Chapter 8

A note on bias and polarity in Vietnamese

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Vietnamese has two types of NPIs, simple and complex, and two types of polar questions, yes/no questions and agreement questions. Simple NPIs can occur in both types of polar questions while complex NPIs can occur in yes/no but not in agreement questions. I propose an account for this fact using familiar ingredients of semantic and syntactic analyses. I then discuss some ways in which Vietnamese and English differ with respect to how distinctions in meaning align with distinctions in form.

1 Observations

This section describes the differences with respect to distribution and interpretation between two types of NPIs across two types of polar questions in Vietnamese.

1.1 Two types of polar questions

I will use the term *polar questions* to describe questions which ask for the truth value of a single proposition. In other words, polar questions are those which are answered felicitously by assertion of a proposition or assertion of its negation. Vietnamese has two variants of polar questions. The first, which I will call *yes/no questions*, involves bracketing the predicate of the sentence with the words *có* and *không* (Trinh 2005, Duffield 2007). I will gloss *có* and *không* as POS and NEG, for reasons which will be clear shortly.

(1)   a. John đọc Kant
           John read Kant
           'John reads Kant.'

       b. John có   đọc Kant không?
           John POS read Kant NEG
           'Does John read Kant?'

I will call (1a) the *prejacent* of (1b). More generally, the prejacent of a yes/no question will be (the proposition expressed by) the sentence derived from the question by removing POS and NEG. Let us now briefly discuss POS and NEG outside the context of a yes/no question. In declaratives, POS and NEG are the positive and the negative auxiliary, respectively.[1]

(2)   a. John có   đọc Kant
           John POS read Kant
           'John does read Kant.'

       b. John không đọc Kant
           John NEG   read Kant
           'John does not read Kant.'

These words are also used as the positive and the negative short answer to yes/no questions. The question in (1b) can be answered with either *có* (POS), which would mean John does read Kant, or *không* (NEG), which would mean John does not read Kant. We can analyze these short answers as (3a) and (3b), which are eliptical sentences with everything but the auxiliary elided (Holmberg 2016, Krifka 2013).

(3)   a. ~~Nam~~ POS ~~read Kant~~
       b. ~~Nam~~ NEG ~~read Kant~~

The other type of polar questions in Vietnamese is constructed by appending the discourse particle *à* to the end of a declarative sentence (Trinh 2010).

(4)   a. John đọc   Kant à?
           John reads Kant A
           'John reads Kant?'

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[1]For arguments that POS and NEG are verbal see Trinh (2005). Verbal negation is attested across languages. Finnish is an example (Bobaljik 1994). Note that similarly to English emphatic *do*, POS appears only when the positive sentence bears verum focus. And similarly to English *not*, NEG is stressed when the negative sentence bears verum focus.

b. John không đọc Kant à?
    John NEG   read Kant A
    'John doesn't read Kant?'

I will call this type of polar questions *agreement questions*, and the (proposition expressed by) the sentence preceding A the "prejacent" of the agreement question. The term "agreement questions" is due to the fact that these questions can be described, intuitively, as asking the hearer whether she agrees with the prejacent. Thus, (4a) asks whether the hearer agrees that John reads Kant, and (4b), whether she agrees that John does not read Kant.

There are two strategies of answering an agreement question. I will call them the *congruent* strategy and the *non-congruent* strategy. The non-congruent strategy consists in answering the agreement question as if it were a yes/no question, which means answering it with either POS or NEG. Note that POS expresses a positive and NEG expresses a negative sentence independently of whether the prejacent of the agreement question is an positive or a negative sentence. Thus, no matter whether the question is (4a) or (4b), answering it with POS means asserting that John reads Kant, and answering it with NEG means asserting that he does not.

Recall that an agreement question asks the hearer whether she agrees with the prejacent. The "congruent" answering strategy, therefore, should express agreement or disagreement with the prejacent. To express agreement with the prejacent, the response particle *vâng*, which I will gloss as ARG, is employed. The closest translation of ARG is 'that's right', or 'that's correct'. Answering (4a) with ARG means asserting that John reads Kant, and answering (4b) with ARG means asserting that he does not, for example.

