Negation in Bulgarian yes-no questions:
Polarity items and negative concord

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Abstract
The paper addresses negation and Negative Concord in Bulgarian polar questions focusing on the distribution of the polarity items and the way they interact with the interrogative clitic li. Assuming that li functions as both interrogative and focus operator, I will observe a contrast in the licensing of Positive (PPIs) and Negative (NPIs) Polarity items related to their possibility of hosting the clitic. The contrast will be approached from the perspective of the relation between focus movement and the licensing of the NPIs. The paper furthermore addresses recent discussions on polar questions, namely Holmberg (2012) and Ambar (2013).

Keywords: negation, negative concord, polarity items, polar questions, syntax

1. Introduction
As widely discussed in the literature (Giannakidou 1998; Haegeman 1995; Horn 1989; Laka 1990; Matos 1999; Zanuttini 1991, 1994, 1997, a.o.), languages differ with respect to licensing Negative Concord. The data from some Romance languages, such as European Portuguese and Italian, illustrated in (1a) and (1b), shows that, in contrast to Standard English, as in (2a)-(2b), the co-occurrence between the n-word\(^1\) and the negation marker is obligatory and contributes for the expression of the same logical negation:

(1a) O João *(não) disse nada.

*The John *not said nothing
“John didn’t say anything”

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\(^1\) The term n-word originates in Laka (1990) and has been defined in Giannakidou (2006: 328) in the following way:
“An expression \(\alpha\) is an n-word if:
(a) \(\alpha\) can be used in structures containing sentential negation or another \(\alpha\)-expression yielding a reading equivalent to one logical negation; and
(b) \(\alpha\) can provide a negative fragment answer.”
The obligatory co-occurrence between the negation marker and the n-word, illustrated by the examples in (1) is however restricted to the n-words occurring in a position following the inflected verb. As shown in (3a) and (3b), when appearing pre-verbally, they cannot co-occur with the negation marker:

(3a) Ninguém (*não) comprou o livro.  
    *No one not bought book.def.  
    “No one bought the book.”

(3b) Nessuno (*non) ha detto la verità.  
    *Nobody not aux.3p.sg. said the truth  
    “No one said the truth.”

The co-occurrence between pre-verbal n-words and the negation marker yields ungrammaticality. In Martins (1997, 2000) this has been related to the fact that the n-words in these languages have intrinsically negative content, i.e. they have strong neg-features. Therefore, according to this author, when they move overtly to Pol(arity) P(hrase), they give a value to the polarity head. Hence, when they occur pre-verbally, the co-occurrence with the negation marker is infelicitous according to economy principles.

Differently from the case of Romance languages illustrated above, Bulgarian n-words always occur with clause-mate negation which, in Giannakidou’s (1998, 2001) lines, makes Bulgarian a strict negative concord language. I will use this definition throughout the paper. Observe the examples below:

(4) Ivan *(ne) vidja ništo.  
    *John not saw nothing  
    “John didn’t see anything.”

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2 In Zanuttini (1994) the functional projection Polarity Phrase is structurally higher than TP. It is seen as the domain in which the polarity of the sentence is encoded.
(5) Ivan ništo *(ne) vidja.

John nothing not saw

Accordingly, Bulgarian data patterns with European Portuguese and Italian regarding the fact that the negative elements take part of the same logical negation. Nevertheless, as shown by (4) and (5) Bulgarian n-words must always occur with clause-mate negation which in Martins’ (2000) lines suggests that they have weak negative features.

However, when we take a look at the data from negative polar questions we can notice an unexpected blocking of Negative Concord which appears to be a consequence of the occurrence of the interrogative clitic li. The behaviour of the NPIs, on the other hand, seems to be related with obligatory focus movement.

