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## Nonstandard wh-Questions. Focusing on Bulgarian wh-*li* Questions\*

### 1. Introduction

The syntax of interrogative sentences has always been attractive for generative linguists. Wh-questions have been subject to extensive discussions which capitalised on the syntactic operations involved in their licensing, namely *wh-movement*, *auxiliary (verb)-movement*, *subject-verb inversion*, *operator-variable relation*. Importantly, the crosslinguistic comparison has shown that the variation languages display 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) and, on the other, with discourse-related factors, such as the relation to the speaker's background knowledge and evaluations.

The expression of speaker-related properties is particularly evident when it comes to the so called *nonstandard* (Obenauer 2004, 2006) or *non-pure* (Ambar 2003) wh-questions. Many works have been dedicated to a better understanding of these structures and their syntactic expression (Ambar 2003; Ambar, Veloso 2001; Cheng, Rooryck 2000; Obenauer 2004, 2006, a.o.), focusing on the functional projections codifying the different non-canonical meanings. Building on data from the North-Eastern Italian dialect Pagotto, Obenauer (2004, 2006) distinguishes between three types of nonstandard wh-questions, namely (i) *cannot-find-the-value-for-x questions*; (ii) *rhetorical questions*, and (iii) *surprise-disapproval questions*, as in (1)-(3), respectively:

- (1)      Andé l'à- tu catà?  
          where cl have-cl found  
          "Where (the hell) did you find it?" (Obenauer 2004: 367)
- (2)      Cossa à-lo fat par ti?  
          what has-cl done for you  
          "What has he done for you?" (Obenauer 2004: 361)

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- (3) Cossa sé-tu drio magnar?!  
 what are-cl behind eat  
 “What on earth are you eating?!” (Obenauer 2004: 348)

*Cannot-find-the-value-for-x questions* in (1) imply that the speaker is unable to find a plausible value for the variable of the question. In *rhetorical questions*, like (2), on the other hand, the speaker is not requesting information regarding the value of the variable, this information being conveyed by the question itself. Lastly, *surprise-disapproval questions*, as in (3), express the speaker’s kind of attitude and evaluation towards the proposition. Importantly, Obenauer (2004, 2006) argues that the speaker-related properties characterising the structures in (1)–(3) are a result of syntactic mechanisms, namely wh-movement to higher projections of the Left Periphery.

Building on these brief observations on nonstandard wh-questions in Pagotto, this paper examines nonstandard wh-questions in Bulgarian, focusing on the properties of wh-questions in which the particle *li* occurs<sup>1</sup>. We dub such structures wh-*li* questions. Observe the example in (4) below:

- (4) Kakvo li kupi Ivan?  
 What Q bought.3p.sg. John  
 “What might John have bought?”

<sup>1</sup> One of the reviewers notes that Bulgarian displays other types of nonstandard wh-questions, like Wh-*the-hell* questions, as in (i), or wh questions in which *li* co-occurs with the particle *pāk*, as in (ii):

- (i) Kakvo po djavolite tãrsiř tuk?  
 What the hell look for.2p.sg here  
 “What the hell are you looking for here?”  
 (ii) Kakvo li pāk iska sega?  
 What Q pāk want.3p.sg now  
 “What the hell does he/she want now? (I wonder)”

The structures in (i) and (ii) differ from wh-*li* questions in several aspects concerning an additional negative presupposition triggered by the occurrence of the modifier *po djavolite* “the hell” and the particle *pāk*. The occurrence of the particle *pāk* moreover produces a rhetorical effect in structures like (ii). Nevertheless, even though *pāk* co-occurs with *li* in wh-*li* questions, it also appears in standard wh-questions without *li*:

- (iii) Kakvo pāk iska sega?  
 What pāk want.3p.sg now  
 “What the hell does he/she want now?”

We are unable to discuss the properties of such structures here. Instead, we will focus on non-canonical wh-*li* questions.

Crucially, as opposed to standard *wh*-questions, the occurrence of *li* in (4) conveys a flavour of wondering and doubt, captured under the possibility modal *might*. Therefore, the occurrence of the particle in *wh*-questions has been associated with the expression of the speaker's inability to find a value for the variable of the question (Dimitrova 2020), much as in Obenauer's *cannot-find-the-value-for-x* questions.

This, however, is not the entire story. The distribution of *li* is more complex given that the particle is also responsible for the licensing of Bulgarian yes-no questions (Izvorski 1995; Rudin *et al.* 1999; Dukova, Zheleva 2010; Dimitrova 2020; Krapova 2021, a.o.), as illustrated in (5) below:

- (5) Ivan kupi li knigata?  
 John bought.3p.sg. Q book.def  
 "Did John buy the book?"

The characterisation of *li* as the licenser of yes-no questions is moreover supported by the example in (6). Note that, in the absence of *li*, the structure loses its true interrogative meaning and acquires a confirmation-like reading:

- (6) Ivan kupi knigata?  
 John bought.3p.sg. book.def.  
 "John bought the book?"