What if we want to express disagreement with the prejacent? In other words, what is the negative counterpart of ARG? It turns out that there is no such word: Vietnamese has a lexical gap. To convey disagreement with the prejacent of an agreement question, we would have to resort to the non-congruent strategy. Suppose the question is (4a), the disagreeing answer would be *không* (NEG), which means John does not read Kant. If the question is (4b), the disagreeing answer would be *có* (POS), which means John does read Kant. Thus, whereas yes/no questions have a positive and a negative short answer, agreement questions only have a positive short answer.[2]

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[2]Thus, *có* (POS) and *không* (NEG) express "absolute polarity" while *vâng* expresses "relative polarity" in the sense of Roelofsen & Farkas (2015). For descriptions of similar systems see Holmberg (2016), Maldonado & Culbertson (2023).

There is, I believe, a possible functional account of this asymmetry. The account will turn on another fact about agreement questions, namely that it is biased towards the positive answer (Trinh 2010). Suppose the speaker sees John with a copy of *The critique of pure reason* in his hand. In this context, the agreement question in (5a) is felicitous but the yes/no question in (5b) is not.

(5)   Context: the speaker sees John with *The critique of pure reason* in his hand.

    a.   John đọc Kant à?
         John read Kant A

    b. # John có   đọc Kant không?
         John POS read Kant NEG?

In the very same context, the agreement question in (6a) would be infelicitous, while the yes/no question in (6b) would be felicitous.[3]

(6)   Context: the speaker sees John with *The critique of pure reason* in his hand.

    a. # John đọc cả Hegel à?
         John read also Hegel A

    b.   John có đọc cả Hegel không?
         John POS read also Hegel NEG?

We learn two things from (5) and (6). First, if there is contextual evidence that ϕ, a polar question with prejacent ϕ is only felicitous when it is formulated as an agreement question. Second, if there is no contextual evidence that ϕ, a polar question with prejacent ϕ is only felicitous when it is formulated as an yes/no question. In other words, yes/no questions require the context to be "prejacent-neutral", while agreement questions require it to be "prejacent-biased".

I conjecture that the prejacent bias of agreement questions might contribute to the functional pressure on the grammar to have a short answer expressing agreement with the prejacent but no short answer expressing disagreement with the prejacent.[4]

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[3]Note that if the context is also such that reading Kant entails reading Hegel, (6a) would be fine. This proves the point I am making. I thank a reviewer for pointing this out.

[4]The idea that answers which agree with the prejacent of the question are preferred by the language system can be found in Roelofsen & Farkas (2015).

1.2 Two types of NPIs

Vietnamese is a language that build NPIs from wh-elements. For example, the word *ai*, as an interrogative pronoun, means 'who', but as an NPI, means 'anyone'. Similarly, *gì* means either 'what' or 'anything' (Bruening & Tran 2006). A non-negated declarative sentence would disambiguate such expressions towards the interrogative reading, while a polar question would disambiguate them towards the NPI reading.[5]

(7) a. John đang đọc gì
         John PROG read what
         'What is John reading?'

     b. 'Is John reading anything?'

         i. John có đang đọc gì   không
             John POS PROG read anything NEG

         ii. John đang đọc gì   à
             John PROG read anything A

This ambiguity extends to *which*-phrases. The Vietnamese word for *which* is *nào*, which combines with singular NPs. As Vietnamese is a classifier language of the East Asian variety, singular number is indicated by a classifier (Chierchia 1998, Trinh 2011). I will gloss the classifier as CL.

(8) a. John đang đọc quyển sách nào
         John PROG read CL   book which
         'Which book is John reading?'

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[5]Note that a negated declarative sentence would allow these expressions to be ambiguous between the interrogative and the NPI reading, as exemplified in (i).