The paper is organised as follows. In Section 2 a brief discussion on the formation of Bulgarian yes-no questions and particularly on the distribution of the clitic li and on its relation to focus-assignment, is provided (section 2.1). Here, I present the crucial data on licensing NPIs and Negative Concord in Bulgarian polar questions (section 2.2). Section 3 focuses on the nature of positive and negative polarity items. It furthermore discusses data from Serbian and Greek. In Section 4, I present a proposal for a syntactic derivation accounting for the data previously described. It is based on the recent works on polar questions (Ambar 2013; Holmberg 2012) considering the projection PolP (Zanuttini 1994). Section 5 presents the conclusion remarks.

2. Bulgarian negative polar questions

In this section, I first discuss the formation of Bulgarian polar questions and the distribution of the interrogative clitic li. Concentrating on the clitic’s behaviour as a focus operator, I observe the consequences from its occurrence for the licensing of the polarity items and negative concord, putting forward the hypothesis that Bulgarian NPIs are subject to obligatory focus movement.

2.1 The formation of Bulgarian yes-no questions

The element responsible for licensing Bulgarian polar questions is the interrogative clitic li, which occurs in a position following the verb (6) or an XP different from the verb (7a):
(6) Ivan kupi li knigata?
   \textit{John bought Q book.def}
   “Did John buy the book?”

(7a) Ivan knigata li kupi?
   \textit{John book.def Q bought}
   “Did John buy THE BOOK?”

(7b) ? Ivan kupi knigata li?
   \textit{John bought book.def Q}

The questions in (6) and (7a) differ with respect to information structure. In (7a) the constituent \textit{knigata} “the book” is focalised and, therefore, it is object of obligatory focus movement to a position preceding the inflected verb. Observe that (7a) degrades when the focalised object \textit{knigata} “the book” occurs sentence-finally, as in (7b). What is more, focalisation does not obtain in (6) where \textit{li} encliticises into the verb.

Assuming this contrast in \textit{li}’s occurrences, the works that have analysed its behaviour (Bošković 2001; Izvorski 1995; Rivero 1993; Rudin 1997; Rudin et al. 1999; a.o.) have stipulated that the Verb-\textit{li} position gives rise to neutral yes-no questions, while in XP-\textit{li} questions the clitic assigns [focus] to its host.

Moreover, focalisation in yes-no questions derives exclusively from the occurrence of the clitic. The examples in (8a) and (8b) show that no XP but the one hosting \textit{li} can be contrastively focalised:

(8a) *Ivan kupi li K\textit{NIGATA}?
   \textit{John bought Q book.def}
   Intended reading: “Did John buy THE BOOK?”

(8b) *IVAN knigata li kupi?
   \textit{John book.def Q bought}
   Intended reading: “Did JOHN buy the book?”

What follows from the above examples is that focalisation in Bulgarian polar questions obeys to the following requirements:

(i) the focalised constituent must move to a pre-verbal position;

\footnote{Throughout the paper, contrastively focalised constituents are marked by capital letters.}
\footnote{The question in (7b) is plausible if we assume that \textit{li} has scope over the entire sentence and not over the constituent that it immediately follows. In these cases, a confirmation-like interpretation is confined to the structure.}
(ii) the focalised constituent must host the clitic li;

The following subsection will approach the requirements in (i) and (ii) with respect to the polarity items.

2.2 Negative polar questions and licensing negative concord

As mentioned in section 1, Bulgarian is a strict negative concord language. In negative polar questions the clitic li is attached enclitically to the verb, just as in positive yes-no questions observed above:

(9) Ivan ne kupi li knigata?
    John not bought Q book.def
    “Didn’t John buy the book?”

Let us now concentrate on Negative Concord and on the distribution of positive and negative polarity items. The examples in (10) and (11) illustrate the behaviour of the NPI ništo “nothing” and its positive counterpart nešto “something” in these structures:

(10) Ivan ne kupi li nešto /*ništo?
    John not bought Q something /*nothing?
    “Didn’t John buy something?”

(11) Ivan [ništo li] / *[nešto li] ne kupi?
    John nothing Q / *something Q not bought
    “Didn’t John buy anything?”

The occurrences of PPIs and NPIs in Bulgarian negative polar questions are associated with distinct structural positions. It seems that in order for the NPI ništo “nothing” (in (11)) to be licensed, it must move to a position preceding the inflected verb and host the clitic li. Its occurrence in a position following the negative verb+li complex is not felicitous, as in (10), as opposed to the PPI nešto “something”.

