Urdu/Hindi polar *kya* as an expression of uncertainty

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Abstract

In their pioneering work on Urdu/Hindi polar *kya*, Bhatt and Dayal (2020) propose a new class of question particles, *polar question particles*. As part of their analysis, the authors also argue that alternative questions (AltQs) in Urdu/Hindi are disjunctions of polar questions (PolQs). However, Bhatt and Dayal's (2020) foundational work leaves unexplained potential counter-examples to their proposal with respect to embedded contexts, as well as not doing justice to speakers' intuitions regarding the use of *kya* to sometimes trigger sarcasm or politeness inferences. In this paper, we pay attention to those cases in conjunction with other available empirical observations to paint a more explanatory picture of what *kya* is and what *kya* does. In this picture, *kya* is a focus sensitive particle conveying the attitude holder's uncertainty. We also argue that an analysis of Urdu/Hindi AltQs as disjunction of PolQs (across the board) is untenable in view of the new empirical evidence.

Keywords: Urdu/Hindi, polar questions, syntax, semantics, prosody

1 The Puzzle of Hindu/Urdu Polar *kya*

Urdu/Hindi is an SOV Indo-Aryan language with a relatively free word order in that major constituents can be scrambled.[1] The difference between declaratives and polar non-*wh*-interrogatives in Urdu/Hindi is only signaled via prosodic cues: while declaratives end with a low boundary tone as in (1), non-*wh*-interrogatives generally show a final rise, see (2).[2]

(1) ʃahina=ne norina=ko mar-a$_{\text{L\%}}$ (Declarative, L%)
Shahina.F=Erg Norina.F=Acc hit-Perf.M.Sg
'Shahina hit Norina.'

(2) ʃahina=ne norina=ko mar-a$_{\text{LH\%/H\%}}$? (Polar Int., LH%/H%)
Shahina.F=Erg Norina.F=Acc hit-Perf.M.Sg
'Did Shahina hit Norina?'

Polar Questions (PolQs) in Urdu/Hindi can also contain *kya*, which is an unstressed version of the *wh*-word 'what'. This item, dubbed "polar *kya*" by Bhatt and Dayal (2020), is assumed to be optional and to not contribute any meaning to the utterance. For example, the meaning of (3) is claimed to be the same with and without *kya*. Note that we render the *wh*-word version as KYA in the glosses and the text and "polar *kya*" as *kya*.

(3) (*kya*) ʃahina=ne norina=ko mar-a$_{\text{LH\%/H\%}}$?
kya Shahina.F=Erg Norina.F=Acc hit-Perf.M.Sg
'Did Shahina hit Norina?'

In (3) *kya* appears in sentence initial position, its canonical position (see, e.g., Montaut 2004). However, as Bhatt and Dayal (2020) (henceforth B&D) point out, *kya* can also felicitously appear easily in other positions in the clause with the exception of the immediately preverbal position. The preverbal position is also the default position for *wh*-words (see also Butt et al. 2017). This is illustrated in (4) (B&D's ex. (6)).[3]

(4) (*kya*) ɑnu=ne (*kya*) uma=ko (*kya*) kɪtab (%*kya*)
kya Anu.F=Erg *kya* Uma.F=Dat *kya* book.F.Sg.Nom *kya*
d-i (*kya*)?
give-Perf.F.Sg *kya*
'Did Anu give a/the book to Uma?

[1] Hindi (spoken mainly in India) and Urdu (spoken mainly in Pakistan) are structurally very close variants. The informants for this paper are predominantly from Lahore, Pakistan. However, as their judgements have been in complete agreement with previously reported judgements on Hindi questions, we do not anticipate discrepancies between varieties of Hindi and Urdu with respect to our data.

[2] The transliteration scheme used for the Urdu/Hindi examples is as follows. Short vowels are transcribed as ɑ, ʊ, ɪ. Long vowels are transcribed as a, e, i, o, u. Note that there is no short /o/. Additionally, we use ɛ for what is also commonly transliterated as "ai" in the literature. Retroflexes are marked with a dot underneath the consonant, e.g., ḍ. Nasalization on vowels is indicated via a tilde, i.e., ũ and geminates via doubling. Note also that we have transliterated the word for 'that' as 'ke', rather than 'ki'. The latter is a variant found in Hindi but not available in Urdu.

[3] We have standardized the transliteration and have applied our transliteration and glossing schemes to the examples taken from B&D.

The broad research question tackled by this paper is the precise nature and interpretational contribution of *kya*.

There are to date two main approaches to understanding *kya* in the literature: 1) the syntax-semantics approach in B&D; 2) the semantics-pragmatics approach in Biezma et al. (2017, 2018). In B&D *kya* is optional and does not contribute any semantic meaning. However, as B&D point out, *kya* has some distributional constraints, which sets it apart from other known question particles in other languages, such as Japanese *ka*.[4] B&D's thorough and pioneering investigation of *kya* uncovered several interesting properties that led them to further theoretical claims, namely, that natural languages have Polar Question Particles (of which *kya* is the first reported representative) and, additionally, that alternative questions in Urdu/Hindi are disjunctions of polar questions. B&D draw their conclusions from the behavior of *kya* in embedded contexts, the behavior in alternative questions (AltQs) and the impossibility of finding *kya* in *wh*-questions. We summarize B&D's main empirical and theoretical claims in §2, but §2 is not simply a summary of B&D's work. Taking B&D's observations and analysis as a starting point, we adduce further, new empirical evidence which uncovers challenges for their original analysis. The discussion sets up the basis for our own alternative analysis of *kya* in §3.

The analysis in §3 builds on Biezma et al.'s (2017; 2018) work but departs from it in crucial points. In line with Biezma et al. we take *kya* to be a focus sensitive particle. This is also in line with proposals made for similar data in the closely related languages Bangla and Oṛiya (Syed and Dash, 2017). However, over and beyond this, we show that *kya* conveys that the attitude holder is uncertain about whether the proffered alternative or another contextually salient alternative is the case. We show how this proposal explains why it may seem as if *kya* is not making any semantic contribution in PolQs while explaining the empirical puzzles described in B&D (see §2) as well as the additional new data we present.

At the theoretical level, besides the claim that *kya* is not a representative of a new class of question particles, we reject the claim that AltQs in Urdu/Hindi are (across the board) disjunctions of PolQs. On the positive side, the take-home message is that *kya* is a focus sensitive particle that marks the speaker's uncertainty and, as such, it is not alone in natural language. In §4 we show that besides the possibility of extending the analysis for *kya* to other close cousins in South Asian languages, we find relatives in other language families, for example, the Bulgarian particle *li*. More broadly, we show that by paying attention to apparent outliers, as well as data that considers patterns beyond the mere exchange of factual information portraying additional discursive effects, we can arrive at a unifying picture, which does not require an appeal to ad-hoc assumptions at the syntax-semantics interface.

Before we start, we would like to advise the reader as they go through the examples and attendant contexts in this paper, that they take *kya* on its own terms and puzzle through it with us. It may be tempting at times to translate the examples in one's own language with strategies that trigger additional meanings (such as bias of some sort). As we show below, specially in §2.4.2, *kya* itself does not conventionally encode bias of any sort (regardless of the position in which it may appear in the sentence). What makes *kya*-utterances so intriguing is that their distribution seems, for

[4] One reasonable hypothesis to pursue is that *kya* is a clause typing particle designed to mark polar interrogatives (Cheng, 1991). However, as B&D show, if it were marking interrogativity (e.g., the spell-out of a Q operator), it should obligatorily appear in embedded contexts where prosody cannot be used to mark the embedded clause as interrogative. However, this is not the case and, hence, this hypothesis must be discarded (see B&D and §2.1 for more data and discussion).

the most part, to be equivalent to that of PolQs. The proposal in this paper offers an explanation of why, in the default cases, this is so, while identifying the contexts in which they come apart.

2 A closer look at *kya*

In this section we briefly list the general claims made in B&D before diving into an examination of the empirical puzzles they identified. We adopt this approach so that we can take full advantage of the previous insights and data B&D have adduced, while also setting the stage for our alternative analysis.

Recall that B&D argue that *kya* is a Polar Question Particle (a representative of a new class of particles).[5] Their analysis places *kya* in a projection above CP (ForceP).

(5) *kya* ɑnu=ne uma=ko kɪtab d-i?
kya Anu.F=Erg Uma.F=Acc book.F.Sg.Nom give-Perf.F.Sg
'Did Anu give a/the book to Uma?'

(6) [$_{\text{ForceP}}$ ***kya*** [$_{\text{CP}}$ C^0 [+Q][$_{\text{TP}}$ ɑnu-ne uma-ko kɪtab di]]]

The syntactic analysis aims at explaining the (rough) behavior of *kya* in embedded contexts. As we will see in §2.1, in general, *kya* cannot appear in clauses embedded under responsive predicates (e.g., 'know'), but can appear under rogatives (e.g., 'wonder'). By placing *kya* in ForceP, B&D rely on syntactic argument selection for their explanation of the distribution of *kya*: according to B&D *kya* can only embed under predicates that can embed clauses big enough, namely, with a ForceP projection, where *kya* is placed. B&D submit that responsives do not embed clauses big enough (they only embed CPs, (7a)) while rogatives do (see (7b)), allowing for *kya*. We call this the 'size approach':[6]

[5] A brief clarification about terminology is in order here. In this paper, we are concerned with interrogative clauses whose semantic interpretation is that of questions. We call polar questions (PolQs) those non-*wh*-interrogative clauses that present one alternative to the addressee for evaluation. These clauses are generally assumed to have a *Q* operator at LF (see (6)). Alternative questions (AltQs) are non-*wh*-interrogative clauses presenting more than one alternative (and, in fact, all the contextually available alternatives). String-identical sentences, however, can often have a PolQ or an AltQ interpretation. This is illustrated in (i) for English:

(i) Do you want tea or coffee?
As PolQ: 'Is it the case that you want either tea or coffee?'
As AltQ: 'Which of the next alternatives is true: that you want tea or that you want coffee?'

As in Urdu/Hindi, the final contour in (i) is taken to be an important cue in triggering one interpretation or the other: PolQs generally finish in a final rise while AltQs finish in a final fall (see e.g. Bartels 1999; Pruitt 2008; Biezma 2009; Biezma and Rawlins 2012; Pruitt and Roelofsen 2013).

[6] This idea follows up on a suggestion in McCloskey (2006) regarding how different predicates may embed clauses of different sizes. Working with Irish English, McCloskey (2006) pointed out that subject-auxiliary inversion in embedded contexts is possible with rogatives, but not with responsives. According to McCloskey (2006), a possible explanation to this contrast is that responsives embed clauses with a larger structure, i.e., with a Force projection. This said, the acceptability of inversion in responsives improves when questioning or negating the responsive predicate:

(i) a. *I remember was Henry a communist.
b. Do you remember was Henry a communist?
c. ?I don't remember was Henry a communist.

B&D draw a parallelism between inversion in polar interrogatives in Irish English and McCloskey's (2006) proposal and Urdu/Hindi *kya*. We remain agnostic regarding the McCloskey's proposal for

(7) a. responsives (*know*): $[_{\text{CP}}\ C^0_{+\text{Q}}\ [_{\text{TP}}]]$
b. rogatives (*wonder*): $[_{\text{ForceP}}[_{\text{CP}}\ C^0_{+\text{Q}}\ [_{\text{TP}}]]]$

B&D acknowledge that this solution forces them to "set aside the issue of why selection of a complement should be a fluid matter" (pg. 1123), since it is not the case that responsives never embed clauses with *kya*. In §2.1 we address the puzzle of embedded contexts and show that by taking up the issues left aside in B&D and by further scrutinizing the empirical evidence, the size approach is not enough to explain the distribution of *kya* in embedded contexts and, thus, the claim that restrictions in the distribution of *kya* in embedded contexts are due to syntactic argument selection is not satisfactory. Rather, the evidence paints a very different picture, one in which the licensing of *kya* depends on the compatibility of its meaning contributions with the overall utterance situation.

In B&D's proposal *kya* is the identity function. Semantically, *kya* only imposes a selectional constraint requiring that its argument be a set containing only one proposition:

(8) $[\![kya]\!] = \lambda P_{\langle\langle s,t\rangle t\rangle} : \exists p \in P[\forall q[q \in P \rightarrow q = p]].P$

B&D assume that PolQs denote singleton sets (see Biezma and Rawlins 2012 for an overview) and also that declaratives and *wh*-interrogatives do not.[7] These two assumptions, together with the semantic constraint introduced by *kya* explains in B&D's analysis why *kya* only appears in PolQs. In §2.1 we enlarge the empirical landscape and argue that the right generalization for the licensing of *kya* lies in the possibility of accepting that the attitude holder is uncertain.

In §2.2 we address the overall distribution of *kya* in the clause. We argue that its distribution is tied to focus and focus association and provide new data anticipating our analysis in §3. The relation between *kya* and focus is also part of the discussion in B&D. Although this relation is not formalized in B&D (i.e., it is not part of the denotation of *kya* or straightforwardly derived from the syntactic assumptions), in B&D's proposal "*kya* demarcates the domain that can be focused, which is minimally its c-command domain. This means that in the schema in [(9)], YP and ZP can be focused. Deferring discussion of XP_2 for the moment, we can also say that XP_1 cannot be focused." (pg. 1132).

(9) $[XP_1[XP_2\ [_{\text{ForceP}}\ kya\ [_{\text{CP}}\ C[+Q]\ [_{\text{TP}}\ \ldots YP\ \ldots\ ZP\ ]]]]]$

The deferred discussion regarding XP_2 concerns the complication pointed out in Biezma et al. (2018): the element to the left of *kya*, XP_2 in (9), can also be focused. Additionally, *kya* can also appear in sentence final position, in which case elements to the left can still be focused. In §2.2 we sharpen the available data set to establish the basis for our analysis in which the relation between *kya* and focus is more closely related than what B&D allow for. We argue that *kya* behaves like other focus sensitive particles in this respect.

Finally, while *kya* is claimed in B&D to be a representative of a new class, polar question particles, it can also appear in AltQs. This leads B&D to a further major

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Irish English, but in our proposal the direct parallelism with *kya* is lost and the "size" of the clause does not play a direct role in explaining the selection puzzle.

[7] That PolQs and declaratives differ on their semantic type is not an assumption shared across the board in the literature within Hamblin semantics (see, e.g., Biezma and Rawlins 2012; see also, e.g., Roelofsen (2019), within inquisitive semantics).

theoretical claim, that AltQs in Urdu-Hindi are a disjunction of PolQs. We review B&D's arguments in §2.3 and provide new data showing that this is not the case.

In §2.4 we build on intuitions from Biezma et al. (2017; 2018) to show that *kya* is closely tied to the attitude holder's assumptions. We also introduce new data showing that *kya* is not optional and, following on the conclusions from §2.1 we argue that the licensing of *kya* depends on the public record, i.e., the Stalnakerian common ground (CG) or its associate context set (*cs*), being compatible with the speaker being uncertain (entertaining more than one possible answer), §2.4.1. In §2.4.2 we show that *kya* does not conventionally convey bias. Finally, in §2.5 we introduce some thoughts about the distribution of *kya* across clauses.

2.1 The selection puzzle

B&D frame their discussion on embedded contexts working with the assumption that embedded clauses are selected by the embedding predicate (see Grimshaw 1979, Pesetsky 1982, 1991). Following Lahiri (2002) they take that predicates embedding interrogatives fall into one of two major classes: *rogatives* (e.g., *wonder, ask, depend on, be determined by*), which only embed interrogatives, and *responsives* (e.g., *know, say, tell, forget* and predicates of relevance such as *care, matter, be relevant*), which may embed both interrogatives and declaratives. In this classification, *antirogative* predicates are those that do not embed interrogatives (e.g., *think, believe, want, expect, be true/false*). B&D's claims regarding responsives are illustrated using exclusively 'know'. While a full study of embedding is not possible within the scope of this paper, we extend the discussion to other responsive predicates, 'tell' and 'forget', which will show a contrast that further supports our proposal.[8]

Utterances with embedded clauses in Urdu/Hindi are usually ambiguous between embedded declaratives and embedded interrogatives (we add in the paraphrase a plausible continuation for the targeted interpretation: the plausible continuation given to the embedded declarative interpretation would be infelicitous if an embedded interrogative is considered and vice-versa):[9]

(10) ɑnu jan-t-i hɛ [ke tʊm tʃɑe ya
Anu.F.Nom know-Impf-F.Sg be.Pres.3.Sg that you.Nom tea.F.Sg.Nom or
kofi pi-yo-g-e]
coffee.F.Sg.Nom drink-2-Fut-M.Pl
Interrogative: 'Anu knows whether you will drink tea or coffee.' (Anu already knows you will only drink one and which. Anu has all the information.)
Declarative: 'Anu knows that you will drink tea or coffee.' (Anu knows that

[8] We are very thankful to an anonymous reviewer for requesting further discussion on embedded predicates beyond 'know' and, in particular for bringing up the importance of 'forget' and 'tell' in sharpening our proposal.