The structure without *li* in (6) resembles what has been defined as a *Declarative Question* in Gunlogson (2001). According to this author, the declarative SVO order in English polar questions contributes to the expression of the speaker's high degree of commitment to the truth of the proposition. Rudin and Rudin (2022) further discuss structures like (6), dubbed *Rising declaratives*, comparing data from Bulgarian and Macedonian. While rising declaratives in Bulgarian convey a wide range of meanings, such as surprise or disapproval, in Macedonian such structures are neutral, information-seeking yes-no questions. Following Rudin 2018, Rudin and Rudin (2022) suggest that, in languages like Bulgarian and English, rising intonation functions as an illocutionary operator codifying the speaker's expectations in the affirmative answer of the question.

Considering these facts about the distribution of *li* in Bulgarian interrogatives, an intriguing asymmetry with respect to the occurrence of the particle in polar and *wh*-questions can be noticed. Contrarily to polar questions which lose their interrogative meaning in the absence of *li*, *wh*-questions' licensing does not depend on the occurrence of the particle. Rather, the occurrence of the particle is the mechanism triggering the characteristic wondering flavour.

Based on the properties of nonstandard *wh*-questions in Romance languages, on the one hand, and the distribution of the interrogative particle *li* in Bulgarian questions, on the other, our goal in the present work is twofold: (i) firstly, we discuss the asymmetries related to the particle's occurrence in yes-no and *wh*-questions and (ii) in view of (i), we dis-

cuss the properties and syntactic expression of *wh-li* questions, comparing with data from Romance. The paper is organised as follows. In § 2, we review some of the previous works dedicated to the syntactic expression of nonstandard *wh*-questions. In § 3, we examine the distribution and properties of the particle *li* focusing on its occurrence in yes-no and *wh*-questions. In § 4, we discuss the relationship between the distribution of elements like Bulgarian *li* and the properties of the domain of quantification, and put forth a proposal for analysis of Bulgarian nonstandard *wh-li* questions. § 5 concludes the paper.

## 2. The Syntax of Nonstandard *wh*-Questions

As mentioned above, nonstandard *wh*-questions are particularly intriguing when it comes to the syntactic mechanisms underlying their diverse readings. Considering the data from Pagotto in (1)–(3) above, Obenauer (2004, 2006) argues that nonstandard *wh*-questions have a syntax of their own which involves *wh*-movement to higher positions of the Left Periphery (Rizzi 1997, Cinque 1999, Ambar 2003, a.o.). As pointed out by this author, a closer look at the properties of Pagotto nonstandard *wh*-questions shows that they sharply differ from standard *wh*-questions in several aspects concerning their syntactic expression. One such aspect is the position of the *wh*-constituent. In standard *wh*-questions, *wh*-constituents, like *andé* ‘where’, occur *in-situ*. In the nonstandard *cannot-find-the-value-for-x* questions, on the other hand, the *wh*-constituent *andé* ‘where’ obligatorily raises to a preverbal position, as shown in (7) and (8), respectively:

- (7) L' à- tu      catà      andé?  
       cl have-cl    found    where  
       “Where did you find it?”

- (8) Andé l' à- tu      catà?  
       where cl have-cl    found  
       “Where (the hell) did you find it?” (Obenauer 2004: 367)

The nonstandard interrogative in (8) denotes that the speaker “is unable to come up with a (plausible, acceptable) value, though he has tried to find one (or more)” (Obenauer 2006: 367). By virtue of the contrasts between (7) and (8), Obenauer (2004, 2006) suggests that *wh*-movement to a given projection of the Left Periphery is the syntactic mechanism triggering the nonstandard meaning in (8).

*Wh*-fronting is however not the only strategy for codifying non-canonical readings. Another intriguing aspect of the licensing of nonstandard *wh*-questions concerns the alternation between the *wh*-constituents *cossa* ‘what’ and *che* ‘what’. As discussed in previous works (Munaro, Obenauer 1999), *cossa* ‘what’ always occurs sentence-initially contributing to the expression of the speaker’s attitude and evaluations, as shown in (9). *Che* ‘what’, on the other hand, is reserved for standard *wh*-questions and occupies an *in-situ* position, as shown in (10):

- (9) *Cossa sé-tu drio magnar?*  
 what are-cl.2p.sg behind eat  
 “What on earth are you eating?!”
- (10) *Sé-tu drio magnar che?*  
 are-cl.2p.sg behind eat what  
 “What are you eating?” (Obenauer 2004: 348–349)

In view of these facts about the syntactic mechanisms responsible for the licensing of nonstandard *wh*-questions in Pagotto, Obenauer (2004, 2006) proposes that nonstandard questions involve *wh*-raising to dedicated positions of the Left Periphery, namely to the specifiers of *cfvP* (*Cannot-find-the value questions*), *SurprP* (*Surprise-disapproval questions*) and *RhetP* (*Rhetorical questions*). As mentioned in the previous section, the properties of *cannot-find-the-value-for-x questions* are particularly important when it comes to a comparison with Bulgarian *wh-li* questions given that both structures are characterised by the denotation of wondering and doubt. As pointed out in Obenauer (2004), by virtue of this property, Pagotto *cannot-find-the-value-for-x questions* further resemble *Wh-the-hell* questions (Pesetsky 1987, den Dikken, Giannakidou 2002). As the author observes, in both interrogatives “the speaker has already checked the domain and, in case he came upon a possible value, rejected it as inadequate” (Obenauer 2004: 369).