The example (11) further shows that besides the fact that they occupy distinct structural positions, the NPIs and the PPIs behave differently with respect to the clitic li since only the NPIs can provide a felicitous host for it.

What is more, movement to pre-verbal position is not the only condition for licensing NPIs: they must also host the clitic li, as illustrated in (12).
(12a) *Ništo ne kupi li Ivan?

Nothing not bought Q John

Intended reading: “Didn’t John buy anything?”

(12b) [Ništo li] ne kupi Ivan?

Therefore, considering the requirements for expressing focus in yes-no questions formulated in (i) and (ii) above, we can notice that the behaviour of Bulgarian NPIs fully patterns with focalised constituents.

In addition, the data in (10) and (11) illustrate another finding concerning negative concord. As shown again in (13), Bulgarian is a strict negative concord language, therefore the NPIs must co-occur with clause-mate negation. That is why the ungrammaticality of (10) is unexpected.

(13) Nikoj *(ne) kupi knigata.

No one not bought book.def

“No one bought the book.”

The PPIs, on the other hand, cannot co-occur with clause-mate negation in declarative contexts, as illustrated in (14), but nothing prevents them from co-occurring with negation in questions, as shown above.

(14) *Ivan ne kupi nešto.

John not bough something

Thus, the puzzling data presented so far shows a clear contrast between licensing negative concord in declarative and interrogative structures. The trigger for these asymmetries seems to be the occurrence of li:

(15a) Ivan ne kupi ništo.

John not bought nothing

“John didn’t buy anything.”

(15b) *Ivan ne kupi li ništo?

John not bought Q nothing

Intended reading: “Didn’t John buy anything?”

Still, there exist cases in which it is possible to preserve negative concord. As discussed above, the clitic li functions as both interrogative and focus operator depending on the type of host it encliticises to. Therefore, it is possible to license
negative concord when *li* attaches to an XP different from the negated verb or the NPI, i.e. when the clitic does not intervene between the negative verb and the NPI:

(16) Ivan *li* (ništo) ne kupi (ništo)?
    \[\text{John Q nothing not bought nothing}\]
    “Was it John who didn’t buy anything?”

In (16) *li* encliticises to the focalised subject Ivan. Thus, since nothing blocks the relation between the negation marker and the NPI *ništo* “nothing”, negative concord is licensed. However, as briefly discussed in section 4, although (16) contains a negative proposition, it is not itself negative. The data from the answering system discussed below confirms this assumption.

To sum up, the data from negative yes-no questions discussed so far illustrates that positive and negative polarity items seem to be associated with distinct structural positions. Accordingly, it was observed that when *li* encliticises into the verb, it somehow blocks the relation between the negation marker and the post-verbal NPI. The behaviour of the NPIs, on the other hand, patterns with focalised XPs which suggests that the trigger for their movement is focus.

3. Polarity items and focus movement

In order to understand better the behaviour of the NPIs, I will discuss the possible trigger for their movement, considering previous works on other languages, namely Serbian and Modern Greek.

Bošković (2008, 2009) following Progovac (1994) on Serbian negative words and negative concord distinguishes between *Ni*-items and *I*-items considering that while the former are only licensed in negative environments (17), the latter occur in non-veridical contexts (18). Thus, *I*-items pattern in their distribution with English *any*-elements:

(17) Niko / *iko nije zaspio.
    \[\text{Nobody/anyone neg.is fallen.asleep}\]
    “Nobody fell asleep.”

(18) Da li je iko / *niko zaspio?
    \[\text{Q is anyone/nobody fallen.asleep}\]
    “Did anyone fall asleep?”
    (Bošković 2008: 9)
Concentrating on the behaviour of the *Ni*-items, Bošković (2008, 2009) suggests that they undergo movement to NegP (Pollock 1989) where negative concord is licensed by Spec-Head Agreement. Considering that Serbian is a focus-movement language, i.e. focalised constituents move overtly, it has been suggested that *Ni*-items are object of movement to FocP located above NegP. What is more, Bošković (2009: 130) shows that these properties of Serbian NPIs are morphologically encoded since: 

*niko* “no one” = [n (neg) + i (focus (‘even’)) + ko (who)].

