serbian-Croatian negative yes-no questions in (62) and (63) lays further support to this view. A problem with the hypothesis that the blocking of NC is a result of the intervening *li* however arises when we consider Russian negative yes-no questions.

In Chapter 3 we discussed Szabolcsi’s (2015) data showing that Russian employs the insertion of *li* in yes-no questions somehow optionally. According to Szabolcsi (2015), its occurrence in these structures is associated with the formation of alternatives and with the denotation of the algebraic operation join \cup (cf. Chapter 3). According to the claim that *li* is the element triggering the blocking of NC, we might expect that NC would be infelicitous only in those Russian yes-no questions in which *li* occurs. This expectation is, however, not borne out. Both questions with *li*, as in (64), and questions without *li*, as in (65), disallow NC. Observe the data provided in Brown & Franks (1995):

(64) Ne znaet li *nikto / kto-nibud’ iz vas, kak èto delaetsja?!
 NEG know Q *no-who / who-any of you how this is done
 ‘Does any one of you know how this is done?’

(65) Ne znaet *nikto / kto-nibud’ iz vas, kak èto delaetsja?
 NEG know *no-who / who-any of you how this is done

‘Does any one of you know how this is done?’

(Brown & Franks 1995: 271)

The examples in (64) and (65) show that NC is blocked in Russian yes-no questions regardless of the occurrence of the particle. The data in (64) and (65) can then suggest that the trigger for NC blocking is related to verb-movement: the verb raises to a high structural position preventing it from licensing post-verbal n-words.

Let us consider the structure in (66) below. In contrast to (64) and (65) above, the question in (66) does not display subject-verb inversion. As a consequence, nothing precludes the co-occurrence of the n-word *nikto* ‘no one’ and the negation marker:

(66) Nikto / *kto-nibud´ iz vas ne znaet, kak èto delaetsja?!

no-who/ *who-any of you NEG know how this is done

‘None of you know how this is done?’

(Brown & Franks, 1995: 271)

However, it looks like (66) is not a true yes-no question. Rather, it can be classified as a ‘declarative question’ (Gunlogson 2001), i.e. as a question in which the declarative SVO order correlates with the high level of commitment to the truth of the proposition.

The above observations suggest that Hypothesis 1 is not borne out. As shown by the Russian data in (64) and (65), NC is systematically blocked whenever the negated verb raises to C and regardless of the occurrence of *li*. The blocking of NC is therefore not a result of the presence of the particle licensing yes-no questions in Bulgarian but is rather associated to the high position occupied by the negated verb.

Nevertheless, as pointed out above, the assumption that the structurally high position of the negated verb is what precludes n-words’ occurrence does not explain why Russian and Bulgarian, but not Portuguese (cf. Section 4.4), disallow NC in yes-no questions. As argued in Ambar (2013), Portuguese yes-no questions also involve verb-movement to C.

Let us now consider Hypothesis 2.

4.3.3.2. Hypothesis 2

Having shown that NC is blocked in Russian yes-no questions regardless of the occurrence of the particle *li*, it seems worth considering that the NC-blocking might somehow be related to the properties of the n-words.

In Chapter 3 we showed that the licensing of Bulgarian n-words in negative yes-no questions follows a special pattern. When occurring in yes-no questions, Bulgarian n-words must obligatorily rise to Spec, IntP and absorb the polarity algorithm of the particle *li* when passing by Spec, PolP. Consider again the data discussed in Section 3.2.2.3, which we repeat below for convenience:

(67) a. * *Nikoj ne kupi li knjigata?*

No one not bought.3p.sg. Q book.def

Intended: ‘Did no one buy the book?’

b. [*Nikoj li*] *ne kupi knjigata?*

No one Q not bought.3p.sg. book.def

‘Did no one buy the book?’

c. * *Ne kupi li knjigata nikoj?*

not bought.3p.sg. Q book.def no one

Intended: ‘Did no one buy the book?’

d. * *Ne kupi li nikoj knjigata?*

Not bought.3p.sg. Q no one book.def

Intended: ‘Did no one buy the book?’

Based on the examples in (67) and considering the observations made in Szabolcsi (2015), in Section 3.2.2.3 we put forth the hypothesis that Bulgarian n-words are negative quantifiers that invoke the set of alternatives present in the universe the same way universal and existential quantifiers do (Szabolcsi 2015). Thus, such elements undergo movement to Spec, PolP and Spec, IntP and obligatorily attach to *li*.

Interestingly, the claim that n-words invoke a set of alternative is further supported by the Greek data discussed in Giannakidou (1998, 2006). As mentioned in Section 4.1, there exists an extensive discussion on the correct classification of n-words across languages. In Zanuttini (1991) and Haegeman & Zanuttini's (1991) view, n-words are negative quantifiers: they are inherently negative and their licensing obeys to the requirement dubbed The NEG-Criterion. In contrast, Laka (1990) argues that n-words are NPIs displaying a particular sensitivity to co-occurring with clause-mate negation.

According to Giannakidou (1998, 2006), n-words are universal quantifiers that need negation to be licensed, i.e. they occur in the context of *antiveridical* predicates like their Bulgarian counterparts. Giannakidou's claim is supported by the fact that NPIs-universals scope over negation yielding the reading $\forall\lrcorner$, as shown below for Greek:

(68) Dhen irthe KANENAS.

not came.3sg n-person $\forall x$ [person (x) \rightarrow came (x)]
 'Nobody came.'

(69) Dhen ipe o Pavlos TIPOTA.

not said.3sg the Paul n-thing $\forall x$ [thing (x) \rightarrow said (Paul, x)]
 'Paul said nothing.'

(Giannakidou 2006: 344)

What is more, as claimed by this author, n-words express an existential inference and also display the property of *familiarity* which is defined in the following way: "a quantifier is familiar if it carries an index which is already present in the files representing the previous discourse. Familiar quantifiers are thus presuppositional, i.e. they pick up discourse referents whose existence is previously established." [Giannakidou 2006: 348].

For further clarity of this point, let us consider some examples illustrating the behaviour of Greek n-words. Modern Greek displays the so called non-emphatic and emphatic polarity items (Giannakidou 1998, 2000, a.o.), as shown by the paradigm in (70):

(70) kanenas/KANENAS	‘anyone, anybody/no-one, nobody’
kanenas N /KANENAS N	‘any N/no N’
tipota/TIPOTA	‘anything/nothing’
pote/POTE	‘ever/never’
puthena/PUTHENA	‘anywhere/nowhere’

(Giannakidou 2000: 465)

According to Giannakidou (2000), non-emphatics behave like English *any*-series, whereas emphatics (marked by capital letters) are true n-words. This distinction is illustrated by the following question-answer scenarios:

(71) *Context 1*

Background: A: You were shopping all day. Did you buy anything? Clothes? Books? Records?

B: a. # A, oxi. Dhen aghorasa KANENA vivlio.

oh no. Not bought.1sg n- book

Oh, no. I bought no books.

b. A, oxi. Dhen aghorasa kanena vivlio.

oh no Not bought.1sg n- book

‘Oh, no. I didn’t buy any books.’

(72) *Context 2.*

Background: A: I remember you told me about those books that you saw at the “Griekse Eiland”. You wanted to buy them, right? What happened? Did you buy them after all?

B: a. A,oxi. Piga ke ta idha, ala dhen aghorasa (telika) KANENA vivlio.

Oh, no. I went and looked at them but I bought no book after all.

b. A, oxi. Piga ke ta idha, ala dhen aghorasa (telika) kanena vivlio.

Oh, no. I went and looked at them, but I didn’t buy any book after all.

(Giannakidou 2006: 349)

In Context 1, speaker A does not refer to any particular set of books, therefore only existential polarity items (like *kanena* in (71b) patterning English *any*) are plausible.

In contrast, when the books are part of the discourse as in Context 2, they are familiar to both Speaker A and Speaker B. As shown by (72a-b), in this case both existential and n-words are possible.

Giannakidou's (2006) observations, briefly presented here, support Hypothesis 2. In contrast to Hypothesis 1 according to which NC blocking is an outcome of the intervening *li* which blocks the relation between the negated verb and the n-word, under Hypothesis 2, the blocking of NC is rather related to the properties of n-words which are familiar quantifiers (Giannakidou 2006) denoting a set of presuppositions.

Importantly, it looks like both hypotheses correctly capture different properties of Bulgarian yes-no questions: (i) Hypothesis 1 captures the fact that high negation is what triggers the so called positive bias (Holmberg (2016)) and (ii) Hypothesis 2 explains the properties of Bulgarian n-words and their behaviour in negative yes-no questions. We hypothesise that the intriguing blocking of NC is triggered by factors related to both Hypothesis 1 and Hypothesis 2.

In (73) below, we summarise the main properties of Bulgarian negative yes-no questions discussed in this section:

(73) 1. Bulgarian negative yes-no questions display high negation associated with the CP-field. The high position occupied by negation triggers the consistent ambiguity between the positively and the negatively biased readings of the structure as claimed in Holmberg (2016).

2. Bulgarian n-words are quantifiers denoting the property of familiarity (Giannakidou 1998, 2006). Therefore, they must be part of the questioned material of the structure and must therefore raise to Spec, IntP, possibly for reasons associated with the valuation of the given features related to the existence of presuppositions. As a consequence of this requirement, negative quantifiers are infelicitous whenever the negated verb raises to Int. As shown in Chapter 3, only existential quantifiers are felicitous in such contexts.

In what follows, we move on to the discussion of Portuguese negative yes-no questions, considering the observations made on Bulgarian thus far.

4.4. Portuguese Negative Yes-No Questions

In the preceding sections we showed that Portuguese is an NC-language (Martins 1997, 2000, Matos 1999, a.o.). Like other Romance languages (though not Romanian), Portuguese allows the co-occurrence of sentential negation with n-words only when the latter appear post-verbally. Preverbal n-words are banned from co-occurring with the negation marker. Consider again the examples in (2), repeated below as (74):

(74) a. O João *(não) viu ninguém.

The John not saw no one

‘John didn’t see anyone.’

b. Ninguém (*não) viu o João.

No one not saw the John

‘Nobody saw John.’

Let us now take a look at Portuguese negative yes-no questions. To the best of our knowledge, these structures have not been previously discussed in the literature, despite the fact that they represent an important argument against the well-known claim that yes-no questions are licensed by rising intonation.

The distribution of n-words in negative yes-no questions conforms with the data from negative declaratives presented above: only post-verbal n-words require clause-mate negation (75a). Pre-verbal n-words are incompatible with the co-occurring negation marker (75b):

(75) a. O João *(não) viu ninguém?

The John not saw no one

‘Didn’t John see anyone?’

b. Ninguém (*não) viu o João?

No one not saw the John

‘Did nobody see John?’

As opposed to Bulgarian, Russian and Serbian-Croatian, Portuguese negative yes-no questions do not display the so-called NC-blocking that prevents the occurrence of post-verbal n-words with negation. Curiously, the elements disallowed from co-occurring with negation in Portuguese negative yes-no questions are positive indefinites. The structure in (76) below has been judged marginal or even ungrammatical by the native speakers consulted³³:

- (76) ?? O João não viu alguém?
The John not saw someone
'Didn't John see someone?'

The Portuguese data presented above sharply contrasts with what we observed in Bulgarian in the previous sections. When it comes to dealing with the type of indefinites licensed under negation in negative yes-no questions, Bulgarian only allows the occurrence of positive indefinites. Conversely, Portuguese disallows positive indefinites but successfully licenses n-words and NC.

The oddity of (76) is particularly intriguing for two reasons.

Ever since Ladd (1981) it has been assumed that the occurrence of positive indefinites in negative yes-no questions indicates that the given structure is *positively-biased*. The oddity of (76) can therefore be taken to suggest that Portuguese negative yes-no questions are unable to denote such meanings.

What's more, the marginality of (76) can be seen as argument in favour of the assumption that the positive indefinite *alguém* "someone" in (76) occurs in the scope of negation, as in declarative sentences. If this is indeed the case in (76), it supports the idea that Portuguese yes-no questions do not display verb-movement to C° as claimed in Ambar (2013). The Portuguese example in (76) can then be considered a counterpart of the ungrammatical English example in (77a) below:

- (77) a. *Did John not buy something?
b. Didn't John buy something?

³³ As Maria Lobo pointed out to me, the structure in (76) improves with the Portuguese *qualquer*-series. The occurrence of the *qualquer*-series under negation in negative yes-no questions is discussed further on in this section.

The ungrammaticality of (77a) stems from the position negation occupies. In (77a) the positive auxiliary *did* raises to CP for reasons related to clause-typing. The negation marker however remains in the scope of Pol and co-occurs with the positive indefinite *something* which given rise the the ingrammaticality of the structure. Note that, as opposed to (77a), nothing goes wrong for the structure in (77b) in which negation raises higher with the high auxiliary. In Holmberg’s (2016) terms, structures like (77b) display the so called *high* negation in which the negation marker occurs above Pol.

Coming back to Portuguese negative yes-no questions, we arrive at an intricate puzzle. The marginality of (76) strongly suggest that Portuguese yes-no questions do not display V-to-C movement, i.e. they do not display *high* negation (Holmberg 2016). If that was the case, we would expect negation to be able to co-occur in positive indefinites patterning the data from English in (77b).

4.4.1. The *qualquer*-series

An important piece of evidence against the claim that Portuguese negative yes-no questions do not display *high* negation comes from the *qualquer*-series.

As mentioned in Section 3.2.2.3, it seems that, in some ways, the Portuguese *qualquer*-series behave like the English *any*-series: their reading depends on the type of predicate they occur in. Under the scope of negation, these elements acquire a negative reading (78), whereas in positive declaratives they can acquire both specific (unknown) and non-specific readings (Haspelmath 1997), as in (79a) and (79b), respectively. Moreover, as illustrated by (80), the *qualquer*-series can function as free-choice items:

(78) Não contém qualquer sentimento nobre.

Not contains any feeling noble

‘It does not contain any noble feeling.’

(79) a. Ivan disse qualquer coisa em russo que não entendi.

Ivan said any thing in Russian that not I:understood

‘Ivan said something in Russian that I did not understand.’

- b. Qualquer pessoa pode passar aí e apanhar a caixa.
 Any person can pass here and take the box
 ‘Someone [non-specific] can come along and take the box.’

- (80) Pelo Bábel ele é capaz de fazer qualquer coisa.
 For.art. Bábel he is capable of doing any thing
 ‘For Bábel he is capable of doing anything.’

(Haspelmath 1997: 257)

Curiously, the *qualquer*-series display different readings in negative declaratives and in negative yes-no questions. Observe that, when co-occurring with the negation marker in negative yes-no questions, the *qualquer*-items do not denote a negative reading. Compare (78) and (81):

- (81) O João não disse qualquer coisa em relação à viagem?
 The John not said any thing in relation to-the trip
 ‘Didn’t John say something about the trip?’

In (81), *qualquer coisa* acquires the reading of the positive indefinite ‘something’, i.e. (81) exhibits the non-specific reading of the positive declarative in (89a). Moreover, the negative question in (81) does indeed denote positive bias: the speaker expresses his belief that John has said something about the trip. As discussed in Haspelmath (1997), non-specific indefinites are frequently available in *irrealis* (or *nonveridical*, Giannakidou 1998) contexts. The relation between negative yes-no questions, the concept of *nonveridicality* and the expression of so-called positive bias will be discussed in Section 4.6.

The Portuguese data illustrated thus far strongly suggest that the co-occurrence of negation with positive/negative indefinites is dependent on the properties of the latter. It seems as though, as opposed to the *alg*-series (cf. Chapter 3, section 3.2.2.3), the Portuguese *qualquer*-series function as *affective polarity items* (Giannakidou 1999)³⁴. This property permits them to occur in *nonveridical* contexts.

³⁴ Giannakidou (1999) postulates the following licensing condition for affective polarity items:

Note that Portuguese sharply diverges from Italian with regard to the co-occurrence of negation and positive indefinites in polar questions. According to Cantarini & Torregrossa (2014), Italian *qualcuno* ‘somebody’ is felicitous with negative yes-no questions and favours the expression of positive bias:

- (82) Non hanno parlato com qualcuno?
NEG aux.3PP talk.PPT with somebody
‘Haven’t they talked to somebody?’

(Cantarini & Torregrossa 2014: 203)

Consider now the Italian *unque*-series. Like the Portuguese *qualquer*-series, they function as free-choice items (83). Nevertheless, they are strongly ungrammatical in both positive (84a) and negative (84b) yes-no questions:

- (83) Puoi andare dovunque.
‘You can go anywhere.’

(Haspelmath 1997: 263)

- (84) a. *Hanno parlato com chiunque?
AUX.3p.pl talked with anyone
‘Did they talk to anyone?’

b. *Non hanno parlato com chiunque?
Neg AUX 3p.pl talked with anyone
‘Didn’t they talk to anyone?’

Evidently, the distribution of the different types of polarity items across languages is a complex matter that turns out to be particularly intriguing when one considers the divergent readings given elements display in *nonveridical* contexts. Although we are

Licensing conditions for affective polarity items

- (i) An affective polarity item α will be licensed in a sentence S iff S is nonveridical.
(ii) A sentence is nonveridical if it is in the scope of a nonveridical operator.
(iii) In certain cases, α may be licensed indirectly in S iff S gives rise to a negative implicature ϕ , and α is in the direct scope of negation in ϕ .

unable to discuss this topic here, we would like to highlight the fact that the brief observations provided above in fact support Hypothesis II, outlined above.

In agreement with Hypothesis II, the occurrences of positive and negative indefinites in negative yes-no questions are not conditioned by the semantics of the negation marker but rather are associated with their own properties and distribution in different languages. What is more, the occurrence of the *qualquer*-series in negative yes-no questions illustrates that Portuguese polar questions do indeed involve *high* negation (Holmberg 2016). In Section 4.6. we will argue that the high position the negated verb raises to is at the core of the positively biased reading and, moreover, captures the relation to *nonveridicality* and evaluation negative yes-no questions display.

4.2.2. Two types of negative yes-no questions in Portuguese

The data above showing that both n-words and the *qualquer*-series can occur in Portuguese negative yes-no questions leads us to the distinction between two types of negative polar questions in Portuguese:

(i) Negatively biased, or confirmation-like, yes-no questions displaying n-words.

As discussed above basing on data from Russian and Serbian-Croatian, such structures display a request for confirmation of the negative value of the proposition. Consider the data from Portuguese below:

(85) a. O João *(não) viu ninguém?

The John not saw no one

‘Didn’t John see anyone?’

b. Ninguém (*não) viu o João?

No one not saw the John

‘Did nobody see John?’

(ii) Positively biased negative yes-no questions displaying the *qualquer*-series.

Such structures denote the speaker’s belief in the positive value of the proposition:

(86) O João não disse qualquer coisa em relação à viagem?

The John not said any thing in relation to-the trip

‘Didn’t John say something about the trip?’

At first sight, it seems that the questions (85a-b) and (86) only differ in the type of indefinite they display. However, given that Portuguese yes-no questions do not display any overt interrogative operators or syntactic mechanisms licensing yes-no questions, our suspicion is that the parallelism between (85a-b) and (86) is only apparent. Thus, we will argue that the underlying structures of (85a-b) and (86) are not identical.

Crucially, the fact that *qualquer coisa* in (86) acquires the reading of ‘something’ suggests that what we are dealing with in (86) is the so called *high* negation scoping over Pol (Holmberg 2016). As mentioned in Chapter 3, the Portuguese *qualquer*-items seem to behave like the English *any*-series, i.e. they appear to be sensitive to *nonveridicality*. As shown in Haspelmath (1997), these elements acquire different meanings in conformity with the type of contexts they occur in. For Giannakidou (1999) the English *any*-series are affective polarity items, i.e. such elements are licensed by a *nonveridical* operator and, thus, felicitously occur in interrogatives, imperatives, conditionals, a.o. Consider the examples illustrating the distribution of English *any* in (87) below discussed in Giannakidou (1999), as well as their Portuguese counterparts in (88):

- | | |
|--|---------------------------------|
| (87) a. Lucy didn’t see anybody. | [negation] |
| b. Did Lucy see anyone? | [yes/no nonrhetorical question] |
| c. Who has seen any students? | [wh nonrhetorical question] |
| d. They insisted that we let anyone in. | [intensional verb] |
| e. Take any apple! | [imperative] |
| f. If you sleep with anybody else, I will never forgive you! | [if-clause] |
| g. Any application from Groningen will be considered. | [modal verb] |
| h. At our meeting tonight, anybody is welcome. | [implicit modal] |
| i. I am surprised he has any friends. | [factive predicate] |
| j. Anyone can answer this question. | [modal verb] |
| k. Any cat hunts mice. | [generic] |
| l. Nobody but Paul saw anything. | [NM quantifier] |
| m. Only Paul saw anybody. | [only] |

n. % I hope there is any left. [intensional verb]

(88) a. A Lucy não nos deu qualquer notícia. [negation]
The Lucy not us.cl.acc gave.3p.sg. any news

b. A Lucy disse qualquer coisa? [yes/no nonrhetorical question]
the Lucy said any thing
'Did Lucy say anything?'

c. * Quem viu qualquer estudante? [wh nonrhetorical question]
who saw any student

d. Eles insistiram que deixássemos qualquer pessoa entrar. [intensional verb]
they insisted that let.SUBJ.1p.pl any person enter
'They insisted that we let anyone in.'

e. Toma uma maçã qualquer! [imperative]
take.3p.sg. one apple any
'Take any apple!'

f. Se tiveres qualquer notícia avisa-me. [if clause]
if have.SUBJ.FUT.2p.sg any news tell me
'If you have any news, tell me'

g. Qualquer inscrição de Groningen será considerada.
any application from Groningen be.FUT.3p.sg. considered
'Any application from Groningen will be considered.'
[modal verb]

h. Na nossa reunião hoje à noite, qualquer pessoa é bem-vinda.
To_the our meeting tonight any person is welcome
'At our meeting tonight, anybody is welcome.' [implicit modal]

i. *Estou surpreendida que ele tem qualquer amigo. [factive predicate]

- be.1p.sg surprised that he has any friend
- j. Qualquer pessoa pode responder a esta pergunta. [modal verb]
 Any person can answer to this question
 ‘Anyone can answer this question.’
- k. Qualquer gato caça ratos. [generic]
 any cat hunts mice
 ‘Any cat hunts mice.’
- l. not available in Portuguese [NM quantifier]
- m. *Só o Paulo viu qualquer pessoa. [only]
 only the Paul saw.3p.sg any person
- n. not available in Portuguese [intensional verb]

The examples in (88) illustrate that Portuguese the *qualquer*-series pattern to a large extent English *any*-items. In our view, these patterns support the idea that their occurrence in negative yes-no questions is triggered by the property of *nonveridicality* and the expression of *evaluation*. We discuss this questions in Section 4.6.

4.5. Chinese Low Negation and the Expression of Positive Bias

In this subsection we will address Mandarin Chinese negative yes-no questions focusing on the data presented in Holmberg (2016). Considering that Chinese systematically displays *low* negation, i.e. negation scoping over the VP, it is to be expected that Chinese negative yes-no questions are unable to express positive bias. As discussed above, the positively biased reading is available when negation raises to C, i.e. when it scopes over Pol. Languages like Chinese and Japanese, however, lack *high* negation. And yet, despite this, the positively biased interpretation of negative yes-no questions is still possible. In what follows we will show that the positively biased reading

of Chinese negative yes-no questions is limited to those cases in which the higher copula verb *shi*³⁵ is merged into the structure.

Let us start by considering the formation of Chinese yes-no questions. Two types can be distinguished: A-not-A questions and *ma*-questions. As mentioned in Chapter 1, Chinese A-not-A questions display the positive and the negative alternative of the question overtly, as in the example in (89) below:

- (89) Ni xihuan bu xihuan Ditelü?
you like not like Detroit
'Do you like Detroit or not?'

(Liu 2010: 287)

As pointed out in Holmberg (2016), there are no negative A-not-A questions since the positive and the negative alternative coexist in this type of question. For this reason, our discussion of Chinese negative yes-no questions will capitalise on data from *ma*-questions.

Ma-questions are the structures displaying the sentence-final particle *ma*:

- (90) Ni chi pingguo ma?
you eat apple Q
'Do you eat apples?'

(Li & Thomson 1981: 550)

According to Li & Thompson (1981), differently from A-not-A questions, *ma*-questions are not always information-seeking. Besides true requests for information, these structures can also denote a presupposition-like interpretation associated with the speaker's surprise or indignation³⁶.

With respect to Chinese negation, in Section 4.3 we showed that Chinese displays Holmberg's (2016) *low* negation, i.e. negation with scope over the VP only. Note that, as discussed in the literature (Huang 1982), Chinese does not display V-to-T and T-to-C

³⁵ As pointed out by Holmberg (2016), *shi* has the literal meaning of the copula 'to be'. However, it also acquires the meaning of the answering particle 'yes' and, moreover, functions as a focus marker.

³⁶ As mentioned in Section 2.1.1 and Section 2.3.2 of Chapter 2, Bulgarian *li*-final questions are frequently associated with such meanings.

movement. *Low* negation can therefore be seen as an outcome of the lack of verb movement to T.

However, the claim that Chinese displays *low* negation only is not entirely true. Holmberg (2016), following Wu (2015) and Ernst (1995), shows that the negation marker *bu* can occupy another somewhat higher position that he defines as *middle*. Observe that the higher negation marker *bu* ‘not’ in (92) has sentential scope, as opposed to the negation marker occurring in (91) which has scope over the VP only:

(91) Lao Cheng kayi bu qu.

Lao Cheng can not go

‘Lao Cheng is allowed not to go.’

(92) Lao Cheng bu keyi qu.

Lao Cheng not can go

‘Lao Cheng can’t/isn’t allowed to go.’

(Holmberg 2016: 191)

Consider now the behaviour of the answering system in both cases. The answers to the question with *low* negation in (93) follow the *truth-based* answering pattern:

(93) Q: Lao Cheng keyi bu qu ma?

Lao Cheng can not go QPrt

‘Is Lao Cheng allowed not to go?’

A1: shi ((ta) keyi bu qu).

yes he can not go

‘Yes (he is allowed not to go).’

A2: bu, ta bu keyi bu qu.

No he not can not go

‘No, he isn’t allowed not to go.’ (= He must go.)

A3: keyi a.

Can PRT.

‘Yes (he is allowed not to go)’

A4: bu keyi oh.

Not can prt

‘No, he isn’t allowed not to go.’ (= He must go.)

(Holmberg 2016: 192)

The type of negation we are dealing with in (93) is the one defined in Holmberg (2016) as *low* negation, i.e. negation that occurs below Pol and scopes over the VP. Since negation is *low* and Pol is unvalued, the answers *shi* ‘yes’ and *bu* ‘no’ assign a value to the unvalued Pol head and, thus, confirm or disconfirm the low negation. The positive answer *shi* “yes” therefore confirms the proposition “Lao Cheng is allowed not to go” while the negative answer *bu* “no” disconfirms it and denotes the meaning of “Lao Cheng is not allowed not to go.” The answers in A3 and A4 which display echoing of the finite verb behave accordingly.

Observe now the behaviour of the answering system in a Chinese negative yes-no question with *middle* negation, as represented in (94):

(94) Q: Lao Cheng bu keyi qu ma?

Lao Cheng not can go QPrt

‘Can Lao Cheng not go?/ Is Lao Cheng not allowed to go?’

A1: shi ((ta) bu keyi qu)

yes he not can go

‘Yes (he can’t go).’

A2: bu, ta bu keyi qu.

No he not can go

‘No, he can’t go.’

A3: bu, ta keyi qu.

no, he can go.

‘No, he can go.’

A4: bu keyi (qu)

Not can go

‘No.’

A5: keyi (qu)

can go

‘Yes, he can.’

(Holmberg 2016: 193)

The behaviour of the answering system with questions displaying *middle* negation is more complicated. As pointed out by Holmberg (2016), one would expect such questions to be compatible with the *polarity-based* answering pattern due to the higher position of the negation marker. This is, however, not the case. Instead, a mixture of truth-based and polarity-based answering patterns is at stake. On the one hand, the affirmative particle *shi* ‘yes’ in A1 confirms the negative value of the question, which is in conformity with the *truth-based* answering pattern. On the other, the same is valid for the negative answer *bu* in A2: *bu* also confirms the negative polarity of the question, patterning the negative answers in languages with *polarity-based* answering systems.

Following Wu (2015), Holmberg (2016) claims that this unexpected behaviour of the answering system is an outcome of the structure of Chinese *ma*-questions. In his terms, Chinese *ma*-questions are not *open* questions, i.e. they do not display an *open* Pol head. Rather they display a positively/negatively valued Pol head merged with the question particle *ma*. This claim is further supported by the fact that Chinese *ma*-questions are compatible with the answer *dui* ‘that’s right’:

(95) Q: Lao Cheng bu keyi qu ma?

Lao Cheng not can go QPrt

‘Can Lao Cheng not go/ Is Lao Cheng not allowed to go?’

A: dui.

Correct

That's right. /Correct.' (= 'He can't go.')

(Holmberg 2016: 193)

In view of the above observations, Holmberg (2016) proposes that Mandarin Chinese *ma*-questions have the structure in (96):

(96) [_{PolP} ... [_{+Pol}] ... [_{vP}...NEG...]]

(Holmberg 2016: 196)

Since Mandarin Chinese yes-no questions are not *open* questions, it is proposed that they have the denotation [p or (p or ¬p)], which roughly means “either p is true or there is a question whether p is true or not” [Holmberg 2016: 197].