(i) John không gặp ai
     John not   met who
     'Who did John not meet?' / 'John did not meet anyone'

  I use the term *NPI* to describe expressions denoting existential quantifiers whose occurrence is limited to environments that must be characterized semantically as involving negation in some sense. For the purpose of this particular discussion, I will take NPIs to be expressions that can be understood as existential quantifiers in polar questions and under negation, but cannot be so understood in non-negated declarative sentences. Thus, it is possible for something to qualify as an NPI even if its distribution turns out to differ from that of English *anything* with respect to other environments. I believe this terminological practice is common in the literature, and thank a reviewer for pointing out the need to make this clear.

   b. 'Is John reading any book?'

     i. John có đang đọc quyển sách nào không
      John POS PROG read CL book any NEG

    ii. John đang đọc quyển sách nào à
      John PROG read CL   book any A

In what follows, we will not be concerned with the interrogative reading of wh-phrases. For this reason, I will gloss CL+NP+NAO simply as "ANY NP".

NPIs in Vietnamese come in two morphological variants, simple and complex. Those we just discussed are the simple ones. Complex NPIs are built out of simple NPIs by prefixing the latter with the word *bất kỳ* (Trinh 2020), which I will gloss as BK.

(9) John có đang đọc bất kỳ quyển sách nào không
     John POS PROG read BK   ANY book   NEG
     'Is John reading any book at all?'

As indicated by the translation in (9), adding *bất kỳ* to the NPI in Vietnamese has a similar interpretive effect as adding *at all* to the NPI in English: it gives rise to the inference that the speaker is biased towards the negative answer, in the sense that she has more reasons to think that the negative answer is correct than to think that the positive answer is. In the case of (9), the inference would be that the speaker strongly suspects that John is not reading any book.[6] Simple NPIs, on the other hand, do not induce such negative bias. The question in (8b-i), for example, does not give rise to any inference about which answer the speaker strongly suspects to be correct.

Another difference between simple and complex NPIs pertains to their distribution across the two types of polar questions: whereas simple NPIs are acceptable in both yes/no and agreement questions, as shown by (10a), complex NPIs are acceptable in yes/no questions but give rise to deviance when they occur in agreement questions, as shown by (10b).

(10) Intended reading: 'Is John reading any book at all?'

   a. John có đang đọc bất kỳ quyển sách nào không?
      John POS PROG read BK   ANY book   NEG

   b. # John đang đọc bất kỳ quyển sách nào à?
      John PROG read BK   ANY book   A

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[6]Note that I am describing the effect of *at all* in canonical, non-negated English yes/no question containing an NPI, as exemplified by the translation of (9). It was pointed out to me that *at all* can occur in a high negation question, e.g. *Isn't John reading any book at all?*, which gives rise to a *positive* speaker's bias (Dan Goodhue p.c.). I have nothing to say about this fact.

2 Analysis

We have seen that Vietnamese polar questions come in two variants, yes/no questions and agreement questions. Yes/no questions are prejacent-neutral while agreement questions are prejacent-biased. We have also seen that NPIs in Vietnamese come in two variants, simple and complex. Simple NPIs are acceptable in both yes/no and agreement questions. Complex NPIs are acceptable in yes/no questions but cause deviance in agreement questions. In yes/no questions, complex NPIs give rise to negative bias while simple NPIs do not.

The present section will be devoted to an analysis of these facts.

2.1 Introducing WHETHER

For the purpose of this paper I will assume a simplified version of the analysis proposed in Hamblin (1973), Karttunen (1977). Let us define two functions. The first is YES, the identity function, and the second is NO, the negation function.
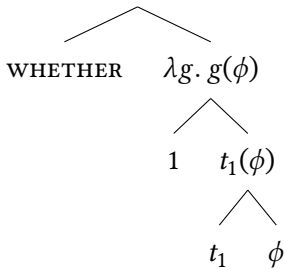
(11)   a.   YES $=_{\text{def}} \lambda p \in D_{st}. \ p$
       b.   NO $=_{\text{def}} \lambda p \in D_{st}. \ \neg p$

We will say that a function f of type $\langle st, st \rangle$ is a "polarity", i.e. that $polarity(f)$, if f is either YES or NO. For polar questions, I assume the presence of a (overt or) covert WHETHER (Bennett 1977, Higginbotham 1993, Krifka 2001, Guerzoni & Sharvit 2014).