Giannakidou (1998, 2000, 2001) on Greek polarity items, makes a distinction between two types defined as “emphatic” and “nonemphatic” polarity items. While emphatic polarity items pattern with true NPIs, “nonemphatics” are existential polarity items\(^5\). Observe the paradigm presented in Giannakidou (2000):

(19) 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)

In Tsimpli and Roussou (1996) on the distribution of the polarity items in Modern Greek, the negative and existential polarity items are distinguished w.r.t. focus movement. It has been suggested that Greek NPIs (or “emphatic polarity items” according to Giannakidou’s (2000) definition) behave as focus-phrases by bearing focus stress and moving overtly to FocP:

(20) TO YANI idha.

_The John saw-1p.sg_

“I saw John.”

(21) KANENA dhen idha.

_No body not saw-1p.sg_

“I didn’t see anybody”

Tsimpli & Roussou (1996: 56)

Tsimpli and Roussou (1996) observe that in comparison to true negative constituents (as *KANENA* “nobody” in (21) above), existential polarity items,

\(^5\) According to Giannakidou (2000) the emphatic accent is not related to focus features but is encoded as a morphological property.
functioning as Serbian *I*-items or English *any*-items, are not felicitous in these contexts: they cannot receive focus stress or move to FocP:

(22) *Tipota / TIPOTA dhen dhiavasa.

Anything /nothing not read-lp.sg

“I didn’t read anything.” (Tsimpli & Roussou 1996: 73)

The data from Greek in (22) shows that the behaviour of negative and existential polarity items mirrors the behaviour of Bulgarian negative and positive polarity items with respect to *li*: only the NPIs can host the clitic, i.e. only the NPIs can be focalised. Differently from Serbian and Modern Greek, Bulgarian does not display polarity items grammaticalised for exclusively occurring in non-veridical contexts. Thus, it seems that Bulgarian PPIs function as both positive and existential polarity words. The NPIs, on the other hand, are truly negative and must always co-occur with sentential negation.

What is more, as observed in Bošković (2008, 2009), when a question-answer scenario is at play, only the NPIs constitute a felicitous answer. Therefore, the example in (23) below has been considered an argument in favour of the hypothesis that the negative interpretation in negative concord languages derives from the occurrence of the NPIs, which are specified by interpretable negative features.6

(23) Q: Koj kupi knigata?

Who bought book.def

“Who bought the book?”

A: Nikoj / *Njakoj.

Nobody / somebody

As for the relation between the polarity items and the answering system, another property of the PPIs has been discussed in Ambar (2013) on Portuguese yes-no questions and the positive indefinite alguém “someone”. Observe Ambar’s (2013) examples below:

(24) Q: Quem vai contigo ao cinema?

“Who goes with you to the movies?”

A: Vai o Pedro.

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6 Bošković (2008, 2009) proposes the existence of two negative heads: Negation A, having iNeg features and Negation B, having uNeg features. Assuming that NPIs have iNeg features, they cannot co-occur with Negation A since this co-occurrence would give rise to double negation reading.
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goes Peter
Peter does

(25) 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)

Comparing the wh-question and the polar question in, respectively, (24) and (25), Ambar (2013) observes that they adhere to the same answering pattern, namely the one identifying the value of the variable in the question. Thus, while subjects in Ambar’s (2013) analysis are topics, indefinites such as Portuguese alguém “someone” in (25) move from PoP to Int(errogative)P and function in questions as wh-words.