Let us now take a look at the expression of Chinese positively biased negative yes-no questions. According to the observations made so far with regard to the structural position occupied by the negation marker, one might expect that Chinese does not display positively-biased negative yes-no questions, since the expression of positive bias is confined to structures displaying the so called *high* negation (Holmberg (2016), i.e. structures in which the negation marker raises higher than Pol. However, it appears that this prediction is not borne out. Compare the examples in (97a) and (97b) below:

(97) a. Zhangsan bu xihuan Mali ma?

Zhangsan Neg like Mali Q

‘Does Zhangsan not like Mali?’

b. Zhangsan **bu shi** xihuan Mali ma?

Zhangsan Neg to be like Mali Q

‘Doesn't Zhangsan like Mali?’

Both (97a) and (97b) are *ma*-questions. The example in (97a) is a yes-no question with *low* negation like those observed in the previous sections of this chapter. In (97b), on the other hand, the negation marker scopes over a higher verb, namely the copula *shi*. According to the judgments of native speakers, there exists a clear-cut contrast between the above examples with regard to the expression of bias: the positively biased reading is

only available for the question in which *bu* attaches to *shi* (97b). Interestingly, these data of Mandarin Chinese are supported by the examples from Cantonese Chinese illustrated in (98) and (99) below. According to Holmberg (2013), positive bias in Cantonese Chinese negative yes-no questions is obtained when the negation marker scopes over the Cantonese high copula verb *hai*, equivalent of the Mandarin *shi*:

(98) Q: John ng sik fatman ga meh?

John not know French Q

'Does John not speak French?'

A: ng sik ah.

not know PRT

'No.'

(99) Q: John ng **hai** sik fatman ga meh?

John not be know French Q

'Doesn't John speak French?'

A: sik ah

know PRT

'Yes.'

(Holmberg 2013: slide 30)

In view of the data from both Mandarin and Cantonese Chinese, the insertion of the copula *shi* and *hai*, respectively, may be regarded as a strategy for the activation of higher structural domains which cannot be reached by moving the lexical verb. In hypothesis, the copula verb is externally merged in C which results in the high negation reading patterning the data from English discussed in the preceding sections and repeated below for ease:

(100) Isn't it the road to Lund?

Interestingly, the expression of positive bias in negative yes-no questions is not the only context in which Mandarin Chinese exhibits the insertion of *shi*. Wible & Chen (2000) observe that the expression of Metalinguistic negation (Horn 1989) in Mandarin Chinese also relies on the insertion of the copula. As discussed by these authors, the metalinguistic negation reading is unavailable when the negation marker scopes over the lexical verb in Mandarin Chinese. Compare English (101) with Mandarin Chinese (102):

- (101) a. John doesn't like Mary. (He loves her.)
 b. They didn't let me go. (They made me go.)
 c. He isn't tall. (He's towering.)

(102) a. Zhangsan bu xihuan Mali. (# Ta ai Mali.)
 Zhangsan NEG like Mali (3sg love Mali)
 'John dislikes Mary. (# He loves her.)'

b. Tamen bu rang wo qu. (# Tamen bi wo qu.)
 3pl NEG let 1sg go (3pl force 1sg go)

c. Ta bu gao. (# Ta gao de budeliao.)
 3sg NEG tall (3sg tall DE extremely)

(Wible & Chen 2000: 234)

In contrast to English, the metalinguistic reading in Mandarin Chinese is restricted to those cases in which *shi* is merged. Consider the examples in (103):

(103) a. Zhangsan **bu shi** xihuan Mali. (Ta shi ai Mali.)
 Zhangsan NEG be like Mali (3sg be love Mali)

b. Tamen **bu shi** rang wo qu. (Tamen shi bi wo qu.)
 3pl NEG be let 1sg go (3pl be force 1sg go)

c. Ta **bu shi** gao. (Ta shi gao de budeliao.)
 3sg NEG be tall (3sg be tall DE extreme)

‘S/he isn’t tall. (S/he’s extremely tall)’

(Wible & Chen 2000: 236, bolds are mine)

In (103) nothing prevents the metalinguistic reading, given that the negation marker *bu* scopes over the copula *shi*. Wible & Chen (2000) take the insertion of *shi* in (103) to be related to the expression of focus (see f.n. 35 above). Since metalinguistic negation expresses objection with regard to one of the elements of the previous statement, it is claimed that it involves focus marking. According to Wible & Chen (2000), this is precisely the function of the particle *shi* in the Mandarin Chinese example in (103).

However, focus marking does not seem to be the only trigger for the insertion of *shi*. Curiously, the insertion of the particle can also be associated with the fact that negation in Mandarin Chinese forms a constituent with the head that follows it (Huang 1988). According to Wible & Chen (2000), the unavailability of the metalinguistic negation reading stems from a restriction dubbed by these authors Constraint M:

(104) *Constraint M*: A metalinguistic reading of negation is prohibited where the negative morpheme forms an immediate constituent with the predicating head X^0 (typically V^0).

(Wible & Chen 2000: 237)

Constraint M seems to explain the puzzling data from Mandarin Chinese in (102) and (103). Negative clauses like (102) in which *bu* precedes the lexical verb are unable to express the metalinguistic negation reading considering that, under Constraint M, *bu* forms a constituent with the verb. In contrast, negative clauses as (103), in which *shi* intervenes between the negation marker and the lexical verb, allow the metalinguistic reading of negation given that Constraint M does not apply, i.e. the negation marker *bu* does not form a constituent with the lexical verb.

As mentioned above, according to Wible & Chen (2000), the function *shi* performs in structures like (103) is that of a focus marker. Considering the *low* structural position occupied by the negation marker in Chinese and Constraint M (cf. (104) above), *shi* blocks the relation between the negation marker *bu* and the lexical verb.

This observation is furthermore supported by the data below with the verb *you* ‘have’. Note that the metalinguistic reading of negation is only available in (106) in which *you* functions as an auxiliary and not in (105) where it is the lexical verb ‘have’:

(105) Zhangsan mei you san-ge xiaohaizi. (# Ta you si-ge xiaohaizi.)³⁷
Zhangsan NEG have 3-CL child (3sg have 4-CL child)
‘Zhangsan doesn’t have three children. (S/he has four children.)’

(106) Zhangsan mei you yang sange xiaohaizi. (Ta yang le sige xiaohaizi.)
Zhangsan NEG have raise 3-CL child (3sg have 4-CL child)
‘Zhangsan hasn’t raised three children. (S/he’s raised four children.)’

(Wible & Chen 2000: 251)

Similarly to the structures with *shi* in (103) above, in (106) the insertion of the auxiliary *you* ‘have’ allows for the metalinguistic reading of negation. Considering the parallelisms between (103) and (106), it seems to us that what allows the metalinguistic reading of the negation marker in (103) and (106) is that, in those structures, *shi* and *you*, respectively, are not lexical verbs. Even though the trigger for the insertion of *shi* and *you* is a complicate matter that deserves further attention, our suspicion is that the occurrence of such elements is a result of the existence of given evaluation features in need of valuation.

Here, we will not develop further on the expression of Metalinguistic negation across languages, as the complexity of this topic involves questions of a syntactic, pragmatic and semantic nature beyond the scope of this dissertation. However, it is interesting to point out that the data discussed in this section suggest that the expression of positive bias in negative yes-no questions and the metalinguistic negation reading rely on the same strategy in Mandarin Chinese, namely on the insertion of the auxiliary *shi*. This intriguing pattern can be regarded as an argument supporting Reese’s (2006) claim that negation in positively biased negative yes-no questions performs a metalinguistic function associated with the expression of *correction* or *objection*. Independently of

³⁷ As pointed out by Wible & Chen (2000), the negation marker *mei* is an allomorph of the negation marker *bu*. Nevertheless, *bu* and *mei* sharply diverge with respect to Tense. *Mei* appears to occur with verbs in the Past. We are unable to discuss this question here.

whether this is the case, the fact that Mandarin Chinese employs the insertion of the particle *shi* suggests that both the positive bias reading and the metalinguistic negation reading involve higher structural positions unavailable to the lexical verb in Chinese which remains in V°/ v°.

In what follows, we will concentrate on the syntactic expression of negative yes-no questions, considering the data from Bulgarian, Portuguese and Chinese discussed so far. We will argue that positively biased negative yes-no questions involve higher rising of the negated verb associated with the activation of the functional projection EvaluativeP (Ambar 2000, 2003). Following Yoon (2011), who argues that the occurrence of expletive negation is strongly dependent on the expression of evaluation, in Section 4.7, we will extend our analysis to the occurrence of negation in the so called Wh Degree exclamatives (Espinal 1997, 2000).

4.6. Negative Yes-No Questions. Analysis

Let us begin with a brief summary of the above discussion. Thus far, we have shown that the languages under study, namely Bulgarian, Portuguese and, to some extent, Chinese, behave differently when it comes to the position occupied by the negation marker, the licensing of NC and the expression of positive bias in negative yes-no questions:

(I) Bulgarian yes-no questions have *high* negation which scopes over Pol that, as claimed in Holmberg (2016), gives rise to the constant ambiguity between the true negative reading and the positively biased reading. The occurrence of n-words in these structures is disallowed when the interrogative particle *li* attaches to the negated verb. Therefore, the licensing of n-words is limited to the cases in which the n-word attaches to the co-occurring particle.

(II) Portuguese also displays *high* negation in yes-no questions: assuming with Ambar (2013) that the verb raises to Int°, in negative yes-no questions, the negated verb scopes over PolP, giving rise to the ambiguous reading these structures convey. Nevertheless, given that Portuguese yes-no questions most commonly display the

declarative SVO order (with the exception of those cases in which the verb is in the Future or Conditional, cf. Ambar 1988), these structures display an ambiguity between true yes-no questions and confirmation-like yes-no questions (cf. Frota et al. 2015³⁸). The fact that the polarity sensitive *qualquer*-items acquire a positive reading under negation in yes-no questions supports the claim that these structures display T-to-C movement (Ambar 2013).

(III) Chinese belongs to the group of languages exhibiting *low* negation, i.e. negation scoping over the VP only (Holmberg 2016). By virtue of this property, related to the fact that Chinese lacks V-to-T and T-to-C movement, the negated lexical verb is unable to encode positive bias. Such interpretation is therefore restricted to those negative yes-no questions in which the negation marker scopes over a higher auxiliary, namely the copula *shi*. In hypothesis, *shi* is externally merged in C (cf. Holmberg 2013 on Cantonese) for reasons related with the valuation of given features related to evaluation.

The brief summary provided in (I)-(III) above supports Holmberg's (2013, 2016) claim and follows the idea that the type of negation occurring in positively biased questions is structurally higher and that *high* negation involves verb-movement to C.

Assuming the proposal for analysis presented in Chapter 2 and extended in Chapter 3, and considering the Split CP Hypothesis, according to which the CP domain splits into functional projections accounting for given properties of the syntax-discourse interface (Rizzi 1997, 1999, Ambar 1996, 1997, 1999, 2000, 2003, a.o.), we will argue that high negation activates the functional projection EvaluativeP (Ambar 2000, 2003). Following the observations presented in Ambar (2000, 2003, 2016a) and Yoon (2011), we will argue that the expression of positive bias consistently displayed by negative yes-no questions in languages like Bulgarian and Portuguese, i.e. languages in which the verb raises to C in yes-no questions, is, in fact, an instantiation of evaluation.

As originally proposed in Ambar (1996, 1997, 1999, 2000, 2003), EvaluativeP is the domain accounting for the speaker's evaluations (cf. Chapter 3). Moreover, in Ambar (2016a), who discusses the subjunctive mood from the perspective of the crosslinguistic variation with respect to its licensing and the asymmetries concerning its selection in main

³⁸ Frota et al. (2015) distinguishes between four different types of yes-no questions: information-seeking, confirmation-seeking, echo and counterexpectational yes/no questions. As discussed by these authors, only counterexpectational yes/no questions display specific intonational marking, i.e. no systematic intonational differences were observed between information-seeking and confirmation-seeking yes-no questions.

and embedded clauses, it is argued that EvaluativeP is the projection encoding the expression of the speaker's evaluations and attitude. Although we leave the discussion of the questions related to the expression of the subjunctive mood in matrix and embedded clauses for Chapter 5, it is curious to observe that, according to Yoon (2011), there exists a close relation between the occurrences of so-called expletive negation and the subjunctive. Crucially, this relation concerns the concept of *nonveridicality* (Giannakidou 1998). Ever since Giannakidou (1998), the subjunctive has been seen as the mood of the *nonveridical* domain. Interestingly, based on data from Japanese and Korean, Yoon (2011) argues that expletive negation is a type of subjunctive marker. This author observes that expletive negation is restricted to *nonveridical* predicates. Epistemic and factive predicates are incompatible with those readings of negation.

Actually, expletive negation in Korean and Japanese (respectively (107) and (108) below) appears under non-factive or interrogative complementizers. Observe the following examples:

(107) John-un Mary-ka oci-**anh**-ul-**{ci/kka}** kitayha-ko issta.
 John-Top Mary-Nom come-Neg-Fut-NFcomp hope-Asp
 'John hopes that Mary might come.'

(108) John-wa Mary-ga ko-**nai-ka**(-to) kitaisi-te iru.
 John-Top Mary-Nom come-Neg-NFcomp hope-Asp
 'John hopes that Mary might come.'

(Yoon 2011: 109)

Interestingly the non-factive complementizers *ci* in Korean (107) and *ka* in Japanese (108) also function as question particles licensing polar questions. Yoon (2011) explains the fact that expletive negation occurs under such complementizers in the following way:

“Considering that the basic semantics of questions comprises all potential answers irrespective of positive (p) or negative propositions ($\neg p$) (Giannakidou 2001; Kratzer and Shimoyama 2002), the employment of a non-factive complementizer strongly indicates the epistemic subject's undecidedness concerning the realization of the content of the

line of inquiry, assuming that the syntactic expression of negative yes-no questions involves the projection EvaluativeP. Following Ambar (2000, 2003, 2016), we will assume that EvaluativeP codifies the speaker's evaluations and attitude which, as a consequence, trigger the expression of bias. We will, therefore, claim that whenever a negative yes-no question denotes evaluation, the negated verb raises to EvaluativeP. Based on the analysis proposed in Chapter 2 and extended in Chapter 3, and following Ambar (2000, 2003), we assume that EvaluativeP is higher than AssertiveP and IntP.

Note that this proposal also explains the distribution of the positive and negative indefinites and the so-called blocking of NC in Bulgarian. Bulgarian n-words are restricted to occurring in *antiveridical* contexts, i.e. in the presence of negation⁴⁰. However, the negation marker occurring in Bulgarian yes-no questions obligatorily raises to a position preceding the interrogative particle *li*, i.e. it occurs in the domain of *nonveridicality*. By virtue of this structural position, it is unable to license post-verbal n-words, the result being the blocking of NC.

In the following subsections we will put forth a proposal for the analysis of negative yes-no questions, considering data from Bulgarian, Portuguese and Mandarin Chinese, and adopting the structure in (111) below:

(111) [EvaluativeP [AssertiveP [IntP [PolP [TP [NegP [vP [VP

We assume with Zanuttini (1994) that negation originates in the head of NegP situated below TP. As proposed in Section 2.3.2, in Bulgarian V-*li* questions, *li* is externally merged in Pol^o.

4.6.1. Bulgarian

Bulgarian negative yes-no questions can be divided into two types: (i) those in which the negated verb attaches to *li* and (ii) those in which the n-word attaches to *li*.

With respect to (ii), in Chapter 3 we claimed that the structures in which an element different from the verb attaches to *li* are presuppositional given that constituents

⁴⁰ As in Romanian (Martins 1997, 2000), Bulgarian n-words are unable to occur in 'modal' contexts. Under the system considered in Martins (2000), Bulgarian n-words display a 0 value with respect to the property permitting them to occur in modal contexts.

li where, as in positive *V-li* questions, the verb absorbs the polarity algorithm. The negated verb and the particle raise to Int°. The speaker's projections Assertive and Evaluative are activated accordingly: by movement of the negated verb and the particle. By hypothesis, movement to Evaluative° is triggered by the existence of an Op_{eval} responsible for the evaluative meaning of this structures. The properties combining factivity and evaluation are therefore derived compositionally by verb-movement to the respective heads.

Notice that this analysis also explains the behaviour of the answering system observed in the preceding sections. Consider the exemple in (54) above repeated below for ease:

(115) Q: Ivan ne pie li kafe?
 John not drinks Q coffee
 'Does John not drink coffee?'

A1: *Da.
 Yes (Intended: 'John doesn't drink coffee.')

A2: Ne.
 No (John doesn't drink coffee)

A3: Pie.
 Drinks
 'He does'

A4: Pie, pie
 Drinks, drinks

Since the negated verb in Bulgarian yes-no questions always raises to a projection above Pol, these structures denote a consistent ambiguity between positive and negative bias. However, assuming that the Pol head is valued [+neg] explains the fact that the negative answer to this structure confirms the polarity of the question independently of the type of bias the structure displays.

4.6.2. Portuguese

Here, we extend the analysis proposed above for Bulgarian negative yes-no questions to their Portuguese counterparts.

Just as in Bulgarian, in Portuguese two types of negative yes-no questions can be distinguished (cf. Section 4.4):

(i) *high* negation yes-no questions licensing the *qualquer*-series and denoting positive bias, as in (116):

- (116) O João não disse qualquer coisa?
The John not said any thing
'Didn't John say something?'

(ii) presuppositional yes-no questions in which the question scopes over the n-word:

- (117) O João não disse nada?
The John not said nothing
'Didn't John say anything?'

Notice that the Portuguese structures in (116) and (117), respectively, fully pattern the Bulgarian negative yes-no questions in (118) and (119) below:

- (118) Ivan ne kupi li nešto?
John not bought Q something
'Didn't John buy something?'

- (119) Ivan ništo li ne kupi ?
John nothing Q not bought
'Didn't John buy ANYTHING?'

In our view, in both languages only structures like those in (116) and (118) involve verb-movement to Evaluative.

As discussed above, EvaluativeP only projects in those types of negative questions which denote positive bias, this meaning being triggered by the existence of Op_{eval}. The structures denoting negative bias involve movement to AssertiveP. As shown in Chapter 3, section 3.3, in Bulgarian AssertiveP is activated when a presupposed XP absorbs the polarity algorithm of *li*. A similar line of inquiry will be pursued with respect to the confirmation-like negative yes-no questions in Portuguese, i.e. those questions displaying n-words. Let us consider again the example in (85), repeated below as (122):

- (122) O João não viu ninguém?
 The John not saw no one
 ‘Didn’t John see anyone?’

At first sight, it looks like the structure in (122) patterns Portuguese declarative sentences in which nothing goes wrong for the licensing of NC. Such a parallelism, however, predicts that the negated verb in Portuguese yes-no questions does not move to C, i.e. that it remains in the scope of Pol which is clearly an incorrect prediction, given the occurrence of the *qualquer*-series discussed above.

In order to solve the problem created by examples like (122), we will consider that, in such structures, the element that raises to IntP is not the negated verb but the n-word. Recall the discussion provided in Ambar (2013) with respect to the occurrence of the positive indefinite *alguém* ‘someone’ in Portuguese polar questions (cf. Chapter 2). According to this work, positive indefinites function as wh-words in yes-no questions and undergo movement to IntP. Consider again the examples in (46) and in (47) from Chapter 2:

- (123) Q: Quem vai contigo ao cinema?
 “Who goes with you to the movies?”
 A: Vai o Pedro.
 goes Peter
 Peter does

- (124) Q: Alguém vai contigo ao cinema?
 “Someone is going with you to the movies?”

A: Vai o Pedro.
goes Peter
Peter does

(Ambar 2013: 24)

With the parallelisms between the answering systems in (123) and (124), Ambar (2013) proposes that the positive indefinite *alguém* ‘someone’ in (124) moves to Spec, IntP and functions in yes-no questions as a wh-word. Here, we will extend Ambar’s (2013) proposal to negative indefinites occurring in yes-no questions. Observe that the answer that contradicts the negative value of the question in (125b) also involves the identification of the variable, patterning the answers of (123) and (124):

(125) Q: O João não viu ninguém?

The John not saw no one
‘Didn’t John see anyone?’

A: a. Não.

No (John didn’t see anybody.)

b. Viu o Pedro.

saw the Peter
‘He saw Peter.’

The fact that the negative answer *Não* ‘No’ in (125a) confirms the negative polarity of the question shows that PolP is valued [+neg], by movement of the n-word *ninguém* ‘nobody’.

With the assumption that the question in (125) scopes over the n-word, we will assume that *ninguém* ‘nobody’ moves to IntP, i.e. it is the material constituting the questioned portion of the structure. This claim is in line with (i) the Bulgarian data illustrating that the n-word must raise to *li*, i.e. it must be the element being questioned and (ii) Giannakidou’s (1998, 2006) proposal, according to which such elements are familiar quantifiers denoting a set of presuppositions – a proposal, which, does in fact, confirm the answering pattern illustrated by (125).

The proposal for analysis we put forth in (126b) below relies on the assumption that the n-word *ninguém* ‘nobody’ undergoes movement to Spec, IntP. In addition, we assume that after the n-word’s raising to Spec, IntP, the remaining material is subject to Remnant TP movement to Spec, AssertiveP. Notice that this analysis is in the spirit of Ambar’s (2000, 2003) proposal for *wh-in-situ* questions (cf. Chapter 3), in which Remnant movement to Assertive is triggered by the existence of presuppositions:

(126) a. O João não viu ninguém?

The John not saw no one

‘Didn’t John see anyone?’

b. [AssertiveP [TP O João não viu] [Assertive° [IntP ninguém_i [Int° [PolP

John not saw noone

ninguém_i [Pol° [+neg] [TP O João_i [T° não viu_j] [NegP ninguém_i [Neg° não [vP O João_i [v° viu_j ninguém_i

Two additional observations concerning the parallelisms between the behaviour of negative quantifiers in yes-no questions and *wh*-phrases in *wh-in-situ* questions are in order here:

First, it is important to point out that the relation between n-words and *wh*-words is not new to the literature. Many works have argued that n-words and *wh*-words are inherently focused, i.e. they undergo obligatory focus-movement (Bošković 2008, 2009⁴¹, Dimitrova 2017). What is more, n-words and *wh*-words appear to be morphologically close. As shown in Haspelmath (1997), it is frequent for positive and negative indefinites to morphologically encode a *wh*-word (cf. Section 3.2.2.3)

Second, when it comes to dealing with the behaviour of *wh*-phrases and n-words in Bulgarian and Portuguese, another intriguing pattern should be noted. It appears that, when associated with presuppositions, the licensing of these elements in each language follows the same unique pattern. For instance, both n-words and *wh*-words in Bulgarian

⁴¹ Bošković (2008, 2009) observes that n-words in Serbian-Croatian morphologically incorporate negation, focus and a *wh*-word:

(i) *niko* ‘no one’ = [n (neg) + i (focus (‘even’)) + ko (who)].

(Bošković 2009: 130)

are fronted in questions. As shown in Chapter 2, Bulgarian does not display *wh-in-situ* questions. Instead, it has *wh+li* questions. Compare (127) and (128) below:

(127) * Ivan kupi kakvo?
John bought what

(128) Kakvo li kupi Ivan?
What Q bought John
'What did John buy? (I wonder)'

Like *wh*-words, Bulgarian *n*-words are unable to remain *in-situ* whenever they occur in yes-no questions. Their licensing therefore involves the strategy illustrated in (128), i.e. they must incorporate *li*:

(129) * Ivan ne kupi li ništo ?
John not bought Q nothing

(130) Ništo li ne kupi Ivan?
Nothing Q not bought John
'Didn't John buy anything?'

Wh-phrases and *n*-words both incorporate *li* when occurring in Bulgarian interrogatives, the result being presuppositional structures of the type *XP-li* questions.

Portuguese displays the exact opposite behaviour: in structures involving presupposition, both *wh*-phrases and *n*-words remain *in-situ*. Consider (131) and (132) below:

(131) O João comprou o quê?
The John bought what
'What did John buy?'

(132) O João não comprou nada?
The John not bought nothing

‘Didn’t John buy anything?’

Whereas in Bulgarian, the expression of presuppositions involves movement of the presupposed constituent to *li* in Spec, PolP followed by movement to Spec, AssertiveP, in Portuguese, it is a result of Remnant TP movement to the Spec of Assertive.

In our view, these patterns are not coincidental. Ambar (2003) associates the availability of Remnant movement across languages with the properties of the verbal inflection. Ambar (2003) observes that Hungarian, like Bulgarian, disallows *wh-in-situ*. Instead, it displays a special type of *wh*-structures in which the complementizer *hogy* ‘that’ appears:

- (133) Hogy mennyi pénzt fizettem ki ezért a házért?
That how_much money_ACC paid. 1p.sg PART this_for art house:for
(Ambar 2003: 224)

According to the author, the question in (133) is a confirmation-like structure which is not a true request for information. Ambar (2003) suggests that the complementizer *hogy* checks the assertive features by Merge. Crucially, comparing the data from European and Brazilian Portuguese, Hungarian, Chinese and Tetum, Ambar (2003) claims that the crosslinguistic divergences with respect to the position occupied by *wh*-words stem from the properties of the verbal inflection. In Hungarian *wh*-questions always display fronted *wh*-words. Since the verbal inflection is too heavy, it cannot undergo Remnant TP movement to Spec, AssertiveP. Consequently, the insertion of *hogy* takes place. In contrast, Chinese and Tetum, which both lack inflectional morphology, do not exhibit overt *wh*-movement in *wh*-questions, i.e. *wh*-phrases are always *in-situ*.

Finally, European and Brazilian Portuguese both display fronted *wh*-questions and *wh-in-situ* questions. Brazilian Portuguese, which is in the process of losing its inflection specifications, exhibits a strong preference towards the *in-situ* position of the *wh*-word, a preference which is not observed in European Portuguese.

Coming back to the data from Bulgarian and Portuguese, one hypothesis explaining the obligatory occurrence of the Bulgarian particle *li* in *wh*-questions and yes-no questions with *n*-words relies on the ‘heavy’ inflection of Bulgarian, which blocks the Remnant TP movement. Note however that such hypothesis will however contradict the

assumptions made in Section 2.3.2.3 of Chapter 2 with respect to *li*-final questions. As discussed in Section 2.3.2.3, we propose that in the so called *li*-final questions the constituent preceding *li* attaches to the particle. The remaining material then undergoes movement to a XP position above IntP.

4.6.3. Some observations on Chinese

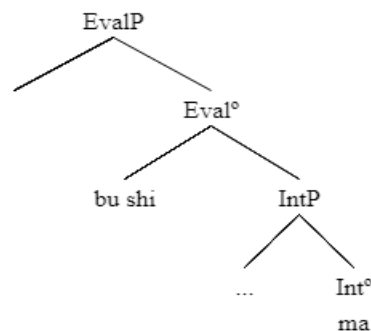
Recall that Chinese differs from Bulgarian and Portuguese in the fact that it does not display *high* negation. As discussed in Holmberg (2016), negation in Chinese is *low*, i.e. it scopes over the VP only. Nevertheless, Chinese negative yes-no questions are still able to express positive bias. Such a reading is, however, restricted to cases in which the negation marker *bu* scopes over a higher auxiliary, namely the copula verb *shi*.

Consider again the Mandarin Chinese example in (134):

- (134) Zhangsan **bu shi** xihuan Mali ma?
 Zhangsan Neg be like Mali Q
 ‘Doesn’t Zhangsan like Mali?’

Considering the assumptions described above for Bulgarian and Portuguese, we can propose that the copula *shi* merges in Evaluative^o for reasons related to the valuation of given features related to evaluation. The negation marker *bu* then merges with it, giving rise to the positively biased interpretation of the structure and denoting speaker’s belief in the positive value of the question as explained above for Portuguese and Bulgarian.

(135)



Clearly, the structure presented in (135) is only an attempt to capture the data from Chinese negative yes-no questions with positive bias.

A thorough analysis of these structures would require a better understanding of some major questions concerning Chinese syntax, namely those related to the lack of verb-movement in Chinese and to the position occupied by the negation marker. What is more, the question of whether the particle *shi* occurring in (135) above displays the function of a copula verb or focus marker (f.n. 35) remains unsettled. We are unable to discuss these issues in much greater depth here.

4.7. Degree Wh-Exclamatives

So far we have discussed the properties of negative yes-no questions in three typologically distinct languages: Bulgarian, Portuguese and Chinese, focusing on two central aspects concerning the syntactic analysis of these structures: (i) the expression of positive bias and (ii) the licensing of n-words. Following Holmberg (2016), who shows that positively biased questions are associated with a high position of the negation marker, we claimed that the negated verb raises to EvaluativeP, the projection proposed in Ambar (1996) and developed in subsequent works, namely Ambar (1997, 1999, 2000, 2003), which is the domain encoding the speaker's evaluations and attitude. The activation of EvaluativeP was therefore seen as the mechanism accounting for the biased interpretation conveyed by negative yes-no questions and for the semantic contribution of the negation marker (Yoon 2011). In what follows, we will extend this line of inquiry to another context in which the negation marker does not contribute towards the negative interpretation of the proposition but rather forces an evaluative-like reading: the structures traditionally known as Degree Wh-exclamatives.