(12) $[\![\text{WHETHER}]\!]$
       $= \lambda Q \in D_{\langle \langle st,st \rangle, t \rangle}. \ \lambda p \in D_{st}. \ \exists f \in D_{\langle st,st \rangle}. \ polarity(f) \wedge p = Q(f)$
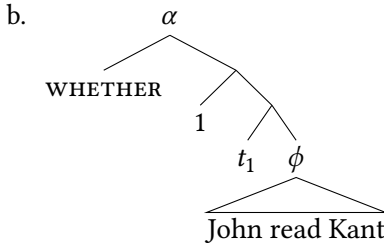
The base position of WHETHER is above TP. When it moves, it leaves a trace of type $\langle st, st \rangle$. Predicate abstraction proceeds in the familiar way.

(13) $\lambda p. \ \exists f. \ polarity(f) \wedge p = f(\phi)$

I will assume that at the relevant level of analyis, a yes/no question in Vietnamese whose prejacent is ϕ has the logical form [WHETHER ϕ]. Thus, the question in (1b), reproduced below in (14a), has the logical form in (14b), which denotes the set in (14c).

(14) a. John có đọc Kant không?
    John POS read Kant NEG

b.

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              α
           /     \
   WHETHER        \
              /    \
             1      \
                 /    \
               t₁     φ
              /‾‾‾‾‾‾‾‾\
             John read Kant
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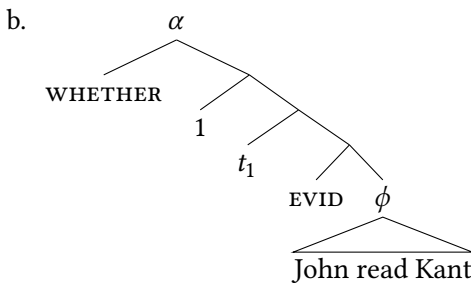c. $[\![\alpha]\!]$ = {YES(John reads Kant), NO(John reads Kant)}

2.2 Introducing EVID

What about agreement questions? Recall that agreement questions are prejacent-biased, in the sense that they require the context to contain evidence for the prejacent. I will adopt the analysis proposed in Trinh (2014) and assume the existence of an evidential marker EVID, which is attached to TP and has the following interpretation.

(15) $[\![\text{EVID } \phi]\!] = \begin{cases} [\![\phi]\!] & \text{if there is contextual evidence that } \phi \\ \# & \text{otherwise} \end{cases}$

Thus, [EVID ϕ] presupposes that there is contextual evidence that ϕ. I propose that at the relevant level of analysis, the agreement question (16a) has the LF in (16b), and the denotation in (16c).

(16) a. John đọc Kant à?
    John read Kant A

b.

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               α
            /     \
    WHETHER        \
               /    \
              1      \
                  /    \
                t₁      \
                     /    \
                  EVID     φ
                 /‾‾‾‾‾‾‾‾‾\
                John read Kant
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    c. $[\![\alpha]\!]$ = {YES(EVID(John reads Kant)), NO(EVID(John reads Kant))}

Both answers contain [EVID(John reads Kant)] as a subconstituent. Thus, both answers presuppose that there is contextual evidence that John reads Kant, which means the question presupposes that there is contextual evidence that John reads Kant.[7] We thus account for the fact that agreement questions are evidentially biased toward the prejacent.

How do we account for the fact that yes/no questions are prejacent-neutral, i.e. that a yes/no question with prejacent ϕ is infelicitous in contexts where there is evidence that ϕ? I propose that this effect comes about as an anti-presupposition. I will assume the principle of Maximize Presupposition as a primitive of grammar (Heim 1991).[8]

(17)   Maximize Presupposition (MP)
        Presuppose as much as possible!

Given MP, a yes/no question will be understood as indicating that there is no contextual evidence for the prejacent, since if there were such evidence, the speaker would have used an agreement question instead (Sauerland 2008).