The existence of a domain of possible values for the variable of the question has been a topic of many discussions. Ever since Hamblin (1973) and Karttunen (1977), it has been assumed that *wh*-questions denote sets of alternatives. When it comes to structures like (9) above, Obenauer (2004) points out that, in contrast to standard *wh*-questions, in *cannot-find-the-value-for-x questions* the domain is “anchored to the speaker” (Obenauer 2004, fn. 35), i.e., it does not include the entire domain but only a specific part of it, reason why *cannot-find-the-value-for-x questions* are considered speaker-oriented. In a similar vein, den Dikken and Giannakidou (2002) suggest that *Wh-the-hell* questions involve the semantic mechanism *domain extension*. In their terms, the modifier *the-hell* extends the domain so that it includes new or unknown alternatives. We come back to this question in § 4.

More observations on the syntactic properties of nonstandard *wh*-questions come from European Portuguese (henceforth, EP). Ambar (2003) dubs such structures *non-pure questions* and distinguishes between *full echo* *wh*-questions and *echo-flavour* *wh*-questions. According to this author, while *full echo* questions, like English *wh-in-situ* questions, lack any interrogative interpretation, *echo flavour* *wh*-questions “lack a full-blown interrogative interpretation though not all properties (contrarily to full echo, they are still questions).” (Ambar 2003: 225).

When it comes to the syntactic expression of EP *non-pure wh-questions*, one important aspect of their characterisation concerns the presence *vs.* absence of subject-verb inversion. It is well-known that languages like EP (though not Brazilian Portuguese; Kato, Raposo 1996) and French, display obligatory subject-verb inversion in root *wh*-question

(Ambar 1988). Nevertheless, as noted in Ambar 1985, 1988 and 2003 the absence of subject-verb inversion in root wh-questions somehow triggers the expression of *echo-flavour*:

- (11) a. *Que livro* / ?quem / \**que* o Pedro viu?  
       b. *Quel livre* / ?qui / \**que* Pierre a vu?  
           Which book / who / what Peter saw (Ambar 2003: 228)

Importantly, as illustrated by (11), the lack of subject-verb inversion is restricted to wh-phrases with a phonetically realised N, like *que livro* or *quel livre* ‘which book’ in (11a) and (11b), respectively. Observe that the barest wh-phrase *que* ‘what’ is ruled out in (11). Wh-phrases like *quem* or *qui* ‘who’, on the other hand, are only marginally accepted. Ambar (1985, 1988) argues that the grammaticality of non-inverted wh-questions depends on the internal structure of the wh-constituents and their referential properties: “the more the wh-phrase is restricted, the more the non-inverted wh-question is grammatical” (Ambar 2003: 229).

The lack of subject-verb inversion is not the only strategy for the expression of non-standard or non-pure readings, though. Similarly to what has been observed on Pagotto, the position of the wh-constituent, and particularly the wh-*in situ* position, also triggers the expression of speaker-related properties, like the existence of previous knowledge and presuppositions. In fact, the relation between Romance wh-*in situ* questions and the speaker’s background knowledge has been subject to many debates (Ambar 2003; Cheng, Rooryck 2000; Etxepare, Uribe-Etxebarria 2005, a.o.). Based on data from EP, Ambar *et al.* (1998) defend that wh-*in situ* questions involve a strong presupposition context which prevents their occurrence with negative answers<sup>2</sup>. The oddness of the negative answer in (12) is related to the existence of a stronger presupposition given by Common Ground:

- (12) a. O João comprou o quê?  
           John bought what  
       b. ?? Nada  
           Nothing (Ambar 2003: 219)

As for the syntactic licensing of these properties, Ambar (2003) argues that their syntactic expression involves functional projections of the Left Periphery codifying the speaker’s previous knowledge:

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

<sup>2</sup> Cheng and Rooryck (2000) make the same observation with regard to French wh-*in situ*. Considering that French wh-*in situ* questions display raising intonation, as in yes-no questions, Cheng and Rooryck (2000) argue that their syntactic expression involves the insertion of an underspecified intonational morpheme [Q:] responsible for the valuation of the Q feature in CP.