[9] The same ambiguity can be observed in (i), with two clearly distinct clauses:

(i) ɑnu jan-t-i hɛ [ke tʊm ja-o-g-e ya vo
Anu.F.Nom know-Impf-F.Sg be.Pres.3.Sg that you.Nom go-2-Fut-M-Pl or he
a-e-g-a]
come-3.Sg-Fut-M.Sg
Interrogative: 'Anu knows whether you will go or he will come. (Anu knows only one is true and which, but didn't tell me.)'
Declarative: 'Anu knows that you will go or he will come. (Anu knows either of those will be the case and that there is no other option.)'

you will drink one of those and that nothing else is an option. Anu may not know which.)

A priori, a strategy to disambiguate the two readings would be the addition of *kya*, which would bring about only an embedded question reading. However, *kya* is not possible in this context (B&D treat this as an ungrammaticality in their examples, '*', but in our analysis it is infelicity, '#'. We stick to '#' throughout the paper even when reporting B&D's examples):

(11) ɑnu jan-t-i hɛ [ke #*kya* tʊm tʃɑe
Anu.F.Nom know-Impf-F.Sg be.Pres.3.Sg that *kya* you.Nom tea.F.Sg.Nom
pi-yo-g-e ya kofi]
drink-2-Fut-M.Pl or coffee.F.Sg.Nom
Intended: 'Anu knows whether you will drink tea or coffee.'

That *kya* is not possible in (11) is surprising, since *kya* is possible under rogatives (see (22a) below) and in matrix AltQs as in (12) (see also §2.3 for AltQs):

(12) *kya* tʊm tʃɑe pi-yo-g-e ya kofi?
kya you.Nom tea.F.Sg.Nom drink-2-Fut-M.Pl or coffee.F.Sg.Nom
'Will you drink tea or coffee?'

For completeness, we note that 'know' can also embed *wh*-interrogatives as in (13).

(13) ɑnu jan-t-i hɛ (ke) kɪtab kɪs=ne
Anu know-Impf-F.Sg be.Pres.3.Sg that book.F.Sg.Nom who.Obl=Erg
xarid-i
buy-Perf.F.Sg
'Anu knows who bought the book.'

The empirical picture is quite complex. In general, under 'know' it is not possible to embed a PolQ. That is, it is infelicitous to follow up (14) (B&D's ex. (17)) with 'but it's not clear to me what Anu knows that you'll drink.' — this follow up would be possible if the embedded clause was a PolQ. Importantly, speakers reject *kya* in this position, showing that *kya* is not licensed either as a way to enforce the embedded interrogative interpretation, (15) (B&D's ex. (8)).

(14) 'know' + non-disjunctive clause: only embedded declarative.
ɑnu jan-t-i hɛ [ke tʊm tʃɑe
Anu.F.Nom know-Impf-F.Sg be.Pres.3.Sg that you.Nom tea.F.Sg.Nom
pi-yo-g-e]
drink-2-Fut-M.Pl
Only available: 'Anu knows that you will drink tea.'

(15) Impossibility of embedded *kya*-clause
#ɑnu jan-t-i hɛ [ke *kya* tʊm
Anu.F.Nom know-Impf-F.Sg be.Pres.3.Sg that *kya* you.Nom
tʃɑe pi-yo-g-e]
tea.F.Sg.Nom drink-2-Fut-M.Pl
Intended: 'Anu knows whether you will drink tea.'

This is also what we find with *bata* ('tell'), another responsive predicate, see (16). That is, it is infelicitous to follow up (16) with 'but it's not clear to me what Anu told

Ravi that Amra will drink'. Additionally, including *kya* to bring about an embedded interrogative reading is not possible, (16b).

(16) a. ɑnu=ne rɑvi=ko bɑta-ya [ke amra=ko
Anu.F=Erg Ravi.M=Dat tell-Perf.M.Sg that Amra.F=Dat
kofi tʃahiye].
coffee.F.Sg.Nom need
Only available: 'Anu told Ravi that Amra wanted coffee.'

b. #ɑnu=ne rɑvi=ko bɑta-ya [ke *kya* amra=ko
Anu.F=Erg Ravi.M=Dat tell-Perf.M.Sg that *kya* Amra.F=Dat
kofi tʃahiye].
coffee.F.Sg.Nom need
Intended: 'Anu told Ravi whether Amra wanted coffee.'

In light of the data so far one could thus conclude that the generalization is that responsives cannot embed clauses with *kya*. However, not all responsive predicates behave alike. This is illustrated here in (17) with respect to *bʰul* ('forget'), also a responsive. With this predicate, *kya* is possible to enforce the embedded interrogative reading, unavailable otherwise ((17a) cannot be felicitously followed up by 'remind Anu that Amra only wants tea'; this would be a felicitous continuation to (17b)).[10]

(17) a. ɑnu bʰul gɑ-yi [ke amra=ko kofi
Anu.F.Nom forget go-Perf.F.Sg that Amra.F=Dat coffee.F.Sg.Nom
tʃahiye tʰ-i].
need be.Past-F.Sg
Only available: 'Anu forgot that Amra wanted coffee.'

b. ✓ ɑnu bʰul gɑ-yi [ke *kya* amra=ko
Anu.F.Nom forgot go-Perf.F.Sg that *kya* Amra.F=Dat
kofi tʃahiye tʰ-i].
coffee.F.Sg.Nom need be.Past-F.Sg
'Anu forgot whether Amra wanted coffee.'

Given that *kya* can enforce an interrogative meaning in (17b), *kya* is expected to also be possible in embedded AltQs under 'forget'. This is shown in (18).

(18) ɑnu bʰul gɑ-yi ke *kya* amra=ko kofi
Anu.F.Nom forget go-Perf.F.Sg that *kya* Amra.F=Dat coffee.F.Sg.Nom
tʃahiye tʰ-i ya tʃae.
need be.Past-F.Sg or tea.F.Sg.Nom
'Anu forgot whether Amra wanted coffee or tea.'

There are two main conclusions to be drawn from the discussion above. First, and most importantly, the fact that *kya* is possible with 'forget', a responsive predicate, casts doubt on B&D's proposal that the problem for the embedding of *kya*-clauses under 'know' is of a syntactic nature stemming from syntactic selection requirements of responsive predicates (more on this below). Second, we saw that responsives in Urdu/Hindi are peculiar in that they do not embed PolQs without *kya*, and only sometimes embed PolQs with *kya* (as with 'forget'). Indeed, as B&D observe, to

[10]Examples (17) and (18) contain a light verb 'go', which contributes aspectual information (completive in this case), see, e.g., Butt and Ramchand (2005). We have used a light verb in these examples to render them more natural; however, nothing hinges on the presence or absence of this light verb with respect to our analysis.

reproduce the embedded polar interrogative reading with, e.g., 'know', in Urdu/Hindi we add 'or not' (*ya nahĩ*), to obtain an embedded AltQ in which the second disjunct is elided and only the polarity head remains (see, e.g., Biezma 2009; Biezma and Rawlins 2012).[11] As expected, with 'know' or 'tell' *kya* is not possible either in embedded "or not"-AltQs, just as it is not possible in other embedded AltQs, see (11) ((19) is B&D's ex. (18)):[12]

(19) 'know' + 'or not' = ✓; 'know' + *kya* 'or not' = #

ɑnu jan-t-i hɛ [ke (#*kya*) tʊm
Anu.F.Nom know-Impf-F.Sg be.Pres.3.Sg that *kya* you
tʃɑe pi-yo-g-e ya nɑhĩ]
tea.F.Sg.Nom drink-2-Fut-M.Pl or not
'Anu knows whether you will drink tea or not.'

(20) ɑnu=ne rɑvi=ko bɑta-ya [ke (#*kya*) amra=ko
Anu.F=Erg Ravi.M=Dat tell-Perf.M.Sg that *kya* Amra.F=Dat
kofi tʃahiye ya nɑhĩ]
coffee.F.Sg.Nom need or not
Intended: 'Anu told Ravi whether Amra wanted coffee or not.'

However, as expected from the observations above, *kya* is possible in AltQs embedded under 'forget', see (21).

(21) ɑnu bʰul gɑ-yi [ke (✓*kya*) amra=ko kofi
Anu.F.Nom forget go-Perf.F.Sg that *kya* Amra.F=Dat coffee.F.Sg.Nom
tʃahiye tʰ-i ya nɑhĩ].
need be.Past-F.Sg or not
'Anu forgot whether Amra wanted coffee or not.'

The puzzle of the licensing of *kya* under responsives is furthermore not limited to predicates like 'forget'. Responsive predicates like 'know' do allow for embedded clauses with *kya* when they involve 'want to know', which B&D compare with 'ask' (B&D's ex. (9)), future marking, negation, and imperatives (B&D's ex. (10)).(B&D acknowledge these cases but leave them unexplained.)

(22) a. titʃər=ne ɑnu=se putʃʰ-a [ke (*kya*) vo
teacher=Erg Anu.F=Com ask-Perf.M.Sg that *kya* Pron.3.Nom
tʃɑe pi-ye-g-i]
tea.F.Sg.Nom drink-3.Sg-Fut-F.Sg
'The teacher asked Anu whether she would drink tea.'

b. ɑnu jan-na tʃɑh-t-i hɛ [ke (*kya*)
Anu.F.Nom know-Inf.M.Sg want-Impf-F.Sg be.Pres.3.Sg that *kya*
tʊm tʃɑe pi-yo-g-e]
you.Nom tea.F.Sg.Nom drink-2-Fut-M.Pl
'Anu wants to know whether you will drink tea.'

(23) a. jan-na ho-ga 'will have to come to know'

[11] 'Or not' matrix interrogatives display a "cornering effect". See Biezma (2009) for a proposal deriving the cornering effect in matrix questions and predicting its absence in embedded contexts.

[12] Note that the embedded declarative reading in (19) is not possible for independent reasons: it would be infelicitous just as *Anu knows that Amra will drink tea or not* is infelicitous.

ɪs=ke liye ye jan-na ho-g-a [ke *kya* satʃmutʃ
this=Gen.Obl for this know-Inf.M.Sg be-Fut-M.Sg that *kya* really
koi nɑhĩ a-ya]
someone not come-Perf.M.Sg
'For this, one needs to determine whether it is really the case that no one came.'

b. Neg + 'know'
koi nɑhĩ jan-t-a [ke *kya* tito stalɪn=se
someone not know-Impf-M.Sg that *kya* Tito.M.Nom Stalin.M=Com
mɪl-e t^{h}-e]
meet-Perf.M.Pl be.Past-M.Pl
'Nobody knows whether Tito had met with Stalin.'

c. Imperative + 'know'
jan-ẽ [ke *kya* ap=ke bɑtʃtʃe=ke pas imel
know-Imp.2 that *kya* you.Hon=Gen.Obl child.Obl=Gen.Obl near email
ɑkaunt hɛ]
account be.Pres.3.Sg
'Find out whether your child has an email account.'

The proposal we develop in §3 accounts for both the impossibility of *kya* with (plain) responsives like 'know' and 'tell', and its licensing with 'forget' as well as in other environments with responsives as in (22) and (23). We argue that the crux to understanding the difference in distribution lies in the fact that *kya* semantically conveys that the speaker is **uncertain about the truth** of the alternative proffered. This makes *kya* incompatible with the speaker expressing that they *know* but compatible with the speaker expresing that, e.g., *they forgot* (see (17b)), *want to know* as in (22), or *does not know* and the other examples in (23).[13] Furthermore, that *kya* is impossible with 'tell' supports that what matters is the public record: by 'telling that *p*' the agent commits to *p* and, hence, *kya* is incompatible. That *kya* is possible with forget indicates that what matters is the attitude at the time in the embedded context. We appeal to the distinction between private beliefs and public record (common ground) in §3. However, we will not commit to a particular proposal to model context shift in embedded contexts (see ftn. 35).

[13] X (p.c.) offers (ia) to show that responsives with negation are (sometimes) degraded. Notice, however, that (ia) is degraded because negation appears postverbally and within the verbal complex (not its usual position). This example improves vastly when the negation is in the default position before the verb, (ib). See Butt et al. (2016) for discussion on pragmatic effects associated with the immediately postverbal position within the verbal complex in Urdu/Hindi.

(i) a. ???mɛ̃ jan-t-i nɑhĩ hũ ke *kya* tʊm KARATʃɪ gɑ-yi
I.Nom know-Impf-F.Sg not be.Pres.1.Sg that *kya* you.Nom Karachi.Loc go-Perf.F.Sg
t^{h}-i
be.Past-F.Sg
'I don't know whether you had gone to Karachi.'

b. mɛ̃ nɑhĩ jan-t-i hũ ke *kya* tʊm KARATʃɪ
I.Nom know-Impf-F.Sg not be.Pres.1.Sg that *kya* you.Nom Karachi.Loc
gɑ-yi t^{h}-i
go-Perf.F.Sg be.Past-F.Sg
'I don't know whether you had gone to Karachi.'

Further support for our proposal comes from studying antirogatives. (24a) shows that predicates that fall traditionally within the antirogative schema also allow for *kya* in specific environments.[14]

(24) a. rɑvi sotʃ rɑh-ɑ t^{h}-a, ke *kya* vo
Ravi.M.Nom think Prog-M.Sg be.Past-3.Sg that *kya* Pron.3.Nom
kɪtab amra=ko d-e-g-a?
book.F.Sg.Nom Amra.F=Dat give-3.Sg-Fut-M.Sg
'Ravi was thinking whether he will give a book to Amra.'

b. #rɑvi=ne sotʃ-a, ke *kya* vo kɪtab
Ravi.M.Nom think-Perf.M.Sg that *kya* Pron.3.Nom book.F.Sg.Nom
amra=ko d-e-g-a?
Amra.F=Dat give-3.Sg-Fut-M.Sg
'Ravi thought whether he will give a book to Amra.'

As shown in (24), *kya* is possible with progressive marking with 'think' in a reading in which the attitude holder is taken to be uncertain but in the process of settling for an alternative, see (24a). This is not possible without progressive marking, when the attitude holder is taken to have already settled in for one option, see (24b). These data provide further evidence that the syntactic size proposal does not seem to be getting at the right generalization for explaining the distribution of *kya* in embedded contexts. All the cases above (cases with 'forget', 'want to know', 'not know', 'will know', 'know' with imperative marking, as well as with antirogatives like 'think' with progressive marking) can embed clauses with *kya*, but they do not, intuitively, form a natural class defined by embedding a clause with a ForceP projection. However, what they all have in common is that the attitude holder is uncertain. When the attitude holder forgets, wants to know, does not know, will know or is in the process of still thinking, the attitude holder is entertaining different alternatives. In all those scenarios, *kya* is available. In contrast, when the attitude holder 'knows', or 'tells' something, they are assumed to have settled already for one only alternative. In those cases the attitude holder is assumed to be certain (i.e., it is publicly accepted that there is only one alternative compatible with their beliefs), and *kya* is not available. This is the core realization that guides our proposal in §3. We present additional support for this idea in §2.4 after discussing the relation between *kya* and focus in §2.2 and *kya*'s behavior in AltQs, §2.3.

Before leaving the discussion regarding embeddability, let us close this section with some thoughts addressing a loose end regarding the unavailability of embedded polar interrogative readings with responsives (see discussion surrounding (15)–(17)). If *kya* is not available (regardless of what analysis explains its unavailability; see §3.1 for our proposal), and assuming that *kya* can only appear in PolQs, the only thing that marks the clause as a polar interrogative and not a declarative is final rising

[14]That antirogatives accept embedded questions in the progressive was noted for English by Dayal (2016, pg. 145):

(i) a. *I thought whether to invite Bill/who will be invited to the party.
b. I'm thinking whether to invite Bill.
c. I'm thinking who to invite to the party.