2.3 Introducing EVEN

Let us now address the fact that NPIs, both simple and complex, are acceptable in yes/no questions. A well-known fact about WHETHER is that it licenses NPIs. Various attempts have been made to derive this observation (cf. Ladusaw 1979, Krifka 1991, 1995, Van Rooy & Šafářová 2003, Guerzoni & Sharvit 2007, 2014, Nicolae 2015, Roelofsen 2018, Jeong & Roelofsen 2023). For this paper, I will assume it as a primitive.

(18)   WHETHER licenses NPIs in its scope

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[7]I assume that if all answers to a question have a presupposition then the question itself inherits that presupposition. This follows from the fact that questions are quantificational structures (Heim 1983, 1992, Schlenker 2008).

[8]A reviewer raises the question whether MP should be considered a principle of rational communication of a Gricean sort which is external to the language faculty rather than one of grammar. I will not attempt to address this question adequately, as that would take us beyond the scope of this paper. What matters is that I use MP without deriving it, not how it is derived. Nevertheless, I would note that Heim (1991) did point out how it would be difficult to derive MP from principles of information exchange. Thus, given contextual, i.e. pragmatic, knowledge, #*a sun is shining* conveys the exact same amount of information as *the sun is shining*. It is not clear how to explain the contrast between these sentences in terms of their communicative function.

Given (18), we predict, correctly, that NPIs of both types are acceptable in yes/no questions. However, we also predict, incorrectly, that NPIs of both types are acceptable in agreement questions as well, given our analyis of agreement questions as containing WHETHER. Our task, therefore, is to specify a distinctive grammatical property of complex NPIs which explains the deviance caused by their occurence in agreement questions.

Recall a complex NPI consists of a simple NPI plus the element BK. I propose that BK, by itself, has no independent semantics. Rather, it is just the morphological reflex of a c-commanding operator, EVEN.[9]

(19)   BK is the morphological reflex of a c-commanding EVEN in the structure

As its name suggests, EVEN has a meaning akin to that of English *even*. For the purpose of this discussion, we will give EVEN the interpretation in (20).

(20) $[\![\text{EVEN } \phi]\!] = \begin{cases} [\![\phi]\!] & \text{if } \forall \psi \in \text{ALT}(\phi).\ [\![\phi]\!] \leq_{\text{likely}} [\![\psi]\!] \\ \# & \text{otherwise} \end{cases}$

Thus, [EVEN ϕ] asserts ϕ and presupposes that ϕ is the least likely among the alternatives of ϕ. I will assume, following many works, that NPIs induce "subdomain" alternatives. Alternatives of sentences containing NPIs are generated by point-wise composition in the familiar way. In their basic meaning, NPIs are just existential quantifiers (Kadmon & Landman 1993, Krifka 1995, Chierchia 2013).[10]

(21)   a. $[\![\text{any}_D \text{ book}]\!] = \lambda P.\ \exists x.\ x \in D \cap [\![\text{book}]\!] \land P(x) = $ 'a book in D'
        b. $\text{ALT}(\text{any}_D \text{ book}) = \{\text{any}_{D'} \text{ book} \mid D' \subseteq D\} = \{\text{a book in } D' \mid D' \subseteq D\}$
        c. $\text{ALT}(\text{John read any}_D \text{ book}) = \{\text{John reads any}_{D'} \text{ book} \mid D' \subseteq D\}$

Simple NPIs do not come with BK. I will take this to mean that they do not come with EVEN. In polar questions with EVEN, WHETHER can be base-generated either above or below EVEN. Consider the first possibility.
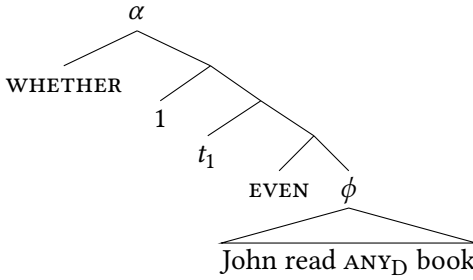
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[9]For similar ideas see Heim (1984), Guerzoni (2004), Crnič (2014), Jeong & Roelofsen (2023).