In (13), the highest projections EvaluativeP and AssertiveP are “the speaker’s projections”. EvaluativeP accounts for the speaker’s evaluations and kind of attitude. AssertiveP, on the other hand, encodes ‘what the speaker knows’ (Grimshaw 1977), i.e. background knowledge and presuppositions. Focused and topicalised constituents are situated below: while topics (labelled XPs in [13]) can project multiple times, focus projects only once. In view of (13), Ambar (2003) proposes that, like standard *wh*-questions, the derivation of *wh-in-situ* questions involves *wh*-movement to Spec, WhP. Nevertheless, *wh-in-situ* questions further display Remnant IP movement to Spec, AssertiveP, the domain accounting for the speaker’s knowledge and presuppositions, much as in Munaro *et al.* 2001 on Bel-lunese *wh-in-situ* questions. According to Ambar (2003), *wh-in-situ* questions have the [+assertive] feature checked via Remnant IP movement.

The proposal in (13) further accounts for data from other languages displaying different strategies for the activation of Assertive. In contrast to EP, languages like Hungarian disallow *wh-in-situ* questions, but rather merge the complementiser *hogy* ‘that’:

- (14) **Hogy** mennyi pénzt fizettem ki ezért a háért?  
 That how\_much money\_ACC paid. 1p.sg PART this\_for art house:for  
 (Ambar 2003: 224)

The structure in (14) with *hogy* consists in a confirmation-like question which is not a true request for information. In view of the analysis in (13) above, Ambar (2003) suggests that the complementiser *hogy* checks the [+assertive] feature via External Merge.

The crosslinguistic variation with respect to the licensing of the nonstandard *wh*-questions is an intricate matter. In Ambar’s terms, the divergences between languages like EP, allowing for *wh-in-situ*, and Hungarian, which disallows *wh-in-situ*, are related to the properties of the verbal inflection. Assuming that the derivation of *wh-in-situ* questions involves Remnant IP movement to Spec, AssertiveP, the behaviour of languages like Hungarian is accounted accordingly: as the verbal inflection is too heavy, it cannot undergo Remnant IP movement, the result being the ban on *wh-in-situ*. The syntactic expression of nonstandard *wh*-questions in languages like Hungarian is therefore confined to the insertion of elements like the complementiser *hogy*. As will be shown in § 3, Bulgarian appears to pattern like Hungarian: it disallows *wh-in-situ* (probably for reasons related to the properties of verbal inflection) and, therefore, relies on other strategies, like the insertion of *li*.

### 3. *The Distribution of the Particle li in Bulgarian Interrogatives*

In § 1, we showed that, in addition to appearing in Bulgarian nonstandard *wh*-questions, the particle *li* is essential for the licensing of Bulgarian yes-no questions:

- (15) Ivan kupi li knjigata?  
 John bought.3p.sg. Q book.def  
 “Did John buy the book?”



- (16) Ivan kupi knigata?  
 John bought.3p.sg. book.def.  
 “John bought the book?”

In view of the contrast between (15) and (16), Dimitrova (2020) argues that the occurrence of *li* in yes-no questions is crucial for the codification of polarity features (Holmberg 2012, 2016). Nevertheless, the distribution of the particle is more complex, particularly when it comes to the type of constituent it incorporates with. Typically, *li* occupies a position that follows the verb, as shown in (15) above. However, it can also occur in a position following an element XP different from verb, as in (17):

- (17) Knigata li kupi Ivan?  
 Book.def Q bought John  
 “Did John buy THE BOOK<sup>3</sup>?”

Structures like (17) have been traditionally considered *focus* yes-no questions: the particle *li* assigns focus features to the constituent XP it follows (Izvorski 1995, Rudin *et al.* 1999, Dukova-Želeva 2010, Dimitrova 2020, a.o.). Note that, in contrast to neutral yes-no questions, focus questions are not about the truth of the proposition, or the alternatives [p, ¬p], but rather about the validity of the XP *li* follows. What is more, focus yes-no questions obey two important restrictions: (i) the focused constituent always occurs in a pre-verbal position and (ii) the subject-verb inversion is obligatory:

- (18) a. Knigata li kupi Ivan?  
 Book.def Q bought John  
 b. \*Ivan kupi knigata li?<sup>4</sup>  
 John bought book.def Q  
 c. \*Knigata li Ivan kupi?  
 Book.def Q John bought.3p.sg  
 Intended: “Did John buy THE BOOK?”

Curiously, as will be shown in the next section, the conditions in (i) and (ii) also apply to Bulgarian *wh*-questions.

Many works have been dedicated to a better understanding of the structural position occupied by the particle *li* (Rudin 1986, Rudin *et al.* 1999, Dukova-Želeva 2010, Dimitrova 2020, Krapova 2021, a.o.). As mentioned above, Dimitrova (2020) argues that the occur-

<sup>3</sup> Focus is marked by capital letters throughout the paper. Nevertheless, as pointed out by one of the reviewers, structures like (17) can be interpreted as interrogative clefts “Is it the book that John bought?”