Note that our examples in (24) are past tense and not present tense in parallel to (i). This is because the present tense in Urdu/Hindi is formed via the imperfective participle, which also (naturally) has habitual readings (cf. Deo 2015). The use of the past in our examples thus avoids potential interpretational confusions/ambiguity.

intonation. Since rising intonation is not possible in embedded contexts, the only interpretation readily available is that of an embedded declarative. As mentioned above, Urdu/Hindi has other strategies at its disposal to achieve an interpretation similar to that of an embedded PolQ (i.e., an interpretation in which the addressee is asked to evaluate whether a specific alternative is true), which is to make use of AltQs formed with opposite alternatives, i.e., AltQs with 'or not', as in (19).[15]

2.2 The distribution of *kya* in the clause and its relation to focus

The previous section was devoted to explaining the licensing of *kya* in embedded contexts. In this section we explore *kya*'s distribution in matrix clauses. The goal is to adduce support for the claim that *kya*'s distribution is tied to focus marking and, in fact, that *kya* behaves like a focus sensitive particle (just as *only*, for example). This will be reflected in our analysis in §3.

The default position for *kya* is the clause initial position. However, as B&D show, it can also appear naturally elsewhere in the clause, with the exception of the immediately preverbal position (we repeat (4), B&D's ex. (6)).

(4) (*kya*) ɑnu=ne (*kya*) uma=ko (*kya*) kɪtab (%*kya*)
kya Anu.F=Erg *kya* Uma.F=Dat *kya* book.F.Sg.Nom *kya*
d-i (*kya*)?
give-Perf.F.Sg *kya*
'Did Anu give a/the book to Uma?

In B&D's proposal, *kya* demarcates the domain that can be focused, which is minimally its c-command domain. As is, this predicts that YP and ZP in (9) can be focused but not the XPs on the left.

(9) [XP$_1$[XP$_2$ [$_{\text{ForceP}}$ *kya* [$_{\text{CP}}$ C[+Q] [$_{\text{TP}}$ ...YP ... ZP]]]]]

Under this proposal, the distribution of *kya* in the clause is achieved via the scrambling of material in the clause to the left of *kya*.[16] B&D agree with Biezma et al.

[15] B&D provide a slightly different explanation. They claim that the reason why 'know' cannot embed polar interrogatives is that while "in English the presence of the complementizer *if/whether* allows for an indirect question interpretation [...] Urdu-Hindi requires matrix clause intonation for this purpose." (B&D pg. 1125). With "matrix clause intonation" B&D here mean the final rise which characterizes PolQs. Notice, however, that this "matrix clause intonation" is not necessary in the case of rogatives (see (i); B&D's (9a)), where clauses with *kya* can embed without any problem. It is, hence, odd that a final rise characteristic of PolQs should be necessary in the case of responsives but not rogatives without further arguments supporting this stipulation.

(i) titʃɑr=ne anu=se putʃ^{h}-a [ke *kya* vo tʃɑe
teacher=Erg Anu.F=Com ask-Perf.M.Sg that *kya* Pron.3.Nom tea.F.Sg.Nom
pi-ye-g-i]$_{\text{L\%}}$
drink-3.Sg-Fut-F.Sg
'The teacher asked Anu whether she would drink tea.'

As has been pointed out to us, sentences with rogatives can have a final rise. Notice, however, that while (i), with final fall, is a declarative passing on the information of what the teacher asked Anu and can be felicitously responded to by saying "Great the teacher cares!", with a final rise this response is not felicitous: rather, the interpretation is that of a question regarding what Anu wants to drink and felicitous responses involve addressing the question. The interrogative here is actually not embedded.

[16] B&D argue that the linear order with respect to *kya* in the clause is obtained via movement to the left of *kya*. To partly support the movement proposal they point out that when objects are hard to move, *kya* is not possible preverbally. They illustrate this with the case of weak indefinites:

(2018) on that the overall interpretation of utterances with *kya* is somehow related to focus. However, we show below that *kya* is more closely related to focus than the demarcation proposal would predict. We begin by examining data with *kya* in medial position and examine the relation of *kya* with material to its right and to its left. Building on this, we move on to explaining *kya* in initial position and why clause initial *kya*-utterances seem to behave like plain *kya*-less PolQs. Finally, we address sentence-final *kya*.

Following much literature in formal semantics in the Roothian tradition, we assume that focus marking signals the presence of alternatives relevant for the interpretation. This notion of focus is divorced from the notion of 'old'/'new' information (see, e.g., Krifka 2007; Wagner 2021 for an overview), the same way that the theoretical notion of *givenness* in this framework is divorced from the CG (see Schwarzschild 1999). Languages have different strategies to signal what is focused (and evokes alternatives). In Urdu/Hindi one of the strategies is to use prosodic means.[17] As pointed out in B&D, a *kya*-utterance may ultimately be wondering about alternatives varying with respect to the elements to the right of *kya* (i.e., the linguistic material with the focus property is somewhere to the right of *kya*). However, importantly, prosodic cues are needed to mark such material as being focused.

In the contexts below, the sentence preceding the question establishes what alternatives are contextually relevant (e.g., in (25) these would be alternatives regarding what Ravi gave to Amra, which is the ultimate question the speaker wants answered). In this way, it is determined what alternatives may be evoked via focus in the PolQ if congruence is to be preserved (as it must, to guarantee felicity): the alternatives have to match. If *kya* is not sentence initial, it preferentially appears next to the focus element in the sentence and, hence, salient alternatives vary on that element (i.e. the utterance cannot be interpreted as wondering about constituents further right, as reflected in the judgements in (25d), where the default focus is on Amra, and not where it should be, on 'toy'; by default the utterance is not interpreted as wondering

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(i) weak indefinite object:

(*kya*)	ram=ne	(*kya*)	kʊtʃ	(**kya*)	[kʰa-ya]$_{\text{LH\%/H\%}}$?
kya	Ram=Erg	*kya*	something.Nom	*kya*	eat-Perf.M.Sg

'Did Ram eat something?'

Weak indefinites are known to always appear in preverbal position and immediately preceding the verb predicate (see Butt 1993; Bhatt and Anagnostopoulou 1996; Butt and King 1996 for discussion), as exemplified below (B&D ex. (29)):

(ii) a. kʊtʃ 'something' is in-situ

ram=ne	kal	kʊtʃ	kʰa-ya	tʰ-a	
Ram.M=Erg	yesterday	something.Nom	eat-Perf.M.Sg	be.Past-M.Sg	

'Ram had eaten something yesterday.'

b. kʊtʃ 'something' is scrambled: #

#ram=ne	[kʊtʃ]$_i$	kal	t_i	kʰa-ya	tʰ-a
Ram.M=Erg	something.Nom	yesterday		eat-Perf.M.Sg	be.Past-M.Sg

Intended: 'Ram had eaten something yesterday.'

B&D frame the impossibility of having *kya* in preverbal position, following a weak indefinite, as support for their movement account: the deviance of *kya* in (i) is for them the result of the object not being able to move out of its position. In a non-movement proposal (see Butt and King 1996 for example), the same data could illustrate the impossibility of inserting something between the weak indefinite object and the verb predicate.

[17] Several prosodic/phonetic cues for focus in Urdu/Hindi have been reported in the literature (Harnsberger 1994; Patil et al. 2008; Butt et al. 2016; Jabeen and Braun 2018) including increased f0 height of the basic LH contour found on prosodic words, longer syllable duration within the focused element, greater intensity and postfocal compression after the focused element. Of these, the increased pitch span and pitch compression seem most robust.

about elements preceding *kya* either, (26c)). The judgements in (25) reflect speaker preferences when asked about the felicity of the sentences comparing *kya*-less PolQs with PolQs with *kya* in the context provided with natural prosody (whereby the item to the right of *kya* is prosodically marked). In contrast to *kya*-PolQs, all cases of default/neutral PolQs without *kya* are felicitous, see (25b) and (26b), just as in English ((25a) and (26a)). It is important to note that in the case of *kya*-less PolQs, the verb is prominent by default (by virtue of the final rise) and the question is about the existence of a particular event (possibly with some properties expressed by its arguments via focus projection), a default interpretation that can be accommodated to all the cases below, making the *kya*-less PolQ felicitous.

(25) Assuming default/natural prosody (i.e., final rise in all clauses, and focus marked element to the right of *kya*).

Me: I know that Ravi gave <u>something</u> to Amra ...

a. ✓... Did Ravi give a toy to Amra? [English]

b. ✓... rɑvi=ne amra=ko kʰɪlona di-ya? [U/H]
Ravi.M=Erg Amra.F=Dat toy.M.Sg.Nom give-Perf.M.Sg
'Did Ravi give a toy to Amra?'

c. ✓... rɑvi=ne amra=ko *kya* kʰɪlona di-ya?
Ravi.M=Erg Amra.F=Dat *kya* toy.M.Sg.Nom give-Perf.M.Sg
'Did Ravi give a toy to Amra?'

d. #... rɑvi=ne *kya* amra=ko kʰɪlona di-ya?
Ravi.M=Erg *kya* Amra.F=Dat toy.M.Sg.Nom give-Perf.M.Sg
'Did Ravi give a toy to Amra?'

(26) Assuming default/natural prosody (i.e., final rise in all clauses, and focus marked element to the right of *kya*).

Me: I know that Ravi gave a toy to <u>someone</u> ...

a. ✓... Did Ravi give a toy to Amra? [English]

b. ✓... rɑvi=ne amra=ko kʰɪlona di-ya? [U/H]
Ravi.M=Erg Amra.F=Dat toy.M.Sg.Nom give-Perf.M.Sg
'Did Ravi give a toy to Amra?'

c. #... rɑvi=ne amra=ko *kya* kʰɪlona di-ya?
Ravi.M=Erg Amra.F=Dat *kya* toy.M.Sg.Nom give-Perf.M.Sg
'Did Ravi give a toy to Amra?'

d. ✓... rɑvi=ne *kya* amra=ko kʰɪlona di-ya?
Ravi.M=Erg *kya* Amra.F=Dat toy.M.Sg.Nom give-Perf.M.Sg
'Did Ravi give a toy to Amra?'

As expected, when the default prosody is altered to make prominent an element other than the element on *kya*'s immediate right, and marking it as focused in this way, the utterance's felicity shifts (contrast (27) and (25d)) (small caps signal the non-default element prosodically marked):

(27) Non-default prosodic marking (focus prosodic marking far right of *kya*).

Me: I know that Ravi gave <u>something</u> to Amra ...

✓... rɑvi=ne *kya* amra=ko Kʰɪlona di-ya?
Ravi.M=Erg *kya* Amra.F=Dat toy.M.Sg.Nom give-Perf.M.Sg
'Did Ravi give a toy to Amra?'

(27) would be infelicitous if the relevant alternatives, as determined by the preceding utterance, concerned any other constituent. Similarly, marking elements prosodically as focused to the left of *kya* shifts felicity judgements in (26c) (contrast (26c) and (28)). Again, (28) would be infelicitous if the ultimate question were about any other constituent:

(28) Non-default prosodic marking (focus prosodic marking to the left of *kya*).
Me: I know that Ravi gave a toy to someone ...
✓... rɑvi=ne AMRA=KO *kya* kʰɪlona di-ya?
Ravi.M=Erg Amra.F=Dat *kya* toy.M.Sg.Nom give-Perf.M.Sg
'Did Ravi give a toy to Amra?'

In B&D's scrambling account in which *kya* is a 'polar question particle' whose only relation to focus is to demarcate that its domain is to its right, additional stipulations are needed to explain these cases.[18] That elements to the left of *kya* can evoke alternatives relevant to the interpretation is acknowledged by B&D but left unexplained. Nevertheless, they do point out that the possibility of the element to the left of *kya* being the focus is similar to what is observed with other particles in Urdu/Hindi, i.e., *hi* 'only', *bʰi* 'also' and *nahĩ* 'not/no'. All these particles are focus sensitive and their interpretation requires focus association. Note also that B&D's stipulation regarding the position of *kya* with respect to focus marking aligns with well known constraints on focus particles and their relation with their focus associate (see, e.g., Jackendoff 1972; Rooth 1985).

The claim that *kya* appears preferentially besides the element marked as focus (when *kya* is not in sentence initial position; see (30) for sentence initial) predicts that, in the right context, as that in (29), *kya* is possible in the pre-verbal position as well (contra (4)). This is borne out, as shown in (29) where relevant alternatives concern the event invoked by the verb, and *kya* can naturally appear to its immediate left (see also (74)).

(29) Sita: I'm not sure whether Ravi lent or gave a toy to Amra,
... (✓*kya*) rɑvi=ne (%*kya*) amra=ko (%*kya*) kʰɪlona
kya Ravi.M=Erg *kya* Amra.F=Dat *kya* toy.M.Sg.Nom
(✓*kya*) DI-YA (?*kya*)?
kya give-Perf.M.Sg *kya*
'Did Ravi give a toy to Amra?'

Interestingly, sentence-initial *kya* is also felicitous in (29). Let us now turn to this distribution of *kya* and why it seems that in sentence initial *kya*-PolQs behave like neutral *kya*-less PolQs with a default intonation. That is, (30) seems to be felicitous in any context the *kya*-less utterance is:

(30) (*kya*) ɑnu=ne uma=ko kɪtab d-i$_{\text{LH\%/H\%}}$?
kya Anu.F=Erg Uma.F=Dat book.F.Sg.Nom give-Perf.F.Sg

[18] B&D argue that only XP_2 in (9) can be focused (the constituent on the immediate left). These judgments are not clear for all speakers and for some XP_1 can also be focused by employing prosodic means. Syed and Dash (2017), who take a comparative look at Urdu/Hindi *kya* and the corresponding particle *ki* in Bangla and Oṛiya, identify *kya* as a focus sensitive operator. Like B&D, Syed and Dash (2017) assume that *kya* defines the domain under which the focused element can be found. However, unlike B&D, Syed and Dash assume two different focus positions (one clause initial, one preverbal). The authors note that the restrictions on focus assumed by B&D on items to the left of *kya* cannot be maintained, as was also pointed out in Biezma et al. (2017).

'Did Anu give a/the book to Uma?

As anticipated above, our answer is that, by default, the prosodically prominent element in SOV polar questions with or without sentence-initial *kya* is the verb predicate, located by default at the end of the clause where the final rise occurs. This means that in a (verb final) PolQ the verb-predicate is the default focus constituent. In this default situation, focus is over the predicate and it can project from there. Hence, e.g., a question like (30) can be easily interpreted as asking about the existence of an event of giving a book or about alternatives entertained with respect to other constituents, i.e., focus can project to larger constituents (see below for broad focus).

As predicted, if the element to the right of sentence initial *kya* is made prosodically prominent, relevant alternatives are taken to be about that element ((31a) would be infelicitious if the ultimate question concerned other constituents, e.g., what was given, and (31b) would only be felicitous if the ultimate question concerned to whom Ravi gave a toy):

(31) Non-default prosodic marking.

a. Focus prosodic marking immediate right of sentence-initial *kya*.
   Me: I know that someone gave a toy to Amra ...
   ✓... *kya* RɑVI=NE amra=ko kʰɪlona di-ya?
   kya Ravi.M=Erg Amra.F=Dat toy.M.Sg.Nom give-Perf.M.Sg
   'Did Ravi give a toy to Amra?'

b. Focus prosodic marking not immediate right of sentence-initial *kya*.
   Me: I know that someone gave a toy to Amra ...
   #... *kya* rɑvi=ne AMRA=KO kʰɪlona di-ya?
   kya Ravi.M=Erg Amra.F=Dat toy.M.Sg.Nom give-Perf.M.Sg
   'Did Ravi give a toy to Amra?'