[10]Note that as quantifiers, NPIs must QR to be interpretable. I make the standard assumptions that NPIs have narrowest scope, i.e. that they raise to the smallest clause containing them. This means that *John read any$_D$ book* has the following LF.

   (i)   any$_D$ book λ_1 [John read t_1]

   I thank a reviewer for pointing out the need to make this clear.

(22)

$\llbracket \alpha \rrbracket$ = {YES(EVEN(John read ANY$_D$ book)), NO(EVEN(John read ANY$_D$ book))}

This configuration results in a yes/no question for which both answers, the positive as well as the negative, have the same unsatisfiable presupposition, induced by the subconstituent in (23).
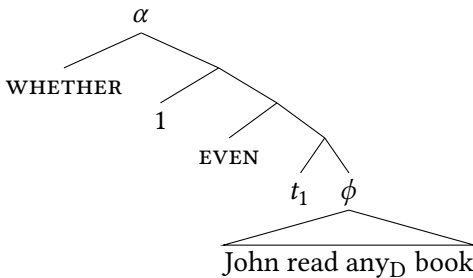
(23)   # EVEN(John read ANY$_D$ book)
       Presupposition: John reads a book in D $\leq_{\text{likely}}$ John reads a book in D$'$, for any D$' \subseteq$ D

Given that likelihood respects logical entailments, i.e. that $\phi \leq_{\text{likely}} \psi$ if $\phi \Rightarrow \psi$, and given the logical truth that for any D and D$'$ such that D$' \subseteq$ D, if John reads a book in D$'$ then John reads a book in D but not vice versa, both answers in (22) presuppose that a weaker sentence is less likely than a stronger sentence, which is necessarily false. I will take this fact to mean that such a parse as (22) will be ruled out as deviant by the grammar.

Having EVEN scoping above the trace of WHETHER, however, results in a polar question with *one* felicitous answer, namely the negative.

(24)

$\llbracket \alpha \rrbracket$ = {EVEN(YES(John read any$_D$ book)), EVEN(NO(John read any$_D$ book))}

The positive answer in this case is equivalent to the positive answer in (22), and is deviant for the same reason, namely because it has a necessarily false presupposition. The negative answer, however, does not have such a presupposition. Let us consider it.

(25) EVEN(NO(John read any$_D$ book))
     Presupposition: ¬John reads a book in D $\leq_{\text{likely}}$ ¬John reads a book in D′, for any D′ $\subseteq$ D

Negation is scale-reversing, so for any D′ $\subseteq$ D, if it is not the case that John reads a book in D then it is also not the case that John reads a book in D′, but not vice versa. This means the negative answer in (24) has a trivially true presupposition.
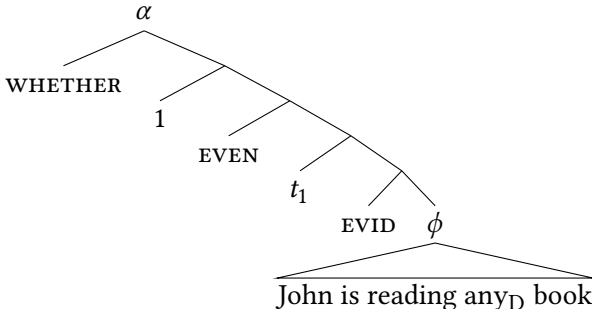
We thus see that if EVEN is present in a polar question, it has to be parsed above the base position of WHETHER, and within this parse, only the negative answer is acceptable. This means that polar questions with EVEN have only the negative answer as the one felicitous answer. And because complex NPIs require a c-commanding EVEN, we predict that for polar questions with complex NPIs, only the negative answer is felicitous. Asking a polar question with a complex NPI, then, amounts to presenting the hearer with the negative answer as the only choice. I propose that this is what brings about the inference that the speaker of such a question is biased towards the negative answer (cf. Guerzoni 2004). For concreteness, I will take this inference to be a conversational implicature of the question.[11]

Let us now come (back) to the question why complex NPIs cause deviance in agreement questions, as evidenced by (10b), reproduced below in (26).