As extensively discussed in the literature (Ambar 1996, 1997, 1999, 2000, 2003, Espinal 1997, 2000, Portner & Zanuttini 2000, Zanuttini & Portner 2003, a.o.) Degree Wh-Exclamatives codify the meaning of extreme degree quantification. Observe the example from Spanish provided below:

(136) A quántas pessoas (no) habrá matado este dictador!
 To how many people not have+FUT.3psg killed this dictator
 ‘So many people must have been killed by this dictator!’
 (Espinal 2000: 48)

The structure in (136) denotes a reading according to which the dictator has killed many people. Importantly, it appears that the high degree interpretation conveyed by Degree wh-exclamatives is somehow related to the occurrence of the negation marker. Curiously, the negation marker appearing in this type of wh-exclamatives obligatorily acquires the expletive reading, i.e. it does not display the negative reading that is obtained in negative declaratives. Note that the structure in (136) actually focuses on the quantity of people the dictator *did* kill. The lack of negative reading in exclamatives has, therefore, led some authors (Espinal 1997) to assume that the negation marker appears optionally to some extent.

With the suspicion that the negation marker occurring in Degree Wh-exclamatives is neither expletive, nor optional, we will address Bulgarian and Portuguese Degree Wh-Exclamatives which, as far as we know, have not been previously discussed in the literature, an exception being Dimitrova (2015) discussing data from Bulgarian.

The expression of high degree quantification in Bulgarian wh-exclamatives is particularly intriguing. This reading relies on the occurrence of two key elements: the particle *li*, which obligatorily follows the wh-word, as shown in Chapter 3 for wh+*li* questions, and the negation marker:

(137) Kakvo *(li) *(ne) kupi Ivan?
 What Q not bought John
 ‘John bought so many things!’

Here we should highlight two observations regarding the structure in (137):

(I) First, note that, in contrast to the Spanish example in (136), the negation marker is not optional in Bulgarian degree exclamatives. Observe that in its absence the structure acquires the interpretation of wh+*li* questions which, as discussed in Section 2.1.1.1 of

Chapter 2, denote a flavour of strong wondering. The structure, however, lacks the extreme degree quantification meaning:

- (138) Kakvo li kupi Ivan?
What Q bought John
'What did John buy? (I wonder)'

Besides the negation marker, the other element whose presence is crucial for the denotation of extreme degree quantification is the particle *li*. As illustrated by (139), its omission gives rise to ungrammatical sentences:

- (139) *Kakvo ne kupi Ivan!
What not bought John
'John bought so many things!'

(II) The second important observation with respect to the structure in (137) above concerns the obligatory adjacency between the *wh*-word, the particle and the negated verb. Observe that nothing can intervene between these constituents, i.e. they are strictly adjacent:

- (140) a. *Kakvo li Ivan ne kupi ?
What Q John not bought

b. *Kakvo li včera ne kupi Ivan ?
What Q yesterday not bought John

The data in (140a-b) can be taken to suggest that the *wh+li* constituent and the negated verb are in a Spec-head relation which precludes the occurrence of any intervening material. This question will be discussed shortly hereafter.

Let us now consider the Portuguese data. On the one hand, Portuguese Degree Wh-exclamatives, share some similarities with their Spanish counterparts. For instance, these structures do not display any particular element responsible for the licensing of the extreme degree interpretation, such as the particle *li* in Bulgarian. On the other hand,

contrary to Espinal's (1997) claim that the occurrence of negation in Spanish degree exclamatives is optional, in Portuguese, the negation marker is crucial for the expression of the characteristic extreme degree quantification. Compare the Portuguese examples below with and without negation:

(141) O que a Maria comprou!

What the Mary bought

'What Mary bought!'

(142) O que a Maria não comprou!

What the Mary not bought

'Mary bought so many things!'

The contrast between the examples above derives straightforwardly from the absence *vs.* the presence of the negation marker. In (141), without negation, the speaker evaluates Mary's purchase. In (142), with negation, the speaker does not evaluate the type of purchase but rather refers to the quantity of things Mary has bought. Observe that, in fact, only the example in (142), with negation, denotes extreme degree quantification. In contrast, the structure in (141) is a standard *wh*-exclamative.

Another point of contrast between Portuguese, on the one hand, and Spanish and Bulgarian, on the other, concerns the obligatory adjacency between the *wh*-phrase and the negated verb. As shown above, in Bulgarian no lexical material can intervene between the *wh*-phrase attached to the particle *li* and the negated verb. According to Espinal (1997), Spanish degree *wh*-exclamatives behave in the same manner. In her terms, the expression of high degree in Spanish *wh*-exclamatives is a result of three important factors: (i) obligatory fronting of the *wh*-phrase, (ii) the future or conditional tense⁴² and (iii) subject-verb inversion. Consider Espinal's (1997) examples in (143), which illustrate the properties under (i)-(iii):

⁴² Spanish *Wh*-Degree Exclamatives are not restricted to occurring with verbs in the Future. However, as claimed in Espinal (1997), in Modern Spanish, there seems to exist a preference for the formation of these structures with verbs in the Future or the Conditional. As pointed out by the author, these tenses are commonly associated with the licensing of a modal epistemic meaning. (Espinal 1997: 83, f.n. 5)

- (143) a. ¡A cuántas personas no engañaría en su juventud!
 To how many persons not deceive+COND in his/her youth
 “(S)he must have deceived so many people in his/her youth!”
- b. ¡Qué crímenes no habrá cometido alguien así!
 What crimes not have+FUT committed somebody like that
 “So many crimes must have been committed by such a person!”
- c. ¡Qué de tonterías no dirá este estudiante cuando va a clase!
 What of nonsense not say+FUT this student when goes to class
 “This student talks such nonsense when (s)he attends the class!”
- (Espinal 1997: 77)

The Spanish data contrasts what we have observed above on Portuguese. As illustrated by the structure in (142), subjects can intervene between the wh-constituent and the negated verb.

Although Portuguese wh-exclamatives can also display subject-verb inversion, the inversion is clearly not obligatory as it is in Bulgarian and Spanish:

- (144) a. O que não comprou a Maria!
 What not bought the Mary
 ‘Mary bought so many things!’
- b. O que a Maria não comprou!
 What the Mary not bought
 ‘Mary bought so many things!’

This lack of obligatory subject-verb inversion can also be seen in standard wh-exclamatives. As suggested in Ambar (2000, 2003), the subject intervening between the

wh-phrase and the inflected verb in both wh-exclamatives and in wh-questions⁴³ is topicalized material.

Several intriguing questions arise from the divergences concerning the formation of Degree Wh-exclamatives in Bulgarian and Portuguese:

(i) What is the function of the Bulgarian particle *li* and why is it crucial for the formation of Bulgarian degree wh-exclamatives?

(ii) What is the contribution of the negation marker in Portuguese and Bulgarian degree exclamatives? Is negation expletive or is what we are dealing with in these cases true sentential negation (Portner & Zanuttini 2000)?

(iii) How can we account for the extreme degree quantification reading in the syntax?

We will discuss these questions and others in the following subsections.

4.7.1. Previous analyses of Degree Wh-exclamatives

Let us begin by discussing some of the previous analyses dedicated to degree wh-exclamatives and to the syntactic mechanisms underlying the extreme degree quantification reading.

4.7.1.1 Espinal (1997, 2000)

Focusing on the expression of extreme degree quantification in Spanish wh-exclamatives, Espinal (1997) suggests that its syntactic licensing relies on a non-overt

⁴³ In contrast to Brazilian Portuguese, subject-verb inversion is obligatory in European Portuguese wh-questions. Notice that the lack of subject-verb inversion in European Portuguese wh-questions is restricted to cases of D-linking. Compare (i) and (ii) below:

(i) Quantos livros a Maria comprou?
How-many books the Mary bought
'How many books did Mary buy?'

(ii) * O que a Maria comprou?
What the Mary bought

According to Ambar (2000, 2003), the contrast between (i) and (ii) stems from the fact that D-linked wh-phrases are [+r(eferential)].

intensifier operator originating in the projection Int(ensifier)P(hrase) situated above the CP:

(145) [IntP [CP [WH] [NegP [AgrP [TP
(Espinal 1997:85)

The characteristic reading denoted by these structures is therefore seen as a result of the fact that the wh-word is in the scope of the intensifier operator. Moreover, in order to explain the expletive reading negation acquires, Espinal (1997) assumes that it is a result of the condition dubbed *Logical Absorption* (Espinal 1992). *Logical Absorption* is defined in the following way:

“ α absorbs β , α = a lexical category selecting negation and β = Neg, in the following configuration:

[... α [C° [... β ...]]]

If

a. Minimality is respected that is, no maximal projection dominates the projection of β that does not dominate α . C lacks referential and categorial features, which makes CP not an absolute barrier to government;

b. there is no logical operator intervening between α and β at the level of LF.”

(Espinal 1997: 89)

According to the above definition, negation is absorbed by the intensifier operator selecting it, the result being a lack of negative force.

In later works, namely Espinal (2000), *Logical Absorption* is also considered with respect to another well-known phenomenon: Negative Concord. In Espinal’s view, when *Logical Absorption* takes place, it eliminates the redundant negative features of the co-occurring negative constituents, giving rise to the single instantiation of negation.

As for the syntactic structure of wh-exclamatives with expletive negation, Espinal (2000), following Espinal (1997), considers that the high degree meaning is encoded in the functional projection Deg(ree) P(hrase) situated above CP. DegP has a negative feature F_{neg} , which establishes a relation with the negation marker. Therefore, when

Logical Absorption applies, the operator in DegP absorbs the negative feature of the negation marker occurring in its scope.

Interestingly, Espinal (2000) proposes that there is a relation between extreme degree quantification and the concept of *nonveridicality* (Giannakidou 1998). In her view, the degree operator is *nonveridical* and therefore prevents the negation marker from acquiring the negative reading it displays in *antiveridical* contexts. Thus, the negation marker is taken to function as a polarity item.

As we will discuss in the next subsection, this idea of a relation with *nonveridicality* is also supported by the fact that degree wh-exclamatives appear to lack the property of factivity, as opposed to standard wh-exclamatives (Grimshaw 1977).

4.7.1.2 Portner & Zanuttini (2000), Zanuttini & Portner (2003)

Differently from Espinal (1997, 2000), Portner & Zanuttini (2000) argue that it is not expletive negation what we are dealing with in degree wh-exclamatives. Rather, the authors suggest that the negation marker occurring in these structures conveys the standard negative reading. Consider the Paduan example below:

- (146) Cossa no ghe dise-lo!
What neg him says-s.cl
'What things he's telling him!'

(Portner & Zanuttini 2000: 204)

As in Spanish, Portuguese and Bulgarian, the structure in (146) invokes a reading according to which *he* told him many unexpected things. Portner & Zanuttini (2000) assume that the wh-exclamative under (146) represents a set of alternative propositions *C* ordered in a Scale:

- (147) $C = \{ \text{'he didn't tell him he committed a murder'}, \text{'he didn't tell him he is having trouble in his marriage'}, \text{'he didn't tell him he dislikes his neighbour'}, \text{'he didn't tell him it is a nice day outside'} \}$

Scale = ['he didn't tell him he committed a murder' < 'he didn't tell him he is having trouble in his marriage' < 'he didn't tell him he dislikes his neighbour' < 'he didn't tell him it is a nice day outside']

(Portner & Zanuttini 2000: 204)

The propositions presented under (147) are ordered according to the degree of probability they denote. As indicated by the Scale, the least probable alternative is the alternative “he didn't tell him he committed a murder”. What is more, it should be noted that the alternative propositions are presented in their negative form. According to Portner & Zanuttini (2000), this is a result of the fact that negation in such structures is standard sentential negation and not expletive negation. This is why the set of alternatives invoked by the degree exclamation are also negative propositions. However, given the extreme degree of quantification denoted by the structure, the set of propositions is designed in such a way that it invokes even the most improbable alternatives such as “he didn't tell him he committed a murder” and “he didn't tell him he is having trouble in his marriage”. Consequently, since the alternative “he didn't tell him he committed a murder” occupies the lowest place in the scale of *expectedness*, as indicated by (147), under the extreme degree quantification reading it is predicted that this is the alternative which is true. Notice that, under the assumption that negation is true sentential negation and not expletive negation, the exclamation is about the things he *didn't* tell him, therefore, only the least probable “he didn't tell him he committed a murder” is taken to be true.

However, assuming that the negative proposition “he didn't tell him he committed a murder” is true, the structure acquires a reading implying that all other alternatives, namely “he didn't tell him he is having trouble in his marriage”, “he didn't tell him he dislikes his neighbour” and “he didn't tell him it is a nice day outside”, are false. Consequently, due to the negative force of the negation marker and the extreme degree quantification, the structure implies that he *did* tell him he is having trouble in his marriage, that he *did* tell him he dislikes his neighbour and that he *did* tell him it is a nice day outside.

As pointed out by the authors, the structure in (146) therefore turns out to be about the things he *did* tell him which, as a result, conveys the expletive negation meaning associated with the lack of negative force of the negation marker.

In later works, namely in Zanuttini & Portner (2003), the authors also suggest that the extreme degree quantification meaning is a result of a semantic mechanism called *widening*. In general terms, *widening* refers to those cases in which the initial domain of quantification is widened, much as in den Dikken & Giannakidou's (2002) 'domain extension' (cf. Chapter 3, Section 3.3.2). According to Zanuttini & Portner (2003), *widening* applies in all exclamation sentences regardless of the occurrence of the negation marker.

In what follows, we will assume with Portner & Zanuttini (2000), that negation is indeed true sentential negation. However, differently from these authors, we will claim that the lack of negative force is associated with the evaluative-like interpretation of degree exclamation sentences and with their relation to *nonveridicality*.

4.7.2. Factivity

Since Grimshaw (1977), it has been commonly agreed that exclamation sentences display the property of being inherently factive. Due to this property, exclamation sentences can be embedded under factive (148) and emotive-factive predicates (149):

(148) I know how beautiful Mary is.

(149) It is amazing how beautiful Mary is.

According to Villalba (2004, 2008) the property of factivity is what triggers the general incompatibility between exclamation sentences and negation. In his terms, negation is frequently infelicitous in exclamation sentences because it is incompatible with their inherently factive nature.

Ambar (2000, 2003) accounts for the property of factivity in these structures by suggesting that their syntactic expression involves the functional projection AssertiveP. As shown in Chapter 3, the derivation of wh-exclamation sentences relies on movement of the wh-phrase to the speaker's projections Assertive and Evaluative.

Interestingly, when comparing standard wh-exclamation sentences and degree wh-exclamation sentences, it appears that there exists an important divergence between these

structures. Degree wh-exclamatives are infelicitous under the scope of factive and emotive factive predicates. Observe that degree wh-exclamatives in both Bulgarian (150) and Portuguese (151) are incompatible with predicates like ‘know’ or ‘it is amazing’:

(150) a. *Znam kakvo li ne kupi Ivan.
Know.1sg what Q not bought John

b. *Neverojatno e kakvo li ne kupi Ivan.
Amazing is what Q not bought John

(151) a. * Eu sei o que a Maria não comprou.
I know what the Mary not bought

b. * É incrível o que a Maria não comprou.
Is amazing what the Mary not bought

Notice that the Portuguese examples in (151a) and (151b) can only be considered grammatical sentences when the negation marker occurring in the embedded clause is interpreted as true sentential negation:

(152) a. Eu sei o que a Maria não comprou.
I know what the Mary not bought
“I know what Mary didn’t buy.”

b. É incrível o que a Maria não comprou.
Is amazing what the Mary not bought
“It is amazing what Mary didn’t buy.”

No such ambiguity is observed in the Bulgarian ungrammatical pair in (150). Even if negation is associated with true negative force and not with the expletive reading, the structures are still infelicitous due to the occurrence of the particle *li*. Since *li* displays a relation to polarity and occurs in questions, it is generally incompatible with factive and emotive factive predicates.

(153) a. *Znam kakvo li ne kupi Marija.
Know.1sg what Q not bought Mary
Intended: ‘I know what Mary didn’t buy’

b. *Neverojatno e kakvo li ne kupi Marija.
Amazing is what Q not bought Mary
Intended: ‘It is amazing what Mary didn’t buy.’

Another piece of evidence supporting the lack of factivity in Portuguese wh-exclamatives comes from the occurrence of the complementizer *que*. As discussed in Ambar (2003), the complementizer *que* is felicitous only in wh-exclamatives with D-linked wh-words. Compare the examples below:

(154) Que livro que o João leu!
What book that John read

(155) *O que que o João disse!
What that John said

(Ambar 2003: 239)

According to Ambar (2003), the complementizer *que* is merged in Assertive. Given that only the [+r(eferential)] D-linked wh-phrases, such as *que livro* ‘what book’ in (154), move to Evaluative without passing through Assertive, the occurrence of the complementizer *que* is only plausible in wh-questions displaying D-linked wh-phrases. Bare wh-phrases, on the other hand, are underspecified for evaluation. For this reason, they must obligatorily undergo movement to Assertive which precludes their co-occurrence with *que*, as shown by (155).

Observe now the occurrence of the complementizer *que* in Portuguese degree wh-exclamatives. The examples in (156) and (157) display the [+r] wh-word *quantos livros* ‘how many books’ which, as illustrated below, is compatible with *que*. In (157), however, it appears that *que* blocks the expletive reading of the negation marker and, consequently, the degree quantification reading as well.

(156) *Quantos livros que o João leu!*
how_many books that the John read
'How many books John read!'

(157) *Quantos livros que o João não leu!*
How_many books that the John not read
'How many books John didn't read!'
*'John read so many books!'

Observe that the example in (157) lacks the degree quantification reading. In fact, the reading conveyed by this structure is the one under which the negation marker contributes to the negative interpretation of the structure, i.e. the speaker is surprised by the quantity of books John *didn't* read.

As mentioned above, according to Ambar (2003) *que* is merged in AssertiveP and is only compatible with D-linked wh-phrases. In light of this view, the fact that the complementizer *que* blocks the extreme degree quantification reading in (157) gives rise to two possible hypotheses:

(i) Since degree wh-exclamatives are not factive, Assertive does not project in these structures;

(ii) Assertive projects in degree wh-exclamatives. However, the occurrence of the complementizer *que* blocks the relation between the Operator licensing the degree meaning and the negated verb.

We will argue in favour of the hypothesis in (ii). Note that, although Assertive has been seen as the domain accounting for the property of factivity and for 'what the speaker knows' (Ambar 2003), it also accounts for the speaker's presuppositions. Degree wh-exclamatives are clearly structures involving a presuppositional context. The characteristic evaluative-like meaning is therefore derived compositionally by movement to Assertive and Evaluative (Ambar 2000, 2003).

In our view, the apparent lack of factivity is related to the existence of a *nonveridical* operator deriving the extreme degree meaning of these structures (much as in Espinal 1997, 2000). Moreover, Bulgarian degree wh-exclamatives obligatorily display

the particle *li*. Below we will suggest that, as in *wh+li* questions (Section 3.3.2), the occurrence of the particle *li* in *wh*-degree exclamatives is related to a mechanism such as den Dikken & Ginnakidou's (2002) *Domain Extension* or Zanuttini & Portner's (2003) *widening*. As will be shown in what follows, we argue that Portuguese also displays a non-overt evaluative operator licensing the evaluative meaning of these structures and triggering the expletiveness of the negation marker.

4.7.3. Proposal for analysis

In this section we will present a proposal for analysis of degree *wh*-exclamatives in Bulgarian and Portuguese, considering that they activate the functional projection EvaluativeP.

4.7.3.1. The function of the particle *li*

Let us start by providing an answer to one obvious and intriguing question.

Comparing the formation of degree *wh*-exclamatives in Bulgarian and Portuguese, the first crucial divergence between the languages under study concerns the occurrence of the particle *li*. Differently from Portuguese and from the other Romance languages previously discussed in the literature, namely Italian (Portner & Zanuttini 2000) and Spanish (Espinal 1997, 2000), Bulgarian displays an overt element licensing degree *wh*-exclamatives. Curiously, this element is obligatory for the formation of yes-no questions and, moreover, conveys a flavour of wondering when it occurs in *wh*-questions (cf. Section 2.1.1.1).

The particle's occurrence in *wh*-questions appears to be particularly important for the discussion pursued here. In fact, *wh+li* questions and degree *wh*-exclamatives pattern in what concerns the occurrence of *li*: in contrast to yes-no questions in which the verb or an XP different from the verb can attach to *li*, in *wh+li* questions and degree *wh*-exclamatives it is the *wh*-word that obligatorily attaches to *li*:

(158) a. [Kakvo li] kupi Ivan?

What Q bought John

‘What did John buy? (I wonder)’

- b. [Kakvo li] ne kupi Ivan!
 What Q not bought John
 ‘John bought so many things!’

In Chapter 3 (Section 3.2.2.1 and Section 3.3.2), we discussed the occurrence of the particle *li* in wh-questions, considering the proposal of den Dikken & Giannakidou (2002) on wh-*the-hell* questions and adopting the semantic operation *Domain Extension*. Observing that, besides functioning as a question particle, *li* also displays a strong relation to the existence of a set of alternatives, we claimed that when a wh-word attaches to *li* in wh-questions, the particle acts on the set of alternatives invoked by the wh-phrases denoting den Dikken & Giannakidou’s (2002) *Domain Extension*. In addition, the particle’s relation to quantification and to the existence of presuppositions has been seen as an argument explaining why the only plausible host for *li* in wh-questions is the wh-word: wh-words invoke a set containing the alternative propositions available in the universe (cf. Section 3.2.2, Szabolcsi (2015)).

Given the relation *li* establishes with the set of presuppositions, in Chapter 3, Section 3.3.2, we suggested that the complex constituent formed by the wh-word and *li* moves to Spec, AssertiveP. Consider again the proposal for analysis of wh+*li* questions in Section 3.3.1, repeated below for ease:

- (159) a. Kakvo li kupi Marija?
 What Q bought Mary
 ‘What did Mary buy? (I wonder)’

- b. [AssertiveP kakvo_i li_j [Assertive° kupi_g [IntP kakvo_i li_j [Int° kupi_g [PolP
 what Q bought
 kakvo_i li_j [Pol° kupi_g [TP Marija_o [T° kupi_g [vP Marija_o [v° kupi_g kakvo_i]]]]]]]]]]]]]]
 Mary

As suggested in section 3.3.2, the wh-word raises to Spec, PolP where it attaches to *li*. The new-formed constituent then raises to Spec, IntP and Spec, AssertiveP as

suggested for XP-*li* questions. As in standard wh-questions, the verb raises to Int^o for reasons related to the valuation of an unvalued [*u*V] feature and proceeds to Assertive^o.

Below, we will argue that the derivation of degree wh-exclamatives partly follows the analysis proposed in (159) above. Crucially, we will argue that *li* functions the same way in both structures: it acts on the set of presuppositions giving rise to *Domain extension* (den Dikken & Giannakidou 2002) or ‘widening’ (Zanuttini & Portner 2003).

Notice that the evidence from the formation of degree wh-exclamatives in Bulgarian is especially important. The fact that these structures display the particle *li* and the analysis we have developed so far go in the sense of Espinal (1997, 2000) who suggests that degree wh-exclamatives rely on a degree operator originating in a given projection above C.

4.7.3.2 EvaluativeP

Apart from the intriguing occurrence of the particle *li* licensing the extreme degree quantification reading of degree wh-exclamatives, Bulgarian and Portuguese display another important difference concerning the formation of these structures. In this section, we showed that Bulgarian degree wh-exclamatives display obligatory subject-verb inversion and strict adjacency between the wh-word, the particle *li* and the negated verb, which suggests that the negated verb enters a Spec-head relation with the wh-constituent attached to *li*. In contrast, Portuguese degree wh-exclamatives do not display obligatory inversion, i.e. they pattern standard wh-exclamatives (Ambar 2000, 2003). Observe again the examples considered above:

(160) Kakvo li ne kupi Ivan!
What Q not bought John
‘John bought so many things!’

(161) Quantos livros o João não leu!
How-many books the John not read
‘John read so many books!’

According to Ambar (2000) the preferred SV order in wh-exclamatives is a result of the subject's raising to a given XP projection (accommodating topicalized and left-dislocated constituents) situated below Assertive. Curiously, the SV order also occurs in the type of wh-questions defined as "lacking a full-blown interrogative reading" [Ambar 2000: 33]:

- (162) a. Que livro o João leu?
 What book the John read
- b. O que o Pedro disse?
 The what the Peter said
- c. Onde o Pedro foi?
 Where the Peter went?
- d. *Que o Pedro comprou?⁴⁴
 What the Peter bought

(Ambar 2000: 33-34)

Ambar (2000) suggests that there exists a correlation between the activation of Assertive and the raising of the subject: "Note that whenever AssertiveP is projected XP also tends to be projected, in other terms both in echo-like wh-questions and in wh-exclamatives the SV order is preferred." [Ambar 2000: 35].

Below, we put forth our proposal for analysis of Portuguese degree wh-exclamatives. Following Ambar (2003), we assume that the lack of subject-verb inversion is indeed a result of the subject's raising to a Top(ic) projection situated above WhP. Moreover, we will consider that raising to Evaluative triggers the degree interpretation

⁴⁴ Notice that the barest *que* 'what' cannot occur in either the echo-flavour wh-questions or wh-exclamatives:

- (i) *Que o Pedro comprou!
 What Peter bought!

According to Ambar (2000) this is associated with the lack of referentiality of the bare *que* which cannot check Assertive.

AssertiveP and to Spec, EvaluativeP. As discussed with respect to *wh+li* questions, when *li* attaches to the *wh*-phrase in Spec, PolP it acts on the set of alternatives carried by the *wh*-word.

The raising to Assertive and Evaluative is motivated by the following reasons: (i) Assertive accounts for the existence of a presuppositional context. (ii) Evaluative accounts for the expression of speaker's evaluations and for the relation to *nonveridicality* such structures display.

4.8. Summary of Chapter 4

The goal of this chapter was twofold. On the one hand, we aimed to discuss the syntactic expression of negative yes-no questions in Bulgarian and Portuguese. On the other, we made an attempt to shed some light on the structures traditionally known as Degree *wh*-exclamatives and on the syntactic mechanisms underlying the extreme degree quantification reading.

Negative yes-no questions are well-known for the positive bias they frequently denote. This is why they have been traditionally associated with the expletive nature of the negation marker. Based on data from Bulgarian and Portuguese and following Holmberg (2016), we argued that the expression of positive bias is not an outcome of the semantic properties of the negation maker. Rather, it is associated with verb-movement to a position of the Left Periphery. In this sense, the data from Bulgarian negative yes-no questions turned out to be especially revealing. These structures illustrate an intriguing pattern. When the negated verb attaches to *li*, the occurrence of *n*-words is precluded. Differently from previous works (Miličević 2006, a.o.), which associate the NC-blocking with the high position of the negation marker and with the occurrence of *li*, which is seen as an intervener blocking the relation between negation and post-verbal *n*-words, we claimed that it can be also an outcome of the properties of negative indefinites. Following Giannakidou (1998, 2006), we proposed that negative quantifiers denote a set of alternatives and must therefore be part of the questioned portion of the interrogative, i.e. negative quantifiers, like *wh*-words, attach to *li* in Spec, PolP.

The Portuguese data supported the conclusions with respect to the behaviour of Bulgarian negative quantifiers. We observed that, although Portuguese yes-no questions are able to denote positively-biased readings, they can also consist in requests for confirmation of the negative value of the proposition. Using as a diagnosis the behaviour of *qualquer*-items and n-words, we distinguished between two types of negative yes-no questions in Portuguese: (i) Neg V *qualquer*-series and (ii) Neg V n-words. Following Ambar (2013), we assumed that Portuguese yes-no questions indeed display verb-movement to C. This is the case of the structures under (i): the negative verb undergoes movement to Evaluative where the so-called positively biased reading is licensed. As a result, the *qualquer*-series occurring under the scope of negation in structures like (i) denotes the positive reading they have in non-negative declaratives. In contrast, the structures in (ii) display an n-word which is licensed by clause-mate negation. However, given that n-words are presuppositional quantifiers, they must obligatorily be part of the questioned portion of the structure. That is why the n-word undergoes movement to Spec, IntP, which is followed by Remnant TP movement to Spec, AssertiveP, much like in Ambar's (2003) analysis of *wh-in-situ* questions.

Besides the NC-blocking and the licensing of n-words in Bulgarian and Portuguese, another central topic under discussion was associated with the high position of the negated verb and its relation to the expression of positive bias. Although we suggested that the high position occupied by the negated verb is not the only trigger for NC-blocking in languages like Bulgarian, it is indeed responsible for the expression of positive bias (Holmberg 2016). The comparison with languages that do not display verb movement to C supported this view. Mandarin Chinese is one such language. As discussed in Holmberg (2016), the lack of verb movement to T and to C triggers the *truth-based* answering pattern Chinese consistently follows. As confirmed by the native speakers consulted, the expression of positive bias in Chinese negative yes-no questions relies on the insertion of the copula verb *shi*. Therefore, considering the data from Bulgarian, Portuguese and Chinese, we proposed that the negated verb in positively biased negative yes-no questions raises to EvaluativeP, the projection accounting for the speaker's evaluations. This analysis has two central advantages: (i) it captures the higher raising of the verb in positively biased yes-no questions and (ii) it accounts for the discourse function of positively biased yes-no questions and their relation to evaluation

(Yoon 2011). The alleged ‘expletiveness’ of the negation marker is therefore explained by virtue of the activation of Evaluative.

Several intriguing consequences stem from this proposal. On the one hand, it captures the data from negative yes-no questions. On the other, it also accounts for another type of structure frequently associated with ‘expletive negation’, namely Degree wh-exclamatives. Again, Bulgarian is particularly revealing. Bulgarian degree wh-exclamatives display the well-known ingredients whose combination yields the evaluative character of the structure they occur in: the particle *li* and the negation marker. Besides the fact that the particle *li* is crucial for the expression of extreme degree quantification, evidence from Portuguese, namely the occurrence of the complementizer *que*, supported the claim that degree wh-exclamatives do in fact lack the property of factivity. Therefore, it appears that both negative yes-no questions and degree wh-exclamatives display a relation to *nonveridicality*, captured in our analysis under the activation of Evaluative.