Finally, *kya* can also appear at the end of the sentence. B&D argue that in those cases the questions with *kya* behave similarly to sentence-initial *kya*. However, this does not seem to be the case. The contrast between (32) and (33) shows that in sentence final position *kya* takes broad focus (the context is built to provide live contextually salient alternatives not corresponding to narrow-focus alternatives so the PolQ is ultimately addressing the question "what happened?") while sentence initial *kya* is degraded in this context. That sentence-initial *kya* is degraded for broad focus readings may be due to the fact that, while focus can project all the way, sentence-final *kya* is a preferred/specialized strategy to indicate broad focus. In sentence initial position, *kya* takes the verb predicate to be the focus of the utterance and is, hence, felicitous in (33) (where a broad focus reading is not enforced) and so is final *kya*, because a broad-focus reading is also compatible with this context:

(32) Sita didn't go to work yesterday, and today she is inquiring whether something happened the day before (she likes knowing about the stories in the office): often Ravi gives a book to Amra, sometimes Tina brings sweets to the office and occasionally at other times Anu passes by to say Hi.

Sita: C'mon! Something must have happened during my absence but I have no idea what,

... (?*kya*) rɑvi=ne amra=ko kitab (#*kya*)
kya Ravi.M=Erg Amra.F=Dat book.M.Sg.Nom *kya*
d-i (✓*kya*)?
give-Perf.F.Sg *kya*
'Did Ravi give a book to Amra?'

(33) Sita: Surely something has happened between Ravi and Amra but I do not know what,

... (✓*kya*) rɑvi=ne amra=ko kɪtab (?*kya*)
kya Ravi.M=Erg Amra.F=Dat book.F.Sg.Nom *kya*
d-i (✓kya)?
give-Perf.F.Sg *kya*
'Did Ravi give a book to Amra?'

Additionally, recall also that while *kya* in final position is perfect in broad focus readings (see also discussion on final-*kya* in AltQs, (42)), we saw in (29) that final *kya* is marked when the element to its immediate left is marked as focus.

Summing up, the questioner uttering a PolQ with sentence initial *kya* wonders, by default, about the verb predicate. This aligns with *kya* being a focus sensitive particle, given that the verb predicate is made prosodically prominent and understood as the focus by default. In order for the question to be interpreted as being about any other constituent, that constituent needs to be prosodically marked as focus. If *kya* does not appear in sentence initial position, the speakers' preference is that *kya* appear to the left of the focus element (the prosodically prominent element). As with other focus sensitive particles, backwards association is possible explaining that the element to the left of *kya* be marked as focus, as in (28). Ultimately, the data argues against a "partition account" and supports an analysis of *kya* in which *kya* is a focus sensitive particle. This is taken up in our analysis in §3.

2.3 The alternative questions puzzle

It is possible for *kya* to appear in AltQs in Urdu/Hindi. This is a potential issue for B&D, since in their proposal *kya* can only compose with singleton sets and AltQs do not (in general) denote singletons: the denotation of an AltQ (within Hamblin-style semantics) is the set containing the propositions proffered in the question (e.g., that the addressee will drink coffee and that the addressee will drink tea in (34b)). In order to explain why *kya* is nevertheless possible with AltQs, B&D argue that AltQs in Urdu/Hindi are a disjunction of two PolQs. Let us examine how the argument works.

B&D offer the following comparison between PolQs, (34a), and AltQs, (34b) ((34) is adapted from B&D's ex. (42)):

(34) a. (*kya*) tʊm tʃɑe ya/*ke kofi pi-yo-g-e $_{H\%}$?
kya you.Nom tea.F.Sg.Nom or/or coffee.F.Sg.Nom drink-2-Fut-M.Pl
'Will you drink either tea or coffee?'

b. (*kya*) tʊm [tʃɑe]$_F$ pi-yo-g-e ya/ke [kofi]$_F$ $_{L\%}$?
kya you.Nom tea.F.Sg.Nom drink-2-Fut-M.Pl or/or coffee.F.Sg.Nom
'Which of the next is true, that you will drink tea or that you will drink coffee?'

In Urdu/Hindi PolQs have a final rising contour, while AltQs have pitch accents in each disjunct and a final fall. Additionally, AltQs are said to have two possible disjunctions: the regular *ya*, and *ke*, with the latter not possible as disjunction outside of AltQs. To support their argument that AltQs in Urdu/Hindi are a disjunction of PolQs, B&D show examples of overt disjunctions of two PolQs (B&D ex. (46)):

(35) *kya* tʊm ja-o-g-e ya *kya* vo a-e-g-a?
kya you.Nom go-2-Fut-M.Pl or *kya* Pron.3.Nom come-3.Sg-Fut-M.Sg
'Will you go or will he come?'

That (35) is possible is certainly not surprising, since similar facts have been noted for other languages, for example for English (see Biezma and Rawlins 2012 on Belnap and Steele's 1976 example *Is it a bird or is it a plane?*). B&D argue that the interpretation of (35), with one *kya* per disjunct, is the same as the interpretation of the *kya*-less utterance. In fact, the following combinations of *kya* in the different disjuncts are possible (B&D's ex. (47)):

(36) a. *kya* p or *kya* q?
kya tʊm ja-o-g-e ya *kya* vo
kya you.Nom go-2-Fut-M.Pl or *kya* Pron.3.Nom
a-e-g-a?
come-3.Sg-Fut-M.Sg
'Will you go or will he come?'

b. *kya* p or q?
kya tʊm ja-o-g-e ya vo a-e-g-a?
kya you.Nom go-2-Fut-M.Pl or Pron.3.Nom come-3.Sg-Fut-M.Sg
'Will you go or will he come?'

c. p or *kya* q?
tʊm ja-o-g-e ya *kya* vo a-e-g-a?
you.Nom go-2-Fut-M.Pl or *kya* Pron.3.Nom come-3.Sg-Fut-M.Sg
'Will you go or will he come?'

d. p or q?
tʊm ja-o-g-e ya vo a-e-g-a?
you.Nom go-2-Fut-M.Pl or Pron.3.Nom come-3.Sg-Fut-M.Sg
'Will you go or will he come?'

In view of these data, B&D argue that AltQs with *kya* are disjunctions of PolQs (B&D's ex. (44)):

(37) $[_{\text{ForceP}}\ [_{\text{ForceP}}\ \textit{kya}\ [_{\text{CP}}\ C^0[+Q][_{\text{TP...}}]]]$ OR $[_{\text{ForceP}}\ \textit{kya}\ [_{\text{CP}}\ C^0[+Q][_{\text{TP...}}]]]$

By having two polar questions, denoting singleton sets, the overall denotation of the structure in (37) is the set containing the two alternatives proffered (see Biezma and Rawlins 2012, pg. 396). The problem for this proposal is that (35), a disjunction of PolQs, is not the only strategy to express a request for the addressee to choose between the proffered alternatives, nor is it the most common one. In fact, *ya* and *ke* are not actually interchangeable and while (35) can have *ya*, *ke* is not available, as shown in (38). This shows that they constitute different strategies to express an alternative-question-like reading:[19]

[19]Notice that we have been very careful in our wording above about the assumption in B&D and elsewhere in the literature (e.g., Kellogg 1893, §662) that *ke* in utterances interpreted like alternative questions is a form of disjunction. We find this claim problematic, since everywhere else

(38) #*kya* tʊm ja-o-g-e ke *kya* vo a-e-g-a?
kya you.Nom go-2-Fut-M.Pl or *kya* Pron.3.Nom come-3.Sg-Fut-M.Sg

We can conclude then that there are several ways to ask about which between a set of proferred alternatives is the case. Indeed (35) is not the most common way to convey such meaning (just as it is not in English). The example in (39) presents a more common strategy:

(39) *kya* rɑvi=ne amra=ko kɪtab d-i ya
kya Ravi.M=Erg Amra.F=Dat book.F.Sg.Nom give-Perf.F.Sg or
pensɪl?
pencil.F.Sg.Nom
'Did Ravi give a book to Amra or a pencil?'

In cases like (39), *kya* can be placed anywhere in the first disjunct (as long as it is licensed in the context of utterance; see discussion above), not just at the beginning. Crucially, however, there cannot be two *kya*s, one in each disjunct, (40a). Additionally, speakers find it very strange to have *kya* in the second disjunct (the reaction is that "it is too late for *kya* to appear there"; we return to this below), (40b):

(40) a. *kya* rɑvi=ne amra=ko kɪtab d-i ya/ke
kya Ravi.M=Erg Amra.F=Dat book.F.Sg.Nom give-Perf.F.Sg or/or
(#*kya*) pensɪl?
kya pencil.F.Sg.Nom
'Did Ravi give a book to Amra or a pencil?'

b. rɑvi=ne amra=ko kɪtab d-i ya/ke (?*kya*)
Ravi.M=Erg Amra.F=Dat book.F.Sg.Nom give-Perf.F.Sg or/or *kya*
pensɪl?
pencil.F.Sg.Nom
'Did Ravi give a book to Amra or a pencil?'

The data in (40) is not expected if (37) is the right analysis and AltQs in Urdu/Hindi are disjunction of PolQs across the board. We would expect, according to (37), to be able to have one *kya* per disjunct and that, if only one *kya* is present, appearing in either disjunct would be equally good. The data in (40), thus, casts serious doubts on the analysis of AltQs in (37).

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ke is a complementizer (see, e.g., §2.1, also McGregor 1972, ch. 20). While this issue is beyond the scope of this paper, we would like to speculate here that the identification of *ke* with disjunction in the literature stems from scholars trying to match utterances with *ke* interpreted similarly to alternative questions to the stereotypical alternative-question schema in which two propositions (e.g., p and q) are coordinated by a form of disjunction ('$\vee$'), $?(p \vee q)$ (e.g., the interpretation of *do you travel by plane* ***or*** *(you travel) by ship?*). Since these inquiries with *ke* are interpreted similarly to how questions with *ya* ('or') would, and the only possible element that can play the role of disjunction is *ke*, the common place is to argue that *ke* is a form of disjunction (only) in these environments. Notice also that *ya* and *ke* can appear simultaneously, lending support to this speculation.

(i) tum tʃae pi-yo-ge ya ke kofi
you.Nom tea.F.Sg.Nom drink-2-Fut-M.Pl or ke coffee.F.Sg.Nom
'Do you want coffee or tea?'

In view of (i) it is hard to maintain that *ke* is a form of disjunction. Bhatt and Dayal had already noted in early versions of B&D that *ke* in these questions may not be a disjunction *per se* and pointed towards the possibility of *ya ke* sequences. Understanding *ke* in these inquiries is left here for future research. Hopefully, an explanation will also address why (38) is not possible, an issue we cannot delve into here.

This said, one could still try to amend (37) and argue that *kya* is in ForceP at the top of the clause (if one were to try to maintain B&D's size proposal for *kya* in embedded contexts ignoring the lessons learned in §2.1), (41), but then we immediately encounter a problem with the singleton constraint posited by B&D for *kya* as an explanation for why *kya* can only occur in PolQs and not in *wh*-interrogatives (WhQs): if we place *kya* in a single ForceP projection, as in (41), *kya* would then be forced to combine with a non-singleton set, since the denotation of the CP combining with *kya* is the set containing as many propositions as disjuncts there are, in this case two. This alternative analysis therefore cannot be made to work in combination with B&D's singleton constraint.

(41) Attempt to rescue *kya* as head of ForceP
[ForceP *kya* [CP [+Q] [TP...] OR [TP ...]]

There is one more piece of data that is difficult for B&D's analysis. With *kya* in sentence final position, the only possible reading for (43) is that of a PolQ, consistent with *kya* in final position associating with the entire clause (B&D are aware of this problem, see pp. 1138–1139), while both a PolQ and an AltQ are possible without *kya* with the appropriate final contour, (42).

(42) ravi=ne amra=ko kıtab ya pensıl
Ravi.M=Erg Amra.F=Dat book.F.Sg.Nom or pencil.F.Sg.Nom
d-i?
give-Perf.F.Sg
AltQ: Which of the next is true: that Ravi gave Amra a book or that Ravi gave Amra a pencil?
PolQ: Is it the case that Ravi gave either a book or a pencil to Amra?

(43) ravi=ne amra=ko kıtab ya pensıl
Ravi.M=Erg Amra.F=Dat book.F.Sg.Nom or pencil.F.Sg.Nom
d-i *kya*?
give-Perf.F.Sg *kya*
AltQ **unavailable**: Which of the next is true: that Ravi gave Amra a book or that Ravi gave Amra a pencil?
PolQ: Is it the case that Ravi gave either a book or a pencil to Amra?

Under B&D's analysis of AltQs as disjunctions of PolQs in (37), one would expect that the sentence final *kya* only has scope over the second disjunct because the sentence final position is achieved when everything in the second clause moves to the left over the *kya* in ForceP in the second disjunct. However, *kya* in (43) only allows for a reading in which *kya* has scope over the entire sentence.

Summing up, we have shown that the analysis in (37) cannot be right as an across the board analysis of AltQs in Urdu/Hindi (although, of course, we can have an AltQ-like meaning with a disjunction of two PolQs in Urdu/Hindi, as we do in other languages). Given the infeasibility of the analysis in (37), the semantic constraint that *kya* can only combine with singleton sets (which aimed at explaining why *kya* cannot appear in *wh*-interrogatives) is left with the status of a stipulation

in the current state of our discussion.[20] The fact that *kya* is compatible with AltQs, but only in certain positions is in need of an explanation.

Let us take stock. The key components in B&D's analysis are the singleton constraint, to explain why *kya* is not possible in *wh*-interrogatives or declaratives, and the placement of *kya* in ForceP, to enable a "size" explanation to the distribution of *kya* in embedded contexts. To explain that *kya* is possible with AltQs (not singletons), B&D argue that AltQs in Urdu/Hindi are disjunction of polar questions. However, we saw above that B&D's analysis of AltQs is not tenable since it does not explain the distribution of *kya* in AltQs. We also saw above that it is difficult to maintain that *kya* is in ForceP (to explain the selection puzzle) while maintaining the singleton constraint. This does not mean necessarily that *kya* combines with non-singleton sets, it just means that if we want to maintain that *kya* is in the head of ForceP to try to maintain a "size" approach for the selection puzzle, we are in need of an explanation for why *kya* can appear in AltQs while maintaining the singleton contraint ((37) is not viable). This said, the discussion in §2.1 above already argued against the size proposal as an explanation for the selection puzzle and, hence, we are left without reasons to maintain either the size approach or the analysis of AltQs in (37) across the board as disjunction of PolQs. In the next sections, we work towards developing an alternative proposal explaining the behavior of *kya* and its interpretation. We build on the conclusions reached in 2.1 and consider new data illustrating when *kya* is in fact not available.

2.4 Probing Contexts for *kya*

We have shown above that the distribution of *kya* is related to focus marking. We also saw in §2.1 that *kya* is licensed when the speaker is 'uncertain' but it is not possible when the speaker is 'certain'. We use 'certain' to mean that the speaker is convinced of/ believes that a particular alternative from a relevant set is the answer.[21] Notice that (plain) beliefs are defeasible, weaker than other attitudes,[22] and while the speaker may believe that a particular alternative is the answer to a question, they may ask the question to confirm their belief and coordinate with the other discourse participants what is mutually accepted in discourse (i.e., what is in CG). In §2.4.1 we add further arguments supporting that *kya* provides information regarding the speaker's attitude towards the proposition spelled out (the content proposition). In §2.4.2 we show that *kya* does not conventionally convey bias.

[20] B&D also use the singleton constraint to justify why *kya* cannot appear in declaratives. Their assumption being that declaratives and polar interrogatives have different semantic types. Current theories of questions do not necessarily make that assumptions and, e.g., in Hamblin-style semantics where PolQs are singleton sets, there is no type difference between declaratives and PolQs (their meaning differences are captured somehow else, e.g., in their dynamic meaning). Similarly, other current proposals in the literature within inquisitive semantics do not need to make this type distinction (see, e.g., Roelofsen 2019; see also discussion on B&D, pg. 1124).

[21] A reviewer points out that the notion of 'uncertainty' is more complex than what we are making it look and involves different 'degrees of belief'. As we will show below, however, these shades of certainty do not matter for the problem at hand. The only thing that matters is whether CG is compatible with the attitude holder entertaining several alternatives or not. Degrees of certainty would be relevant if *kya* involved 'bias' but, as we show in §2.4.2, bias does not matter for the licensing of *kya*: in biased contexts *kya* is licensed as long as CG is compatible with the speaker not being certain, and *kya* is also licensed when there is no contextual bias in the same circumstances.