<sup>4</sup> The question in (18b) is plausible whenever associated with a confirmation-like reading such as “John bought the book, right?”. Limitations of space preclude the discussion of this type of questions here.



(19) [TopP İvani [Top° [IntP [Intr° kupij lik [PolP [Pol° ~~kupij~~ lik  
*John* *bought* Q  
 [TP İvani [T° kupij [VP İvani kupij knigata]]]]]]]]]]  
*the book*

Focus yes-no questions, on the other hand, pose a problem for this analysis. Note that even if we assume that *li* is merged in Pol and attaches to the XP in Spec, PolP via some kind of affixation, the analysis presented in (19) fails to account for the obligatory subject-verb inversion in focus yes-no questions. Considering these data, Dimitrova (2020) proposes that *li* is a head and a maximal projection<sup>6</sup>. In focus yes-no questions, *li* merges in Spec, PolP:

- (20) [IntP knigata<sub>j</sub> lik [Int° kupi<sub>i</sub> [PolP knigata<sub>j</sub> lik [Pol° kupi<sub>i</sub> [TP Ivan<sub>h</sub> [T° kupi<sub>i</sub> *the book* *Q* *bought* *John* *VP Ivan<sub>h</sub> kupi<sub>i</sub> knigata<sub>j</sub> ]]]]]]]]]]*

In our view, the proposal in (20) successfully accounts for the main facts about focus yes-no questions. Moreover, this analysis further explains the obligatory adjacency between the focus XP and the verb, predicting that no intervening material is allowed:

- (21) a. ??Knigata li včera kupi?  
Book.def Q yesterday bought.3p.sg  
b. Včera knigata li kupi?  
Yesterday book.def Q bought.3p.sg

<sup>5</sup> Note that topicalization of the subject is not mandatory. As illustrated in (i), the subject *Ivan* can occur post-verbally as well:

(i) Kupi li Ivan knigata?  
Bought Q John book.def.  
“Did John buy the book?”

Under the analysis in (19), in structures like (i), the subject *Ivan* remains in Spec,TP.

<sup>6</sup> Under this analysis, the particle is regarded as a head and a maximal projection. Note that this is not a new idea especially when considering the nature of pronominal clitics which behave as both  $x^0$  and  $xP$  (Kayne 1991; Dobrovie, Sorin 1994; Chomsky 1994).

- c. Knigata li kupi včera?  
 Book.def Q bought yesterday  
 “Did he/she buy THE BOOK yesterday?” / “Was it the book what he/she bought yesterday?”

As mentioned above, following Holmberg (2012, 2016), Dimitrova (2020) regards *li* as a polarity particle. As a result of this property, the occurrence of *li* is crucial for the creation of the alternatives  $[v, \neg v]$ , in the case of unmarked yes-no questions, and  $[XP, \neg XP]$  in focus yes-no questions. In the present work, we follow Dimitrova 2020 in assuming that the particle *li* displays a relation to the denotation of polarity and merges in Pol.

With these observations on the distribution of *li* in yes-no questions, we now turn to its occurrence in wh-questions. Before discussing the properties of nonstandard wh-*li* questions, some observations on the syntax of Bulgarian wh-questions are in order. As mentioned above, wh-constituents pattern with focused constituents with respect to the conditions in (i) and (ii) above: (i) like the focused constituent, wh-phrases are obligatorily fronted, and (ii) like focus yes-no questions, wh-questions display obligatory subject-verb inversion. Observe the examples in (22) below:

- (22) a. Kakvo kupi Ivan?  
 What bought.3p.sg John  
 “What did John buy?”  
 b. \*Ivan kupi kakvo?  
 John bought.3p.sg. what  
 c. \*Kakvo Ivan kupi?  
 What John bought.3p.sg

The parallels between focus phrases and wh-phrases are well-known. In fact, it has been argued that wh-phrases are inherently focused and undergo focus movement<sup>7</sup> (Horvath 1986, Bošković 1999, 2002, 2007, a.o.). Therefore, when it comes to the occurrence of *li* in wh-questions, these structures have traditionally been regarded as another case in which *li* assigns focus to an XP different from the verb (Rudin 1986). Nevertheless, a closer look at the data and the properties of wh-*li* questions suggests that it is not focus what we are dealing with here. Observe again the example in (4) above, repeated below for convenience:

- (23) Kakvo li kupi Ivan?  
 What Q bought.3p.sg. John  
 “What might John have bought?”

<sup>7</sup> Discussing data from multiple wh-fronting languages, Bošković (2002, 2007) argues that in multiple wh-questions displaying Superiority effects, the highest wh-phrase moves to Spec, CP for reasons related to clause-typing, while the other wh-phrases undergo movement to a lower Focus position.