The relation between the concept of *nonveridicality* and the functional projection EvaluativeP will be a topic of further discussion in the chapter that follows, where we will focus on the selection of the subjunctive in yes-no questions. Nevertheless, the discussion provided throughout this chapter illustrated an intriguing pattern concerning negative yes-no questions and degree wh-exclamatives. In our view, these structures both project Evaluative. In addition, both seem to display a relation to *nonveridicality*, which may be regarded as the trigger for the blocking of NC and for the expletive reading of the negation marker.

Interestingly, the intriguing blocking of NC triggering the expletive reading of negation and the unexpected compatibility between negation and positive indefinites are also at stake with given types of predicates selecting the subjunctive in their complements. Consider the structure in (166) below:

- (166) Straxuvam se da ne doide *nikoj /njakoj.
Be_Afraid.1p.sg Refl SUBJ not come.Pres.Perf no one /someone
‘*I am afraid that anybody will not come.’
‘I am afraid that somebody might come.’

The structure in (166) shares the following properties with negative yes-no questions: (i) negation does not display the usual negative reading but rather an evaluative-like reading and (ii) NC is blocked, therefore, only positive indefinites, like *nijakoj* ‘someone’, are plausible under negation. The data in (166) supports our claim that the particle *li* is not the trigger for NC-blocking in Bulgarian negative yes-no questions. In (166) no lexical material intervenes between the negation marker and the n-word *nikoj* ‘no one’. Nevertheless, the negation marker occurs in the scope of the subjunctive particle *da*. As will be discussed in Chapter 5, *da* is the element responsible for the licensing of the subjunctive mood in Bulgarian. In our view, the so-called expletive reading of the negation marker and the blocking of NC in (166) derive from the fact that the structure is *nonveridical*. Compare (166) with the example in (167) below:

- (167) Straxuvam se če ne e kazal ništo / *nešto na majka si.
 Be_afraid.1p.sg. Refl that not is said nothing /something to mother his
 ‘I am afraid that he didn’t say anything to his mother.’

In (167) nothing prevents the licensing of negation and NC. Rather, the element disallowed in the scope of negation is the positive indefinite *nešto* ‘something’. Notice however that the structure in (167) displays the indicative complementizer *če* ‘that’, therefore, the embedded clause is viewed as a fact. In contrast to (166) above, the structure in (167) denotes the speaker’s belief in the truth of the embedded proposition.

As noted above, Portuguese display a similar behaviour when considering the occurrence of the complementizer *que* in degree wh-exclamatives. Observe again the example in (157), repeated below as (168):

- (168) Quantos livros que o João não leu!
 How_many books that the John not read
 ‘How many books John didn’t read!’
 *‘John read so many books!’

The occurrence of the Portuguese complementizer *que* precludes an extreme degree quantification reading of the structure. What is more, negation is not expletive but

truly negative, patterning the Bulgarian example in (167), where negation occurs under the indicative complementizer *če*.

In our view, the similarities concerning the expletive reading of negation and the blocking of negative concord are not coincidental. Rather, they suggest that negative yes-no questions with *high* negation, degree wh-exclamatives and subjunctive clauses share a property which in our view is related to *nonveridicality*. The correlations between these structures, the concept of *nonveridicality* (Giannakidou 1998) and its codification in the functional projection EvaluativeP (Ambar 2016) will be some of the topics researched in Chapter 5.

5. ON THE SUBJUNCTIVE MOOD IN YES-NO QUESTIONS

In Chapter 4, we noticed that negative yes-no questions and degree wh-exclamatives share with subjunctive clauses some intriguing properties concerning the expletive reading negation systematically acquires. As we suggested, what triggers the expletive reading of negation and, consequently, the blocking of NC in these structures is the relation to *nonveridicality* they display. As a unifying property, *nonveridicality* also triggers the evaluative character of both negative yes-no questions and degree wh-exclamatives, permitting them to denote the speaker's attitude towards the state of affairs described. According to the analysis proposed in Chapter 4, these properties of negative yes-no questions and degree wh-exclamatives are captured by movement to the functional projection EvaluativeP.

As discussed in Chapter 3, EvaluativeP was originally regarded as the domain accounting for the speaker's evaluations (Ambar 1996, 1997, 1999, 2000, 2003). Ambar (2000, 2003) proposes that Evaluative is involved in the derivation of wh-exclamatives. In some recent works, namely Ambar (2016a), EvaluativeP is also seen as the domain licensing the subjunctive mood in both matrix and embedded subjunctive clauses. With these observations in mind, in this chapter we extend the discussion on yes-no questions to the cases in which these structures display the subjunctive mood. The discussion that follows will be focused on Bulgarian and Portuguese's divergent behaviours with respect to the licensing of the subjunctive, on the one hand, and on the triggers of its selection in questions, on the other.

The subjunctive mood has traditionally been approached from the perspective of its selection in complements to volitional, directive and emotive-factive predicates. Considering that the subjunctive is the mood of subordination encoding a given type of dependency, it has been commonly agreed that the tense of the embedded domain is anaphoric with respect to the matrix tense (Picallo 1984, Raposo 1985, Ambar 1988 a.o). By virtue of this dependency, the subjunctive embedded domain has been considered an anaphoric tense domain, reason why it extends to the matrix clause giving rise to obligatory *obviation* effects.

However, another group of works (Marques 2009, 2010, Giannakidou 2016, Ambar 2016a) has shown that the selection of the subjunctive is more complicated than it may seem at first sight. Whereas only the subjunctive is felicitous in complements of volitional predicates, the indicative being ruled out, some predicates that we discuss below are compatible with both the indicative and the subjunctive. This indicative-subjunctive interplay has therefore led to the assumption that, the occurrence of the subjunctive is not always a consequence of selection (Ambar 2016a), i.e. there exist cases in which it is not a result of the semantic properties of the matrix predicate but rather encodes different speaker-related features.

These properties of the subjunctive are particularly revealing in subjunctive main clauses: in addition to the special values the subjunctive denotes in main clauses, these structures further illustrate that the subjunctive mood is able to occur on its own.

Leaving aside the general properties of the subjunctive mood and focusing on its expression across languages, another well-known fact about this mood concerns the crosslinguistic variation with respect to its licensing.

Romance languages display verbal morphology specialised for the subjunctive (Picallo 1984, Raposo 1985, Ambar 1988, Kempchinsky 2009, Quer 1998, 2006, Giannakidou 1998, a.o.). Slavic and Balkan languages (Dobrovie-Sorin 1994, 2001, Krapova 2001, Giannakidou 2009, Mazhevic 2006 a.o.), on the other hand, express the subjunctive via the so-called *subjunctive particles*. Many works have been dedicated to achieving a better understanding of the categorial status and the structural position occupied by these particles. For some authors, they are complementizers (Roussou 2000, Krapova 1999), for others, they head the functional projection MoodP (Giannakidou 2009 on Greek *na*). Observing that subjunctive particles are obligatorily verb-adjacent, Dobrovie-Sorin (1994, 2001) suggests that the Romanian subjunctive particle *să* is part of the verbal inflection and, therefore, incorporates into the verbal cluster. Although these divergent views face some problems, they capture the core property of the so called subjunctive particles, namely the fact that these elements are consistently ambiguous between subjunctive and infinitival structures.

As mentioned above, our main goal in the following sections is to discuss the subjunctive in yes-no questions. Differently from subjunctive embedded clauses which have received much attention in the literature, subjunctive interrogatives (and other types of subjunctive main clauses) have not been subject to any systematic scrutiny.

Capitalizing on the expression of the subjunctive mood in the languages under study, namely Bulgarian and Portuguese, we will observe an intriguing contrast concerning subjunctive interrogatives. In Bulgarian, nothing precludes the occurrence of the subjunctive in either yes-no or wh-questions (ex. (1a-b)). In Portuguese, however, subjunctive interrogatives are ruled out (ex. (2a-b)):

(1) a. Ivan *da* otide li na kino?
 John Subj. go.PERF.PRES. 3p.sg. Q to movies
 ‘Should John go to the movies?’

b. Kăde *da* otide Ivan?
 Where Subj. go.PERF.PRES. 3p.sg John
 ‘Where should John go?’

(2) a. * O João vá ao cinema?
 The John go.SUBJ.3p.sg. to-the movies

b. * Onde vá o João?
 Where go.SUBJ.3p.sg the John

Considering the intriguing contrast demonstrated by the examples in (1) and (2), our goal in this chapter is to explain what triggers this sharp divergence. Considering previous works (Ambar (2016a), Ambar, Dimitrova & Amaral (2017)), dedicated to achieving a better understanding of the strategies different groups of languages employ for the expression of the subjunctive, we will argue that the opposition regarding the licensing of the subjunctive in yes-no questions is a result of some general contrasts in the syntactic properties of this mood in Romance and Balkan languages.

The chapter is organised as follows. In Section 5.1 we start by considering some of the seminal works dedicated to the expression of the subjunctive mood in Romance and Balkan languages. In Section 5.2 we discuss the central properties of the Bulgarian subjunctive particle *da*, exploring its occurrence in matrix and embedded clauses and comparing with Portuguese and with other languages of the Romance and the Balkan groups. In Section 5.3 we refer to some of the previous accounts dedicated to the selection

of the subjunctive in main clauses, namely Ambar (2016a) and Giannakidou (2016). Next, in Section 5.4 we undertake an in-depth discussion of, on the one hand, the properties of Bulgarian subjunctive interrogatives and, on the other, the factors triggering the ungrammaticality of these structures in Portuguese. In Section 5.5 we put forth our proposal for an analysis of Bulgarian subjunctive yes-no questions. In Section 5.6 we illustrate what triggers the ban on subjunctive questions in Portuguese, adopting the system for tense-feature valuation proposed in Ambar (1998, 2005 2007, 2016a). In Section 5.7 we consider another subjunctive-like element, namely the Bulgarian interrogative complementizer *dali*. In Section 5.8 we briefly refer to some correlations between the expletive reading of the negation marker and the evaluative properties of subjunctive questions. Section 5.9 concludes the chapter.

5.1. The Subjunctive Mood: Main properties and Previous Analyses

In this section, we will briefly consider some of the previous works dedicated to the subjunctive mood and its expression across languages. We will focus particularly on the studies dedicated to Romance and Balkan subjunctive embedded clauses.

5.1.1. The Subjunctive in Romance: tense and obviation

Let us start by considering some well-known facts about the subjunctive and its selection in Romance embedded clauses. As illustrated by the Portuguese data below, the subjunctive mood has traditionally been approached from the perspective of its obligatory selection in complements of volitional (3a), directive (3b) and emotive-factive (3c) predicates:

(3) a. O João quer que a Maria escreva o artigo.

The John wants that the Mary writes.SUBJ.3p.sg. the article

‘John wants Mary to write the article.’

b. O João pediu que a Maria escrevesse o artigo.

The John asked that the Mary write.PAST.SUBJ.3p.sg the article

‘John asked Mary to write the article.’

c. O João lamenta que a Maria tenha escrito o artigo.

The John regrets that the Mary have.SUBJ.3p.sg written the article

‘John regrets that Mary has written the article.’

Predicates like Portuguese *querer* ‘want’, *pedir* ‘ask’ and *lamentar* ‘regret’ are restricted to selecting the subjunctive in their complements. Notice that they are strongly ungrammatical with the indicative:

(4) a. *O João quer que a Maria escreve o artigo.

The John wants that the Mary writes.IND.3p.sg. the article

‘John wants Mary to write the article.’

b. *O João pediu que a Maria escrevia o artigo.

The John asked that the Mary write.PAST.IND.3p.sg the article

‘John asked Mary to write the article.’

c. *O João lamenta que a Maria tem escrito o artigo.

The John regrets that the Mary has.IND.3p.sg written the article

‘John regrets that Mary has written the article.’

Conversely, it is the indicative and not the subjunctive the mood which is obligatorily selected under assertive and epistemic verbs such as *dizer* ‘say’ or *pensar* ‘think’ in the examples in (5) and (6) below:

(5) a. O João informou que a Maria escreveu o artigo.

The John informed that the Mary wrote.PAST.IND.3p.sg the article

‘John informed that Mary wrote the article.’

b. O João pensa que a Maria escreveu o artigo.

The John thinks that the Mary wrote.PAST.IND.3p.sg. the article

‘John thinks that Mary wrote the article.’

(6) a. * O João informou que a Maria escrevesse o artigo.

The John informed that the Mary wrote.PAST.SUBJ.3p.sg the article

‘John informed that Mary wrote the article.’

b. * O João pensa que a Maria escreva o artigo.

The John thinks that the Mary write.PRES.SUBJ.3p.sg the article

‘John thinks that Mary wrote the article.’

Considering the examples in (3)-(6) above, it appears that the occurrences of the subjunctive and the indicative are straightforwardly accounted for by virtue of the properties of the predicates responsible for the selection. Volitional, directive and emotive-factive⁴⁵ predicates select the subjunctive, while assertive and factive predicates take the indicative.

The subjunctive-indicative divide is, however, more sophisticated. Marques (2009, 2010) among others notes that there exist predicates which are compatible with both the indicative and the subjunctive. Consider, for instance, the examples below with Portuguese *acreditar* ‘believe’:

⁴⁵ Languages differ in what concerns the selection of the subjunctive under emotive-factive predicates like ‘regret’. In Romance languages (though not Romanian), such predicates are only compatible with the subjunctive. In languages like Bulgarian, Romanian and Modern Greek, on the other hand, the type of mood selected under such predicates is the indicative and not the subjunctive. Observe the Bulgarian examples below:

(i) Ivan sazhajjava če Marija zamina za Kanada.
John regrets that.IND Mary left.PAST.3p.sg to Canada
‘John regrets that Mary left for Canada.’

(ii) * Ivan sazhajjava Marija da zamine za Kanada.
John regrets Mary SUBJ leave.PRES.PERF.3psg to Canada

According to Farkas (1992), this variation is associated with languages’ different sensibilities regarding the property of factivity, i.e. languages like Bulgarian are highly sensitive to the factive nature of such predicates, as opposed to Romance languages like Portuguese. Moreover, Ambar (1998) and Martins (2001) argue that complements of emotive-factive predicates are [+T] (Portuguese inflected infinitives, cf. Section 5.5). This view captures the behaviour of Balkan languages, which obligatorily select the indicative, i.e. the embedded domain is [+T].

(7) a. Eu acredito que a Ana ganhe as eleições.
I believe that the Ana wins-SUBJ the elections

b. Eu acredito que a Ana ganha as eleições.
I believe that the Ana wins-IND the elections
'I believe that Ana will win the elections.'

(Marques 2010: 140)

As discussed in Marques (2010), at first glance, the selection of the subjunctive and the indicative under predicates like *acreditar* 'believe' appears to be related to the expression of, respectively, low vs. high degrees of certainty. The indicative is the mood indicating the speaker's high degree of belief in the truth of the embedded proposition. The subjunctive, on the other hand, denotes a low degree of belief. Observe that the occurrence of the adverb *convictamente* 'really' makes the selection of the subjunctive rather odd. Since *convictamente* 'really' forces the expression of a high degree of belief, the mood of the embedded domain is indicative, as in (8b):

(8) a. ? Acredito convictamente que haja sobreviventes.
Believe.1p.sg really that is.SUBJ.3p.sg survivors

b. Acredito convictamente que há sobreviventes.
Believe.1p.sg really that is.IND.3p.sg survivors
'I really believe that there are survivors.'

(Marques 2010: 140)

It follows from (7) and (8) that the indicative is selected when the embedded proposition is taken to be true whereas the subjunctive occurs in propositions taken to be false. Yet, as pointed out by Marques (2010), a problem with the 'true-false' analysis appears when the selection of the subjunctive by causative predicates is considered:

(9) A rápida intervenção dos bombeiros permitiu que toda a gente
The quick intervention of-the firemen allowed that every the people
fosse salva.

was-SUBJ saved

‘Thanks to the quick intervention of the firemen, everybody was saved.’

(Marques 2010: 142)

The subjunctive is selected in the complement in (9) regardless of the fact that the structure is clearly taken to be true. The example in (9) therefore illustrates that the dichotomy true-false (or *realis-irrealis*) fails to capture the properties of the indicative and the subjunctive. In view of these data, Marques (2010) considers that mood selection is actually associated with the concept of *veridicality* (Giannakidou 1998) and with the speaker’s attitude towards the proposition of the embedded domain which is expressed under a given type of modality. The indicative is, therefore, restricted to occurring under predicates denoting epistemic modality. The subjunctive, on the other hand, can express a wide variety of attitudes. It is compatible with predicates expressing desire or evaluation, or with deontic predicates.

The behaviour of predicates like Portuguese *acreditar* ‘believe’ are particularly important when considering *mood selection*. They clearly show that the choice between the indicative and the subjunctive is not a mere consequence of the semantic properties of given predicates. As argued in Ambar (2016a), the subjunctive and the indicative are not *selected* by the main predicate in (7) above. Rather, their occurrences are triggered by other factors related to the expression of the speaker’s beliefs. Ambar (2016a) dubs subjunctive complements like (7a) *unselected subjunctive clauses*.

We will return to this question in Section 5.3 where we will, moreover, discuss the data from subjunctive main clauses.

5.1.1.1. Dependent tense and obviation effects

Another well-known contrast related to the selection of the indicative and the subjunctive in embedded clauses concerns the co-reference between the subjects of the matrix and the embedded domain. With the indicative, the subject of the matrix domain may or may not be co-referent with the subject of the embedded domain:

(10) O João_i disse que pro_{i/j} comprou o livro.

The John said that pro bought the book

‘John said that he bought the book.’

With the subjunctive, on the other hand, the co-reference between the matrix and the embedded subject is ruled out:

(11) O João_i quer que pro *_{i/j} compre o livro.

The John wants that pro buy.SUBJ.3p.sg the book

‘John wants him to buy the book.’

As illustrated by (11), subjunctive embedded clauses display obligatory *obviation effects*.

Obviation has been seen as an outcome of another central property of the subjunctive which distinguishes this mood from the indicative: namely that it is dependent on the matrix verb. This view of the subjunctive mood has been widely discussed in the literature (Picallo 1984, Raposo 1985, 1987, Ambar 1988, a.o.). It has been generally assumed that, differently from the indicative mood, in which C is [+T], subjunctive clauses have [-T] on C. As a result, the binding domain of the embedded clause is extended to the matrix clause. Then, Principle B of the Binding Theory applies, preventing the co-reference between the matrix and the embedded subject.

The anaphoric or dependent tense analysis has another advantage, given that it also explains the fact that the tense selected in the embedded subjunctive domain is restricted with respect to the matrix tense. Note that the embedded verb systematically expresses an event which is posterior to the event of the matrix verb, i.e. the tense of the embedded clause is restricted by that of the matrix clause and displays *concordantia temporum* (Raposo 1985):

(12) a. Eu desejo que a Maria ganhe o prémio.

‘I wish-Pres. that Maria win-Pres.Subj. the prize.’

b. ?? Eu desejo que a Maria ganhasse o prémio.

‘I wish-Pres. that Maria win-Past Subj. the prize.’

(Raposo 1985: 79)

In order to capture the above properties of subjunctive embedded clauses, Raposo (1985) proposes the structure in (13) below:

(13) [s' [+ TENSE]_i [s ... [+ Tense]_i ... V [s' [-TENSE] [s NP [Infl [+ Tense]_i Agr VP]]

(Raposo 1985: 80)

As discussed above, the subjunctive clause has [-TENSE] on C. The tense of the embedded domain must therefore be bound by the tense of the matrix verb and by the higher [+TENSE] operator.

Another approach considering that the embedded tense is dependent was put forth by Ambar (1988, 1992). However, as well as the features [-TENSE] and [+TENSE], this author considers that T and Agr also display the feature [\pm strong]. Subjunctive clauses are therefore marked as [+T, -strong] which, according to the system adopted by this author, means that T must be bound. Notice that the subjunctive is still considered [+T] which is the crucial point of divergence between this analysis and the others (cf. Picallo 1984, Raposo 1985). However, given that it displays the property [-strong], the subjunctive tense must be bound by the matrix verb. The obligatory obviation is accounted for accordingly: since T governs Agr, the binding domain of Agr extends to the matrix clause, thereby precluding the co-reference between the subjects of the matrix and the embedded domain.

5.1.1.2 Dependent tense vs. Independent event (Ambar 2016a)

Nevertheless, the analysis suggesting that the tense in subjunctive embedded clauses is dependent on the matrix predicate is challenged when considering the observations made with regard to the properties of infinitival structures occurring in the complements of volitional predicates. Following Stowell (1982) and Enç (1991), Bošković (1997) and Martin (1996) argue that the tense of control infinitives is [+T] i.e.

the tense of the embedded domain is an independent tense and expresses an unrealized future event.

Clearly, both views correctly capture the properties of the subjunctive: the anaphoric tense approach accounts for the defectiveness of tense and for the obligatory obviation whereas the independent tense approach captures the expression of a future, unrealized event.

In Ambar (2016a) a solution for this apparent paradox between the two conflicting approaches is proposed. Adopting the system for t(ense)-features valuation put forth in previous works (Ambar 1998, 2005, 2007), the author suggests that t-features enter the derivation as bundles (Chomsky 2001). Two types of features are distinguished: t_t – features responsible for the morphological tense and for the nominative case, and t_{ev} – features responsible for the properties of event and Aktionsart and the accusative. With Chomsky's (2001) *interpretable vs. uninterpretable* features, Ambar (2016a) assumes that features enter the derivation as *valued* or *unvalued*. *Unvalued* features receive a value by Agree. In indicative clauses both t_t features and t_{ev} features are valued when they enter the derivation, in subjunctive clauses, on the other hand, only t_{ev} features are valued in V, t_t features being unvalued. The valued t_{ev} feature is probed by the unvalued t_{ev} -features of the heads v, T and C which, consequently also get valued. The t_t -features are therefore valued by the matrix verb or by an operator (in the case of *unselected subjunctive clauses* and main subjunctive clauses, cf. Section 5.3). Moreover, Ambar (2016a) assumes that the matrix verb (or the Op) has an unvalued β -feature responsible for selection. The unvalued β -feature therefore acts like a probe searching for a goal. By virtue of the β -feature valuation, the embedded domain extends to the matrix, obviation being accounted for accordingly.

Note that the proposal put forth in Ambar (2016a) solves the problem deriving from the two conflicting views: (i) the dependency of the embedded tense is accounted for through the t_t -features valuation: since t_t -features are valued by the matrix verb, the embedded domain extends to the matrix, (ii) the properties of event, namely the expression of an unrealized future is captured under the assumption that the t_{ev} -features are valued. Therefore, the event of the embedded domain is independent of the matrix. Moreover, under Ambar's analysis obviation is accounted for independently of tense deficiency. Indeed, according to this analysis, obviation is actually associated with the

unvalued β -feature of the matrix tense responsible for selection, which acts as a probe searching for a goal in its c-commanding domain. Consider the derivation below:

- (14) a. O João_i quer /*quis que pro*_{i/j} venha à festa.
 the John_i wants/wanted that pro*_{i/j} come.sbjv.prs.3sg to-the party
 ‘John wants you to come to the party.’

b. [O João_i T1 [t_t, t_{ev}] [vP [t_t, t_{ev}] [VP quer ^{t_β} [t_t, t_{ev}] [CP (que) [t_t u, t_{ev}] [TP pro_i T1 [t_t u, t_{ev}] [vP [v’ [t_t u, t_{ev}] [VP venha [t_t u, t_{ev}] à festa]]]]]]]]]

(Ambar 2016a: 143)

Crucially, Ambar’s (2007, 2010, 2016a) proposal felicitously accounts for the expression of the subjunctive in other languages, namely Russian and Greek (Mazhević 2006, Ambar, Dimitrova & Amaral 2017, a.o.). As opposed to Portuguese, Russian does not display verbal morphology for the subjunctive mood. Instead, the tense of the embedded domain is Past Indicative. The expression of the subjunctive mood therefore relies on the insertion of the particle *by* which incorporates to the indicative complementizer *čto*:

- (15) Ivan_i xočet čtoby on*_{i/j} potseloval Nadju
 Ivan wants that-sbj he kissed.ind.pst.3sg Nadju
 ‘Ivan wants to kiss Nadja.’

(Ambar 2016a: 145)

Russian therefore differs from Portuguese with respect to t-feature valuation. Given that the verb of the embedded domain is Past Indicative, both t_t-features and t_{ev}-features are valued when they enter the derivation, i.e. the embedded domain is *t-complete*. However, Russian patterns Portuguese with respect to obviation effects. As illustrated by (15), the subject of the embedded domain cannot be co-referent to the matrix subject. With Ambar’s system, the obviation effects displayed in Russian are accounted for by virtue of the insertion of *by*. In Ambar’s (2016a) view *by* is the goal of the probe responsible for selection i.e. *by* values the unvalued β -feature of the matrix verb.

Consequently, when *by* incorporates with *čto* the embedded domain extends to the matrix domain, precluding the co-reference between the matrix and the embedded subject.

Besides the intriguing issues concerning t-feature valuation, the analysis put forth in Ambar (2016a) also relies on the activation of the speaker's projections Assertive and Evaluative. Considering other facts involving the subjunctive-indicative divide, drawn namely from puzzling root clauses, and Giannakidou's (1998) concept of *nonveridicality*, Ambar (2016a) assumes that the type of illocutionary force and the role speech acts play must be captured under the derivation of the subjunctive mood. In broad terms, Ambar claims that the indicative-subjunctive divide and the properties of these moods (namely the type of predicates selecting them and the relation to *(non)veridicality*) are codified under the functional projections Assertive and Evaluative. Assertive is seen as the domain of the indicative, accounting for *what the speaker knows* (Ambar 2003). Or, to put it differently, Assertive is the domain of *veridicality* codifying that the proposition is taken to be true. Evaluative, on the other hand, is the domain of *nonveridicality*. In Ambar's terms Evaluative projects in subjunctive clauses, encoding the property of evaluation.

5.1.2. The Subjunctive in the Balkan languages

Having considered some of the main properties of the Romance subjunctive, in this subsection we turn to its expression in the Balkan languages

In a way, the expression of the subjunctive in Balkan patterns Russian, which we briefly discussed above. Recall that, differently from Romance, Russian does not display verbal morphology for the subjunctive but rather relies on the insertion of a special particle, *by*, which adjoins to the indicative complementizer *čto*. Like Russian, the Balkan subjunctive is a result of the occurrence of a particle. Nevertheless, Balkan languages differ from Russian with regard to two important aspects: (i) tense and (ii) obviation. Let us consider some examples from Modern Greek (henceforth MG):

- (16) Ithela na kerdisi o Janis.
Want.PP.1sg SUBJ win.PNP.3sh the John
'I wanted John to win.'

(Giannakidou 2009: 1902)

(17) a. Thelo na pao stin Eladha.

‘I want to go to Greece.’

(Felix 1989 *apud* Ambar 2016: 146)

b. Prospaθo na fiyo.

Try-1SG na leave.1.SG

‘I am trying to leave.’

(Dobrovie-Sorin 2001: 45)

The examples in (16) and (17) illustrate the main facts about the subjunctive in MG. As shown above, MG displays the so-called subjunctive particle *na* and no verbal morphology for the subjunctive. Note that the tense of the embedded verb is Present or, as defined by Giannakidou (2009), Perfective non-past (PNP). Moreover, differently from Romance languages and Russian, it appears that MG subjunctive embedded clauses violate *obviation* (Ambar 2016a). Note that, in (17a) the subject of the embedded subjunctive clause and the matrix subject are co-referent, which suggests that MG *na*-clauses behave similarly to both Romance subjunctive and infinitival structures. As a consequence of this property, MG *na*-clauses also occur in obligatory control structures, as in (17b).

Given the above properties of Balkan subjunctive clauses, the structural position occupied by their subjunctive particles has been subject to many extensive discussions. Roussou (2000) argues that MG *na* is a complementizer like the indicative complementizer *oti*. The main argument in favour of this view concerns the fact that *na* and *oti* cannot co-occur, which suggests that they compete for the same structural position. Nevertheless, the distribution of the MG particle *na* (as well as the subjunctive particles in the other Balkan languages) sharply diverges from that of indicative complementizers. Observe that, in contrast to the indicative complementizer *oti*, *na* is obligatorily verb-adjacent. Compare the MG examples in (18a-b) and (19):

(18) a. *Thelo na o Pavlos erthi.

Want.1.sg SUBJ the Paul.nom come.3p.sg

b. Thelo o Pavlos na erthi.
 Want.1p.sg the Paul SUBJ come.3p.sg
 ‘I want Paul to come.’

(19) O Pavlos ipe oti i Roxani efije.
 The Paul said.3p.sg that.IND the Roxanne left.3p.sg
 ‘Paul said that Roxanne left.’

As pointed out by Giannakidou (2009), the strict adjacency requirement illustrated by the pair in (18) cannot be explained under analyses assuming *na* to be a complementizer. Note that, in (19), the indicative complementizer *oti* allows intervening material such as the subject *i Roxani* ‘the Roxanne’, i.e. the strict adjacency requirement is voided.