This proposal can explain why Bulgarian PPI неšto “something” cannot host ли in (11) above. Even though the clitic felicitously occurs in wh-questions enclisising into the wh-element, these structures have been classified in Dimitrova (2013) as belonging to Obenauer’s (2004) non-standard-wh-questions since they are not purely information-seeking (Ambar 2003). Besides this, in contrast to wh-questions in which the clitic conveys a sense of wondering to the structure, licensing polar questions cannot take place without ли. This contrast is shown below:

(26) Koj ли kupi knigata?
Who Q bought book.def
“(I am wondering) Who bought the book?”
(27) Ivan kupi knigata?
John bought book.def
“John bought the book?!”

The example in (26) illustrates that the clitic’s occurrence in a position following a wh-word results in an interpretation expressing wondering (Dimitrova 2013, in press). The structure in (27), on the other hand, represents a yes-no question without ли, which differently from “true” yes-no questions, discussed in section 2, expresses the speaker’s surprise or indignation regarding a previous statement, i.e. the structure resembles an exclamation sentence.
Thus, in my view, even if we assume that the PPIs function in questions as wh-words, this cannot be the only reason for their incompatibility with *li*. As shown above, XP-*li* questions, in contrast to Verb-*li* questions, are always focal. However, the PPIs do not constitute a felicitous answer to wh-questions, as in (23) above, and cannot undergo focus-movement, as shown by the Greek example (21). In my view, these are the properties disallowing them to host the clitic. Thus, the incompatibility between PPIs and *li* may be considered a clash of features.

What about NPIs? As we observed in section 2, NPIs in polar questions pattern with focalised XPs. With respect to their morphology, Bulgarian NPIs resemble their Serbian counterparts by being an instantiation of negation and wh-word, an argument that can be approached as a condition for their obligatory movement: wh-words in Bulgarian move obligatory to a pre-verbal position, giving rise to the widely discussed in the literature structures of *Multiple Fronted Wh-Questions* (Bošković 1999, 2003a, 2003b; Rudin 1988).

As discussed previously, in the present paper I argue that the behaviour of Bulgarian NPIs is an instantiation of obligatory focus-movement. Previous works on the structure of Bulgarian yes-no questions and the interrogative clitic *li* have suggested that what we are dealing with in XP-*li* questions are contrastively focalised XPs. The interpretation confined to these structures favours this assumption. Observe, however, the behaviour of the NPIs in declaratives. It follows from the examples below that the obligatory fronting we are dealing with is restricted to questions since it seems that both focus phrases and NPIs are felicitous in pre and post-verbal position7:

(28a) Ništo ne kupix.

*Nothing not bought.1p.sg*

“I didn’t buy anything”.

(28b) Ne kupix ništo.

*Not bought-1p.sg nothing*

(29a) IVAN vidjax.

*Ivan saw.1p.sg*

“I saw John”

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7 As pointed out to me by the reviewers, Modern Greek NPIs are also felicitous pre and post-verbally. However, since the distinction between negative and existential polarity items in Modern Greek derives from focus, it seems that only the NPIs can occur pre-verbally.
(29b) Vidjax IVAN.

Saw-Ip-sg John

The examples in (28a-b) and (29a-b) are well-formed regardless of whether what we are dealing with is an NPI or a focus phrase, such as the focalised object Ivan in (29). Thus, these data illustrate a clear contrast between licensing NPIs in declarative and interrogative sentences. Moreover, if we suppose that the examples in (28b) and (29b) in which the focalised element/NPI occurs post-verbally are derived by IP Remnant Movement of the material following it, it follows that this operation is somehow blocked in yes-no questions, presumably by li.

On the other hand, if we assume that the NPIs behave as wh-words (following Ambar (2013) on the PPIs), it can be suggested that the wh-feature they contain is activated in questions and probed by li, hence the obligatory fronting NPIs are subject of. What is more, differently from the PPIs, the NPIs are compatible with the clitic.

4. Proposal

The proposal for analysis that I discuss below is developed in the light of recent works on yes-no questions, namely Holmberg (2012) and Ambar (2013). Both of them argue in favour of the existence of a Polarity head situated above TP. In Ambar’s (2013) analysis, PolP has two values: affirmative and negative. I furthermore follow Zanuttini (1994) in assuming that NegP is located below TP. The structure in (30) follows.