Differently from focus polar questions, structures like (23) denote the speaker's wondering and doubt with respect to the value of the *wh*-phrase. Like Obenauer's *cannot-find-the-value-for-x* questions, the structure in (23) represents the speaker's inability to find a plausible value for the variable. This aspect of *wh-li* questions' characterisation is further supported by data from the answering system. As opposed to standard *wh*-questions in (24), *wh-li* questions in (25) seem odd with negative answers:

(24) Q: Koj kupi knigata?  
Who bought.3p.sg. book.def  
"Who bought the book?"

A: Nikoj.  
"No one".

(25) Q: Koj li kupi knigata?  
Who Q bought.3p.sg book.def  
"Who bought the book? (I wonder)"

A: ?? Nikoj.  
"No one".

As discussed above, the incompatibility with negative answers is also observed in Romance *wh-in-situ* questions and has been considered an outcome of the presupposition context these structures involve (Ambar *et al.* 1998; Ambar 2003 on EP; Cheng, Rooryck 2000 on French, a.o.). The data in (25) suggests that Bulgarian *wh-li* questions pattern with Romance *wh-in-situ* questions as far as the existence of background knowledge is concerned.

Let us now take a look at the position occupied by the particle in *wh*-questions. Importantly, as opposed to polar questions, in which *li* follows the verb or an element XP different from the verb, in *wh*-questions, it is restricted to occur in a position following the *wh*-constituent. Observe that the incorporation of *li* into the verb (26a) or into XPs different from the verb (26b) results in ungrammatical sentences:

(26) a. \*Kakvo kupi li Marija?  
What bought.3p.sg Q Mary  
b. \*Kakvo kupi Marija li?  
What bought Mary Q

In our view, the distribution of the particle in *wh*-questions and the ungrammaticality of the structures in (26) are not coincidental. The fact that the only plausible host for the particle is the *wh*-word is rather an outcome of a given relation to quantification and the existence of a set of alternatives (Hamblin 1973, Karttunen 1977). What is more, the data illustrating the distribution of *li* give rise to many questions concerning the properties of the particle and the divergent behaviours it displays when occurring in yes-no and

wh-questions. As shown above, *li* is the licenser of yes-no questions. In its absence, these structures take on a confirmation reading, i.e. although they are still questions and request information from the addressee, the speaker expects an affirmative answer, as demonstrated in Rudin, Rudin 2022. The opposite behaviour is found in wh-questions. Standard wh-questions, without *li*, consist in simple requests for information; that is, the occurrence of the particle does not contribute for the interrogative meaning of the structure. Instead, when *li* attaches to the wh-constituent, it conveys speaker-related properties, like wondering and doubt.

These asymmetries with respect to the occurrence of *li* and the readings it conveys to each structure can be further captured under the features [ $\pm$ interrogative] and [ $\pm$ presupposition]:

- (i) In yes-no questions, the occurrence of the particle *li* gives rise to [+interrogative] and [-presupposition]. Its absence, on the other hand, leads to [+interrogative] and [+presupposition]: even though they are still requests for information, questions without *li* carry a special pragmatic import related to the speaker's belief in the positive value of the question.
- (ii) In wh-questions, by contrast, the occurrence of the particle results in a presupposed structure denoting [+interrogative] and [+presupposition]: non-canonical wh-*li* questions are still requests for information, but they also denote the discourse-values, like the speaker's wondering. Standard wh-questions, without *li*, are marked as [+interrogative] and [-presupposition].

The asymmetries in (i) and (ii) above are further systematised by the table below:

Table 1

	+ <i>li</i>	- <i>li</i>
YES-NO QUESTIONS	[+Interrogative] [-Presupposition]	[+ Interrogative] [+Presupposition]
WH-QUESTIONS	[+Interrogative] [+Presupposition]	[+Interrogative] [-Presupposition]

The contrasts illustrated by TABLE 1 are an intriguing matter which, as far as we know, has not been subject to much research. Our suspicion is that the asymmetries concerning the occurrence of *li* are related to the denotation of sets of alternative propositions (Hamblin 1973, Karttunen 1977). In yes-no questions, the role *li* plays is related to the identification of the set of alternative propositions  $[p, \neg p]$ , by virtue of polarity features assignment, as suggested in Dimitrova (2020). In wh-questions, on the other hand, the occurrence of *li* does not seem to be related to the denotation of sets of alternative propositions. Rather, *li* establishes a given relation with the set of alternatives already present in the domain.

#### 4. *Towards an Analysis*

##### 4.1. *The Quantifier Particles* (Szabolcsi 2015)

The idea that the distribution of particles, like Bulgarian *li*, may be a result of the sensibility to quantification and to the existence of sets of alternatives has been extensively discussed in Szabolcsi (2015) who focuses on the behaviour of a group of elements dubbed *Quantifier Particles*. As noted by this author, “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).