The data from Romanian discussed in Dobrovie-Sorin (1994, 2001) supports Giannakidou’s (2009) observations on MG. Romanian is particularly revealing given that it also allows for the co-occurrence of the subjunctive particle *să* and the indicative complementizer *ca* (20a). As in MG, in Romanian nothing (besides pronominal clitics and negation) can intervene between the subjunctive particle *să* and the verb (20b), i.e. *să* is obligatorily verb-adjacent:

(20) a. Vreau ca pînă mîine să termine Ion cartea asta.
 [I] want that until tomorrow SUBJ finish Ion this book.

b. * Vreau ca pînă mîine să Ion termine cartea asta.
 [I] want that until tomorrow SUBJ John finish this book

(Dobrovie-Sorin 1994: 93-94)

Besides the analysis of these elements as complementizers (Roussou 2000, Krapova 1999), two other approaches towards the categorial status of Balkan subjunctive particles can be distinguished: (i) subjunctive particles are generated in Mood° (Giannakidou 2009) and (ii) subjunctive particles incorporate with the verbal cluster (Dobrovie-Sorin 1994, 2001).

[Giannakidou 2009: 1898]. By virtue of this defectiveness, PNP needs to establish a relation with the subjunctive particle *na* or with some other nonveridical particle, such as *tha*, *as* or *an*:

(23) a. As fiji o Janis.
 as leave.PNP.3p.sg. the John
 ‘Let John go.’ (request or permission)

b. Na fiji o Janis
 na leave.PNP.3p.sg. the Janis
 ‘Let John go.’ (request or permission)

c. Tha fiji o Janis.
 FUT leave.PNP.3p.sg. the Janis
 ‘John will leave.’ (future)

d. An fiji o Janis.
 If leave.PNP.3p.sg. the John
 ‘If John goes away...’ (protasis of conditional)

(Giannakidou 2009: 1898)

The observations concerning PNP are particularly intriguing when comparing the properties of the subjunctive mood in the Balkan and Romance languages. Crucially, it appears that, in a way, the subjunctive is dependent in both Balkan and Romance. However, while in languages like MG, PNP is dependent on a given particle, the Romance subjunctive, on the other hand, displays tense dependency on the matrix verb.

Let us now turn to the analyses arguing in favour of (ii), namely those according to which the subjunctive particle is part of the verbal inflection. Exploring the behaviour of the Romanian subjunctive particle *să*, Dobrovie-Sorin (1994) argues that this element is part of the verbal inflection, incorporating into the verbal cluster. The first important argument supporting this view concerns the adjacency requirement. Consider again the examples in (20) above, repeated below for ease:

(24) a. Vreau ca pînă mîine să termine Ion cartea asta.
[I] want that until tomorrow SUBJ finish Ion this book.

b. * Vreau ca pînă mîine să Ion termine cartea asta.
[I] want that until tomorrow SUBJ John finish this book

(Dobrovie-Sorin 1994: 93-94)

As discussed above, nothing, besides negation and pronominal clitics can intervene between *să* and the inflected verb. Furthermore, the constituency tests support Dobrovie-Sorin's (1994) view. In (25c), *să* cannot be omitted from the second conjunct. In contrast, the true complementizer *că* which is generated in C allows to have in its scope a conjunction of two IPs (25a):

(25) a. Stiu că mama a plecat și Ion a rămas.
[I] know that mother has left and John has stayed

b. Vreau (ca mîine) să plece mama și să rămîină Ion.
[I] want (that tomorrow) să leave mother and să stay John

c. * Vreau (ca mîine) să plece mama și rămîină Ion.

(Dobrovie-Sorin 1994: 94)

An additional argument in favour of the analysis of *să* as an element occurring under the IP (TP), concerns the fact that it is allowed to co-occur with wh-phrases, unlike *că*:

(26) a. Am cu cine să plec.
[I] have with whom să [I] leave.

b. Caut o fată cu care să plec la munte.
(I) look for a girl with which să (I) leave for the mountains.

c. Caut fata cu care (*că) pleacă Ion la munte.

[I] look for the girl with which (*that) leaves John for the mountains.

(Dobrovie-Sorin 1994: 95)

Nevertheless, as noticed by the author, the analysis of *să* as part of the verbal inflection does not explain its complementizer-like behaviour, associated with the fact that it occurs sentence-initially, it precedes negation and, moreover, heads embedded clauses. In order to account for both the inflection-like and the complementizer-like behaviour of Romanian *să*, Dobrovie-Sorin (1994) claims that it is generated in an XP position above Tense (or in the CP) but it merges with the verb via incorporation. This proposal therefore captures the dual nature of the particle: (i) on the one hand, *să* is generated in CP which explains its complementizer behaviour, (ii) on the other hand, its incorporation with the verb cluster accounts for its behaviour as an inflection element.

With these preliminaries in mind, in the next section we proceed to a discussion of the properties of Bulgarian subjunctive clauses.

5.2. Bulgarian Subjunctive Clauses

Considering the data illustrating the behaviour of the subjunctive particles *na* and *să* in MG and Romanian, respectively, here we focus on the behaviour of the Bulgarian subjunctive particle *da*. In the following subsections, we will therefore consider the Bulgarian subjunctive particle *da* and its behaviour in terms of properties of verb-adjacency, tense and aspect specifications and a lack of obviation.

5.2.1. Verb-adjacency

Like the subjunctive particles in MG and Romanian, *da* is obligatorily verb-adjacent, i.e. no lexical material (besides negation and pronominal clitics, cf. (28)) can intervene between *da* and the verb:

(27) a. Iskam Marija da zamine za Sofija.
 Want.1sg Mary SUBJ go.PRES. PERF.3sg to Sofia.
 ‘I want Mary to go to Sofia.’

b. *Iskam da Marija zamine za Sofija.
 Want.1sg SUBJ Mary go.PRES.PERF.3sg to Sofia

(28) Iskam Marija da ne mu go dava.
 Want.1sg Mary SUBJ NEG cl.dat cl.acc give.IMPERF.PRES.3sg
 ‘I want that Mary does not give it to him.’

As in the Balkan languages discussed above, obligatory verb-adjacency is not observed in clauses embedded under the indicative complementizer *če*, which suggests that *da* is structurally distinct from *če*:

(29) Kazax če Marija zaminava za Sofija.
 Say.PAST.PERF.1sg Comp Mary go.IMPERF.PRES.3sg to Sofia.
 ‘I said that Mary is going to Sofia.’

5.2.2. Tense and Aspect

The tense and aspect specifications of the verbs occurring under the Bulgarian subjunctive particle *da* again pattern those displayed by MG *na*. Bulgarian *da* is restricted to occur with verbs in the Present. Moreover, as illustrated by the examples in (30), this restriction takes place independently of the tense of the matrix verb:

(30) a. Iskax Marija da pročete statijata.
 Wanted Mary SUBJ read.PERF.PRES3sg. article.def
 ‘I wanted Mary to read the article.’

b. *Iskax Marija da pročeteše statijata.
 Wanted Mary SUBJ read.IMPERF.PAST.3SG article.def

c. *Iskax Marija da beše procela statijata.
 Wanted Mary SUBJ be.IMPERF.PART read.PAST.PART. article

As mentioned in Section 5.1.2 above, according to Giannakidou (2009), MG *na* is only compatible with PNP⁴⁶, i.e. with verbs in Perfective Present. In contrast, Bulgarian *da* is felicitous with both Perfective and Imperfective verbs⁴⁷, as illustrated by the examples in, respectively, (31a) and (31b) below. For ease, we will use Giannakidou's PNP (Perfective non-past) whenever referring to Perfective Present (31b):

(31) a. Iskam Marija da piše knigi.
 Want.1p.sg Mary SUBJ write.IMPERF.3p.sg. book
 'I want Mary to write books.'

b. Iskam Marija da napiše kniga.
 Want.1p.sg. Mary SUBJ write.PNP.3p.sg book.
 'I want Mary to write a book.'

Importantly, basing on the data in in (31b), it is noticeable that Bulgarian PNP shares many intriguing similarities with MG PNP: it cannot occur on its own (32a) or under the scope of the indicative complementizer *če* (32b):

(32) a. * Napiše kniga.
 Write. PNP.3p.sg book

⁴⁶ Giannakidou (1998) shows that *na* can occur with the Imperfective Present. Moreover, *na*-clauses appearing under given aspectual predicates such as 'start' and 'continue' are restricted to occurring with the Imperfective Present. Giannakidou (2009), however, points out that these occurrences of MG *na*-clauses are syntactically distinct from those in which *na* performs the subjunctive function. For more details, see Section 5.5.

⁴⁷ Notice that the Imperfective displays some lexical restrictions with respect to the type of object it takes. As illustrated by (31a), the imperfective *piše* 'write.imperf.pres.3p.sg' occurs with generic nouns. Observe that it is infelicitous with objects occurring with definite articles:

(i) * Iskam Marija da piše knigite /knigata.
 Want.1p.sg. Mary SUBJ write.IMPERF.PRES.3p.sg. books.def / book.def

Therefore, as opposed to the PNP, which displays the single event reading, the Imperfective seems to be restricted to denote iterative readings only.

b. * Znam če napiše kniga.
Know.1sg that write.PNP.3p.sg book.

By virtue of this defectiveness, the Bulgarian PNP requires the obligatory presence of a given particle: the subjunctive *da*, as in (33a), or the future particle *šte* (a counterpart of MG *tha*, (cf. (23c) above), as in (33b):

(33) a. da napiše kniga.
SUBJ write. PNP3p.sg. book

b. šte napiše kniga.
FUT write. PNP.3p.sg book

In contrast, the Imperfective Present does not display any similar restrictions: it is felicitous either on its own or under the scope of the indicative complementizer *če*:

(34) a. Piše kniga.
Write.IMPERF.3p.sg. book.
'He/she writes a book.' / 'He/She is writing a book.'

b. Znam če piše kniga.
Know.1p.sg that writes.IMPERF.3p.sg book
'I know that he/she writes a book.' / 'I know that he/she is writing a book.'

5.2.3. Negation

Comparing the properties and the distributions of PNP and the Imperfective present, at first glance it seems that PNP constitutes the true subjunctive form. Note that, similarly to Romance subjunctives, PNP is a deficient form, meaning that it requires the presence of a particle (Giannakidou 1998, 2009). The Imperfective, on the other hand, displays no restrictions with respect to the contexts in which it occurs: it can appear on its own or under either the subjunctive particle *da* or the indicative complementizer *če*.

Nevertheless, the difference between PNP and the Imperfective Present turns out to be particularly relevant when considering the distribution of the negation marker in subjunctive embedded clauses. Moreover, the data discussed below confirm the deficiency of PNP, given that it illustrates that it is incompatible with negation. As far as we know, these cases have not been previously discussed in the literature, although the data from MG explored in Giannakidou (1998, 2009) shows that MG PNP also displays some restrictions with respect to the type of negation it takes.

Giannakidou (1998, 2009) shows that MG displays two distinct types of negation markers, namely *dhen* and *min*. *Dhen* and *min* are in complementary distribution. *Dhen* occurs with the indicative (35) whereas *min* negates non-indicative forms such as *na*-clauses (36) and gerunds (37). In Giannakidou (1998, 2009) both *dhen* and *min* are analysed as heads of the functional projection NegP situated above TP.

(35) {Dhen /*min} irthe i Roxani.
not came.3sg the Roxanne
‘Roxanne didn't come.’

(36) Na {min/*dhen} erthi i Roxani
subj not come.3sg the Roxanne
‘Don't let Roxanne come.’

(37) {Mi(n)/*dhen} exondas epignosi tis katastasis...
not have. ger awareness the.gen situation.gen
‘Not being aware of the situation...’

(Giannakidou 1998: 51-52)

Bulgarian patterns MG in that there are restrictions concerning the compatibility between negation and PNP. In Chapter 4, Section 4.3.1, we discussed the properties of the Bulgarian negation marker *ne* ‘not’ which is responsible for the denotation of sentential negation and which, moreover, occurs in negative fragment answers. Interestingly, it appears that the Bulgarian negation marker *ne* ‘not’ is incompatible with PNP. The occurrence of negation in subjunctive clauses involves the obligatory alternation between PNP and the Imperfective Present:

(38) Ivan iska Marija da kupi knigata
 John wants.3p.sg Mary SUBJ buy.PNP.3p.sg. book.def
 ‘John wants Mary to buy the book.’

(39) a. *Ivan iska Marija da ne kupi knigata.
 John wants.3p.sg Mary SUBJ Neg buy.PNP.3p.sg. book.def

b. Ivan iska Marija da ne kupuva knigata.
 John wants.3p.sg. Mary SUBJ Neg buy.IMPERF.PRES.3p.sg. book.def
 ‘John wants that Mary does not buy the book.’

Moreover, the structures in which negation scopes over the matrix verb also display some differences concerning the occurrence of PNP and the Imperfective Present. Although the structure with PNP improves when negation operates on the verb of the matrix clause (40a), the reading is still not the one obtained with the Imperfective (40b):

(40) a. Ivan ne iska Marija da kupi knigata.
 John not wants Mary SUBJ buy.PNP.3p.sg. book.def

Intended reading: ‘John does not want that MARY buy the book’ (he wants Peter to buy it)

Intended reading: ?? ‘John does not want that Mary buy the book.’

b. Ivan ne iska Marija da kupuva knigata.
 John not wants Mary SUBJ buy. IMPERF.PRES.3p.sg. book.def

Intended reading: ‘John does not want that MARY buy the book’ (he wants Peter to buy it)

Intended reading: ‘John does not want that Mary buy the book.’

The differences between (40a) and (40b) concern the scope of negation. In (40a) the preferred reading is the one under which negation scopes over the subject of the embedded domain Mary, i.e. John does not want Mary to be the person that buys the book. This reading also involves focus marking of the subject Mary, signalled by the capital letters. In (40b) with the verb in the Imperfective Present, on the other hand, both

the reading associated with focus on the embedded subject and the reading under which negation scopes over the entire embedded proposition are felicitous.

These intriguing data appear to confirm the deficiency of PNP. It seems that, by virtue of its defectiveness, PNP is incompatible with negation. Nevertheless, these data can also be taken as an argument supporting the claim that the cases in which *da* occurs with PNP are syntactically distinct from those in which the particle takes verbs in the Imperfective Present. In the former case *da* provides PNP with given features related to Tense and event, and it is for this reason that negation cannot intervene. We will return to this question in Section 5.5.

5.2.4. Obviation

Like MG *na*-clauses and Romanian *să*-clauses, Bulgarian subjunctive embedded clauses do not display the obligatory obviation effects observed in Romance languages. Therefore, Bulgarian *da*-clauses allow for co-reference between the matrix and the embedded subjects. Compare (41a) with (41b-c):

(41) a. Ivan iska Marija da spečeli.
John wants Mary SUBJ win.PNP.3p.sg
'John wants Mary to win.'

b. Ivan iska da spečeli.
John wants SUBJ win.PNP.3p.sg
'John wants to win.'

c. Ivan se opita da spečeli.
John REFL tried SUBJ win.PNP.3p.sg.
'John tried to win.'

Da-clauses display properties of both Romance subjunctive and infinitival structures. This consistent ambiguity turns out to be particularly evident when considering

Considering the obligatory adjacency between the subjunctive *să*, the negation marker *nu* and the inflected verb, Dobrovie-Sorin (2001) argues that a complex X° head is obtained by the following restructuring rule:

(43) Adjacent functional X° categories restructure into one X° category.

(Dobrovie-Sorin 2001: 58)

With (43), Balkan subjunctive clauses form the complex head of a single functional projection. Although this account explains the obligatory adjacency between *să* and the verbal cluster (in fact, *să* incorporates with the verbal cluster in the complex X° head), it is still not clear why the subject of the embedded domain can be governed by the matrix subject.

In order to explain this issue, Dobrovie-Sorin (2001) suggest that the X° complex head further obeys the following constraint:

(44) If a complex X° constituent contains a link of the chain to which a given element α belongs, then no element of the complex X° may count as a governor for α .

(Dobrovie-Sorin 2001: 59)

Given that, according to (44), the null subject cannot be governed by the subjunctive clause, its governing domain extends to the main clause. The data illustrating the occurrence of the complementizer *ca* turn out to be particularly revealing. As discussed in the preceding section, the fact that *ca* and *să* co-occur supports the claim that *să* is not a complementizer. Interestingly, it appears that the occurrence of *ca* blocks co-reference between the matrix and embedded subjects. Consider the examples in (45) below:

(45) a. *Toți elevii_i s_i –au nimerit

All students.the REFL have.3PL happen.PART

[s_i ca exercițiul ăsta t_i să-l greșească.]

ca exercise.the this să it-CL fail.3P-SUBJ

b. *Bombele_i pot [s' ca în orice moment t_i să explodeze.]
 bombs.the may ca in any moment să explode-3PL.SUBJ

c. *Copiii tăi_i par [s' ca pe profesor t_i să fie supărați]
 children.the your seem that pe teacher să be.3PL.SUBJ angry

(Dobrovie-Sorin 2001: 59-60)

Ca is otherwise obligatory whenever dislocated constituents precede the *să*-clause. However, in the examples in (45) its occurrence gives rise to ungrammatical sentences, given that it blocks the co-reference between the matrix and the embedded subjects. The ban on the occurrence of the complementizer *ca* also takes place in Romanian obligatory control structures. As illustrated by the examples in (46) and (47) the occurrence of *ca* is precluded in these structures due to the obligatory co-reference between the subjects of the main and the embedded domain:

(46) a. Ion începe s -o ajute pe Maria.

John starts s(ă) her.CL.ACC help-SUBJ pe Mary

‘John starts helping Mary.’

b. Ion a încercat să -l pedepsească

John have-3p.sg try-PART să him-CL.ACC punish-SUBJ.3p.sg

pe Mihai.

pe Mihai

‘John tried to punish Mihai.’

c. Ion va îndrăzni să -l înfrunte pe profesor.

John will dare să him.CL.ACC contradict-SUBJ3p.sg pe teacher

‘John will dare contradict the teacher.’

(47) a. * Ion începe ca pe Maria s -o ajute

John begins that pe Mary s(ă) her-CL.ACC help-3SG.SUBJ

b. * Ion va încercat ca pe Mihai să –l
 John will-3SG try-INF that pe Mihai să him-CL.ACC
 pedepsească.
 punish-3SG.SUBJ

c. *Ion va îndrăzni ca pe profesor să –l
 John will dare that pe teacher să him-CL.ACC
 înfrunte.
 contradict-3SG.SUBJ

Considering the intriguing data above, and particularly the ban on the occurrence of the complementizer *ca* in obligatory control structures, Dobrovie-Sorin (2001) argues that, differently from Romance, Balkan subjunctive clauses are transparent for binding. Due to this property, the obligatory obviation effects are voided.

A similar proposal was put forth in Ambar, Dimitrova & Amaral (2017). Capitalizing on a comparison between Romance languages, Balkan languages and Russian, and considering the expression of the subjunctive in both matrix and embedded clauses, we tentatively suggested that Balkan subjunctive particles display a somewhat dual nature. In our view, they are generated in a lower position than FinP. However, they are still able to establish a relation with the CP. Following Ambar's (2016a) proposal, we suggested that this relation is triggered by given features of EvaluativeP. The lack of obligatory obviation is accounted for accordingly: when the subjunctive particle is interpreted in the TP domain, the domain is transparent for binding, much as in Dobrovie-Sorin (2001).

As will be discussed in Section 5.5, our account of the lack of obligatory obviation adopts the observations made in Dobrovie-Sorin (2001) and Ambar, Dimitrova & Amaral (2017).

5.2.5. Previous analyses of the Bulgarian subjunctive *da*

The intriguing behaviour of Balkan subjunctive particles has been subject to many discussions. Capitalizing on the works dedicated to the properties of the subjunctive

particle *da* and to the syntactic expression of the subjunctive in Bulgarian, we can distinguish between four types of analyses:

- (i) *da* is a complementizer (Krapova 1999)
- (ii) *da* heads MoodP (Krapova 2001)
- (iii) *da* is an auxiliary (Rudin 1986)
- (iv) *da* is part of the verbal morphology (Smirnova 2011)

5.2.5.1. *Da* is a complementizer (Krapova 1999)

Krapova (1999) discusses the syntactic structure of Bulgarian *da*-clauses, considering that these structures can be divided into two types:

- (i) Type I: *da*-clauses that license *pro* or overt subjects, as in (48) below:

- (48) Ivan_i iskaše toj_{i/j} / pro_{i/j} da ostane pri nego.
 Ivan wanted.3p.sg. he DA stay.3p.sg. with him
 “Ivan wanted (him) to stay with him.”

(Krapova 1999: 76)

The first type of *da*-clause discussed in Krapova (1999) refers to those cases in which the *da*-clause occurs in complements to volitional or directive predicates, i.e. Type I *da*-clauses pattern Romance subjunctive clauses. However, differently from Romance, Balkan subjunctive embedded clauses do not display obligatory obviation. Therefore, the subject of the embedded subjunctive clause may be co-referent to the matrix subject *Ivan* or not, regardless of whether it is phonetically realised or is a *pro*, as illustrated by the example in (48) above.

- (ii) Type II: *da*-clauses that license PRO, as in (49) below:

- (49) Ivan uspjaja PRO / *brat mu da ostane pri nego.
 Ivan managed.3p.sg brother his DA stay.3p.sg with him

(Krapova 1999: 76)

Da-clauses of Type II are those occurring in obligatory control structures. In (49) the subject of the embedded domain is obligatorily co-referent to the matrix subject. Type II *da*-clauses are therefore those that pattern Romance obligatory control structures, which are obligatory in complements to control verbs.

Comparing the properties of Type I and Type II *da*-clauses, Krapova (1999) claims that the difference concerning the licensing of *pro* or PRO stems from the type of Tense specification they display. According to the author, subjunctive *da*-clauses of Type I have richer semantic content. They denote a hypothetical, unrealized future. Even though they are restricted to occurring with verbs in the Present, like all *da*-clauses, Type I *da*-clauses still display fewer tense restrictions than those of Type II. Observe that structures whose complements are Type I *da*-clauses allow the occurrence of different temporal adverbs in the matrix and in the embedded domain:

(50) **Včera** rešix [**utre** da ne puša poveče].

Yesterday decided.1p.sg tomorrow DA not smoke.1p.sg. anymore

‘Yesterday I decided that tomorrow I would give up smoking.’

(Krapova 1999: 82)

Considering examples like (50), Krapova (1999) argues that Type I *da*-clauses are independent with respect to the properties of event and have their own time frame. Although Krapova points out the fact that there exists a specific temporal interpretation which is dependent on the tense of the matrix verb, she assumes the domain of Type I *da*-clauses is [+T]. Even though the subjunctive domain clearly lacks [\pm Past] features, it does display tense or tense-related features.

As for Type II *da*-clauses, Krapova (1999) notes that they do not display the same ‘independency’ with respect to the time reference:

(51) ***Včera** zabravix da zamina **utre**.

Yesterday forgot.1p.sg. DA leave.1p.sg tomorrow

(Krapova 1999: 83)

The occurrence of the temporal adverb *utro* ‘tomorrow’ in the embedded domain is precluded given that it is incompatible with the time frame established by the adverbial of the matrix domain. Therefore, comparing Type I and Type II complements, this author proposes that the latter do not have Tense features, i.e. Type II *da*-clauses are [-T], as opposed to the [+T] Type I *da*-clauses.

Assuming that *da* is a complementizer generated in C°, Krapova (1999) claims that Type I *da*-clauses have the structure in (52) below:

(52) V..._{[CP da [TP pro/lexical DP [T' V+T [VP t_{su} t_v]]]]}

Since these structures are specified for [+T], they have a T_{nom} feature, i.e. they have an Interpretable Nominative Case feature which allows the lexical DP or *pro* to check the Nominative Case. In contrast, Type II *da*-clauses, which occur in obligatory control structures, are specified for [-T] which has a T_{null} feature. The [-T] therefore prevents it from assigning the Nominative Case and, consequently precludes the occurrence of *pro* or lexical DPs.

A problem with the structure in (52) arises, however, when considering the obligatory verb-adjacency displayed by Balkan subjunctive particles. Note that, according to (52), subjects are allowed to intervene between *da* and the verb. In order to solve this problem, Krapova (1999) suggests that the verb raises to *da* in C°. In her view, this movement is triggered by given features of C related to Mood, given that predicates selecting Type I *da*-clauses (such as volitional or directive verbs) have modal properties.

In addition, considering the marked differences between the distribution of the subjunctive particle *da* and the indicative complementizer *če*, Krapova (1999) suggests that, although they are both complementizers, they occupy distinct positions in the CP-field. Considering Rizzi’s (1997) proposal for the structure of the Left Periphery, Krapova (1999) suggests that the indicative complementizer *če* heads ForceP, whereas the subjunctive *da* is generated in the head of FinP. Although the author does not discuss the arguments motivating the analysis of *da* in FinP, her proposal does account for the structural differences between *da* and *če* and, particularly for the fact that the former seems to occupy a lower structural position.

However, a problem with this view arises when considering the position occupied by the subjects of *da*-clauses. In Krapova’s (1999) terms, subjects of *da*-clauses are either

generated in the Spec of FinP or are topicalized material and, therefore, move to an intermediate Top position above Fin and below Force. As discussed above with respect to Giannakidou's (2009) analysis, which faces a similar problem, it is not clear what motivates the subject's movement to Spec, FinP.

5.2.5.2. *Da* heads MoodP (Krapova 2001)

Assuming, in line with her previous analysis of *da*-clauses, that only Type I *da*-structures pattern true subjunctive clauses, whereas Type II *da*-clauses have an infinitival function, Krapova (2001) argues that Type I clauses have [+T] which, as explained above, allows them to assign the nominative case to the subject. Type II clauses, on the other hand, are [-T]. By virtue of this property, they are only compatible with PRO. Nevertheless, differently from Krapova (1999), where it was proposed that *da* is a complementizer, in Krapova (2001), the author suggests that the subjunctive particle heads MoodP. The argument for this proposal concerns the obligatory adjacency between *da* and the verb which, according to this author, implies that *da* is generated in a domain which selects T. The proposal for analysis in (53) below has, moreover, been extended to the MG subjunctive *na*. Consider the structure below:

(53) [CP C [MP M° *da/na* [TP T° [VP SUBJ [V' OBJ]]]]

As in Krapova (1999), Krapova (2001) argues that the asymmetries concerning the occurrence of *pro* and PRO in, respectively, Type I and Type II *da*-clauses, stem from the type of tense specifications they display. Again, a problem with the proposal in (53) arises with respect to the position of subjects. Krapova (2001) solves this problem by assuming that the verb raises to *da* in Mood°. Moreover, subjects are assumed to be plausible in two structural positions: they can occur either pre or post-verbally, as illustrated by the examples in (54) below:

(54) a. *Iskam* [Ivan *da* *zamine*.
 want-1SG Ivan *da* leave-3SG

b. Iskam [da zamine Ivan.
want-1SG da leave-3SG Ivan

(Krapova 2001: 120)

In Krapova's (2001) terms, post-verbal subjects, as in (54b), remain in Spec, TP, whereas the verb raises to *da* in Mood^o. On the other hand, when they occur pre-verbally, as in (54a), they raise to Spec, MoodP. In Krapova's view, this movement is triggered by the strong D feature of MoodP.

Note, however, that the verb occurring under *da* in both (54a) and (54b) is an unaccusative verb. Things change, however, when considering a transitive verb, such as 'buy' in (55) below. Note that the post-verbal occurrence of the subject, in (55b), is rather odd⁴⁹:

(55) a. Iskam [Ivan da kupi spisanieto]
Want.1p.sg. John SUBJ. buy.PNP.3p.sg. magazine.def

b. ? Iskam [da kupi Ivan spisanieto]
Want.1p.sg. SUBJ.buy.PNP.3p.sg. John magazine.def

Thus, considering that subjects in Bulgarian *da*-clauses occur in a position preceding the particle, it can be assumed, following Krapova (2001), that subjects raise to Spec, MoodP triggered by the strong D feature of MoodP.

5.2.5.3. *Da* is an auxiliary (Rudin 1986)

A different view towards the categorial status of the Bulgarian particle *da* is discussed in Rudin (1986).

Rudin (1986) focuses on the properties of *da* which illustrate that this element does not behave in the same way as true complementizers, such as the indicative complementizer *če*, the interrogative complementizer *dali* and the relative

⁴⁹ The structure in (55b) is plausible only when the subject John is associated with a focus feature. Otherwise, the preferred position of the embedded subject is pre-verbal, as in (55a).

complementizer *deto*. Besides the already well-known strict verb-adjacency requirement common to all Balkan subjunctive particles, Rudin (1986) also observes that Bulgarian *da* can, in fact, co-occur with true complementizers:

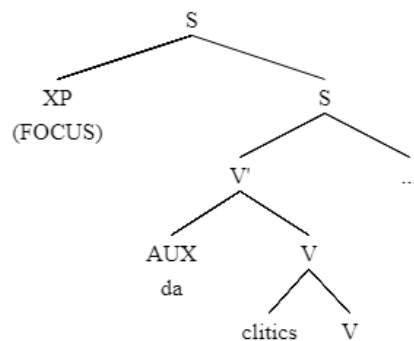
- (56) a. Ne znaja dali da otida.
 Neg know.1p.sg. whether to go-1p.sg
 ‘I don’t know whether to go.’
- b. Ženata sedna taka če da me vižda.
 Woman.the sat.3p.sg. thus that to me see.3p.sg.
 ‘The woman sat so that she could see me.’
- c. Imam edna kniga deto da ja četa.
 Have-1p.sg a book that to it read.1p.sg
 ‘I have a book to read.’

(Rudin 1986: 60)

The data in (56) is therefore regarded as an argument in favour of the claim that *da* is not a complementizer.