(26) # John đang đọc bất kỳ quyển sách nào à?
     John PROG read BK   ANY book   A
     Intended reading: 'Is John reading any book at all?'

Given what we have said, this question will have the parse in (27a) and the denotation in (27b).

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[11]The issue arises, of course, as to how a 'yes' answer to such a negatively biased question is still possible. Note that this issue arises in the same way for Guerzoni (2004). One plausible response is to say that a 'yes' answer, in this case, requires the accomodation of a slightly different question, namely one without the negative bias. Thus, such an answer is also a move to deny the negative presupposition of the biased question.

(27) a.

b. $[\![\alpha]\!] = \{$EVEN(YES(EVID(John is reading any$_D$ book))),
EVEN(NO(EVID(John is reading any$_D$ book)))$\}$

Let us consider the inferences licensed by this question. Due to the presence of EVID, it has the presupposition in (28a). And due to the presence of EVEN, it has the implicature in (28b).

(28) Inferences licensed by (27)

    a. There is contextual evidence that John is reading a book in D

    b. The speaker strongly suspects that John is not reading a book in D

I submit that these two inferences are responsible for the question being perceived as deviant. The reason, I claim, is that a rational speaker cannot both strongly suspect $\neg\phi$ while at the same time take some fact in the context to be evidence that ϕ. Thus, if he really strongly suspects that John is not reading a book, the sight of John reading a book would have to be interpreted by him to be evidence that John is pretending to read a book.[12]

3 Interim summary

Polar questions contain a covert WHETHER, which accounts for the intuition that they ask the hearer to confirm a proposition or to confirm its negation. Polar questions in Vietnamese come in two variants, yes/no questions and agreement questions. Agreement questions contain EVID, the evidential marker which introduces the presupposition that its prejacent is supported by contextual evidence. Yes/no questions, in contrast, do not contain EVID. Given Maximize Presupposition, yes/no questions anti-presuppose that there is contextual evidence for the prejacent. This accounts for the fact that in prejacent-biased contexts, agreement

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[12]I admit that this point needs further explication. I hope to pursue this task in future research.

questions are felicitous while yes/no questions are not, while in prejacent-neutral contexts, the opposite is the case.

NPIs in Vietnamese also come in two variants, simple and complex. Complex NPIs come with a c-commanding EVEN in the structure, which introduces the presupposition that its prejacent is the least likely among the alternatives. Given that NPIs denote existential quantifiers and induce subdomain alternatives, the presence of EVEN brings it about that only the negative answer is felicitous. This accounts for the fact that polar questions containing complex NPIs give rise to the inference that the speaker strongly suspects that the negative answer is correct. Simple NPIs do not come with EVEN and hence do not give rise to such a bias.

An agreement question which contains a complex NPI would be parsed with both EVID and EVEN. Such a question would presuppose that there is contextual evidence for the prejacent, and at the same time, would license the inference that the speaker suspects that the prejacent is false. I hypothesize that such an expression represents an odd move in the language game, and hence, would be perceived as odd. This accounts for the fact that complex NPIs in agreement questions gives rise to deviance.

4 Comparison

I will conclude this note by discussing some similarities and differences between Vietnamese and English with respect to polar questions and NPIs. I believe that addressing the questions they raise will contribute to the cross-linguistic research on the semantics-syntax interface, or more specifically, on how Universal Grammar constrains the way basic building blocks of semantic representation are combined and mapped onto syntactic objects by different languages.

Let us start with the distinction within the class of polar questions in Vietnamese, i.e. the distinction between yes/no and agreement questions. The reader might have noticed that this distinction resembles the distinction in English between "inversion" and "declarative" questions. Inversion questions are polar questions which exhibit subject auxiliary inversion, such as (29a), and declarative questions those which exhibit declarative word order and are often pronounced with rising intonation, such as (29b).

(29)   a. Does John read Kant?
        b. John reads Kant?