[22] In short, following much literature on epistemic modality, we assume that there is a difference between *believing* and *knowing* (see, e.g., Kratzer 1981; Von Fintel and Gillies 2010 for discussion).

2.4.1 Uncertainty

To further provide empirical support for the claim that *kya* signals the attitude holder's uncertainty, in the examples below we have placed *kya* in middle position and in final position to control what reading is triggered. That is, with sentence-medial *kya* the default reading is one in which alternatives relevant for the interpretation vary on the element on the immediate right of *kya* (see discussion on §2.2 above and in particular (32)), and with final *kya* we enforce a broad focus reading (see discussion around (33) on final *kya* and broad focus; see also (43)). Additionally, given that speakers can always 'hide' what their beliefs are, to show the licensing conditions of *kya* and that it conveys uncertainty, in the contexts below the speaker publicly expresses their attitude towards the content proposition in the PolQ before it is uttered. The prediction is that when the speaker declares that only one alternative is compatible with their beliefs, a *kya*-PolQ is infelicitous. With this in mind, let us consider the contrast between (44) and (45). Note that we assume *mʊjʰe yakin hɛ ke*... 'I have a strong belief that...' or *mʊjʰe puri tarah=se lagta hɛ ke*... 'It seems fully clear to me that...' as the Urdu/Hindi equivalents for the English expression of certainty *I'm sure that*.... (See §2.2 for the interaction between focus and the position of *kya* in the clause. Here we are only interested on the contrast regarding the attitude.)

(44) Context: I couldn't attend my little niece Amra's birthday party but you were there. Ravi was also attending. Despite his promising every year that he would give kids books as presents, he always brings toys.

Me: So, what did Ravi bring at the end? **I'm sure** he gave a toy to Amra despite saying that he would bring a book. C'mon, confess,

(i) ✓ ɾɑvi=ne amra=ko kʰILONA di-ya?
Ravi.M=Erg Amra.F=Dat toy.M.Sg.Nom give-Perf.M.Sg
'Did Ravi give a toy to Amra?'

(ii) # ɾɑvi=ne amra=ko *kya* kʰILONA di-ya?
Ravi.M=Erg Amra.F=Dat *kya* toy.M.Sg.Nom give-Perf.M.Sg
'Did Ravi give a toy to Amra?'

(iii) # ɾɑvi=ne amra=ko kʰILONA di-ya *kya*?
Ravi.M=Erg Amra.F=Dat toy.M.Sg.Nom give-Perf.M.Sg *kya*
'Did Ravi give a toy to Amra?'

(45) Context: I couldn't attend my little niece Amra's birthday party but you were there. Ravi was also attending and I'm curious to know what he brought her. He sometimes gives Amra toys, sometimes books. He is unpredictable!

Me: Ravi is so unpredictable! You never know whether he'll bring a toy or a book. So, what did he bring at the end? **I have no idea** and it doesn't matter to me, but I'm curious...,

(i) ✓ ɾɑvi=ne amra=ko kʰILONA di-ya?
Ravi.M=Erg Amra.F=Dat toy.M.Sg.Nom give-Perf.M.Sg
'Did Ravi give a toy to Amra?'

(ii) ✓ ɾɑvi=ne amra=ko *kya* kʰILONA di-ya?
Ravi.M=Erg Amra.F=Dat *kya* toy.M.Sg.Nom give-Perf.M.Sg
'Did Ravi give a toy to Amra?'

(iii) ✓/? ɾɑvi=ne amra=ko kʰILONA di-ya *kya*?
Ravi.M=Erg Amra.F=Dat toy.M.Sg.Nom give-Perf.M.Sg *kya*
'Did Ravi give a toy to Amra?'

(44) and (45) form a minimal pair: the only difference is the speaker's attitude. In (44) the speaker publicly expresses their belief of Ravi having brought a book, i.e., the speaker is certain, and *kya* is not felicitous, while in (45) the speaker expresses their agnosticism in this regard and *kya* is possible. One could argue that the judgements reported in (44iii) and (45iii) are due to the stress on 'toy' while having a final *kya* (which requires broad focus; see above).[23] While the contrast in judgments persist even without stress on 'toy', it is true that the context above is not designed for broad focus readings. For the sake of completeness, we therefore present contexts in which sentence final *kya* is most appropriate. Observe the contrast between (46) and (47) with final *kya* (plain PolQs are fine in both):

(46) Context: I had to work and couldn't attend Amra's birthday party but you were there. I heard there was a big drama at the party but my source didn't want to tell me what this was about. No need though. People may think dramas at parties are about the food not being good or something like that, but I'm sure this was about Ravi spoiling Amra and giving her a toy as a present, as always. Everybody knows that, tired of this, this year Amra's mother had explicitly asked Ravi not to give a toy to Amra. Sita was there and I am meeting her for tea now:

Me: So, I heard it was quite the drama. **I'm sure** this was about Ravi giving Amra a toy for her birthday and not about the food being bad. C'mon, confess what happened yesterday...,
rɑvi=ne amra=ko kʰɪlona di-ya (#*kya*)?
Ravi.M=Erg Amra.F=Dat toy.M.Sg.Nom give-Perf.M.Sg *kya*
'Did Ravi give a toy to Amra?'

(47) Context: I had to work and couldn't attend Amra's birthday party but you were there. I heard there was a big drama at the party but my source didn't want to tell me what this was about. The drama may have been caused by many things, the food not being good, the kids not behaving, or Ravi spoiling Amra and giving her a toy as a present, as always, despite Amra's mother explicit will against it (which everybody knows about). Sita was there and I am meeting her for tea now:

Me: So, there was quite the drama. **I have no idea** whether the food was bad or whether it was that Ravi gave a toy to Amra. What happened? It is not that I care one way or the other, but I'm curious...,
rɑvi=ne amra=ko kʰɪlona di-ya (✓*kya*)?
Ravi.M=Erg Amra.F=Dat toy.M.Sg.Nom give-Perf.M.Sg *kya*
'Did Ravi give a toy to Amra?'

Again, the examples in (46) and (47) form a minimal pair differing only with respect to the public speaker's attitude towards the content proposition. These examples show how the public commitment affects speakers' choices (when the speaker is certain, *kya* is not licensed despite the speaker being biased; see also §2.4.2). As shown below, the same is the case when the null alternative is a live alternative (contra Biezma et al. 2018, who claimed that *kya*-questions differ from the *kya*-less in not entertaining the null alternative as a live alternative). Compare (48) and (49)

[23] Note that when reading *kya kʰɪlona* in (45ii) it is possible to confuse it with 'what toy' by using KYA ('what') instead of *kya* (see discussion below for *wh*-KYA). However, that is not the relevant interpretation here and there is also a clear prosodic difference between *wh*-KYA and polar *kya*, see Butt et al. (2020).

(again, 'I'm sure' is to be translated as *mʊjʰe yakin hɛ ke...* 'I have a strong belief that...' or *mʊjʰe puri tarah=se lagta hɛ ke...* 'It seems fully clear to me that...'):

(48) Context: While Amra's mother told people not to bring anything for Amra for her birthday, Ravi is completely against not giving toys to kids on birthdays. I couldn't attend the party but you did.

Me: I'm sure, Ravi gave a toy to Amra. C'mon, tell me,

a. ✓ ravi=ne amra=ko kʰILONA diya?
Ravi.M=Erg Amra.F=Dat toy.M.Sg.Nom give-Perf.M.Sg
'Did Ravi give a toy to Amra?'

b. # ravi=ne amra=ko *kya* kʰILONA diya?
Ravi.M=Erg Amra.F=Dat *kya* toy.M.Sg.Nom give-Perf.M.Sg
'Did Ravi give a toy to Amra?'

(49) Context: It is equally possible that Ravi gave a toy to Amra for her birthday or that he didn't bring anything. It all depends on whether he had time to pass by a toy store on his way to the party.

Me: So, what happened in the end? **I have no idea,**

a. ✓ ravi=ne amra=ko kʰILONA diya?
Ravi.M=Erg Amra.F=Dat toy.M.Sg.Nom give-Perf.M.Sg
'Did Ravi give a toy to Amra?'

b. ✓ ravi=ne amra=ko *kya* kʰILONA diya?
Ravi.M=Erg Amra.F=Dat *kya* toy.M.Sg.Nom give-Perf.M.Sg
'Did Ravi give a toy to Amra?'

Summing up, the discussion above supports the proposal that the licensing of *kya* is tied to the attitude holder's public belief: *kya* is only possible when the attitude holder is **uncertain** of the truth of the proffered alternative. That *kya* signals uncertainty explains why its presence seems not to make any contribution in many of the examples. In the default context we assume that when asking a question the speaker has not settled for a particular answer. It is in contexts in which the speaker is certain of what the answer is where *kya* is not licensed and we observe the contrast between *kya*-questions and *kya*-less ones. This agrees with the conclusion we drew in §2.1, and is also what explains the data B&D identify as an outstanding puzzle (B&D ex. (56)):

(50) a. ɑre, (#*kya*) tʊm yɑ=hĩ ho?
oh *kya* you.Nom here=only be.2.Pl
'Oh, you are still here?'

b. ɑre, (#*kya*) tʊm gɑ-ye nahĩ?
oh *kya* you.Nom go-Perf.M.Pl not
'Oh, you didn't leave?'

Our uncertainty hypothesis explains these data nicely: *kya* is not possible in (50) because the attitude holder knows (and thus believes) that the proffered proposition is true, the addressee is in front of them! But now imagine a scenario in which the speaker is temporarily blind after a small surgery. A friend takes them home and leaves them in the living room while presumably running out for groceries. There is a noise and the speaker does not know whether the addressee did not leave yet or whether it was just the cat. In this context, (50a), with *kya*, is perfectly fine. In §3.2

we explore additional data illustrating how the presence of *kya* also contributes to an overall overtone of sarcasm or politeness in different contexts.

2.4.2 *kya* and bias

Before we move on to explaining the additional uses of *kya*, in this section we briefly address alternative analyses that have been suggested to us by a reviewer, mainly in terms of considering *kya* as expressing bias in questions (i.e., that a particular answer is favored). We have already seen several data points in the discussion above showing that *kya* does not express bias (e.g., contexts in which *kya* is not licensed even if the attitude holder is biased and contexts in which *kya* is licensed even if there is no bias). However, it is worth going through the examples offered in some detail since it will allow us to make clear differences between information in the CG (information that is mutually accepted and has a public character) and private beliefs (of which other participants may not be privy). This is the distinction we capitalize on in our proposal.

The Stalnakerian CG can be characterized as a public record: the set of propositions that the interlocutors have **agreed** to treat as true. Something becomes part of the CG if it is publicly (mutually) accepted.[24] That is, that something is (very) likely the case in view of the evidence does not automatically make it part of the CG. We have seen above that the key factor in the licensing of *kya* is whether the CG is compatible with the attitude holder entertaining several alternatives as answers to the question, i.e., whether the CG is compatible with the attitude holder being uncertain: as soon as the attitude holder is publicly committed to an answer to the PolQ, *kya* is not licensed, but as long as there is no public commitment towards an answer, no matter how likely an answer may be, *kya* is licensed. This is what we can also observe when investigating a context a reviewer offered to us to argue, against our proposal, that *kya* conveys bias (and not uncertainty):

(51) I am sitting in a windowless room for hours, with no expectations or knowledge about the weather. My friend comes in at one point, wearing a raincoat that is dripping wet. I ask:

Me: bahar barɪʃ ho rɑh-i hɛ *kya*?
outside rain.F.Sg.Nom be Prog-Perf.F.Sg be.Pres.3.Sg *kya*
'Is it raining outside?

(51) is a classic example in which English rising declaratives are licensed (*It's raining?*; see, e.g., Gunlogson 2003, see also Rudin 2022 for a recent overview of the literature; roughly, their licensing requires a form of bias). The reviewer's concern is that, given the evidence in the context, it must be very clear to the speaker that it is raining and, hence, the speaker must be certain that it is raining. From this, one would expect that our proposal predicts that *kya* is not possible (contrary to fact). Notice, however, that while given the contextual evidence we may guess that the attitude holder is biased towards an answer (e.g., that it is raining), this does not mean that the speaker is necessarily discarding other options: the speaker in (51)

[24] This is more complicated than we are making it look. For example, in the Stalnakerian framework utterances of declaratives are proposals to update the CG with (roughly) the proposition denoted by the sentence. If the addressee does not reject such proposal, it is taken that it has been accepted (at least for the purpose of the conversation). Acceptance is the default. Also, manifest events, events that participants can mutually accept that have been witnessed by all, automatically become part of the CG (i.e., if a goat enters the room while it's clear to all that we all are looking, it becomes part of the CG that a goat entered the room; see also (50)).

didn't commit to it being raining (maybe the sprinklers were on?) and, thus, the CG is compatible with the attitude holder entertaining several alternatives. Importantly, *kya* stops being licensed once the attitude holder expresses publicly that there is only one answer compatible with their beliefs (contrast (52) with (51)):

(52) I am sitting in a windowless room for hours. My friend comes in at one point, wearing a raincoat that is dripping wet.

Me: Oh! You are dripping wet. I knew it would rain! It is raining!, confirm it,

#bɑhɑr barɪʃ ho rɑh-i hɛ *kya*?
outside rain.F.Sg.Nom be Prog-Perf.F.Sg be.Pres.3.Sg *kya*
'Is it raining outside?'

If bias was involved in (final-)*kya*-utterances, (52) should be felicitous, but it is not. (51) and (52) vary on whether or not the CG is compatible with the attitude holder entertaining other alternatives. As soon as the attitude holder expresses publicly that their beliefs are only compatible with one alternative, i.e., commits to an alternative (as in (52)), and thus the CG is not compatible with the attitude holder entertaining several alternatives, *kya* fails to be licensed. When the speaker has not expressed a public commitment (as in (51)), *kya* is licensed (regardless of the contextual evidence leading to speaker bias; see ftn. 42 for another example).

There are, of course, strategies in Urdu/Hindi to convey bias. Without getting into a full comparison and not pretending that it is the same as English rising declaratives, (53) is very natural given the context in (51) and conveys that the speaker expects that it is raining raining outside to be true.

(53) atʃtʃa, bɑhɑr barɪʃ ho rɑh-i hɛ?
good, outside rain.F.Sg.Nom be Prog-Perf.F.Sg be.Pres.3.Sg
'So it's raining outside?'

One could still try to claim that *kya* signals bias but is incompatible with certainty. However, *kya* is perfectly fine in contexts in which the speaker is completely agnostic (and even says so). We saw such examples in (45), (47) and (49). Notice that these examples also shows that *kya*-utterances are not similar to, e.g., English rising declaratives, for which contextual positive evidence is needed. This said, if the attitude holder's agnosticism regarding the answer is not public, the inference that the speaker is biased towards the content proposition can naturally arise contextually: at the end of the day, there must be a reason why the speaker chose to spell out a particular alternative instead of any other (see, e.g., Biezma and Rawlins 2012 for discussion). As shown above, that inference can be cancelled by adding that the speaker has no expectation/clue. The key to understanding *kya*, thus, lies in the attitude holder's public beliefs: *kya* is not possible when the attitude holder's (public) beliefs are compatible with only one answer (i.e., the CG is not compatible with the attitude holder's uncertainty); *kya* is felicitous when the CG is compatible with the speaker entertaining several answers, regardless of whether the speaker is completely agnostic (as in (45), (47) and (49)) or is biased towards a particular answer (as in (51)).

As part of the empirical investigation on *kya*, it was also suggested to us to compare *kya* with discourse particles that have been claimed to convey bias of some sort, such as German *wohl* ('presumably') (see Zimmermann 2008; see also Eckardt 2020). For the sake of completeness, another particle to consider could be *etwa* ('possibly'). To see how *kya* compares to both of these particles, consider the following real-life

scenario of a ChatBot programmed to interact with Urdu speakers and that answers questions about where and how to apply for licenses, ID cards and passports, etc.[25] Once the ChatBot is done answering a user's question, it automatically produces (54):

(54) *kya* ap ek or saval putʃ-na tʃah-te
kya you.Hon.Nom one more question.M.Sg.Nom ask-Inf.M.Sg want-Impf.Pl
hɛ̃?
be.Pres.3.Sg
'Do you want to ask another question?'