In this way, considering the particle’s close relation to the verb and to a given type of modality, Rudin (1986) suggests that *da* is an auxiliary. The following structure is proposed:

(57)



At least two problems arise with the structure in (57). The first one concerns the relation with focus features and the reason why it is obligatory for a *da*-clause to be in a Spec-head relation with Focus, as the structure in (57) suggests. The second problem arises with respect to the position in which *da* is generated. An issue with the proposal that *da* is an auxiliary that attaches to the verb in V arises when negation is considered. As shown in the previous sections, the negation marker is able to intervene between *da* and the verb. Going back to Pollock (1989), it has also been assumed that negation heads its own projection, NegP. Under the analysis proposed in (57) the negation marker is unable to intervene between *da* and the verb. Moreover, the proposal that *da* is an auxiliary fails to account for the fact that it only selects verbs in the Present.

5.2.5.4. *Da* is part of the verbal morphology

Much as in Dobrovie-Sorin (1994, 2001), Smirnova (2011) proposes that *da* is a bound functional morpheme that is part of the verbal morphology. Although Smirnova (2011) does not discuss the structural position occupied by Bulgarian *da*, this author presents several arguments supporting this view. Smirnova (2011), like Dobrovie-Sorin (1994), observes that Bulgarian *da* cannot be dropped; it is obligatory in complements of volition or directive predicates:

(58) a. Maria iska [da živee v Sofia].
 Maria want.IMPERF.3SG.PRES SUBJ live.IMPERF.3SG.PRES in Sofia
 ‘Maria wants to live in Sofia.’

b. * Maria iska [Ø živee v Sofia].
 Maria want.IMPERF.3SG.PRES live.IMPERF.3SG.PRES in Sofia
 Intended: ‘Maria wants to live in Sofia.’

What is more, Smirnova (2011) notes that the material allowed to intervene between the particle and the verb, namely pronominal clitics and negation, obeys the fixed order [*da* + neg + clitics + V]. Compare (59) with (60a-c):

(59) Iskam [da ne mi go
 Want.IMPERF.1SG.PRES SUBJ NEG me.DAT it.ACC
 kazvaš].
 say.IMPERF.2SG.PRES
 ‘I want you not to say this to me (again).’

(60) a. *Iskam [ne da mi go
 Want.IMPERF.1SG.PRES NEG SUBJ me.DAT it.ACC
 kazvaš].
 say.IMPERF.2SG.PRES
 Intended: ‘I want you not to say this to me (again).’

b. *Iskam [ne mi da go
 Want.IMPERF.1SG.PRES NEG me.DAT SUBJ it.ACC
 kazvaš].
 say.IMPERF.2SG.PRES
 Intended: ‘I want you not to say this to me (again).’

c. *Iskam [ne mi go da
 Want.IMPERF.1SG.PRES NEG me.DAT it.ACC SUBJ
 kazvaš].
 say.IMPERF.2SG.PRES
 Intended: ‘I want you not to say this to me (again).’

(Smirnova 2011: 191-192)

In addition to the properties illustrated above, Smirnova (2011) also highlights the fact that Bulgarian *da*, like MG *na*, cannot bear independent stress, i.e. besides the morpho-syntactic dependency it displays, the particle is also subject to a prosodic dependency. Therefore, *da* forms a prosodic word with the verb.

Considering the above arguments in favour of the claim that the particle *da* is part of the verbal inflection, Smirnova (2011) suggests that, in fact, this element enters the verbal morphology for the subjunctive. Consider the table below:

(61)

Indicative	Subjunctive
piša write.IMPERF.1SG.PRES	da piša SUBJ write.IMPERF.1SG.PRES
Pišeš write.IMPERF.2SG.PRES	da pišeš SUBJ write.IMPERF.2SG.PRES
piše write.IMPERF.3SG.PRES	da piše SUBJ write.IMPERF.3SG.PRES
pišem write.IMPERF.1PL.PRES	da pišem SUBJ write.IMPERF.1PL.PRES
pišete write.IMPERF.2PL.PRES	da pišete SUBJ write.IMPERF.2PL.PRES
pišat write.IMPERF.3PL.PRES	da pišat SUBJ write.IMPERF.3PL.PRES

(Smirnova 2011:194)

Two problems with the analysis proposed in Smirnova (2011) must be pointed out.

The first one has to do with the table in (61), which does not account for the fact that *da* is compatible with Perfective and Imperfective verbs. The so-called subjunctive paradigm in (61) only illustrates *da*-clauses with verbs in the Imperfective Present. As discussed in the preceding sections, the distinction between the Perfective and the Imperfective Present is particularly relevant when dealing with the occurrence of negation and with the divergences regarding the deficiency of the Perfective Present verbal form.

The second problem concerns the claim that *da* is part of the subjunctive morphology. As widely discussed in the literature (Dobrovie-Sorin 1994, 2001, Krapova 1999, 2001, a.o.), Balkan subjunctive particles display the particularity of performing a subjunctive and an infinitival function. That is why, unlike Romance subjunctives, Balkan embedded *da*-clauses void obviation and permit co-reference between the matrix and the embedded subjects. This is why, if we follow Smirnova (2011) in assuming that *da* is part of the verbal subjunctive paradigm, we will fail to account for the selection of *da*-clauses in complements of control verbs and, consequently, for the dual nature associated with the subjunctive-like and the infinitival-like properties *da*-structures display.

Particularly revealing is the case of verbs such as Portuguese *dizer* ‘say’. As illustrated by (63a) and (64), *dizer* ‘say’ is only compatible with subjunctive in the presence of the possibility adverbial *talvez* ‘maybe’, as in (63a) above. Nevertheless, when *dizer* ‘say’ is associated with the meaning of *command*, it *selects* the subjunctive, regardless of the presence of *talvez* ‘maybe’ (65a). Compare (65a) with (65b) below.

(65) a. O João_k disse-lhe_i que pro_{i/*k}
 The John said him.DAT that pro_{i/*k}
 viesse /venha à festa.
 come.SUBJ.PAST.3p.sg /come.SUBJ.PRES.3p.sg to-the party
 ‘John told him to come to the party.’

b. O João_k disse-lhe_i que pro_{i/k} talvez
 The John said him.DAT that pro_{i/k} maybe
 viesse /venha à festa.
 come.SUBJ.PAST.3p.sg /come.SUBJ.PRES.3p.sg to-the party
 ‘John told him he would maybe come to the party.’

(Ambar 2016a: 137)

Besides the fact that the occurrence of the subjunctive is dependent on the type of reading *dizer* ‘say’ displays, the examples in (65a) and (65b) also illustrate an intriguing contrast concerning the phenomenon of obviation. In (65a), where *dizer* ‘say’ displays the reading of a verb of command, i.e. in this case *dizer* selects the subjunctive, obviation is obligatory. Accordingly, the embedded domain extends to that of the matrix, preventing the co-reference of subjects. In (65b), on the other hand, obviation is optional: the subjunctive is triggered by the occurrence of *talvez*, i.e. it is not a result of *selection*, and for this reason co-reference between the matrix and the embedded subjects is possible.

These revealing contrasts support Ambar’s (2016a) claim that the occurrence of the subjunctive in embedded clauses is not always triggered by *selection* patterning subjunctive root clauses. *Unselected subjunctive clauses* are, therefore, not licensed by matrix predicates (by virtue of the β features valuation, cf. Section 5.1) but rather by an evaluative Op.

Following Ambar (2016), in Ambar, Dimitrova & Amaral (2017) we assumed that main subjunctive clauses are another context in which the occurrence of the subjunctive is not a result of selection. In fact, main clauses illustrate that the contrasts between the indicative and the subjunctive are clear-cut. Observe that, in contrast to the indicative, the subjunctive is ruled out of simple assertions in which knowledge of the state of affairs described is reported. (Ambar 2016a). Compare (66a) and (66b) below:

(66) a. Ele vai ao cinema.
 he go.IND.PRES.3sg to.the movies
 ‘He goes to the movies.’

b. *Ele vá ao cinema.
 he go.SUBJ.PRES..3sg to.the movies

(Ambar 2016a: 125)

Conversely, it is the subjunctive and not the indicative the mood which is compatible with the expression of evaluation. Compare (67) and (68) below:

(67) a. Vá ele às aulas! (e /assim terá êxito
 Go.SUBJ.PReS.3sg he to-the courses (and/so he will succeed
 nos seus estudos)
 in his studies)
 ‘Let him take the courses!’

b. Assim ele vá às aulas!
 so he go.SUBJ.PRES.3sg to.the courses
 ‘Let him take the courses!’

(68) a. *Vai ele às aulas!
 Go.IND.PRES.3sg he to.the courses
 ‘He takes the courses!’

- b. * Assim ele vai às aulas!
 so he go.IND.PRES.3sg to the courses
 ‘So he takes the courses!’

(Ambar 2016a: 131)

The same results are obtained with main clauses that express a wish (69a-b) or a possibility triggered by *talvez* ‘maybe’ (70a) or *é possível(provável)* ‘it is possible/probable’ (70b). The Indicative is, again, incompatible with the denotation of such readings:

- (69) a. (Que) venham as chuvas!
 (that) come.SUBJ.PRES.3p.sg the rains
 ‘That the rains come!’

- b. Oxalá (que) ele venha!
 hope (that) he come.SUBJ.PRES.3p.sg
 ‘Hope that he comes!’

- (70) a. Talvez (que) ele venha / *vem.
 Maybe (that) he come.SUBJ.PRES.3sg / come.IND.PRES.3sg
 ‘Maybe he comes.’

- b. É possível/provável que ele venha / *vem.
 Is possible/probable that he come.SUBJ.PRES.3sg/ come.IND.PRES.3sg
 ‘It is possible/probable that he is coming.’

(Ambar 2016a: 134-135)

As mentioned in Section 5.1., in view of these data, Ambar (2016a) suggests that each mood is associated with the expression of a specific type of properties. Accordingly, the subjunctive is the mood of evaluations, while the indicative is the mood of assertions establishing a relation with the projections EvaluativeP and AssertiveP, respectively.

Keeping these observations in mind, we will now turn to the (*un*)selection of the subjunctive in interrogative structures.

“Can I ask something?”

- b. Na plino ego ta piata?
na wash-1s-PF I the dishes
“Shall I do the dishes?”

(Pavlidou 1991 *idem* Rouchota 1994: 157)

Giannakidou (2016) calls the type of subjunctive occurring in questions the *epistemic subjunctive*. Based on data from MG, the author captures these uses of the subjunctive under the possibility modal *might*. In her terms, the epistemic subjunctive weakens the *veridicality* of sentences.

As pointed out above, our study focuses mainly on the reason why subjunctive interrogatives are plausible in Balkan languages but not in Romance. Observe that Bulgarian, like MG, allows *da*-clauses to occur in *wh* and yes-no questions of the type of (71) above:

- (72) a. Koj da se obadi na Ivan? Bulgarian
Who SUBJ refl. call.PNP.3p.sg. to John
‘Who should call John?’

- b. Da se obadja li na Ivan?
SUBJ refl. call.PNP.1p.sg. Q to John
‘Should I call John?’

The examples in (72) denote a future, unrealized event, patterning Stowell’s (1982) observations on control infinitives. As suggested in Ambar, Dimitrova & Amaral (2017), these occurrences of Bulgarian *da*-clauses do not express the subjunctive meaning. Rather, the *da*-clauses occurring in Bulgarian yes-no and *wh*-questions perform an infinitival function. As a consequence, they do not denote the evaluative flavour conveyed by other types of subjunctive main clauses.

In contrast to Bulgarian and MG, Romance languages disallow the subjunctive in interrogative structures. In Portuguese both yes-no and *wh*-subjunctive questions are strongly ungrammatical:

5.4.2. Are Bulgarian *da*-questions true subjunctive questions?

Let us start by considering Bulgarian yes-no questions involving *da*-clauses. For ease, we will refer to these structures as ‘subjunctive interrogatives’ or ‘subjunctive yes-no questions’ and ‘subjunctive wh-questions’, although, as observed above, “subjunctive” is not always the correct label for these occurrences of the particle *da*. Below, we will observe that whenever occurring in questions, be they *li*-questions or wh-questions, Bulgarian *da*-clauses actually perform an infinitival function patterning Romance infinitives.

Interestingly, capitalising on the data from *li*-questions, in the following sections we will show that the co-occurrence of the particle *da* and the particle *li* in yes-no questions should be taken as a diagnosis for the type of *da*-clause we are dealing with. Thus, whenever these two elements co-occur, *da* systematically conveys the infinitival meaning. The subjunctive meaning of the particle seems to be restricted to those yes-no questions in which *li* is absent⁵⁰.

Bearing in mind the above observations, in what follows we distinguish between two types of *da*-questions:

(i) *da*-questions with *li* denoting a future, unrealized event (Stowell 1982);

(ii) *da*-questions without *li* denoting evaluation and epistemic modality (Giannakidou 2016, Ambar 2016a).

The fact that the subjunctive meaning is blocked whenever *li* co-occurs with *da* will be consequently considered evidence in favour of the idea advocated in Ambar, Dimitrova & Amaral (2017), namely that *true* subjunctive questions are banned in both Balkan and Romance.

⁵⁰ Recall that Bulgarian yes-no questions without *li* are not true polar questions but rather denote a given flavour of evaluation (cf. Chapter 2, Section 2.4).

5.4.2.1. Infinitival *da*-questions

Consider again the data from MG:

- (76) Na tou milise (arage⁵¹)?
 SUBJV him talked-3SG Q-particle
 ‘Might she have talked to him?’

(Giannakidou 2016:200)

As discussed above, for Giannakidou (2016) MG *na*-interrogatives consist in a special type of subjunctive she dubs the *epistemic subjunctive*. According to this author, the occurrence of the subjunctive mood in questions produces an epistemic meaning captured under the possibility epistemic modal ‘might’. Therefore, as the author points out, “Here the speaker asks the hearer about the *possibility* of p rather than p itself.” [Giannakidou 2016: 200].

As opposed to MG, Bulgarian true yes-no questions obligatorily display *li*. In Chapter 2 we showed that *li* does not denote a flavour of wondering when occurring in yes-no questions. Rather, its absence is what favours such readings. Consider (77) below:

- (77) Da se obadja li na Ivan?
 SUBJ refl. call.PNP.1p.sg. Q to John
 ‘Should I call John?’

Differently from MG (76) above, the Bulgarian examples in (77) does not seem to be associated with the expression of possibility or epistemic modality. Instead, it expresses deontic modality. Moreover, (77) denotes an unrealized future event patterning Romance infinitival structures.

Considering these properties, it looks like *da*-clauses occurring in *li*-questions have an infinitival function, i.e. such questions are not true subjunctive interrogatives and

⁵¹ Note moreover that MG yes-no questions can optionally display the interrogative word *arage*. *Arage* is, however, not obligatory for the licensing of MG yes-no questions and, furthermore, conveys a flavour of wondering to the structure.

do not exhibit the evaluation properties characteristic of other subjunctive main clauses, which we discuss below.

Based on the above observations and following Ambar, Dimitrova & Amaral (2017), we propose an analysis according to which infinitival *da*-questions are structurally ‘low’. As shown in Section 5.5, the infinitival *da* are licensed in the domain of FinP/TP (Rizzi 1997) or in vP.

5.4.2.2. Subjunctive *da*-questions

Let us now take a look at the type of *da*-questions identified under (ii) above, namely *da*-questions without *li* denoting evaluation and epistemic modality. As illustrated in (78), only questions of the group in (ii) denote the so-called *true* subjunctive meaning:

(78) *Da e vidjal Ivan?*
 SUBJ. be.IMPERF.PRES.3p.sg seen.PAST.PART John
 ‘Might he have seen John?’

Two aspects are important when discussing questions like (78):

- (i) (78) is infelicitous with *li*;
- (ii) (78) displays Present Perfect Tense on the verb occurring under the particle *da*;

Let us start by (i). Note that the observation in (i) is supported by the examples below illustrating the incompatibility of these structures with *li*⁵². The examples in (79) show that *li* is felicitous in these structures only in the absence of *da* (79b):

⁵² In the examples in (79) *li* obligatorily follows the past participle, given that the auxiliary is also a clitic and, therefore, is not a felicitous host for *li*:

- (i) a. **Da e li vidjal Ivan?*
 SUBJ. be.IMPERF.PRES.3p.sg Q seen.PAST.PART John
 Intended: ‘Might he have seen John?’
- b. **E li vidjal Ivan?*
 be.IMPERF.PRES.3p.sg Q seen.PAST.PART John
 Intended: ‘Has he seen John?’

(79) a. * Vidjal li da e Ivan?
 Seen. PAST.PART. Q SUBJ. be. IMPERF.PRES. John

b. Vidjal li e Ivan?
 Seen. PAST.PART. Q be. IMPERF.PRES. John
 ‘Has he seen John?’

The incompatibility between the two elements supports the idea that the structure in (78) is distinct from the one in (77) above which denotes an unrealized future event and, thus, seems to pattern Romance infinitival structures. It appears that (78) denotes what Giannakidou (2016) dubs *epistemic subjunctive*, i.e. possibility and evaluation triggering the ban on *li*. Structures like (77), on the other hand, display what we called infinitival *da*-clauses.

Another important matter is the one pointed out under (ii). Note that the evaluative meaning appears to be favoured by the tense of the verb of the *da*-clause. In (78) *da* occurs with a verb in Present Perfect. However, note that Bulgarian Present Perfect is formed by the copula *săm* ‘to be’ in Imperfective Present and the past participle.

Note that, as opposed to (78) with PNP, the structure in which *li* does not occur is somewhat odd with *da* followed by a verb in PNP:

(80) a.?? Da vidi Ivan?
 SUBJ see.PNP.3p.sg. John
 Intended: “Might she/he see John?”

b.?? Ivan da izmie činiite?
 John SUBJ wash.PNP.3p.sg. dishes
 Intended: “Might John wash the dishes?”

Interestingly, these structures are felicitous when displaying an exclamation reading, as shown below:

(81) Ivan da izmie činiite?! Tova e nevъzmozno!
 John SUBJ wash. PNP.3p.sg. dishes.def?! This is impossible!

“John washing the dishes?! That’s impossible!

For the time being we will leave these topics aside. We will briefly come back to the questions concerning the selection of Present Perfect in subjunctive yes-no questions in subsection 5.4.5.

5.4.3. Subjunctive wh-questions

Subjunctive wh-questions reinforce the view advocated above. As shown above, in yes-no questions the reading displayed by the *da*-clause seems to depend on the occurrence of the particle *li*. The data discussed above suggests that yes-no questions in which the *da*-clause co-occurs with the particle *li* do not display the characteristic evaluation meaning of subjunctive main clauses. In such structures the *da*-clause rather denotes the meaning of Romance infinitives, i.e. it denotes a future unrealised event. Conversely, *da*-clauses in which *li* does not occur seem to denote the true subjunctive meaning associated with the denotation of evaluation. As discussed above, such meanings appear to be favoured by the occurrence of Present Perfect Tense, rather than PNP.

Considering these observations, it appears that, in contrast to yes-no questions, in wh-questions only the infinitival-like reading of the *da*-clause is available. Note that the example in (82a)⁵³ does not denote an epistemic meaning or possibility. Rather such structures display readings associated with order or permission. Moreover, as shown in (82b) the structure does not improve with verbs in the Present Perfect, in contrast to what was observed above in polar questions:

⁵³ As mentioned in Ambar, Dimitrova & Amaral (2017), structures like (82a) can denote an echo-like reading. According to the authors, this reading is not, however, an outcome of the properties of the *da*-clause but is associated with the properties of the wh-phrase. Observe that echo-like and rhetorical readings do not seem to be restricted w.r.t. Tense. The questions in (a) and (b) below denote rhetorical readings regardless of the type of tense:

(i) a. Kakvo da kupa?!

What SUBJ buy.PREF. PRES. 3p.sg.

‘WHAT should he buy?!’

b. Kakvo kupa?!

What bought.PAST.3p.sg.

‘WHAT did he buy?!’

(82) a. Kakvo da kupi?

What SUBJ buy.PNP.3p.sg.

‘What should he buy?’

* ‘What might he buy?’

b. ?/* Kakvo da e kupil?

What SUBJ. be.IMPERF.PRES.3p.sg. buy.PAST.PART.

Intended: ‘What might he have bought?’

Neither (82a) nor (82b) denote the epistemic subjunctive. In Ambar, Dimitrova & Amaral (2017), we accounted for the data in (82) by suggesting that the *wh*-phrase functions as an intervenor disallowing the licensing of the subjunctive *da*-clause, an idea which is also consistent with the observations above regarding *li*-questions: *wh*-words and particles like Bulgarian *li* block the evaluative-like meaning of the subjunctive.

This line of inquiry will be further developed in Section 5.5.

5.4.4. Subjunctive Questions and Negation

The data from negative subjunctive questions further supports the line of inquiry pursued so far. In this section we will briefly focus on the occurrence of negation in Bulgarian yes-no questions displaying the particle *da*, capitalizing on the reading the negation marker acquires in (i) the infinitival-like yes-no questions with *li* and in (ii) the subjunctive-like yes-no questions without *li*.

Interestingly, the types of yes-no questions in (i) and (ii) sharply differ in terms of the reading the negation marker acquires. In the structures with infinitival *da*-clauses, as in (83) below, i.e. *da*-yes-no questions with *li*, the negation marker denotes sentential negation contributing to the negative meaning of the question:

(83) Da ne se li obajda na Ivan?

SUBJ NOT REFL Q call.IMPERF.PRES.3p.sg. to Ivan

‘Shouldn’t s/he call John?’

denote the meaning of a past, *unrealized* event: in (85b) John *didn't* cook the dinner and, in (85c) John *didn't* do better this time. Similar meanings are conveyed when the Past Perfect occurs under *da* in main clauses, as in (86) below:

(86) a. Toj da beše kazal nešto!
 He SUBJ. be.IMPERF.PAST.3p.sg. say.PAST. PART. something
 '(I wish) He could have said something!'

b. Toj da mu se beše obadil!
 He SUBJ. cl.DAT. REFL. be.IMPERF.PAST.3p.sg. call. PAST. PART
 '(I wish) He could have called him!'

It is evident that the examples in (86) denote the speaker's evaluation of the state of affairs described. As in (85), the examples in (86) refer to a past event that *didn't* take place. However, they also convey that the speaker believes that *he* should have said something and that *he* should have called him, i.e. they denote the speaker's evaluation, patterning the other types of subjunctive main clauses we discuss here.

In the next subsection, we will turn to Portuguese yes-no and wh-questions, discussing the factors disallowing the occurrence of the subjunctive mood in these structures and comparing them with Bulgarian and Russian. Below, we will follow the observations made in Ambar, Dimitrova & Amaral (2017), arguing that subjunctive questions are precluded in Portuguese for the same reasons they are precluded in Bulgarian wh-questions and in those yes-no questions in which *da* co-occurs with *li*.

5.4.6. What prevents Portuguese interrogatives from licensing the subjunctive? (and some further crosslinguistic puzzles)

Above, we observed that there exists an important connection between the reading displayed by the *da*-clause and the occurrence of the particle *li* in Bulgarian yes-no questions. The true subjunctive meaning associated with evaluation and with the expression of the speaker's attitude is restricted to those *da*-questions in which the particle *li* **does not occur**.

The intriguing incompatibility between the Bulgarian particle *li* and subjunctive yes-no questions is of particular importance when discussing the ungrammaticality of Romance subjunctive questions. The Bulgarian data clearly illustrates that the subjunctive meaning and the true interrogative meaning associated with the existence of alternatives, p , $\neg p$, are incompatible.

The fact that *li* is disallowed in Bulgarian subjunctive questions can be seen as a case of intervention effects: the particle blocks the relation between *da* and the Op licensing the subjunctive meaning (Ambar 2016a). Therefore, whenever *da* and *li* co-occur, *da* does not display the subjunctive meaning deriving from the connection it establishes with the evaluative Op as suggested in Ambar (2016)a for the so called *unselected subjunctive clauses*. Rather, this type of *da* displays an infinitival function and, as will be suggested in Section 5.5, appears in a structurally lower position. Note that this view is only plausible when we postulate the existence of at least 2 structurally distinct *da*. As will be discussed in Section 5.5, such a view of the Balkan subjunctive particle is not new to the literature.

Russian lends further support to the claim that the so-called subjunctive particles in Balkan languages do not convey the subjunctive meaning in yes-no questions. In Section 5.1 we showed that Russian differs from Portuguese with respect to tense: the tense of the embedded domain is Past. Therefore, since the embedded domain is *t-complete*, it is independent of the matrix tense. Nevertheless, like Portuguese, Russian displays obviation. In order to explain these facts, Ambar (2016) proposes that the embedded domain extends to the matrix domain by virtue of the insertion of the particle *by*. Recall the example in (15) of Section 5.1.1.2, repeated below as (87):

- (87) Ivan_i xočet čtoby on_{*i/j} potseloval Nadju
 Ivan wants that-sbj he kissed.ind.pst.3sg Nadju
 ‘Ivan wants to kiss Nadja.’

(Ambar 2016: 145)

As discussed in Ambar, Dimitrova & Amaral (2017), Russian subjunctive interrogatives give rise to some additional questions. According to Mezhevic (2006), the subjunctive is felicitous in Russian wh-questions:

(88) a. Čto by ty propusti-la t?
what COND you-NOM miss-PAST
'What (e.g., which talk) would you skip?'

b. Kuda by ty uš-la?
where COND you-NOM go-PAST t
'Where would you go to?'

(Mezhevic 2006: 134)

Nevertheless, in Mezhevic' (2006) terms, *by* is a conditional particle denoting the conditional mood. As pointed out in Ambar, Dimitrova & Amaral (2017), the structures in (88a-b) do not seem to display the subjunctive mood but are rather conditional structures: they lack the evaluative meaning displayed by the subjunctive in other main clauses. Compare (88) and the exclamative in (89) with the complex *čtoby*:

(89) Čtoby ja takoe skazal!
That.SUBJ I such said
'That I would say such thing!'

(Bailyn 2012: 89)

In (89) the particle *by* behaves as a true subjunctive element. Moreover, note that it is merged with the indicative complementizer *čto*, thus patterning embedded subjunctive clauses. Interestingly, the complex *čtoby* is ruled out of questions.

Compare (88) with the example in (90) below:

(90) *Čto čtoby ty propusti-la?
what SUBJ you-NOM miss-PAST

In Ambar, Dimitrova & Amaral (2017) we claimed that *by* functions as a marker of modality in examples like those in (88) above. Therefore, it occupies a somewhat lower position in the structure. The evaluative flavour denoted by the complex *čtoby* in (89) is not available in questions, as illustrated by the ungrammatical (90). Russian *by*, like

Bulgarian *da*, is therefore associated with two domains⁵⁴: (i) a lower one accounting for its function as a marker of the conditional mood and (ii) a higher one, EvaluativeP (Ambar 2016a) accounting for the subjunctive meaning.

Differently from Russian and Bulgarian, the expression of the subjunctive in Romance is not confined to the occurrence of a given particle but is encoded in verbal morphology. The intriguing question that follows concerns the trigger for the incompatibility of Portuguese subjunctive questions as opposed to other subjunctive main clauses. According to Ambar (2016a), in main subjunctive clauses the licensing of the subjunctive mood is possible due to the existence of an Op which is responsible for the valuation of the unvalued t_i feature of the subjunctive. Moreover, discussing the ban on subjunctive in Portuguese *wh*-questions, in Ambar, Dimitrova & Amaral (2017) we argued that the *wh*-phrase functions as an intervener disallowing the valuation of t_i features by the Op. The ban on the subjunctive in yes-no questions will be accounted for in a similar fashion.

Note that, according to the above observations, Bulgarian, Portuguese and Russian display the same behaviour with respect to the licensing of the subjunctive in questions: they disallow true subjunctive questions. Thus, what seems to be the subjunctive in both Bulgarian and Russian, is, in fact, a result of the ambiguity displayed by the particles involved in the licensing of this mood.

In the next section we will put forth our proposal for an analysis focusing on the Bulgarian data and discriminating between (i) infinitival *da*-clauses and (ii) subjunctive *da*-clauses.

5.5. Analysing Subjunctive Questions

The analysis put forth in this section aims at the following goals:

(i) to discriminate between the different types of *da*-clauses and to discuss their syntactic representations;

⁵⁴ See Migdalski (2006) and Section 5.7 for a similar proposal concerning Polish *by*.

(ii) to understand what prevents subjunctive *da*-clauses from co-occurring with the interrogative particle *li* and to account for the ban on the subjunctive mood in Portuguese interrogatives.

5.5.1. Bulgarian *da*-clauses

Before turning to the topics formulated under (i)-(ii), the first important question that needs to be answered concerns the position in which the particle *da* is generated.

This is not an easy question, however. In Section 5.3 we observed that there exist two central approaches towards the categorial nature of Balkan subjunctive particles: (a) according to analyses such as those put forth in Krapova (1999) and Roussou (2000), these particles are complementizers; (b) according to the view advocated in Krapova (2001) and Giannakidou (2009), the subjunctive particles head MoodP.

Nevertheless, both (a) and (b) face some problems. If we assume that Bulgarian *da* is generated in C°, we will fail to account for the strict verb-adjacency requirement and for the obvious relation with the verbal cluster it displays. The analysis according to which *da* heads MoodP, on the other hand, faces problems related to the structural position occupied by pre-*da* subjects. Moreover, it does not account for the infinitival function of *da*-clauses.

As pointed out in Dobrovie-Sorin (1994, 2001), the core property of Balkan subjunctive particles is that they are consistently ambiguous. They behave like inflectional elements that are part of the verbal cluster. Nevertheless, these elements also display some complementizer-like properties: they are obligatory in subjunctive embedded clauses. In fact, they head the embedded subjunctive clause and, moreover, obligatorily precede the negation marker.