For instance, Japanese *ka* (Miyagawa 2010) is an interrogative sentence-final particle occurring in yes-no and *wh*-questions. Nevertheless, as noticed in Szabolcsi (2015), *ka* also takes part of the denotation of existential quantification (27a) and disjunction (27b):

- (27) a. dare-ka                – “someone”  
       b. A-ka-B-(ka)        – “A or B”  
       c. dare-ga v...-ka    – “Who vs”  
       d. s-ka                 – “whether s” (adapted from Szabolcsi 2015: 160)

Focusing on the behaviour of Quantifier particles, like Japanese *ka*, Szabolcsi (2015) argues that their occurrence in the structure indicates that a given constituent is a part of a larger set of presuppositions by introducing the operation *join* ( $\cup$ )<sup>8</sup>. This is the case of *wh*-words, existential quantifiers, and disjunctions, which denote a set of alternatives representing the speaker’s information regarding the elements available in the discourse, as shown in (28a) below. In yes-no questions, on the other hand, the occurrence of the quantifier particle indicates the formation of the alternatives  $[p, \neg p]$ , or  $[\text{Joe dances}]$  and  $[\neg \text{Joe dances}]$ , as shown in (28b):

- (28) a. Who dances?, Someone dances, Kate or Mary or Joe dances  
        $[[\text{Kate dances}]] \cup [[\text{Mary dances}]] \cup [[\text{Joe dances}]]$   
       b. whether Joe dances  
        $[[\text{Joe dances}]] \cup [[\neg \text{Joe dances}]]$  (Szabolcsi 2015: 163)

Szabolcsi’s (2015) insights partially explain the behaviour of Bulgarian *li*. Note that *li* patterns to a large extent with the behaviour of the Japanese particle *ka*: besides being the element that licenses yes-no questions and that occurs, somehow optionally, in *wh*-questions, *li* also takes part of the morphological make-up of the disjunction *ili* ‘or’, which incorporates the conjunction *i* ‘and’ and the interrogative particle *li*:

- (29) Marija ili Ivan  
       Mary or John

<sup>8</sup> Szabolcsi (2015) uses the algebraic operations join ( $\cup$ ) and meet ( $\cap$ ) when addressing the properties of the different types of Quantifier particles. In her view, particles like Japanese *ka* denote lattice-theoretic join ( $\cup$ ).

These aspects of the distribution of Bulgarian *li* may suggest that, like Japanese *ka*, it belongs to the group the Quantifier particles. Nevertheless, a problem for this assumption comes from yes-no questions and from the behaviour of the answering system. Szabolcsi (2015: 189) points out that not all question particles are Quantifier particles of the type of Japanese *ka*. A crucial aspect of their characterisation concerns the formation of alternatives. In Szabolcsi's terms, quantifier particles occurring in yes-no questions contribute to the formation of disjunctions in the sense of alternative questions, whereas question particles merely indicate the existence of a question operator. These observations are supported by data from Hungarian. Hungarian yes-no questions can be licensed by either rising intonation (30a) or the interrogative morpheme *-e* (30b)<sup>9</sup>:

- (30) a. Táncolt Mari?                      "Did Mary dance?"  
       b. Táncolt-e Mari?                    "Did Mary dance-*KA*?" (adapted from Szabolcsi 2015: 190)

As pointed out in Szabolcsi 2015, the crucial distinction between the questions in (30a) and (30b) concerns the denotation of disjunctions. In her terms, important evidence regarding this aspect comes from the answering system: while structures like (30a) can be answered by a simple "yes" or a nod, answers to questions with the morpheme *-e* in (30b) require echoing the finite verb. In addition, Szabolcsi (2015) observes that structures like (30b) convey a particular "cornering effect" which is not displayed in yes-no questions without *-e*. In Biezma 2009 the term "cornering effect" is discussed from the perspective of the properties of alternative yes-no questions, which force an answer from the addressee, the result being the "cornering" of the addressee.

As discussed above, in contrast to Hungarian *-e*, *li* is crucial for the licensing of yes-no questions. In its absence, the structure acquires a confirmation-like flavour. The examples in (31), illustrating the behaviour of the answering system, further show that, unlike Hungarian, Bulgarian *li*-questions are compatible with both "yes" and "no" answers and answers echoing the verb:

- (31) Q: Ivan      kupi                      li      knigata?  
       John   bought.3p.sg.    Q    book.def  
       "Did John buy the book?"  
       A: a.    Da.  
               "Yes".  
       b.    Ne.  
               "No".  
       c.    Kupi                      ja.  
               Bought.3p.sg.    it

<sup>9</sup> Russian patterns with Hungarian with respect to the formation of yes-no questions and displays yes-no questions with rising intonation and yes-no questions with the interrogative particle *li*. In Szabolcsi's terms Russian *li*, like Hungarian *-e*, is a Quantifier particle.