There is clearly no contextual bias involved and the ChatBot is perceived as just neutrally asking whether the user has another question without assuming that that is likely (/or unlikely). At any given point, it may very well be that a user's question is the last question, but it also may be that they have other questions; it does not matter to the ChatBot (that is, the people programming the ChatBot did not care one way or the other). Crucially, the designers included *kya* in this situation, which aligns with the intention of being explicit about all possibilities being open (see §3.2 for politeness effects triggered by *kya*). This is different from what we find in German, (55), where the addition of the mentioned discourse particles does not allow the formulation of a neutral question and in the ChatBot context sounds positively rude.

(55) Wollen Sie wohl/etwa eine weitere
want.1/3.Pl you.Hon.Nom presumably/possibly a.Nom/Acc further
Frage stellen?
question.F.Sg.Nom/Acc pose.Inf
With *wohl*: 'Presumably you want to ask another question?'
With *etwa*: 'Do you insist on asking another question?'

The fact that contexts in which there is bias may fail to license *kya*, while contexts in which the speaker is completely agnostic do license *kya*, shows that *kya* does not encode bias conventionally.[26] What allows us to predict the licensing of *kya* is the attitude holder's public commitment. That is, whether the CG is compatible with the speaker entertaining several alternatives. To get the CG to be incompatible with speaker uncertainty it does not suffice that contextual evidence strongly favor a particular answer (e.g., in (51) we saw the raincoat dripping, not the rain; the CG is still compatible with the attitude holder entertaining the possibility of the sprinklers having been on!). As long as the attitude holder is not publicly committed to an answer, or as long as the answer is not entailed (see (50) and ftn. 24), i.e., the CG is compatible with the attitude holder entertaining several alternatives, *kya* is licensed.

2.5 The *wh*-questions puzzle

Let us finish the empirical discussion with a puzzle that has remained unaccounted for in the literature. This is the relation between *kya* in PolQs and 'what' in WhQs. As mentioned above, 'what' in Urdu/Hindi is a stressed version of (polar-)*kya*, KYA, illustrated in (56). To be more precise, *wh*-KYA in Urdu/Hindi exhibits the same basic

[25] This ChatBot was recently demonstrated to us by researchers at the Center for Language Engineering (CLE) at the University of Engineering and Technology (UET) in Lahore.

[26] While we cannot extend the discussion here, it is worth reporting that the hypothesis of *kya* conventionally conveying bias does not survive Sudo's (2013) tests either.

LH pattern as content words and, in contrast, polar-*kya* either has a flat intonation (generally at the beginning of a clause) or has a falling intonation (generally clause-medial; Butt et al. 2020).

(56) ɑnu=ne uma=ko KYA di-ya$_{L\%}$?
Anu.F=Erg Uma.F=Acc what.Nom give-Perf.M.Sg
'What did Anu give to Uma?'

As B&D point out, *wh*-KYA appears most naturally in preverbal position ((57) is B&D's ex. (7) with their judgments):[27]

(57) (??KYA) ɑnu=ne (??KYA) uma=ko (KYA) [di-ya]$_{L\%}$ (??KYA)?
what Anu=Erg what Uma=Acc what give-Perf what
'What did Anu give to Uma?'

In sum, *wh*-KYA differs from polar-*kya* in PolQs in its prosody and appears by default immediately preceding the verb predicate. The question is whether and how *kya* and KYA are related and why polar-*kya* is not available in any *wh*-interrogative. As stated by B&D, an analysis of *kya* would be desirably linked to its *wh*-counterpart, but such a link is not made in their proposal. We address this puzzle to some extent in §3.3.

3 An uncertainty analysis for *kya*

The discussion above has established that *kya* appears only in contexts in which the attitude holder can be taken to be **uncertain** about the answer to the question, both in matrix clauses, when the speaker is requesting information, or in embedded contexts. It was important to notice that in embedded contexts, *kya* generally embeds under rogatives, but only embeds under responsives when the attitude holder is uncertain of the answer (e.g., when the attitude holder does not know, or wants to know). The second major ingredient of the analysis is that *kya* is a focus sensitive particle. In what follows we develop a formal analysis that captures the intuitive characterization in (58) (*cs* is the context set associated to the CG):[28]

(58) *kya* intuitively: $[\![[_Q [kya\ [\sim \Phi]]]]\!] = [\![[_Q \sim \Phi]]\!]$
defined only if *cs* is compatible with the attitude holder believing that there is more than one live salient alternative in *cs* that is a possible answer to the question.

Our proposal capitalizes on the difference between the denotation of interrogatives, which refers to alternatives agreed upon and live in *cs*, and the questioner's private beliefs, which may differ from the former. A speaker can ask a question to confirm that their beliefs about what is the case are correct and, thus, synchronize the public record, i.e., CG/*cs* (this is what we observe in §2.4 above; see also the discussion on pg. 33). According to (58), the meaning of an interrogative with *kya* is the meaning of the interrogative without *kya* with the added caveat that the utterance with *kya* conventionally requires that *cs* be compatible with the attitude holder's beliefs

[27] However, Manetta (2012) shows that *wh*-words generally exhibit the same scrambling distribution as NPs and *wh*-KYA can appear felicitously in all of the positions in (57). See also the discussion in Butt et al. (2020).

[28] The CG is the set of propositions mutually accepted by participants in the context of utterance. We standardly model propositions as sets of possible worlds. The *cs* associated to a given CG is the intersection of all the propositions in said CG.

being compatible with more than one contextually salient alternative. What *kya* conveys conventionally is what we assume by default when someone asks a question but, importantly, is not conventionally conveyed in plain interrogatives (it is just a contextual inference). This, we argue, explains why *kya* may seem at first sight to not make any semantic contribution. It also explains why *kya* is not licensed when the utterance situation makes it impossible to deny that the attitude holder *knows* the answer (as in (50); see ftn. 24), but is licensed when the CG is compatible with the attitude holder not being certain (either when they are agnostic or when the context is biased towards one alternative; as long as the public record is compatible with the attitude holder's uncertainty, *kya* is licensed; see also, e.g., ftn. 42). With respect to *kya*'s focus sensitivity, this is captured in our analysis by appealing to the contextually salient alternatives, which are mainly the live focus alternatives, but not only (see the discussion below). Thus, to formalize the meaning of *kya*, we also introduce some basic assumptions regarding the focus meaning dimension.

To appeal to the questioner's private beliefs, we introduce the set of doxastic alternatives of an agent x at a time t as in the standard definition in (59):

(59) $Dox_{x,t,w} = \{w' : w' \text{ is compatible with what } x \text{ believes to be true at } t \text{ in } w\}$

As pointed out above, that p is the only alternative from a set of possible alternatives compatible with an attitude holder's doxastic alternatives is weaker than knowing that p is true. In that sense, this private attitude is defeasible.

We saw in §2.2 that *kya* is a focus sensitive particle. To capture the association with focus, let us introduce some minimal assumptions on the meaning effect of focus. In the Hamblin tradition to questions, declaratives are sets of propositions (singleton sets) and, following Biezma and Rawlins (2012), i.a., so are PolQs (this latter assumption is shared with B&D). In order to derive the focus alternatives we need to extract the element in these singleton sets, the *content proposition*. We define the auxiliary definition for content propositions in (60) and exemplify it in (61) ('$\langle s,t\rangle$' is the semantic type corresponding to propositions). Following standard assumptions within the Roothian tradition we assume that sentences have an ordinary semantic value ($[\![\cdot]\!]^o$) and a focus semantic value ($[\![\cdot]\!]^f$).

(60) Let Φ be a syntactic expression s.t. $[\![\Phi]\!]^o = \mathit{\Phi}$, where $\mathit{\Phi}$ is a singleton set containing $\phi_{\langle s,t\rangle}$ ($[\![\Phi]\!]^o = \{\phi_{\langle s,t\rangle}\}$). We call $\phi_{\langle s,t\rangle}$ *contentProp*(Φ)).

(61) Consider the interrogative sentence *Did Ravi give a toy to Amra?*, with the syntactic representation [$_Q$ Ravi gave a toy to Amra] and denoting the singleton set {λw. Ravi gave a toy to Amra in w}: *contentProp*([$_Q$Ravi gave a toy to Amra]) = λw. Ravi gave a toy to Amra in w.

The focus meaning of a sentence is the set of propositions resulting from replacing the focus-element by any element of the same semantic type. In our system, this will be the set of *content propositions* as defined in (60) obtained by substituting the focus element in the syntactic expression by an object of the same type. A rough definition that suffices for our purposes is provided in (62) and exemplified in (63) (the focus meaning is, roughly, the meaning of the question *What did Ravi give to*

Amra?, i.e., alternatives differing on what was given). We take a shortcut and define it as in (62):[29]

(62) Let Φ be a sentence with focus marking.
$[\![\Phi]\!]^f = \{p : p = contentProp(\Psi)\}$, for all Ψ resulting from replacing the focus element in Φ with an expressions of the same type.

(63) $[\![$[Ravi gave a toy to Amra_{F}]$]\!]^f$ = {λw. Ravi gave a toy to Amra in w; λw. Ravi gave a toy to Sita in w; λw. Ravi gave a toy to Volkswagen in w; ...}

The last ingredient we need in a system that considers Roothian focus alternatives is '∼', but we limit the discussion to the Roothian formal system and '∼' to a bare minimum here. Focus marking in the Roothian tradition is represented in the syntax and '∼' is in charge of making the link between sentence and discourse: '∼' will require that the utterance be embedded in a discourse where there is an open question containing a subset of the focus alternatives. A rendition of the Roothian '∼' to work within Hamblin semantics from Biezma (2020) (building on Constant 2014) is as follows:

(64) Roothian '∼' adapted to Hamblin semantics, where OP is an operator collecting alternatives in the Hamblin system (e.g., '∃' or 'Q') if there is one:
a. $[\![\text{OP} \sim \phi]\!]^o = [\![\text{OP}\phi]\!]^o$ b. $[\![\text{OP} \sim \phi]\!]^f = [\![\text{OP}\phi]\!]^o$
c. ... and presupposes that the context contain an antecedent C such that:
(i) $C \subseteq [\![\phi]\!]^f$ (ii) $|C| > 1$ (iii) $[\![\phi]\!]^o \subset C$

The main work of '∼' is to trigger the presupposition regarding the discourse in which the utterance is embedded (64c): it establishes that there is a discourse antecedent that is a subset of the focus value. For example, it enforces that the utterance of *Ravi gave a toy to* Amra_F has as discourse antecedent, C, a subset of (63), which is in fact (roughly) the meaning of the question *to whom did Ravi give a toy?* (we constrain what C is in (65)). It also enforces that that Ravi gave a toy to Amra be one of the members of that set (i.e., a possible answer to the question). At the ordinary level '∼' is the identity function.

In our system, following Rooth, we consider the focus of a sentence the element evoking alternatives relevant for the interpretation.[30] However, we need to determine exactly what alternatives are relevant to the speaker to tie the focus alternatives to the actual possible answers to the question (i.e., the exact meaning of the question) and the attitude holder's doxastic alternatives. The focus alternatives we are interested in are the ones that are possible/live in the context of an utterance (e.g., in (63) that Ravi gave a toy to a car company, Volkswagen, is likely not to be one of the live alternatives). So, C is really just the live focus alternatives. Additionally, in some contexts, one of the alternatives compatible with the attitude holder's doxastic alternatives might be that none of the live focus alternatives is true. This is the situation in which it is a live alternative in *cs* that Ravi did not give anything to Amra

[29] Interested readers may consult Rooth (1992) for a compositional derivation of focus alternatives. We simplify here in the interest of space since we have nothing to add to the standard Roothian view.

[30] As pointed out in §2.2, focus is not tied to 'old/new information' (see, e.g., Schwarzschild 1999; Wagner 2012, 2021 and literature therein). This is also relevant for discussion on the notion of *givenness* as divorced from being 'old' information.

for her birthday, as in (49) (the reader is referred to Biezma 2020 for discussion).[31] We call the resulting set of live alternatives, the *salient alternatives*:[32]

(65) Let *cs* be the Stalnakerian *context set*, the set of worlds at the intersection of the propositions in the (Stalnakerian) CG, and Φ a sentence.

a. $\text{SalientAlts}(\Phi) = \{p : p \neq \emptyset \wedge \exists q \in [\![\Phi]\!]^f \text{ s.t. } p = q \cap cs\}$ or

b. $\text{SalientAlts}(\Phi) = \{p : p \neq \emptyset \wedge \exists q \in [\![\Phi]\!]^f \text{ s.t. } p = q \cap cs\} \cup \{\lambda w. \forall p \in [\![\Phi]\!]^f, p(w) = 0\}$

PARAPHRASE: The set of focus alternatives that are live alternatives in *cs*. If the context allows it, it may contain the alternative that none of the live focus alternatives is true (This is the Q(uestion)U(nder)D(iscussion) in Roberts' 1996 model).

We borrow the meaning of Q from Biezma and Rawlins (2012); Biezma (2020) (who build on Kratzer and Shimoyama (2002) a.o.). $[\![Q]\!]^o$ is the identity function, but it also imposes that the set of propositions it inherits be a subset of the salient alternatives evoked by the embedded expression and that there be more than one:[33]

(66) Let Φ be a syntactic expression and $[\![\Phi]\!]$ a set of propositions.
$[\![[_Q \Phi]]\!]^o = [\![\Phi]\!]^o$,
defined only if $[\![\Phi]\!]^o \subseteq \text{SalientAlts}(\Phi)$ & $|\text{SalientAlts}(\Phi)| > 1$

Let us see how this works. We begin with a *kya*-less question. The syntactic expression of *did Ravi give a toy to* AMRA*?* is in (67a). The focus semantic value of the clause under '$\sim$' is the set of propositions forming the meaning of a question of the form *to whom did Ravi give a toy?*, (67b), the discourse antecedent:[34]

(67) a. $[_Q \sim$ [Ravi gave a toy to $\text{AMRA}_F]]$

b. $[\![[$ Ravi gave a toy to $\text{AMRA}_F]]\!]^f$ = {Ravi gave a toy to Amra; Ravi gave a toy to Sita; Ravi gave a toy to Tina;...}

(68) $[\![[_Q \sim$ [Ravi gave a toy to $\text{AMRA}_F]]\!]^o$ = $\{\lambda w.$Ravi gave a toy to Amra in $w\}$, felicitous only if there is a question open in the discourse of the form *to whom did Ravi give a toy?*, that Ravi gave a toy to Amra is a live alternative and there is at least another live alternative.

Let us now add *kya*, (69). We argued above that *kya* is a focus sensitive particle. For the sake of simplicity we take an approach to focus sensitive particles in which they may appear in different places in the clause but their appearance in the surface simply signals the pressence of an operator in the clause that takes propositions as arguments (see Hirsch 2017). This allows us to keep a single semantics for *kya*

[31] This "null alternative" is not itself a focus alternative.

[32] Notice that SalientAlts(Φ) is indeed the Question Under Discussion (QUD), the question that participants agree to pursue in their quest to understand what the world looks like. The QUD is crucially shaped by focus (formalized in the Roothian tradition; Roberts 2012) and, following Biezma (2020), may also include the null alternative. Biezma (2020) builds on observations in Abusch (2009) and Stalnaker (2014) i.a. on the contextual licensing of the null-alternative as an answer to the question (i.e., on the context dependence of the so called 'existential presupposition' often arising in interrogatives).

[33] The constraint on there being more than one live alternative is relaxed in Biezma and Rawlins (2017a) to deal with rhetorical questions. We do not dwell on this here.