The dual nature of Balkan subjunctive particles is particularly evident when considering that, in contrast to Romance subjunctives, they void the obligatory obviation effects. Thus, they are counterparts of Romance subjunctives and infinitives. Consider again the examples from Bulgarian in Section 5.2.4 above, repeated below as (91) for ease. In (91a) the *da*-clause *da spečeli* ‘to win’ patterns Romance subjunctives. In (91b), it functions similarly to Romance infinitives. Moreover, *da*-structures are obligatory with verbs of control, as in (91c):

(91) a. Ivan iska Marija da spečeli.

John wants Mary SUBJ win.PNP.3p.sg

‘John wants Mary to win.’

b. Ivan iska da spečeli.

John wants SUBJ win.PNP.3p.sg

‘John wants to win.’

c. Ivan se opita da spečeli.

John REFL tried SUBJ win.PNP.3p.sg.

‘John tried to win.’

Below, we claim that (91a) and (91b-c) display structurally distinct *da*. Moreover, distinguishing between two infinitival-like configurations and one subjunctive-like configuration, we argue that, in fact, what we are dealing with are *three* structurally distinct instantiations of the particle *da*.

5.5.1.1. Infinitival *da*-clauses and Portuguese (un)inflected infinitives

Let us begin with the structures with dubbed infinitival *da*-clauses.

The fact that obligatory control and raising are some of the contexts in which Balkan subjunctive clauses appear gives rise to many intriguing questions concerning the properties of the embedded domain in these structures and their analysis in the Balkan languages. Consider the examples from MG below, which illustrate the occurrence of MG *na*-clauses in structures of obligatory control (92a) and verb raising (92b):

(92) a. O Janis prosπαθise na fiʝi.

the John tried-3SG PRT leave-3SG

‘John tried to leave.’

b. 1 fitites fenonde na dʝavazim poli.

the students seem-3PL PRT read-3PL a lot

‘The students seem to study a lot.’

(Roussou 2001: 77)

With respect to the examples in (92), Roussou (2001) points out an obvious problem. Since these structures are traditionally associated with a [-finite] embedded domain, it must be assumed that Balkan subjunctives are also [-finite]. Nevertheless, as opposed to Romance infinitives, Balkan subjunctive particles display Tense specifications. In view of these facts, it is unclear how finiteness should be defined.

According to some authors, Balkan subjunctive clauses occurring in complements of control verbs are [-finite] since they are incompatible with the Past Tense (Iatridou 1993, Krapova 1999, 2001). Therefore, if we assume that finiteness is defined with respect to tense, Balkan subjunctive clauses must be considered [-finite] given their incompatibility with the Past. Since they are [-finite] they are unable to assign Case (or assign null Case, as pointed out in Chomsky & Lasnik (1993)) giving rise to a PRO configuration governed by the matrix verb.

On the other hand, if we assume that finiteness is defined with respect to agreement features, the Balkan structures above must actually be considered [+finite], since they display such properties.

In Romance languages, control verbs and verbs of raising select infinitives in their complements, as illustrated by the examples from Portuguese below:

(93) a. O João tentou fugir.

The John tried escape.INF

‘John tried to escape.’

b. Os estudantes parecem estudar muito.

The students seem.3p.pl. study.INF a lot

‘The students seem to study a lot.’

According to Ambar (1988, 1992, 1998, 1999, a.o.), infinitival structures are [\pm Tense]. In her view, all clausal complements are CPs that display [\pm Tense]. In her terms, finiteness is defined with respect to the [+T] or [-T] in C: control structures select

CPs with [-T]. The obligatory co-reference between the matrix and the embedded subjects is explained accordingly.

Interestingly, as opposed to the other Romance languages, Portuguese also displays the so-called *inflected infinitives* (Raposo 1987, Ambar 1988, 1992, 1998 a.o).

In contrast to their uninflected counterparts, inflected infinitives exhibit person and number agreement. Curiously, inflected infinitives cannot occur in complements of verbs of control (94):

- (94)* Nós tentámos estudarmos mais.
We tried.1p.pl. study.INF.1p.pl. more
Intended: ‘We tried to study more.’

Raposo (1987) focuses on the intriguing distribution of inflected infinitives, showing that they are felicitous in complements of epistemic, factive and declarative predicates, though not in complements of volitional predicates. Consider the examples below:

- (95) a. *Eu penso/afirmo [os deputados terem trabalhado pouco].
‘I think/claim the deputies to-have-Agr worked little.’
b. Eu penso/afirmo [terem os deputados trabalhado pouco].
‘I think/claim to-have-Agr the deputies worked little.’

- (96) a. Eu lamento [os deputados terem trabalhado pouco].
‘I regret the deputies to-have-Agr worked little.’
b. Eu lamento [terem os deputados trabalhado pouco].

- (97) a. *Eu desejava [os deputados terem trabalhado mais].
‘I wished the deputies to-have-Agr worked more.’
b. *Eu desejava [terem os deputados trabalhado mais].

(Raposo 1987: 87-88)

The distribution of inflected infinitives illustrated under the examples above is explained by virtue of the selectional properties of the predicates occurring in the matrix

domain. For instance, epistemic and declarative predicates, as in (95), select CPs for complements. Thus, given that case is assigned through government, Raposo (1987) argues that the matrix predicate governs the CP, but not the embedded IP. Therefore, the auxiliary must raise to C°: this explains the obligatory subject-auxiliary inversion in (95). With the raising of the auxiliary, the Case assigned to C percolates to the IP as illustrated below:

(98) ... pensa [_{CP}[_C C/T [_I Agr]_i] [_{IP} os amigos [_I t_i VP]]]]

Differently from epistemic and declarative predicates, factive predicates like *lamentar* ‘regret’ in (96), display dual selectional possibilities: they select either CPs or nominal complements, which is why (96a) and (96b), without inversion and with inversion, respectively, are both grammatical.

Lastly, with respect to volitional predicates, Raposo (1987) argues that, as opposed to epistemic/declarative and factive predicates, volitionals select neither CPs nor nominal complements. As illustrated by the examples in (97), inflected infinitives are generally disallowed in complements of such predicates, regardless of subject-auxiliary inversion.

Differently from Raposo (1987), Ambar (1988, 1992, 1998) proposes that the distribution of inflected infinitives in (95)-(97) above is a result of the type of Tense C displays. In her view, in contrast to uninflected infinitives, their inflected counterparts are only felicitous in [+T] domains. Due to this requirement, they are ruled out in complements of volitional predicates, in which, as discussed above, the embedded tense is dependent on the matrix. As opposed to volitional verbs, factive, epistemic and declarative predicates select [+T] domains: as a result, such predicates are felicitous with inflected infinitives. As noted by Ambar (1988, 1992, 1998), an intriguing parallel with respect to the distribution of (un)inflected infinitives can then be established: [+T] domains trigger the selection of inflected infinitives and the indicative mood, while [-T] domains are restricted to occur with uninflected infinitives and the subjunctive mood.

An observation concerning factive verbs is in order here. Although factive predicates are felicitous with inflected infinitives, they are incompatible with the indicative mood. As pointed out above, Portuguese *lamentar* ‘regret’ selects the subjunctive, as opposed to its Balkan counterparts which select the indicative mood. In

Ambar's view, this behaviour of factive predicates is a result of the fact that the locus of [+T] is D, not C, i.e. the complements of factive verbs are DPs:

- (99) Lamento o facto de os deputados terem trabalhado pouco.
Regret.1p.sg. the fact of the deputies have.Aux.3p.sg. worked little

Thus, although factive predicates are selectors of [+T] domains, they behave like volitives due to the fact that they do not have T in C.

Let us now go back to volitional predicates and their incompatibility with inflected infinitives. As proposed in Raposo (1987), this incompatibility is a result of the selectional requirements of volitional predicates and, more specifically, of the fact that they do not subcategorise nominal complements. As discussed above, in Ambar's (1988) view, however, it is a result of the [-T] domain volitional predicates systematically select.

Interestingly, as noticed in some recent works, namely Ambar (2016b), there exist cases in which inflected infinitives occur in complements of volitional predicates. Consider (100) below:

- (100) Os pais querem os meninos a dormir /dormirem já.
the parents want the kids to sleep.INF /sleep.INF.3PL now
(Ambar 2016b: 2-3)

Ever since Raposo (1989), complements like the one in (100) have been known as *Prepositional Invitational Constructions* or PICs. Raposo (1989) observes that PICs occur with object control structures such as Portuguese *persuadir* 'persuade' and *obrigar* 'to force' (101a) or with perception verbs like *ver* 'see' and *ouvir* 'hear' (101b):

- (101) a. Eu obriguei os meninos a ler(em) esse livro.
I forced the children to read (AGR) that book

- b. Eu vi os meninos a ler(em) esse livro.
I saw the children to read (AGR) that book

(Raposo 1989: 277)

Considering that in both (101a) and (101b) the NP *os meninos* ‘the children’ is understood as the subject of the infinitive and that, in both cases, the infinitive is headed by the preposition *a*, Raposo (1989) argues that the PIC in (101b) has the following structure:

(102) ... [PPNP₁ [PP *a* [clause NP₂ VP]]]

(Raposo 1989: 286)

According to (102), the infinitival complement displays a null pronominal subject NP₂ which is controlled by the lexical subject NP₁. This proposal felicitously captures the fact that PICs and object control structures differ with respect to the way the controller NP₁ is understood. On the one hand, the controller is the object of the matrix verb in object control structures, on the other hand, it is the subject of the infinitival VP in the case of PICs, as shown in (102).

Differently from Raposo (1989), Ambar (2016b) suggests that *a* is responsible for the flavour of deontic modality object control structures convey. In fact, as noted by this author, Portuguese *a*-infinitival clauses⁵⁵ and MG *na*-clauses share a number of properties, some of them being the obligatory verb-adjacency (103a-c) and the occurrences in both infinitival and subjunctive environments (104a-d):

(103) a. *Thelo na o Pavlos erthi.
 want.1sg SUBJ the Paul.nom come.3sg

b. * Quero a o Paulo vir
 want.1sg A the Paul come.INF

c. * Quero a os meninos virem
 want.1sg A the kids come.INF.3Pl

(Ambar 2016b: 5)

⁵⁵ Given the common properties between *a*-clauses and gerundives (Lobo 2003, 2006, Mória & Viotti, 2004), which we are unable to discuss here, we will explore this topic in future research.

- (104) a. Thelo o Pavlos na erthi.
 want.1sg the Paul.nom subj come.3sg
- b. Quero o Paulo a vir à festa
 want.1sg the Paulo.acus A come.3sg to-the party
- c. Quero os meninos a virem à festa
 want.1sg the kids A come.INF.3Pl to-the party
- d. Quero que os meninos venham à festa
 want.1sg that the kids come.Sbj.3Pl to-the party

Based on the examples in (103) and (104) and the intriguing parallels between Portuguese *a*-clauses and MG *na*-clauses, Ambar (2016b) suggests that Portuguese *a* is a complementizer and a counterpart of the Balkan particles. Interestingly, Ambar (2016b) also observes that this element is not restricted to occurring in non-finite complements. Curiously, as illustrated in (105a-b) in the finite version of object control structures, *a* precedes *que*:

- (105) a. Persuadi os meninos a que lessem esse livro
 I persuaded.1SG the kids A that read.SBJ.IMP.3PL that book
- b. O Pedro convenceu a Maria a que vá ao cinema
 the Peter convinced the Mary A that go.SBJ.Pres.3sg to-the movies.
 (Ambar 2016b: 5)

Two hypotheses have therefore been put forward:

- (i) *a* is generated in a position higher than *que*;
- (ii) *a* is generated in a position lower than *que* undergoing further movement to adjoin to it;

Assuming the proposal under (ii), Ambar (2016b) suggests that *a* is merged in a lower complementizer position where it licenses the infinitive. In finite complements such

as those in (105) above, *a* raises to a higher position (possibly EvaluativeP), thereby valuing the evaluative property of the subjunctive.

5.5.1.2. Three types of *da*-clauses

The behaviour of Portuguese complementizer *a* is of particular import when dealing with the Balkan subjunctive particles. With the parallelisms between Portuguese *a* and MG *na* (or Bulgarian *da*) discussed in Ambar (2016b), it is tempting to assume that, like Portuguese *a*, Bulgarian *da* originates in a low complementizer position where infinitival *da*-clauses are licensed. The subjunctive meaning could then be considered a result of *da* rising to a projection of the Left Periphery, encoding the relation with evaluation (Ambar 2016a).

This, however, does not seem to be the entire story. Observe that Bulgarian *da*-clauses, in fact, occur in *three* syntactically distinct contexts:

- (i) In complements of verbs of control;
- (ii) In Object control structures and in complements of verbs of perception;
- (iii) In subjunctive main and embedded clauses;

Leaving aside the context indicated in (iii) and focusing on those described in (i) and (ii), it becomes clear that *da*-clauses display another ambiguity. Besides the well-known fact that they are ambiguous between subjunctive and infinitival structures, Bulgarian *da*-clauses appear to pattern both bare and prepositional infinitives. Notice that under the context in (ii), *da* can be seen as a counterpart of the Portuguese complementizer *a*. In contrast, *da*-clauses occurring in the context under (i) pattern bare infinitives (Portuguese uninflected infinitives).

Romanian is particularly illustrative when it comes to describing this ambiguity. Dobrovie-Sorin (1994) shows that the expression of the subjunctive in Romanian relies on the occurrence of the subjunctive particle *să* (cf. Section 5.1). Like Bulgarian *da*-clauses and MG *na*-clauses, *să*-clauses can function like both Romance subjunctive and

infinitival structures. Nevertheless, differently from MG and Bulgarian, which have lost true infinitival forms, in Romanian *să*-clauses co-exist with bare infinitives and with *a*-infinitives (Dobrovie-Sorin 1994). What is more, it looks like Romanian *să*-clauses are counterparts of both. Consider the data in (106) below, illustrating the type of complements occurring under the verb *a putea* ‘can’. Bare infinitives (106a) and *să*-clauses (106c), though not *a*-infinitives (106b), are plausible in the control structure in (106):

(106) a. Pot cânta.

[I] can sing

b. *Pot a cânta.

c. Pot să cânt.

(Dobrovie-Sorin 1994: 108)

Conversely, other types of obligatory control structures, such as those in (107)-(109) below, are restricted to *a*-infinitives and *să*-clauses, bare infinitives being ruled out:

(107) a. Am început a citi “Cei trei mușchetari”.

[I] have started to read “The Three Musketeers”

b. Am început să citesc “Cei trei mușchetari”.

[I] started that [I] read_{subj} “The Three Musketeers”

(Dobrovie-Sorin 1994: 91, 113)

(108) a. . Ion₁ a mâncat înainte de a pleca e₁.

John₁ ate before to leave e₁

b. Ion₁ a mâncat înainte să plece e₁

John₁ ate before să leave e₁

(109) a. Ion a mâncat înainte de a pleca mama.

John ate before to leave mother

‘John ate before mother left.’

b. Ion a mîncat înainte să plece mama.

John ate before să leave mother.

(Dobrovie-Sorin 1994: 115)

The fact that Romanian *să*-clauses pattern both bare infinitives (106) and *a*-infinitives (107)-(109) is particularly telling. According to Dobrovie-Sorin (1994, 2001), the particle *a* is a complementizer like the subjunctive particle *să*. Nevertheless, in her view, *a*-infinitives can only function as arguments, not as predicates, as opposed to *să*-clauses which can function as both nominal projections and verbal projections (Dobrovie-Sorin 1994: 108, f.n. 46). Therefore, given that the verb *a putea* ‘can’ in (106) above is restricted to selecting VPs, the occurrence of the *a*-infinitive is precluded.

Other studies dedicated to the distribution of Balkan subjunctive particles also recognise the intriguing patterns between Balkan subjunctive clauses and Romance bare and prepositional infinitives. Giannakidou (2009), who refers to the occurrence of *Magna*-clauses in complements of verbs of perception and aspectual verbs suggests that:

“In Giannakidou (1998) it is mentioned that *na* clauses can also occur with (though not strictly speaking selected by) some veridical verbs such as verbs of perception (I saw John leave) and aspectual verbs like *arxizo* ‘start’ and *stamato* ‘stop’ (John {started/stopped} singing). Such uses are distinguished syntactically from the ‘regular’ subjunctive complements we will be considering in at least three ways (Giannakidou 1998), and I will take them to be a consequence of the necessarily finite complementation in Greek: in the absence of ‘smaller’ complements, and given that the indicative is a complement with independent tense, Greek will resort to the subjunctive for complements that correspond to ‘smaller’ structures such as bare infinitives and gerunds.”

[Giannakidou 2009: 1887, f.n. 2]

In view of the facts described so far and following Giannakidou (2009), who points out that the infinitival uses of the Balkan subjunctive particles must be distinguished syntactically from subjunctive use, we tentatively propose that there exist *three* distinct structural positions for Bulgarian *da*: (i) low (ii) medium and (iii) high.

To some extent, low *da*-clauses can be seen as counterparts of bare infinitives. Low *da* originates below TP and adjoins to the verb inflected for PNP. Following

In view of these observations, we suggest that medium *da* is merged in the head of FinP. As Rizzi (1997) write:

“Again, we should think of finiteness as the core IP-related characteristics that the complementizer system expresses; languages can vary in the extent to which additional IP information is replicated in the complementizer system: some languages replicate mood distinctions (special subjunctive complementizers in Polish, etc), some replicate subject agreement (different Germanic varieties; Haegeman 1992, Bayer 1984, Shlonsky 1994), some seem to express genuine tense distinctions (Irish, Cottell 1994), negation (Latin, Celtic) etc.” [Rizzi 1997: 284].

The proposal that medium *da* is placed in Fin^o, on the one hand, accounts for the parallelisms between medium *da* and Romance complementizers such as Portuguese *a* and Italian *di* (Rizzi 1982, 1997). On the other, it captures the close relation between *da* and the verbal cluster, explaining the fact that such structures do not permit intervening material.

Lastly, high *da* refers to those instantiations of the particle which denote subjunctive and evaluative meanings. Following Ambar (2016a), we assume that subjunctive main and embedded *da*-clauses raise to EvaluativeP, which is the projection accounting for the speaker’s evaluations and attitude.

Before turning to the analysis of yes-no questions displaying *da*, let us make another point concerning the status of subjects of embedded subjunctive clauses. As mentioned above, one of the well-known properties of Balkan subjunctives is that they void obligatory obviation:

- (112) a. Ivan_i iska pro_{i/j} da spečeli.
John wants SUBJ win.PNP.3p.sg
‘John wants to win.’ / ‘John wants him to win.’
- b. Ivan iska toj da spečeli.
John wants he SUBJ win.PNP.3p.sg.
‘John wants him to win.’/John_i wants that HE_i wins.’⁵⁶

⁵⁶ Note that in (112b) the co-reference between the matrix and the embedded subject *toj* ‘he’ also involves focus assignment signalled by capital letters. Similar cases appear in Portuguese (Ambar 1988).

c. Ivan iska Marija da spečeli.
 John wants Mary SUBJ win.PNP.3p.sg
 ‘John wants Mary to win.’

The structures in (112) illustrate that the matrix and the embedded subjects can be co-referent, in contrast to what has been observed in Romance languages. In Romance, obviation has been associated with the tense defectiveness of the subjunctive. However, as pointed out in Ambar (2016a), the claim that the subjunctive is a dependent or an anaphoric tense does not explain the fact that it is independent with respect to event patterning infinitival structures which denote an unrealized future event (Stowell 1982). Ambar (2005, 2007, 2010, 2016a) therefore distinguishes between t_i features and t_{ev} features, considering that only the latter enter the derivation with a value. The unvalued t_i features are valued by the matrix verb or by an Op. By virtue of t_i feature valuation the embedded domain extends to the matrix domain, preventing co-reference between the matrix and the embedded subjects.

A similar account assuming that defectiveness concerns the lack of a value of a given feature, rather than the lack of the feature itself, was put forth in Uriagereka & Gallego (2007). In their terms, although ϕ -complete, C- T_{subj} is Case/Tense defective. Therefore, even though the embedded subject agrees with the embedded verb, it receives Case from the matrix predicate. Uriagereka & Gallego (2007) propose that Romance subjunctive clauses (113) are analysed as ECMs (114):

(113) Juan desea que Maria venga.
 John want that Mary comes.SUBJ.

(114) John wants Mary to come.

Obligatory obviation is explained accordingly: the fact that the subject of the embedded domain is assigned Accusative gives rise to *interpretative distinctness* (Uriagereka 1997), i.e. co-reference between the matrix and the embedded subjects is precluded. Nevertheless, as pointed out by the authors, if the matrix verb does not assign Case to the embedded subject, co-reference is possible:

(115) Juan queire que a él le guste Charlie Mingus.

John wants that to him cl.him like.SUBJ.3p.sg. Charlie Mingus

‘John wants for him to like Charlie Mingus.’

Uriagereka and Gallego’s (2007) observations concerning the patterns between ECMs and subjunctive clauses can be extended to the Bulgarian data in (112) above. In fact, Bulgarian and the other Balkan languages seem to lend further support to these authors’ claim, given that subjunctive particles occur in both types of structures. Compare (112c) above and (116):

(116) Ivan vidja Marija da čete kniga.

John saw Mary SUBJ read.IMPERF.PRES.3p.sg. book

‘John saw Mary reading a book.’

Consequently, it may be assumed that when the embedded subject is overt, it receives structural Case from the matrix predicate not only in ECMs like (116) but also in subjunctive clauses like (112c) above. Although the embedded domain is \varnothing -complete, it displays Case/Tense defectiveness, which prevents the *da*-clause from assigning Case to the embedded subject.

Nevertheless, a problem with such an analysis appears when considering the asymmetries between subjunctive clauses and ECMs concerning the cliticization of the embedded subject to the matrix verb:

(117) a. Ivan vidja Marija da čete kniga.

John saw Mary SUBJ read.IMPERF.PRES.3p.sg. book

‘John saw Mary reading a book.’

b. Ivan ja vidja da čete kniga

John cl.acc. saw SUBJ read.IMPERF.PRES.3p.sg. book

‘John saw her reading a book.’

c. * Ivan vidja tja da čete kniga.

John saw she SUBJ read.IMPERF.PRES.3p.sg. book

- (118) a. Ivan iska Marija da spečeli.
 John wants Mary SUBJ. win.PNP.3p.sg
 ‘John wants Mary to win.’
- b. *Ivan ja iska da spečeli.
 John cl.acc wants SUBJ win. PNP.3p.sg
 Intended: ‘John wants her to win.’
- c. Ivan iska tja da spečeli.
 John wants she SUBJ. win.PNP.3p.sg
 ‘John wants her to win.’

The data illustrated by (117) and (118) straightforwardly show that an analysis in the sense of Uriagereka & Gallego (2007) is not applicable to the Bulgarian data. The examples in (117) with the perception verb demonstrate that the subject of the embedded domain is analysed as the object of the matrix verb, i.e. it is assigned Accusative. This is not the case in (118), though. Although both subjunctive clauses and ECMs display a *da*-clause, the subject of the embedded domain in the former is clearly not the object of the matrix verb (cf. (118b) vs. (118c)).

These intricate puzzles lead us to adopt the suggestion put forth in Ambar, Dimitrova & Amaral (2017), according to which the lack of obligatory obviation in Bulgarian subjunctives is a result of the fact that *da*-clauses are ambiguous. In the structures displaying a low or a medium *da*, the domain is transparent for binding which allows for co-reference between the matrix and the embedded subjects (Dobrovie-Sorin 2001).

With these observations in mind, in the next subsection we turn to the analysis of Bulgarian yes-no questions displaying the particle *da*.

5.5.2. Subjunctive yes-no questions

In Section 5.4 we argued that Bulgarian *li*-questions displaying the particle *da* cannot be classified as true subjunctive interrogatives. Differently from their MG counterparts (Giannakidou 2016), they systematically denote an unrealised future event

‘Should John buy the book?’

b. [Top Ivan_j [IntP Ivan_j [Int° da kupi_i t_t t_{ev} li_k [PolP Ivan_j-[Pol° da kupi_i t_t t_{ev}
 John SUBJ buy.PNP Q
 H_k [TP Ivan_j [T° da kupi_i t_t t_{ev} [vP Ivan_j [v° da kupi_i t_t t_{ev} [VP Ivan_j [V° kupi_i knigata
 the book

As suggested above, due to its defectiveness, PNP merges with *da* in v°. The complex [da kupi t_t t_{ev}] then raises to Pol° where it attaches to the particle *li* and absorbs the polarity algorithm of the particle. The complex constituent formed by *da*, the verb in PNP and *li* undergoes movement to Int°.

An obvious issue with the derivation proposed in (119b) appears when considering order *da*-V systematically displayed in *da*-clauses. As shown in (119b), under the proposal elaborated here, it is expected that verb-movement to v° give rise to the order V-*da*. Therefore, it remains unclear how the correct order is derived. A possible solution is to assume that there is a restructuring rule, as suggested in Dobrovie-Sorin (1994) for Romanian subjunctive *să*, under which the adjacent heads merge together, forming a single complex head.

5.5.2.2. Medium *da*

Let us now turn to the syntactic analysis of yes-no questions displaying medium *da*. We suggested that in these structures *da* is externally merged in Fin°. In our view, given that in such structures *da* occurs with verbs in the Imperfective Present, medium *da*-clauses in a way have more Tense and Aspect specifications than low *da*-clauses,

As opposed to the PNP, the Imperfective Present can be seen as a generic verbal form denoting the progressive meaning of the event. Importantly, Imperfective Present does not display the defectiveness of PNP: it occurs on its own and under the indicative complementizer *če*.

Considering again Ambar’s (2005, 2007, 2016a) system for t-features valuation, it may be suggested that, with verbs in the Imperfective Present, both t_t features and t_{ev} features enter the derivation with a value. As discussed above, we propose that medium

(121) a. Da e vidjal Ivan?

SUBJ. be.IMPERF.PRES.3p.sg seen.PAST.PART John

‘Might he have seen John?’

b. * Vidjal li da e Ivan?

Seen. PAST.PART. Q SUBJ. be. IMPERF.PRES. John

Besides the fact that (121b) disallows the occurrence of *li*, the epistemic subjunctive meaning seems to also be restricted to *da*-clauses occurring with the Present Perfect tense. The reason why the Present Perfect is obligatory in structures like (121) turns out to be a complicated matter, given that its properties allow for the expression of different meanings⁵⁷. Similarly to the Past Simple, the Present Perfect has often been associated with the expression of anteriority (Comrie 1976). Note that in the MG example discussed in Giannakidou (2016) *na* occurs with the Past:

(122) Na tou milise (arage)?

SUBJV him talked-3SG Q-particle

‘Might she have talked to him? (Giannakidou 2016:200)

As opposed to the PNP and the Imperfective Present which denote an unrealized event, the Present Perfect is compatible with the expression of possibility concerning an event that has already taken place.

Leaving this question aside, we now turn to the syntactic expression of the so called high *da*. Here, we suggest that in the high *da*-clauses, the *da*-clause raises higher to a projection accounting for the subjunctive mood.

Adopting Ambar’s (2016a) proposal on Portuguese subjunctive clauses, we assume that the subjunctive meaning of main clauses is a result of the existence of an Op responsible for evaluation. Nevertheless, in our view, high *da* originates in a lower

⁵⁷ For a full description of the properties of the Perfect Present, particularly those concerning the expression of anteriority and its differences when compared with the Past Simple, we refer the reader to Giorgi & Pianesi (1997, Chapter 3) and the references therein.

Note that the absence of *li* in fact supports Giannakidou's (2016) observations that subjunctive yes-no questions do not denote the set of alternatives $[p, \neg p]$.

5.6. The Ban on Subjunctive Questions in Portuguese

The incompatibility between Bulgarian subjunctive *da*-clauses and the particle *li* are especially important when discussing the ban on Portuguese subjunctive questions. In Bulgarian, only the so called infinitival *da*-clauses can co-occur with *li*. In true subjunctive questions, *li* is an intervener blocking the relation between the *da*-clause and the evaluative Op.

Here, we will extend this proposal to Portuguese. Differently from Bulgarian *da*-clauses which, in our view, always display [+T], in Portuguese, as in the other Romance languages, the subjunctive tense is dependent on the matrix tense. Adopting Ambar's (1998, 2005, 2007) system for t-features valuation and assuming with Ambar (2016a) that subjunctive clauses have valued t_{ev} features and unvalued t_t features, the latter being valued by the Op in EvaluativeP, we claim that the ban on subjunctive interrogatives is a result of the intervening interrogative operator situated in IntP, which prevents the t_t features valuation:

- (124) a. * O João vá ao cinema?
 The John go.SUBJ.3p.sg. to-the movies

- b. [EvalP Op_{eval} [Eval' [IntP Op_{INT} [Int° [TP o João_j [T° vá_{u t_t, t_{ev} i} [VP \emptyset
 |-----X-----|

João_j [V° vá_{u t_t, t_{ev} i} ao cinema]

Crucially, according to this approach, the ungrammatical structure in (124b) in a way patterns the Bulgarian subjunctive question above in (121b) of the preceding section in which *li* occurs.

5.7. More on the Subjunctive: *Dali*-Questions

Although we argued that true subjunctive *da*-questions are incompatible with the particle *li*, there is one context in which the co-occurrence of these elements turns out to be plausible, namely Bulgarian *dali*-questions. As opposed to the subjunctive or infinitival questions discussed so far, *dali*-questions are particularly intriguing given that they illustrate a case in which the particle *da* merges with *li*. The combination of the subjunctive *da* and the interrogative *li* gives rise to the formation of the complex *dali* which has been traditionally considered an interrogative complementizer patterning Italian ‘*se*’ (Krapova 2002, Section 2.4.2 of Chapter 2).