What is more, Bulgarian *li*-questions do not display the “cornering effect” noticed in their Hungarian counterparts. Such an effect is rather be available in structures like (32) below, where *li* cooccurs with the disjunction *ili* ‘or’:

- (32) Q: Ivan kupi li knigata ili ne?  
 John bought.3p.sg. Q book.def or not  
 “Did John buy the book or not?”
- A: a. # Da.  
 “Yes”.  
 b. Kupi ja.  
 Bought.3p.sg it  
 c. Ne.  
 “No”.

Note that, in contrast to (31) above, the alternative question in (32) is incompatible with a simple “yes”.

In light of the above, it is not entirely clear whether Bulgarian *li* is a Quantifier particle. Yet, the data discussed in this section, along with the intriguing parallels between *li* and Japanese *ka*, indeed suggest that the distribution of *li* in Bulgarian interrogatives and its role in the morphological make up of disjunctive conjunctions like *ili* ‘or’ are guided by properties related to quantification and the denotation of a set of alternatives.

#### 4.2. Nonstandard *wh*-Questions and the Syntax-Semantics Interface

Considering the observations on the properties of Bulgarian *li* and the relation to quantification it displays, we now come back to the case of Bulgarian nonstandard *wh-li* questions, focusing on the role of the particle in these structures.

As mentioned in § 2, *wh-li* questions can be classified as *cannot-find-the-value-for-x questions*, which in Obenauer’s terms (2004) express that the speaker is unable to find a plausible value for the question, even though he has already checked the domain. As a result of this property, such structures are unable to occur ‘out of the blue’ and display an incompatibility with negative answers.

Importantly, according to Obenauer (2004), *cannot-find-the-value-for-x questions* differ from standard *wh*-questions as far as the properties of the domain of quantification are concerned. Differently from standard *wh*-questions, in which the domain is not limited in any way, the domain of *cannot-find-the-value-for-x questions* is ‘anchored’ to the speaker: as noted by Obenauer, such nonstandard questions are “speaker-oriented”, i.e. the domain is not any domain but the one considered appropriate by the speaker (Obenauer 2004: fn. 35).

When it comes to the properties of the domain of quantification in nonstandard *wh*-questions, den Dikken and Giannakidou (2002) further discuss the properties of *wh*-questions displaying the modifiers *the hell* or *on earth*. According to the authors, “when attached to a *wh*-word, the modifier *the-hell*, we argue, extends the domain of quantifica-



- (33) [IntP kakvo<sub>i</sub> lik [Int° kupi<sub>i</sub> [PolP kakvo<sub>j</sub> lik [Pol° kupi<sub>j</sub> [TP Ivan<sub>h</sub> [T° kupi<sub>j</sub>  
*the book Q bought John*  
[VP Ivan<sub>h</sub> kupi<sub>j</sub> kakvo<sub>j</sub>] ]]]]]]]]

Our goal in this paper was to shed some light on the properties of nonstandard wh-questions building on data from Bulgarian. In contrast to Romance, Bulgarian non-standard wh-questions display an overt element, the particle *li*. Considering the distribution of the particle, we showed that it occurs in both yes-no and wh-questions presenting

some intriguing asymmetries with respect to the codification of different pragmatic values. Focusing on *wh*-questions, we argued that the occurrence of the particle triggers the characteristic wondering flavour associated with the expression of the speaker's inability to find a value for the variable of the question. Considering the patterns between *wh-li* questions and interrogatives, like Obenauer's *cannot-find-the-value-for-x* questions or *wh-the-hell* questions, we suggested that the occurrence of the particle *li* is related to the properties of the domain of quantification and the denotation of sets of alternatives, triggering semantic mechanisms like *domain extension* (den Dikken, Giannakidou 2002; Zanuttini, Portner 2003). What is more, we proposed that, in contrast to standard *wh*-questions, the properties of nonstandard interrogatives, like Bulgarian *wh-li* questions, are encoded in higher functional projections accounting for the speaker's previous knowledge.

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*Abstract*

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*Nonstandard wh-Questions: Focusing on Bulgarian wh-li Questions*

This paper examines nonstandard *wh*-questions in Bulgarian, with a focus on *wh-li* constructions, in which the *wh*-constituent co-occurs with the interrogative particle *li*. The distribution of *li* in Bulgarian interrogatives has been widely discussed, as its behavior in yes-no and *wh*-questions reveals intriguing asymmetries. While in *wh*-questions *li* conveys a strong sense of wondering or doubt, in yes-no questions the particle is crucial to the interrogative interpretation – its absence yielding a presuppositional reading. In light of these contrasts, we propose that particles like *li* are related to quantification and the presence of alternative sets. Based on this property, we argue that the appearance of *li* in *wh*-questions triggers semantic mechanisms such as domain extension. Additionally, drawing on prior analyses of non-canonical questions in Romance languages, we suggest that the licensing of nonstandard *wh-li* questions involves structurally higher projections within the Left Periphery.

*Keywords*

Nonstandard *wh*-Questions; Particle *li*; Presupposition; Syntax.