[34] As illustrated in (68), in this system, non-*wh*-interrogatives are subquestions of higher questions, which can be represented by *wh*-interrogatives in which the *wh*-word evokes alternatives parallel to the focus in the POLQ (see, e.g., Biezma 2009, Biezma and Rawlins 2012, building on Roberts 1996/2012).

while the surface appearance is constrained in an independent manner (see Hirsch 2017, Ch. 6 for comparison with other approaches).Nothing in our proposal, however, depends on this. Notice also that the interpretation of an utterance in (69) is made relative to a context c. We do not develop this further but the aim is to make clear that in embeded environments contextual variables such as the attitude holder or the time of evaluation shift.[35]

(69) $[\![[_Q[kya\ [\sim \Phi]]]]\!]^o_c = [\![[_Q \sim \Phi]]\!]^o_c$

defined only if it is compatible[36] with cs that

$\exists m_1,\ m_2 \in \text{SalientAlts}(\Phi), m_1 \neq m_2,\ m_i \cap Dox_{x,t,w} \neq \emptyset$ for all $i \in \{1,2\}$, where w is the world of evaluation of context c, t the time of c, and x the attitude holder in c.[37]

PARAPHRASE: An utterance with *kya* has the meaning of the utterance without *kya* but imposes the condition that the context is compatible with there being different possible answers compatible with the attitude holder's doxastic alternatives (i.e., with the attitude holder being 'uncertain').

The denotation in (69) underlines the difference between the alternatives live in the context of utterance and the alternatives the attitude holder considers live alternatives. E.g., there may be a discrepancy between what the speaker considers to be possible/live and what is mutually accepted by participants in the context of utterance (private beliefs vs. common ground). See (48), where the speaker is convinced that Ravi did not give anything to Amra: while the speaker considers that the answer to the question is that Ravi didn't give anything to Amra (but lacks evidence and, hence, uses the question to check), this is not something that participants have already publicly mutually accepted (it is not in the CG) and, hence, cs is compatible with other alternatives.[38]

According to (69), *kya* is a focus sensitive operator (its semantic contribution refers to the set of salient alternatives, mainly focus alternatives, (65)). As shown in §2.2, its distribution in the clause matches that of other focus sensitive operators (recall, e.g., the distribution of English *only*; see Erlewine 2014 or Hirsch 2017 for a recent overview and crosslinguistic comparison). Different proposals for focus sensitive operators constrain this differently and, e.g., in Hirsch's system, this is done via an Agree operation and mediated by the phonology. Nothing in our proposal hinges on this and we have nothing to add to this matter here. Let us illustrate with (70), from (44) above, how (69) works:

[35]In matrix contexts the attitude holder is by default the speaker and t the time of utterance. In embedded contexts contextual variables shift, e.g., the attitude holder is bound by the subject and the time of the attitude by the predicate's tense. We leave the mechanism open here (see, e.g., Pearson 2020 or Anand and Korotkova 2022 for a recent overview of analytical options).

[36]Notice that this is weaker than presupposition: we do not require entailment by cs, in which case in all worlds in cs the attitude holder is uncertain, but rather compatibility: in some worlds the speaker is uncertain and in others they may not be uncertain.

[37]The definedness conditions are equivalent to the 'cs not entailing that the speaker is certain'. We prefer the non-negative phrasing.

[38]Notice also that (69) does not require that the content proposition in the utterance be amongst the alternatives that the attitude holder considers a live alternative. According to (69), the only constraint imposed by *kya* is that the attitude holder believe there is more than one live alternative.

(70) Context: I couldn't attend my little niece Amra's birthday party but you were there. Ravi was also attending. Despite his promising every year that he would give kids books as presents, he always brings toys.

Me: So, what did Ravi bring in the end? **I'm sure** he gave a toy to Amra despite saying that he would bring a book. C'mon, tell me,

(i) ✓ rɑvi=ne amra=ko kʰILONA di-ya?
Ravi.M=Erg Amra.F=Dat toy.M.Sg.Nom give-Perf.M.Sg
'Did Ravi give a toy to Amra?'

(ii) # rɑvi=ne amra=ko *kya* kʰILONA di-ya?
Ravi.M=Erg Amra.F=Dat *kya* toy.M.Sg.Nom give-Perf.M.Sg
'Did Ravi give a toy to Amra?'

The case of (70i) is just a polar question and its meaning is just as in (68) above. In (70ii) we have *kya* and the definition in (69) delivers the following meaning (we omit the context c for simplicity; recall from above that *kya* is high in the interpreted structure following Hirsch 2017 i.a.).

(71) $[\![[_Q kya[\sim$ [rɑvi=ne amra=ko k^hɪlona$_F$ diya]]]$]\!]^o$=
$[\![[_Q \sim$ [rɑvi=ne amra=ko k^hɪlona$_F$ diya]]$]\!]^o$, defined only if it is compatible with cs that
$\exists m_1,\ m_2 \in \text{SalientAlts}([\text{rɑvi=ne amra=ko } k^h\text{ɪlona}_F \text{ diya}]), m_1 \neq m_2,$
$m_i \cap Dox_{x,t,w} \neq \emptyset$ for $i \in \{1,2\}$

For the sake of illustration, let us further spell out a rough paraphrase for this denotation:

(72) $[\![[_Q kya[\sim$ [rɑvi=ne amra=ko k^hɪlona$_F$ diya]]]$]\!]^o$=
(meaning of PolQ) $[\![[_Q kya[\sim$ [rɑvi=ne amra=ko k^hɪlona$_F$ diya]]]$]\!]^o$
(meaning of *kya*) defined only if the CG is compatible with the speaker believing that there are at least two live alternatives in the set of salient alternatives concerning what Ravi gave to Amra.

The meaning of the PolQ with *kya* thus imposes that cs be compatible with the attitude holder entertaining that there is more than one live alternative amongst the salient alternatives. As pointed out above, the salient alternatives refer to what is mutually accepted by participants at the time of the utterance, but the speaker may very well hold different (private) beliefs. In (70), even though it has not been mutually accepted yet that Ravi gave a toy to Amra (the context set is compatible with different options), the speaker is convinced that Ravi gave Amra a toy. That is, that Ravi gave Amra a toy is the only live alternative from the set of salient alternatives in the context of utterance compatible with the attitude holder's beliefs. A PolQ can be asked here to confirm their beliefs and put everybody on the same page, but the utterance with *kya* is infelicitous and our proposal rightly predicts so: assuming that acceptance is sequential, it is a contradiction to ask participants to accept that the speaker's attitude is settled for p, and then require that cs be compatible with the speaker entertaining several alternatives. The same happens in (46) and (48), where *kya* is rightly predicted to be infelicitous. On the other hand, in

(45), (47), and (49), in general, with examples in which the speaker is entertaining more than one possibility, *kya* is rightly predicted to be good.[39]

The reader may wonder whether our proposal predicts that when the attitude holder is uncertain *kya* should be used (its absence may lead to the inference that the speaker is not uncertain; we thank X for bringing up this issue). Notice that *kya* does not have an overt lexical competitor. In this way *kya* is comparable to, e.g., *even*, which, in a classic analysis, presupposes that the prejacent be the least expected alternative, or to *then*, which in *if p, then q* enforces that p and q be causally related. Their absence, however, does not trigger the inference that the proposition is not the least expected alternative or that p and q are not causally related respectively. Similarly, the absence of *kya* does not trigger the inference that the speaker is certain.

On a different matter, let us point out that in our proposal the distribution of *kya* in AltQs is not problematic. Since it is a focus sensitive particle, its distribution within the disjunct is constrained in the same manner as in other clauses.[40] Additionally, given that by the second disjunct the speaker has already indicated that they are entertaining different alternatives, the use of *kya* is, at this point not necessary and may leave us wondering why the first disjunct was not marked. This explains native speakers' intuitions that *kya* in the second disjunct in alternative questions appears too late (see the discussion on pg. 19 above). Two *kya*s are just redundant.

Let us now turn to the other puzzles presented by *kya*. In §3.1 we show how our proposal accounts for the behavior of *kya* in embedded contexts and in §3.2 we explain the behavior of *kya* in contexts involving disbelief and sarcasm. Finally, in §3.3 we present some thoughts on why *kya* can only appear in non-*wh*-interrogatives and the relation between *kya* and KYA.

3.1 Accounting for the selection puzzle

Our proposal in (69) also explains the selection puzzles. The first puzzle was related to the unavailability of *kya* in clauses embedded under responsives. We saw in §2.1 above that WhQs and *kya*-less AltQs can embed under 'know'. However, interrogatives with *kya* cannot: AltQs with *kya* cannot embed under 'know' even though AltQs can embed and *kya* is possible in matrix-AltQs. We argued in §2.1 that B&D's size solution is not suitable, since it left unexplained why interrogatives with *kya* can embed under 'not know', 'know' with future marking, 'know' with imperative marking and 'want to know', as well as under other responsive predicates like 'forget'.

There are different theories regarding the semantics of embedding predicates, and, in particular, of responsives (see, e.g., Uegaki 2019 for a recent survey article).

[39] In a refinement of B&D, Dayal (2020) places *kya* in a projection that introduces a perspectival center, namely the individual for whom the question is 'active'. The *kya* is placed in this projection and one may wonder whether Dayal's proposal differ from the one presented here regarding uncertainty. Besides the arguments provided above regarding why B&D's syntactic approach does not explain the distribution of *kya* within the clause and in embedded contexts, placing *kya* in this perspectival position by itself does not capture the contrast between PolQs with and without *kya*. Dayal also places in that position all other markers of interrogativity, namely, subject-auxiliary inversion and matrix intonation. Hence, even though if we were to place *kya* in a perspectival position, one would still have to give it a specific semantics like the one we are providing here to capture the differences between PolQs with and without *kya* and to encode the relation with focus.

[40] The reader is referred to, e.g., Meertens et al. (2019) for discussion on focus marking and AltQs. Meertens et al. offer the following representation of AltQs, where ϕ and ψ are full syntactic clauses, i.e. TPs ($[_Q[\sim \phi]$ or $[\sim \psi]]$). The set of salient alternatives evoked by each disjunct has to be the same for the AltQ to be felicitous, warranting constraints regarding parallelism in the focus structure of the two disjuncts.

We do not have anything to add to the discussion here. Ultimately, what matters to us is that in all approaches, knowing a question (roughly) amounts to knowing the answer. An attitude holder that knows the answer is *certain* in the sense that is relevant here.[41]

With these assumptions, *kya* is predicted not to be licensed in the complement of 'know', since when the attitude holder *knows*, they are certain, i.e., only one alternative from the set of salient alternatives is compatible with their doxastic alternatives. Given that under our analysis *kya* conventionally signals that the attitude holder is uncertain (there are different contextually salient alternatives compatible with their doxastic alternatives), it follows that *kya* is simply not possible in these contexts.

At the same time, our proposal correctly predicts that *kya* is licensed with responsives in the presence of future marking ('will know'), negation ('doesn't know') or imperatives (≈'get to know!') (cf. the discussion around (23)), as well as under antirogatives (like 'think') with the progressive (see (24) above): in all these cases there are several alternatives compatible with the attitude-holder's beliefs and, hence, *kya* is licensed in these contexts.

3.2 Accounting for *kya* in marked contexts

So far, our proposal for *kya* explains its distribution in polar and alternative interrogatives as well as in embedded contexts and is able to solve several of the major puzzles introduced in the previous literature. A crucial component of our analysis is that *kya* conventionally requires that *cs* be compatible with the attitude holder being uncertain. This also explains why *kya* cannot appear in questions in which the answer is entailed by *cs*, as in (50). This case was left unexplained in B&D.

(50) a. ɑre, (#*kya*) tʊm yɑ=hĩ ho?
oh *kya* you.Nom here=only be.Pres.2
'Oh, you are still here?'

b. ɑre, (#*kya*) tʊm gɑ-ye nahĩ?
oh *kya* you.Nom go-Perf.M.Pl not
'Oh, you didn't leave?'

In our proposal *kya* in (50) is infelicitous because *kya* in (50) requires that *cs* be compatible with the speaker being uncertain about the answer to the question, but this is not possible in the utterance situation, since it is a manifest event that the addressee is in front of them (see ftn. 24) and, thus, *cs* is incompatible with the attitude holder being uncertain.[42] Our proposal rightly predicts that in these contexts *kya* is not licensed. However, when the context does not entail the answer (even if

[41] Much of the literature on embedding responsive predicates is concerned with how to provide a compositional semantics that allows these predicates to embed either interrogatives or declaratives without assuming ambiguity (e.g., without assuming that there are two entries for *know*). For some approaches this is not a problem, since they do not assume that declaratives and interrogatives differ in their semantic type (see, e.g., Theiler et al. 2018 and literature therein). This is also the assumption adopted here.

[42] In connection with our discussion in §2.4.2, notice that bias towards an answer (i.e., considering that an answer is more likely) is not the same as CG entailing 'certainty'. Being biased is weaker. Observe (i) (offered by a reviewer to argue against our uncertainty proposal):

(i) Context: Arin has been talking about leaving for a while now to Bobby but hasn't actually done it. Bobby has tried to change Arin's mind several times but he seems very firm about his resolve to leave. Bobby has been dreading the day when it happens; it can happen any day now. Today, Bobby comes home and sees a series of suitcases lined up against the wall. Bobby says to Arin:

it is heavily biased), the speaker could use *kya* to further add/emphasize a sense of incredulity (since *kya* indicates that their doxastic alternatives are (still) compatible with different alternatives, *kya* is used to emphasize that, despite the evidence, the speaker finds it difficult to accept the contextually favored answer and is willing to entertain the possibility of an alternative answer). This is the type of situation that we observe in the examples below, which have been taken from Bollywood movies.[43] In (73) the speaker expresses surprise and incredulity at him being allowed to marry his love after major and serious resistance throughout the movie, in (74) the speaker expresses surprise that his wife would misjudge the situation so badly.

(73) The speaker is told that the addressee can marry whoever he wants, which is very hard to believe given the previous discussions.

kya ye sɑtʃ hɛ?
kya this true be.Pres.3.Sg
'Could this be true?' *Socha Na Tha*

(74) The speaker is being asked to go help out his brother-in-law, but is trying to explain to his wife that his help will not be welcomed because he is perceived as an enemy.

tʊm *kya* jan-ti nɑhĩ ho bʰai=ko?
you.Nom *kya* know-Impf.F.Sg not be.Pres.2.Sg brother.M.Sg=Acc
'Don't you know your brother?' Script of *Ankhon Dekhi*

The context may be biased, but in both (73) and (74) above, there is room for the speaker still entertaining that the alternative that seems likely is not true and they indicate that they still entertain this alternative possibilities by using *kya* (see also ftn. 42). In the same way, *kya* is also very effective for conveying sarcasm in rhetorical questions, i.e., to help the speaker convey that they are pretending not to know the answer to a question in contexts in which it is mutually accepted by all participants that the opposite is the case (i.e., to flout quality à la Grice). This

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Bobby: tʊm ja rɑh-e ho *kya*?
you.Nom go Prog-M.Pl be.Pres.2 *kya*
'*kya*+Are you leaving?'

The reviewer argues that the only alternative live in the speaker's doxastic domain in (i) is that Arin is leaving and thus our proposal would predict that *kya* is not possible. Notice however the contrast with (ii), differing from Bobby's utterance in (i) in that in (ii) Bobby commits to an answer, i.e., expresses his certainty (again, 'I'm sure' is to be translated as *mʊjʰe yakin hɛ ke*... 'I have a strong belief that...' or *mʊjʰe puri tarah=se lagta hɛ ke*... 'It seems fully clear to me that...'):

(ii) You were trying to sneak out! **I'm sure** you are leaving. C'mon, confess it,
Bobby':# tʊm ja rɑh-e ho *kya*?
you.Nom go Prog-M.Pl be.Pres.2 *kya*
'*kya*+ Are you leaving?'

Since we are not privy to the speaker's beliefs, *kya* is possible in (i). In fact, speakers report that *kya* in this example provides an overtone of 'desperation' absent without it. This can be easily explained in our proposal: while the context is very much biased, by including *kya* the speaker signals that they are resisting accepting what the contextual evidence and holding on to the possibility of there being an alternative explanation, if slim. This is similar to what we see in (73), where *kya* adds 'incredulity': the difference between the two is that in (i) it's clear that the speaker prefers (/wishes) the content proposition to be false and in (73) they prefer it to be true). Importantly, in this very biased context, once Bobby expresses his certainty, (ii), *kya* is not licensed, which is unexpected if *kya* signals bias.