(30) [ TopP [ Int(errogative)P [ FocP [ PolP [ TP [ NegP]]]]]]

In Ambar (2013), it was suggested that the interrogative operator originates in FocP. On the contrary, I will consider, for the time being, that the clitic li is Merged in the head of IntP since, as mentioned previously, yes-no questions are not licensed without li, thus, even though it is related to focus-assignment, the core property of li seems to be the interrogative one.

As shown above, negative concord in yes-no questions is blocked when the clitic li attaches to the negative verb. Assuming that li is generated in Intº, the structure in (30) shows that the verb raises higher than TP. The NPI ništo “nothing” is therefore infelicitous given that the negation marker moves along with the verb to Intº where they adjoin to li. Hence, the NPI remains on the right of li, i.e. only the negative verb takes part of the questioned portion of the structure.
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(31) [TopP Ivan [IntP Int’ ne kupi, li [FocP Foc’ ne kupi, [PolP Pol’ ne kupi, John not bought Q [neg] [TP Ivan, [T’ ne kupi, [NegP *ništo [Neg’ ne kupi,]))]]]]

*nothing

On the other hand when both the negative verb and the NPI remain within TP, i.e. when a focalised XP raises to FocP and IntP and hosts li, negative concord is licensed:

(32) [TopP [IntP Ivan, [Int’ li [FocP Ivan, [PolP [uPol] [TP Ivan, ne kupi, [NegP ne kupi, ništo]]]]]

nothing

However, differently from (31), the question in (32) is not negative since the negation marker and the NPI remain within TP, i.e. negation does not seem to raise to PolP. Therefore, I will suggest that PolP is valued [open], as in Holmberg (2012) for positive yes-no questions. Observe that the question in (32) behaves a lot like a positive question, particularly when the answering system is considered. Due to the polarity-based answering system of Bulgarian, the particles “yes” and “no” agree with the polarity of the question. This is not the case in (33) below:

(33) Q: Ivan li ne kupi ništo?

John Q not bought nothing

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”

As (33) shows, the particles “yes” and “no” agree or disagree with the constituent host for li. Thus, if PolP had the value [neg], the answer in (33B) would confirm that it was John who didn’t buy anything, which is an incorrect prediction.

As for the behaviour of the NPIs, I suggest a derivation in the sense of the one illustrated in (32) with the focalised subject Ivan: due to [focus] or [wh] features, the NPI raises to FocP and IntP where it hosts li.

(34) [TopP Ivan, [IntP ništo, [Int’ li [FocP ništo, [PolP ništo, [neg] [TP Ivan, [T’ ne kupi, ništo]]]]]

John nothing Q
kupi, [NegP ни́сто-[Neg’ не-купи, ]]]]

bought

The NPI ни́сто “nothing” further raises to PolP where it assigns [neg].

5. Summary
In the present paper, I discussed data from Bulgarian negative polar questions and the behaviour of positive and negative polarity items.

With respect to the NPIs, I argued that they behave as focus phrases and therefore must raise to FocP and then to InterrogativeP where they host the clitic li. I further observed that this obligatory overt raising is restricted to yes-no questions, which suggests that the NPIs behave like wh-words (Ambar 2013). Regarding the blocking of Negative Concord, I showed that this results from the movement of the negative verb to Intº.

Considering the distinction between Inner and Outer Negation (Ladd 1981) related to the bias consistently present in negative yes-no questions, it appears that the derivation suggested above does not fully account for the particular discourse-related properties which are crucial for the characterisation of the structures under discussion. Building on the works arguing in favour of the existence of higher functional domains associated with the Common Ground (Ambar 2002, 2003; Speas & Tenny 2003; a.o.), we may suppose that the negative verb raises higher than Intº. This topic will be addressed in future research.

Finally, comparing with Romance languages, namely European Portuguese, it seems that no similar asymmetries appear. Thus, whether the free licensing of pre and post-verbal NPIs in these structures is a consequence of the fact that they have strong negative features or is particularly related to the structure of Portuguese polar questions, is another topic to be discussed in the future.

References


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