In Section 2.4.2 of Chapter 2, we showed that *dali* occurs in both matrix (125) and embedded yes-no questions (126). Nevertheless, even though *dali*, like *li*, is felicitous in yes-no questions, there exist some crucial differences concerning the expression of wondering and doubt the former systematically conveys to the structure. Recall the examples discussed in Section 2.4.2 of Chapter 2, repeated below for convenience:

(125) *Dali Ivan kupi knigata?*
Dali John bought.3sg book.def
‘Did John buy the book? (I wonder)’

(126) a. *Popitax dali Ivan kupi knigata.*
Asked.1sg dali John bought.3sg book.def
‘I asked whether John bought the book.’

b. *Čudja se dali Ivan pročete pismoto.*
Wonder.1sg refl dali John read.3sg letter.def
‘I wonder whether John read the letter.’

Moreover, *dali* and *li* appear to be syntactically distinct. *Dali* takes as a complement the entire proposition (cf. (126a-b)). *Li* on the other hand, merges with the verb or XPs different from the verb, giving rise to the creation of the alternatives [V, ¬V] or [XP, ¬XP] respectively.

As discussed in Section 2.4.2, *dali* does not seem to exhibit a relation with the question alternatives [p, ¬p]. Observe that *dali*-embedded questions are infelicitous with the coda ‘or not’:

- (127) ?? Popitax dali Ivan vidja kartinata ili ne.
 Asked.1sg dali Ivan saw painting.def or not

The oddness of (127) increases in *dali* matrix questions:

- (128) * Dali Ivan vidja kartinata ili ne?
 Dali John saw.3p.sg. painting.def or not

In our view, these properties of *dali* are a result of the fact that it contains an instantiation of the subjunctive *da*. *Dali*-questions therefore denote the *epistemic subjunctive* (Giannakidou (2016)), just like the *da*-subjunctive questions in which *da* occurs with verbs in the Present Perfect Tense, discussed in the preceding section. The wondering effect *dali*-questions convey, as well as the ban on the occurrence of the coda ‘or not’, can then suggest that, by virtue of *da*’s merge with *li*, the question turns out to be about the possibility of p rather than ¬p (Giannakidou 2016).

Note, moreover, that *dali*-questions sharply diverge from other subjunctive-like and infinitival-like *da*-questions with respect to Tense. Given that *da* merges with *li*, it does not impose any restriction with respect to the Tense of the verb occurring in its scope. In contrast to *da*-clauses, which are restricted to occur with verbs in the Present, *dali* is compatible with Past and Future Tenses⁵⁸, patterning the indicative complementizer *če*:

- (129) Dali Ivan piše / napisa
 Dali John write.IMPERF.PRES.3p.sg. / write.PAST.PERF.3p.sg.
 /šte napiše doklada?
 FUT write.PERF.PRES.3p.sg. report.def.

⁵⁸ The expression of the Future in Bulgarian relies on the occurrence of the particle *šte*. Like the subjunctive particle *da*, *šte* is only compatible with verbs in PNP or in the Imperfective Present. We leave the fine-grained analysis of this particle for future research and refer the reader to Giannakidou (2009), who discusses the differences between MG subjunctive *na* and future *tha*.

‘Does/Did/Will John write the report?’

Moreover, as opposed to *da*, *dali* is incompatible with the defective PNP. The ungrammaticality of (130) below supports the analysis put forth above and the distinction between the three structural positions of Bulgarian *da*. Moreover, we can hypothesise that, given that *da* merges with *li*, it does not value the unvalued t_{ev} features of PNP the result being the ungrammaticality of the structure in (130):

- (130) * Dali Ivan napiše doklada?
 Dali John write.PNP.3p.sg. report.def

With these brief observations and building on the analysis of *li*-questions and *da*-clauses proposed so far, we suggest that *dali*-questions display a structure like the one in (131b):

- (131) a. Dali Ivan napisa doklada?
 Dali John wrote.PAST.3p.sg report.def
 ‘Might it be the case that John has written the report?’

- b. [TopP Ivan_i [EvalP OP_{eval} [Eval’ da_k li_v [IntP [Int’ da_k li_v [PolP [Pol° da_k
 John dali
 H_v [TP Ivan_i [T’ napisa_j [vP Ivan_i [v’ napisa_j [VP Ivan_i [V’ napisa_j doklada]]]]]]]]]]]]]
 wrote the report

For the time being we will propose that, in *dali*-questions, *da* is externally merged in Pol° where it attaches to *li*. The new-formed constituent *dali* undergoes movement to Int° and Eval°.

Note however that there are cases in which the subjunctive-like *dali* can co-occur with the particle *da*. In such structures the *da*-clause occurring in the complement of *dali* displays an infinitival function which is another piece of evidence supporting the analysis proposed above:

(132) Dali Ivan da każe istinata na Marija?

Dali John SUBJ say.PNP.3p.sg. truth.def to Mary

‘Should John say the truth to Mary? (I wonder)’

Note, moreover, that Bulgarian *dali* is not an isolated case of subjunctive-like interrogative elements formed in the syntax. Tomaszewicz (2009) highlights a similar case in Polish, which displays the complex interrogative element *czyżby*. Polish patterns Russian in the expression of the subjunctive mood: the expression of the subjunctive relies on the particle *by*, which merges with the indicative complementizer *że*, giving rise to the complex complementizer *żeby*, a counterpart of Russian *čtoby*.

Polish *żeby* is, moreover, felicitous in main clauses denoting the subjunctive meanings associated with the expression of desire (133a) or evaluation (133b):

(133) a. *Żeby nie padało!*

Żeby not rain.PAST.PART.

‘I wish it wouldn’t rain!’ / Let’s wish it wouldn’t rain!’

b. *Żeby Piotr pocałował Marię?! Nigdy w to nie*

Żeby.aux.3sg Peter kiss.PAST.PART Mary?! Never in it not

uwierzę!

believe.1sg

‘Peter kissed Mary?! I would never believe it!’

As for yes-no questions, in Polish these structures can optionally display the interrogative word *czy*. According to Tomaszewicz (2007), *czy* is a neutral interrogative particle that does not convey any additional meaning to the structure, as opposed to the special subjunctive-like interrogative particle *czyżby* which, according to the same author, denotes the meaning of ‘really? / indeed?’. Compare (134a) and (134b):

(134) a. *Czy pada?*

Whether rain.PRES.3sg

‘Is it raining?’

b. Czyżby padalo?
Whether.by rain.PAST.PART
“Does it seem like it’s raining?”

(Tomaszewicz 2007: 5)

The relation with the subjunctive *czyżby* exhibits is confined to its morphological make-up. According to Migdalski (2006), Polish *by* can occupy two distinct structural positions: “When it functions as the subjunctive marker, it moves to the head of ModP above TP. When it is the conditional auxiliary, it stays in its base position in Mood below TP.” [Migdalski 2006: 259]

Consider Migdalski’s (2006) proposal below:

(135) [CP [ModP BY_{SUBJ} [TP [MoodP BY_{COND}]]]]

(Migdalski 2006: 259)

These data once again support the proposal that, as opposed to Romance, Balkan and Slavic subjunctive particles are strongly ambiguous. In Balkan, subjunctive clauses appear to function as subjunctive and infinitival structures. In Slavic languages, such as Russian (cf. Section 5.4.3) and Polish, the particle *by* occurs in conditional and subjunctive structures. The analyses accounting for these ambiguities must therefore discriminate between distinct syntactic positions encoding the different meanings these elements convey.

5.8. Some Notes on Negation and Evaluation

Before concluding this chapter, some additional notes on the occurrence of negation and the relation to evaluation it displays in given environments are required. In Section 5.5, we noted that one of the properties discriminating subjunctive and infinitival *da*-questions concerns the different readings negation displays in each context. When occurring in infinitival *da*-questions, negation conveys the true negative meaning. In contrast, in subjunctive questions, it systematically acquires the expletive reading.

Consider again the examples in (83) and (84), repeated below as (136) and (137), respectively:

(136) Da ne se li obajda na Ivan?
 SUBJ Neg REFL Q call.IMPERF.PRES.3p.sg. to Ivan
 ‘Shouldn’t s/he call John?’

(137) Da ne e vidjal Ivan?
 SUBJ. not BE.IMPERF.PRES. seen.PAST.PART John
 ‘Might he have seen John?’

In contrast to (136), the subjunctive question in (137) displays expletive negation. As a consequence, (136) and (137) further differ with respect to the licensing of NC. Only infinitival *da*-questions (136’) allow co-occurrence between negation and n-words:

(136’) Da ne se li obajda na nikoj /* njakoj?
 SUBJ Neg REFL Q call.IMPREF.PRES.3p.s.g to no one /*someone
 ‘Shouldn’t he call anybody?’

(137’) Da ne e vidjal *nikoj / njakoi?
 SUBJ. not BE.IMPERF.PRES. seen.PAST.PART no one someone
 ‘Might he have seen someone?’

Dali-questions which, in our view, consist in another case displaying the epistemic subjunctive, present further evidence in favour of the idea that there is a close relation between the expletive reading negation displays and the properties of evaluation the structure denotes. Thus, whenever negation occurs in the scope of *dali*, only the expletive negation reading is available, true sentential negation meanings being ruled out:

(138) a. Dali Ivan ne pročete pismoto?
 Dali John neg read.PAST.3p.sg. letter.def
 ‘Might it be the case that John read the letter?’
 * Might it be the case that John didn’t read the letter?’

With the data above we can assume that the negation marker loses its negative meaning whenever the structure denotes epistemic modality or evaluation of the state of affairs. Note that these observations are in line with the discussion provided in Chapter 4. In Chapter 4, we argued that negative yes-no questions and degree wh-exclamatives are evaluative structures, i.e. they denote the speaker's attitude towards the state of affairs described, the outcome of this property being the expletive reading of the negation marker.

In our view, the property triggering the expletive reading of the negation marker in subjunctive yes-no questions, negative yes-no questions and degree exclamatives has to do with the fact that these structures are nonveridical. In this study, we tentatively assumed a unified syntactic representation relying on the activation of EvaluativeP. Note, however, that negative yes-no questions, degree wh-exclamatives and subjunctive questions actually display distinct subtypes of evaluation properties. For instance, negative yes-no questions consistently display the speaker's belief in the positive value of the proposition. Degree wh-exclamatives, on the other hand, express extreme degree quantification associated with the semantic operations of 'widening' (Zanuttini & Portner 2003) or 'domain extension' (den Dikken & Giannakidou 2002). Finally, subjunctive questions encode possibility and epistemic modality. We leave the fine-grained syntactic analysis capturing this variety of interpretations for a future work.

5.9. Summary of Chapter 5

Our goal in this chapter was to shed some light on the syntactic properties of subjunctive yes-no questions, concentrating on the divergences between Bulgarian and Portuguese. We started by discussing the well-known properties of the subjunctive mood in Romance and Balkan, some of them being those related to the properties of tense (dependent tense vs. independent event), obviation and the *(un)selection* of the subjunctive in main and embedded clauses. As for subjunctive main clauses, we focused on the relation they display with evaluation and with the expression of the speaker's attitude (Ambar 2016a, Giannakidou 2016).

Balkan subjunctive clauses turned out to be particularly intriguing due to the ambiguity they exhibit. Based on the data from Bulgarian and comparing this with the

data from Modern Greek (Giannakidou 2009) and Romanian (Dobrovie-Sorin 1994, 2001), we distinguished between infinitival *da*-clauses and subjunctive *da*-clauses. Following Giannakidou (2016) in assuming that subjunctive yes-no and wh-questions display a special type of subjunctive mood, namely the *epistemic subjunctive*, we observed that Bulgarian yes-no questions displaying infinitival *da*-clauses are incompatible with the denotation of such epistemic meanings. Moreover, the distribution of the particle *li* was taken as a diagnosis when distinguishing between true subjunctive yes-no questions and infinitival yes-no questions, as the subjunctive particle *da* can co-occur with *li* only in the latter case.

The syntactic analysis proposed in this chapter was based on the proposals made in Ambar (2016a) and Ambar (2016b) and on the observations sketched out in Ambar, Dimitrova & Amaral (2017). In order to account for the syntactic properties of the Bulgarian subjunctive *da*, we distinguished between three positions for the particle: low, medium and high. The incompatibility between the ‘epistemic subjunctive *da*’ and the particle *li* was then seen as a case of intervention effects: *li* precludes the relation between *da* and the evaluative Op in Spec, EvaluativeP. This view was also extended to Portuguese in order to account for the ungrammaticality of the subjunctive mood in Portuguese yes-no questions.

6. CONCLUSIONS AND TOPICS FOR FUTURE RESEARCH

The aim of this chapter is to outline the central topics under discussion in the dissertation, systematising the main ideas put forth in the previous chapters and highlighting some issues the further examination of which we leave for future research.

Two central parts of the dissertation can be distinguished:

(i) In the first part, we considered the syntactic expression of yes-no questions in Bulgarian based on the ideas of Holmberg (2012) and Ambar (2013). With these authors, we suggested that the particle *li* is externally merged in PolP: the projection accounting for the polarity value of the structure. Furthermore, we proposed an analysis of XP-*li* questions, traditionally dubbed *focused yes-no questions*, and argued that the so called focused XP is, in fact, part of the speaker's background knowledge.

(ii) In the second part, we concentrated on the links between given types of yes-no questions and the expression of evaluation, capitalising on the triggers of the positively biased reading of negative yes-no questions and on the properties of subjunctive yes-no questions and other types of subjunctive main clauses in Balkan and Romance languages.

By addressing the topics in (i), our goal was to contribute towards achieving a better understanding of the syntactic properties of yes-no questions, considering evidence from languages whose behaviour with respect to the licensing of these structures has not been subject to much scrutiny.

With the topics under (ii), we addressed two specific types of yes-no questions, namely negative yes-no questions and subjunctive yes-no questions. Based on the ideas put forth in Ambar (2016a) and Giannakidou (2016), we proposed that there exists an important parallel between negative yes-no questions and subjunctive yes-no questions. This parallel consists in the fact that both structures denote an evaluative flavour. According to the analysis proposed, *evaluation* is what triggers, on the one hand, the expletive reading of negation and the special behaviour of positive and negative indefinites and, on the other, the meaning of possibility and doubt denoted by subjunctive main clauses.

6.1. Yes-no questions, Focus and Polarity

In this work, our central objective was to explore the syntactic properties of yes-no questions, capitalising on data from Bulgarian and Portuguese and on the contrast concerning the presence *vs.* absence of an overt element licensing these structures. As thoroughly discussed in the literature, the Bulgarian particle *li* is crucial for the licensing of yes-no questions:

- (1) Petăr znae *(li) za predstavjaneto?
Peter knows Q about presentation.def
“Does Peter know about the presentation?”

In contrast, Portuguese polar questions have traditionally been addressed from the perspective of the intonational and prosodic characteristics discriminating between yes-no questions and simple declaratives:

- (2) O Pedro encontrou a Ana?
The Peter met.3p.sg. the Ana
“Did Peter meet Ana?”

Considering the contrast between (1) and (2) and the recent studies contributing to a better understanding of the syntax of yes-no questions across languages, we put forth an analysis built on the proposals of Holmberg (2012, 2016) and Ambar (2013). Following these studies, we argued that yes-no questions in Bulgarian and Portuguese display the structure below:

- (3) [INT [POL [TP [vP [VP

With Holmberg (2012) we assumed that yes-no questions display a Polarity head (PolP): the domain in which the polarity of the question is encoded. By distinguishing two main types of yes-no questions, namely *V-li* questions and *XP-li* questions, we argued that in *V-li* questions the particle is externally merged in the head of PolP. In *XP-li* questions, on the other hand it is externally merged in Spec, PolP. However, in both

structures, *li* is responsible for denoting the polarity algorithm $[x, \neg x]$ in which $[x]$ can be the verb, as in *V-li* questions or an XP different from the verb, as in *XP-li* questions.

The analysis in (3) and the assumption that PolP indeed projects in Bulgarian yes-no questions presents an important advantage when it comes to dealing with the distinction between the so-called neutral *V-li* questions and the so called focused *XP-li* questions.

As we saw in Chapter 2 and 3, the particles licensing yes-no questions in languages like Bulgarian are also able to assign focus whenever merged with elements different from the verb. This property of the Bulgarian particle *li* gave rise to some important questions concerning:

- (i) the properties of *li* allowing it to function as both Question and Focus operator;
- (ii) the reason for the obvious sensibility of such particles to the type of host they merge with, the focused meaning being restricted to cases in which the particle follows an XP different from the verb;
- (iii) the syntactic domains licensing focus in questions.

The topics in (i)-(iii) above were thoroughly explored in Chapter 2 and Chapter 3.

By assuming that *li* introduces a polarity algorithm, namely $[x, \neg x]$, crucial for the expression of yes-no questions, in Chapter 2, we suggested that the so called *focus* meaning of *XP-li* questions is, in fact, a result of the fact that, in such structures, the alternatives formed *via* XP-movement to *li* in Spec, PolP are $[XP, \neg XP]$, i.e. the XP and its negation which invoke a meaning similar to that of contrastive focus structures.

The interpretational divergences between *XP-li* questions and *V-li* questions have been therefore regarded as a consequence of the type of element that attaches to *li*. In contrast to *XP-li* questions, the formation of the alternatives $[V, \neg V]$ in *V-li* questions gives rise to the so called neutral reading. As suggested in Chapter 2, such neutrality is a result of the assumption that T is the head of the proposition, therefore, when V attaches to *li* in Pol^o, the polarity algorithm applies to the entire structure.

However, although the analysis sketched in Chapter 2, felicitously captures the data from Bulgarian yes-no questions, there are some further puzzles that remained to be solved. The data from *XP-li* questions gave rise to further questions concerning the similarities such structures share with wh-questions: (i) obligatory subject-verb inversion,

(ii) obligatory fronting of the *wh*-word, in *wh*-questions, and the *XP-li* constituent, in *XP-li* questions, (iii) answering system under which the answers to *wh*-question and *XP-li* questions refer to, respectively, the *wh*-word and the *XP* attached to *li*.

In Chapter 3, we made an attempt to explain the intriguing similarities between Bulgarian *XP-li* questions and *wh*-questions by studying the Bulgarian data and comparing this with some similar cases from Hungarian and Japanese. In particular, we explored the particle's behaviour when it comes to co-occurring with given types of quantifiers and with *wh*-words. Based on Szabolcsi' (2015) work and considering the behaviour of the so-called *Quantifier Particles*, we showed that Bulgarian *li* displays a strong sensibility to quantification. The data discussed in Chapter 3 showed that the quantifier attaches to the particle whenever they co-occur. This pattern was taken as an argument supporting the idea that it is not focus that we are dealing with in Bulgarian *XP-li* questions. Rather, the so called focused *XP* that attaches to the particle is part of the set of alternatives present in the universe and of the speaker's background knowledge: an assumption that successfully explains the constant parallels between *XP-li* questions and *wh*-questions, as well as the controversial status of these structures which somehow combine question and knowledge.

In order to account for the presupposed nature of the *XPs* that merges with the particle *li*, we assumed Ambar's (2003) proposal for the hierarchy of projections constituting the Left Periphery. Therefore, we argued that the focused constituent raises to *AssertiveP* which is the projection accounting for "what the speaker knows".

Note that the proposal for analysis of Bulgarian yes-no questions advocated in this work diverges sharply from the previous accounts, which, as pointed out in Chapter 2, face problems when it comes to explaining the differences between *V-li* and *XP-li* questions.

6.2. Evaluation

Although the central goal of the dissertation concerns the licensing of yes-no questions, the intriguing data from negative yes-no questions and subjunctive yes-no questions necessarily led us to extend our research domain to consider the relation such structures display to the expression of given speaker-related values.

In Chapters 4 and 5 we therefore focused on negative and subjunctive yes-no questions, respectively. We argued that there is a relation between negative yes-no questions and subjunctive yes-no questions, the unifying property being the relation to evaluation that they both display.

In Chapter 4 we discussed the data from negative yes-no questions and degree wh-exclamatives, focusing on the triggers for the “expletiveness” of the negation marker. Considering negative yes-no questions, we claimed that so-called expletive negation is a result of two correlating properties:

(i) n-words are negative quantifiers (Giannikidou 2006) which are obligatorily part of the questioned portion of the structure. By virtue of this property, when occurring in questions, they must attach to *li*.

(ii) negative yes-no questions denote the speaker’s evaluation and thus trigger the systematic positively-biased reading these structures denote. Given that the negation marker has an evaluative function in these structures, it is unable to license n-words.

The assumption in (ii) was extended to degree wh-exclamatives, which, like negative yes-no questions, display the so called expletive negation (Espinal 1997). Moreover, as noted in Espinal (1997, 2000), degree wh-exclamatives sharply diverge from standard wh-exclamatives when it comes to the property of factivity. In contrast to standard wh-exclamatives, degree wh-exclamatives appear to be consistently non-factive.

The idea of a relation between evaluation and non-factivity (Ambar 2016, Giannakidou 2016, a.o.) led us to consider some additional intriguing facts. Interestingly, subjunctive embedded clauses share with both negative yes-no questions and degree wh-exclamatives some similarities regarding the licensing of negative quantifiers and the expression of expletive negation.

When negation occurs in complements of given predicates, the reading it displays strongly depends on the mood selected in the embedded domain. Interestingly, true sentential negation is confined to indicative embedded domains, as in (4), whereas expletive negation occurs when the subjunctive is selected, as in (5):

- (4) Straxuvam se če ne e kazal ništo /*nešto na majka si.
Be_afraid.1p.sg. Refl that.IND not is said nothing/something to mother his

“I am afraid that he didn’t say anything to his mother.”

- (5) Straxuvam se da ne doide *nikoj /njakoj.
Be_Afraid.1p.sg Repl SUBJ not come.Pres.Perf no one /someone
“*I am afraid that anybody will not come.”
“I am afraid that somebody might come.”

Although negation does not display the expletive meaning in all subjunctive embedded clauses, ultimately being limited to those like (5) which express possibility, the parallelisms (5) shares with negative yes-no questions and degree wh-exclamatives do not seem to be accidental.

Considering the above observations, in Chapter 5, we extended the discussion to cover the subjunctive mood and its *(un)selection* in yes-no questions and other types of main clauses. Considering the expression of the subjunctive mood in Balkan and Romance, we argued that the alleged subjunctive yes-no and wh-questions in Balkan are a result of the fact that Balkan subjunctive particles occur in both subjunctive and infinitival structures. The proposal that Balkan subjunctive clauses display properties of Romance subjunctive and infinitival structure also explains why they are felicitous in complements of verbs of control and verbs of perception. Note that Romance select infinitives in complements of such predicates.

In order to account for the properties Bulgarian *da*-clauses, we distinguished between three types of *da* which we dubbed low, medium and high *da*. This distinction turned out to be necessary in order to account for the distribution of the particle and for the properties of the verb it selects considering PNP (Perfective non-past, Giannakidou, 2009) and Imperfective Present.

Focusing on yes-no questions and following the proposal put forth in Ambar (2016a) and Ambar, Dimitrova & Amaral (2017), we argued that true subjunctive yes-no questions are ruled out in both Bulgarian and Portuguese. Assuming the analysis proposed in Ambar (2016a), we suggested that the licensing of the subjunctive is an outcome of the activation of EvaluativeP. In yes-no and wh-questions, the relation between the Evaluative operator and the verb/particle is blocked by the intervening interrogative constituent which can be either the wh-word or the particle *li*. As shown in Chapter 5, in Bulgarian the high subjunctive *da* is only available in the absence of *li*. In our view, the

structures in which the subjunctive *da* co-occurs with the particle *li* are, in fact, structures displaying an infinitival *da*-clause, i.e. a *da*-clause functioning as Romance infinitives.

6.3 Some issues for future research

Although this work tackles a wide range of topics and constitutes another contribution to the study of yes-no questions across languages, it also highlights some issues that require further research.

Regarding the crosslinguistic divergences in the licensing of yes-no questions, here we studied data from languages with contrasting behaviour, i.e. Bulgarian, which displays an overt element the occurrence of which is obligatory in these structures, vs. Portuguese, which lacks any overt syntactic elements discriminating between polar questions and declaratives. Nevertheless, as shown in Chapter 3, there exists a third group of languages which exhibit a mixed behaviour when it comes to dealing with the presence of the interrogative element. In languages such as Hungarian and Russian yes-no questions may or may not display the question particle. According to Szabolcsi (2015), the presence of the particle correlates with the creation of disjunctions such as those in alternative questions. For this reason, according to the author, Russian and Hungarian yes-no questions with particles are infelicitous with a simple “yes” and are generally answered by echoing the finite verb (Martins 1994, Holmberg 2012).

However, this assumption turns out to be problematic when considering the data from Bulgarian and Portuguese. The obligatory presence of the particle *li* in Bulgarian polar questions does not seem to affect the behaviour of the answering system: in Bulgarian, yes-no questions can be answered either by echoing the finite verb or with the particles “yes” and “no” (Chapter 2 and Chapter 3). For this reason, in Chapter 3 we suggested that Bulgarian *li* is not a *quantifier particle* in Szabolcsi’s (2015) sense. Conversely, in Portuguese, which does not display particles when licensing yes-no questions, the preferred answer is the one echoing the finite verb (Martins 1994).

In view of these intriguing contrasts, it is unclear which are the factors conditioning the use of question particles in languages like Russian and Hungarian. There also remains the question of what the relation (if any) between the occurrence of a particle and the preferred answering pattern displayed might be. Our suspicion is that the presence

of the particle in such languages is actually related to the denotation of a given type of speaker's attitude, a result of a relation the particle displays to *nonveridicality*. We leave these questions for future research.

Further on the occurrence of particles in yes-no questions and considering the analysis proposed for Bulgarian V-*li* and XP-*li* questions, we must also point out that the view of *li* as an element displaying X^o and XP behaviours raises additional questions that go in line with some recent innovative perspectives towards phrase structure (Starke 2001, 2004, Chomsky 2013) questioning the existence of specifiers and the properties of heads.

Along with our examination of the crosslinguistic puzzles concerning the syntactic expression of yes-no questions and their answers, in this study we also made an attempt to shed some light on the properties of negation in yes-no questions and on the selection of the subjunctive in questions and other types of main clauses. In doing so, we drew an intriguing parallel between negation and the subjunctive. Considering the data from Bulgarian, we showed that subjunctive questions and negative yes-no questions behave in a similar fashion when it comes to the consistently expletive reading of the negation marker.

However, many questions concerning both negation and the subjunctive remain unsettled, namely, for negation, how the order neg-V rather than V-neg is obtained considering languages displaying preverbal negation such as Bulgarian and Portuguese.

Some additional questions arise with respect to the discussion of the subjunctive mood. On the one hand, in this work we were unable to provide a solution for the obvious question concerning the fact that the particle *da* and the verb behave as one complex constituent that attaches to the particle *li*. On the other, it also remained unclear which the specific properties of Perfective Non-Past (PNP) are and why PNP's licensing requires the occurrence of a particle such as Bulgarian *da*. In this work, we adopted Giannakidou's (2009) claim and suggested that the Bulgarian *da*, like Greek *na*, introduces a time variable into the syntax. However, there are further points that cannot be explained under this assumption. As shown in Chapter 5, Bulgarian negative subjunctive embedded clauses display some further particularities with respect to the occurrence of negation: negation is only plausible with those *da*-clauses in which the verb occurs in the Imperfective Present. PNP is therefore systematically incompatible with the negation marker. As discussed in Chapter 5, these intriguing facts resemble the data from Greek

discussed in Giannakidou (1998, 2009): the Greek PNP is compatible with the negation marker *min*, though not with *dhen*. In view of these facts, it is important to understand the properties of the PNP disallowing it to occur with the negation marker. In our view, the assumption that the PNP is deficient requires further investigation. Note that the Romance subjunctive, which is also deficient with respect to Tense, does not seem to display any restrictions regarding the occurrence of the negation marker.

Another issue requiring further attention concerns the properties of Bulgarian *da*-clauses and, especially, the cases in which they behave in the same way as Romance infinitives. In Chapter 5 we showed that, besides displaying properties of both Romance subjunctive and infinitival structures, Bulgarian *da*-clauses are also ambiguous between bare and prepositional infinitives. In this work we assumed that Bulgarian *da* occupies three distinct structural positions accounting for its varying occurrences. Considering this analysis of Bulgarian *da* as well as the parallelisms in the distribution of Balkan particles and Portuguese *a* highlighted in Ambar (2016b), it is important to further investigate the properties of particles such as Portuguese *a* in Romance languages, focusing particularly on the properties they share with Balkan subjunctive particles. Moreover, in light of languages like Romanian which display both the subjunctive *să* and the preposition *a*, our suspicion is that the properties of Balkan subjunctive particles and Portuguese prepositions do not fully overlap.

Additional questions arise with respect to the behaviour of quantifiers. As discussed in Chapter 3, the data from Bulgarian illustrating the co-occurrence between quantifiers and the particle *li* suggests that there exists a relation between the particle's distribution and the denotation of a set of alternatives part of the speaker's previous knowledge (Giannakidou 2006, Szabolcsi 2015). Based on this evidence we suggested that AssertiveP (Ambar 2003) projects in Bulgarian XP-*li* questions. The exact relation between the denotation of alternatives and the polarity nature of the particle is however not clear and deserves further attention.

These and other related questions will be explored in future research.

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