[43] Note that (74) only exists in a script version of the movie, not in the actual movie, but is judged to be good by native speakers.

is shown in (75), which is similar to B&D's (54a). We follow Biezma and Rawlins (2017b,a) (who build on Caponigro and Sprouse (2007)) and assume that rhetorical questions are questions conventionally conveying (via prosody or lexical items) that the answer to the question is entailed by the context set. Polar *kya* is common in rhetorical questions with a sarcastic flavor, as in (76).[44]

(75) Context: A is telling B how to behave in a situation. B says (with sarcasm):
B: tʊm mer-i ɑmmɑ̃ ho *kya*?
you.Nom my-F.Sg mother.F.Sg.Nom be.Pres.2 *kya*
'Are you my mother?'

(76) Our hero wants to get out of marrying his intended and begins to plot a scheme under which the bride, who is actually very keen on the wedding, would call off the wedding herself. His best friend says:
tu pagɑl hɛ *kya*?
you.Fam.Nom crazy be.Pres.3.Sg *kya*
'Are you crazy?' *Socha Na Tha*

Of course, in all these cases the *kya*-less version is also possible, but the inclusion of *kya* in (73) and (74) helps to bring across the speaker's incredulity (marking that the speaker is resistant to settle for a particular answer and is still entertaining several possibilities). In (75) and (76), contexts in which it is mutually accepted by participants that the answer is entailed by the context set, *kya* helps to bring about sarcasm (i.e., to indicate that the speaker is flouting quality by conveying the opposite to what is the case, namely, to convey that the speaker believes that there are several live alternatives while it is mutually accepted that they are indeed certain of what the answer is). This pretense leads to rudeness, as expected, in some contexts in which the answer is entailed by *cs* but the speaker pretends it is not:

(77) You have a friend who is an egocentric drama-person, always deeply troubled by the most insignificant thing. You run into each other at the bus stop, your friend looking pale and obviously in distress:
You: koi prɑblem hɛ *kya*?
some problem.Nom be.Pres.3.Sg *kya*
'Is there a problem?'

Given the information available in the utterance situation in (77) together with the evidence (the addressee is in obvious distress), *kya* can only be interpreted as adding a hurtful sarcastic overtone that is hard to ignore. This would not have been the case without *kya*. In the latter case you would have merely been inviting your friend to talk about their problems if they liked.

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[44] Not all rhetorical questions need to be sarcastic (adapted from Caponigro and Sprouse 2007):

(i) A: I don't understand why Morgan voted for Taylor.
B: Well, after all, who hired Morgan? / is Taylor in charge of promotions?
A: Taylor! You are right!/ You are right!

B's utterance is intended as a rhetorical question and, while it could be uttered with the prosodic features that would elicit a sarcastic reading, this is not necessarily the only possibility. B can use a rhetorical question to point at the relevant fact that explains the situation without necessarily using sarcasm (i.e., without going the extra mile to pretend ignorance). The equivalent Urdu/Hindi PolQ, *Taylor promotions committee ka head hɛ?* 'Is Taylor the head of the promotions committee?', assuming the answer is entailed in by the context set, namely, it is a rhetorical question, acquires a sarcastic overtone if *kya* is added.

Conversely, the presence of *kya* can also contribute to the overall 'politeness' of the utterance. Speakers report that when asking for a favor from a neighbor or a friend, using *kya* allows the speaker to convey that the addressee is free(-er) to accept or decline doing the favor:

(78) *kya* tʊm mʊj^{h}e ɛrport le ja sɑk-t-e ho?
kya you.Nom I.Obl airport take go can-Impf-M.Pl be.Pres.2
'Could you take me to the airport?'

In our proposal, all these effects (surprise, sarcasm, politeness) are merely a byproduct of the meaning of *kya* in the different utterance situations.

3.3 Possible paths towards explaining *kya*'s restriction to PolQs

Our proposal offers a very simple account of *kya* explaining a wide range of data. It allows us to explain the behavior of *kya* in embedded contexts, alternative questions and also why it is used to convey sarcasm or to add to the overall sense of incredulity in some contexts or politeness in others. The proposal presented above does not explain by itself, however, why *kya* can only appear in non-*wh*-interrogatives. We cannot provide a definitive answer to this question but can advance some possible ways to move forward in future investigations.

Regarding the impossibility of *kya* in declaratives, one possible explanation is of historical nature. As noted in §2, *wh*-KYA is the accented counterpart of (polar) *kya*. The preferred position for KYA is the immediately preverbal position (Butt et al. 2017):

(79) ɑnu=ne uma=ko KYA [di-ya]$_{L\%}$?
Anu.F=Erg Uma.F=Dat what give-Perf.M.Sg
'What did Anu give to Uma?'

It is important to notice that, unlike in other languages such as Japanese and Tlingit, where interrogative-*wh*-words and indefinites have the same or overlapping (surface) form (see e.g., Kratzer and Shimoyama 2002; Cable 2010; Uegaki 2018), in Urdu/Hindi this is not the case. The words for *some, something, someone* or *somewhere* are unrelated (they are *kʊc*^{h}*, koi tʃiz, koi* and *kahĩ*, respectively). Hence, *wh*-KYA is a word that only appears in the syntactic-semantic environment of interrogatives. This leads us to speculate that KYA is a form licensed only in interrogative clauses, however this is cashed out in a given framework. What about *kya* then? There should be a connection between the *wh*-word and the uncertainty meaning in polar *kya*. We have not conducted a diachronic investigation but a hypothesis left for investigation is that *kya* has historically developed from the original *wh*-word via a process of grammaticalization from a more to a less referential meaning (see, e.g., Traugott 1982; Traugott and König 1991; Traugott 1995; Hopper and Traugott 2003). Under this scenario, the original *wh*-word would have extended its meaning to become a focus-marker in polar questions, assuming pragmatic attributes. This new use is, of course, still clearly related to the *wh*-word status: *wh*-words are the focus element in *wh*-interrogatives and, at the end of the day, bring into the semantic derivation live alternatives in the context of utterance. In the case of polar *kya* we have a focus particle, a particle that associates with the focused element and that

evokes alternatives relevant for the interpretation. Under this diachronic perspective the reason why *kya* only appears in interrogatives could be that this is the only environment in which we find the original *wh*-KYA.

This hypothesis, however, leaves open the question as to why in this historical development the interrogative-environment constraint was not lifted, allowing us to have *kya* in non-interrogative clauses. We do not have an answer to it, although we may speculate that this end result would be achieved down the line in the historical change. We are just not there yet. As for why, amongst all the *wh*-words in interrogatives, 'what' is the one that extends to become a focus particle, a possible answer is that this is the least marked (/least constrained) of all the *wh*-words (other words are marked for, e.g., person, place, location or time; see Biezma and Rawlins 2017a for a similar argument for *what* in 'or what' questions).

One could consider an alternative proposal for the impossibility of *kya* in declaratives.[45] In essence, the proposal could be that if a sentence with declarative mood comes with an assert operator and this entails the speaker's commitment to the content proposition, the inclusion of *kya* would be contradictory (since it conveys that the speaker considers different possibilities to be live). While this alternative goes away from the connection with KYA it presents very exciting questions that would need further future research. This idea could be implemented in different ways but its implementation would need to address empirical questions. It would also require the adoption of theoretical assumptions that, as of now, are far from settled in the literature on speech acts in philosophy of language and in linguistics. First, starting with the empirical concerns, different recent proposals treat evidentials as having the effect of weakening the commitment to the content proposition in the declarative (see, e.g., Murray 2014; see also AnderBois 2014; Murray and Starr 2021) and it is not clear why *kya* could not serve this function (which would predict, contrary to fact, its licensing in declaratives). Second, it is not clear that utterances of plain declaratives entail by default the speaker's commitments to its content. A declarative could, for example, be used to express a guess (imagine A and B are playing a game of guessing where Sita is on vacation: *A: Sita is on vacations again. Do you know where? Make a guess; B: Pff! Ok, Sita is in Lahore. I don't know, she could be anywhere.*) Conflating sentence mood (that the sentence is a declarative) and utterance force (how utterance types change the context) has been argued against in the literature (see Murray and Starr 2021 for a recent overview). In recent literature on speech acts, utterance force is considered to be a pragmatic process taking sentential force (however it is determined by sentential mood) as input. Additionally, adopting this alternative explanation would also force us to make assumptions regarding speech acts in general and, furthermore, in embedded contexts. This is currently the subject of much debate (see, e.g., Krifka 2014; Roberts 2018; Murray and Starr 2021 for different takes on the matter). We leave all these questions for future research.

So far we have seen two possible lines for an investigation of the impossibility of *kya* in declaratives. We still need to say something about why, within interrogatives, *kya* cannot appear in *wh*-interrogatives. One answer to this question could be that having *kya* in a *wh*-interrogative would lead to an incoherent focus marking. Let us take the example in (80):

(80) #rɑvi=ne *kya* AMRA=KO KYA di-ya?
Ravi.M=Erg *kya* AMRA.F=DAT what give-Perf.M.Sg

[45] We thank two anonymous reviewers for pointing out this possibility.

The focus element in the *wh*-interrogative is the *wh*-word and the question put forward (without *kya*) would be equivalent to *What did Ravi give to* AMRA*?* Namely, without *kya*, the sentence in (80) would be interpreted as asking about what Ravi gave to Amra amongst the set of people contextually salient to whom Ravi could have given something. However, with *kya*, according to our definition in (69), the utterance of (80) could have two interpretations depending on whether *kya* associates with the *wh*-word (which is naturally focused), in which case *kya* would be superfluous, or with the secondary focus AMRA. In this last case, the utterance would be taken to simultaneously convey that the question the speaker is trying to answer is what Ravi gave to Amra (just the *wh*-question) and, because of the association of *kya* with Amra and not the *wh*-word, the question regarding to whom Ravi gave x, for some contextually salient x. There would be, then, two different questions that the utterance would be taken to be ultimately addressing! These two questions cannot be, at the same time, the question open in discourse that the utterance tries to address.[46] However, for this explanation to really work one would need to posit that the *kya*-alternatives cannot be nested: *kya* should not be possibly understood as associating with a secondary focus leading to an interpretation in which (80) is a question within a larger strategy to answer a complex question, e.g., a question like *To whom did Ravi give what?* (see Constant 2014 for a way to derive such meanings in the case of contrastive topics).[47] Additionally, *kya* could still associate with the *wh*-word without bringing about incoherent focus marking. This is a logical possibility and we do not have an explanation for why this is not available. As above, one may speculate that in the historical development of *kya* we have not reached that point yet and maybe this will be a future development (thanks to Y for this suggestion). This remains here as a speculation.

4 Concluding remarks

Polar *kya* is not the only focus sensitive particle reported in polar questions across languages. We leave open the possibility that our analysis can be extended to other particles in South Asian languages upon further investigations. However, for the sake of completeness and to show that there are particles similar to *kya* in languages from other families, we review the behavior of the Bulgarian enclitic *li* (not to be confused with the particle *dali*) from Dukova-Zheleva (2010). Dukova-Zheleva's (2010) description of *li* is very rich and, studied under our lens, it paints an empirical picture closely resembling *kya*'s regarding its focus association properties and it's specialization on specific clauses.[48]

Dukova-Zheleva (2010) argues that in Bulgarian the enclitic *li* is focus sensitive and relates the interpretation of the question to the contextually restricted set of alternatives evoked by focus. While Dukova-Zheleva's (2010) proposal for *li* is different from our proposal for *kya*,[49] the description of the data allows us to observe

[46] Put differently, there cannot be two different QUDs the question is trying to answer. See ftns. 32 and 34 above.

[47] Other questions in such strategy (sisters to (80)) would be, e.g., questions equivalent to *what did Ravi give to Sita?*, *wat did Ravi give to Anu?*, etc. Answering the complex question amounts to answering all the (sister) subquestions.

[48] The reader is referred to Dukova-Zheleva (2010) for differences between Bulgarian, Russian and Serbo-Croatian.

[49] Dukova-Zheleva (2010) argues that in Bulgarian *dali* is the spell-out of the regular question operator Q: it combines with a proposition and returns the set formed by that proposition and its opposite (following the classic non-singleton approach to polar questions in the Hamblin-semantics tradition). In contrast, Dukova-Zheleva (2010) argues that *li*-interrogatives spell out a

striking similarities with *kya* and its relation with focus. We frame the discussion of the data in Dukova-Zheleva (2010) below in the terms of the discussion on *kya* above to facilitate comparison (we leave for future research a more detailed comparison between *kya* and *li*).

The examples below are adapted from Dukova-Zheleva (2010) (SMALLCAPS in the utterance indicate prosodic stress). The enclitic *li* appears to the right of the focus.

(81) Narrow focus *li* interrogatives:

a. A: RISUVA *li* Ivan vseki den?
Draw *li* Ivan every day?
'Does Ivan draw every day or he does something else?'
B_1: Yes, he does (draw every day).
B_2: No, he WATCHES TV every day. (or does something else, depending on the context)

b. A: IVAN *li* risuva vseki den?
Ivan li draw every day
'Is it IVAN the one who draws every day?'

c. A: VSEKI DEN li risuva Ivan?
Every day li draws Ivan
'Is it EVERY DAY that Ivan draws?'

(82) Broad focus *li* interrogatives:

A: Ivan risuva vseki den li?
Ivan draws every day li
'Does Ivan draw every day?'
B: Yes, he does (draw every day). / No, he does not (draw every day).

In (81a), according to Dukova-Zheleva, a response of the kind 'no, Ivan doesn't draw everyday' would compel A to continue asking about other things that Ivan may do daily (the issue that we understand A to be trying to resolve is which, amongst the contextually salient things, Ivan does everyday). That, is, we understand that (81a) is a sub-question of a question equivalent to *what does Ivan do everyday?*, (e.g., the set containing the proposition that Ivan draws everyday; that Ivan goes for a walk every day, etc.). Similarly, (81b) is possible in contexts in which we can understand that the issue that the speaker is trying to address is equivalent to *who draws everyday?* and in (81c), the question A tries to resolve is equivalent to *when does Ivan draw?* In contrast, (82) is a sub-question of a question whose answers may vary on all aspects (e.g., the set of possible answers could contain that Ivan draws everyday; that Ivan visits his grandma on Sundays; etc.), a broad focus question.

In sum, *li* behaves very much like *kya* in its relation with focus. There are, however, differences between *li* and *kya*. For example, *kya* can only appear in polar interrogatives while *li* can also appear in the antecedent of conditionals.[50]

This said, while a full comparison between *kya* and *li* regarding their interpretation is beyond the scope of this paper, crosslinguistic differences are expected. The

different question operator in Bulgarian, one that is focus-sensitive. In Dukova-Zheleva's system, this operator combines with a set of propositions, namely, those propositions in the focus value of the utterance that are contextually salient.

[50]That a particle so tied to questions such as *li* appears also in conditionals is not surprising. As Dukova-Zheleva (2010) points out, the link between conditionals and questions has already been acknowledged in the literature (the reader is referred to Harman 1979; Larson 1985; Kayne 1991; Cheng and Huang 1996; Lasersohn 1996; Romero 2000).

only important thing for us here is to show that focus sensitive particles specialized in specific clauses are attested in other languages.

Overall, our proposal for *kya* succeeds at explaining speakers' intuitions with respect to *kya* in matrix contexts and in embedded contexts. We crucially capitalize on data that was left out unexplained as somehow 'quirky', but also on contexts in which *kya* contributes to trigger additional inferences. It was paying attention at these quirky cases what allowed us to paint a clear and simple picture of what *kya* is and what *kya* does.

Further work will be necessary to see whether the analysis presented here for *kya* can be extended to account for related particles in other related languages such as Oṛiya and Bangla. Syed and Dash's (2017) description of what they term polar *ki* (following B&D's label for *kya*) seems not to be far from what we have seen here for *kya*. This said, it would not be surprising if cross-linguistic differences were found and, in fact, *ki* in Oṛiya and Bangla is an enclitic (like Bulgarian *li*), unlike *kya*. The investigation of potential cross-linguistic differences would contribute to our understanding of these particles and their historical development.

Abbreviations

Acc = accusative; Com = comitative; Dat = dative; Erg = ergative; F = feminine; Fam = familiar; Fut = future; Gen = genitive; Hon = honorific; Imp = Imperative; Impf = imperfective; Inf = infinitive; M = masculine; Neg = negation; Nom = nominative; Obl = oblique; Perf = perfective; Pl = plural; Pres = present; Prog = progressive; Pron = pronoun; Past = past; Sg = singular; 2= second person; 3 = third person.

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