It has been pointed out that declarative questions give rise to the inference that there is contextual evidence supporting the prejacent (Gunlogson 2003, Trinh

2014). In a context where the speaker has no reason to think that John reads Kant or to think that he does not, (29a) would sound appropriate and (29b) would sound odd. On the other hand, if the speaker sees John with a copy of *The critique of pure reason* in his hand, (29b) would be felicitous.

Can we say that inversion and declarative questions are the English counterparts of Vietnamese yes/no and agreement questions? It turns out that we cannot. The distinctions do align, but not perfectly. Recall, from (5) and (6), that Vietnamese yes/no questions and agreement questions are in complementary distribution: yes/no questions are felicitous only in prejacent-neutral contexts and agreement questions are felicitous only in prejacent-biased contexts. The situation with English inversion and declarative questions is different. It turns out that the contexts in which inversion questions are felicitous are a superset of the contexts where declarative questions are felicitous. Specifically, inversion questions are felicitous in prejacent-biased contexts as well.

(30)   Context: the speaker sees John with a copy of *The critique of pure reason* in his hand.
   a. Does John read Kant?
   b. John reads Kant?

Table 1: Prejacent-neutral vs. prejacent-biased

	yes/no	agreement	inversion	declarative
prejacent-neutral	✓	✗	✓	✗
prejacent-biased	✗	✓	✓	✓
	Vietnamese		English	

I turn now to a discussion of the distinction between simple and complex NPIs in Vietnamese. Again, the reader might have noticed that this distinction resembles the distinction between NPIs and so-called "minimizers" in English, i.e., expressions such as *lift a finger* or *have a red cent*. In fact, it is Guerzoni's (2004) analysis of minimizers that informs the analysis of complex NPIs proposed here. Guerzoni observes that minimizers induce negative bias in polar questions whereas NPIs do not. Thus, (31a) can be read as not implying anything about how likely it is that John did something to help, while (31b) clearly implies that it is unlikely that John did something to help.

(31)   a. Did John do anything to help?
       b. Did John lift a finger to help?

Guerzoni accounts for the difference between NPIs and minimizers with re-
spect to negative bias by postulating that minimizers, but not NPIs, come with a
c-commanding EVEN in the structure which has to scope above the base position
of WHETHER. My account of the same difference between simple and complex
NPIs in Vietnamese is just an adoption of her analysis. Can we, then, say that
simple NPIs in Vietnamese correspond to NPIs in English while complex NPIs in
Vietnamese correspond to minimizers in English?

Again, it turns out that we cannot. Recall that simple NPIs in Vietnamese are
acceptable in prejacent-biased polar questions. NPIs in English, however, are not.
Suppose I am talking to John on the phone and hear chewing sounds, which I
take to be evidence that he is eating while talking. In this context, it seems that
I cannot ask him the questions in (32).

(32)   Contextual evidence: The hearer is eating.
       a. # Are you eating anything?
       b. # You're eating anything?

Thus, NPIs in English are blocked by prejacent bias. Note that it has been
observed that NPIs are deviant in declarative questions (Hirst 1983, Huddleston
1994, Gunlogson 2002). This is expected, given that declarative questions are
necessarily prejacent-biased.

Simple NPIs in Vietnamese, however, are not blocked by prejacent bias. Recall
that only agreement questions can be prejacent-biased. In the same context, i.e.,
one where there is evidence that the hearer is eating while talking on the phone,
the question in (33) is completely fine, where *gì* is the word whose interrogative
reading is 'what' and whose NPI reading is 'anything'.

(33)   Anh đang ăn gì   à?
       you PROG eat anything A

How do complex NPIs in Vietnamese and minimizers in English compare with
respect to prejacent-biased questions? It turns out they behave similarly in this
case: both are unacceptable. The deviance of (10b) evidences this for Vietnamese.
For English, we can observe that a question such as (31b) would be utterly in-
appropriate in contexts where there is evidence that John did do something to
help.

Another way in which Vietnamese and English NPIs differ pertains to the so-called "free choice reading", or FC reading for short. It has been observed that in English, NPIs embedded under existential modals such as *be allowed to* are, by default, read as wide-scope universal quantifiers (Carlson 1981, Dayal 1998, Menéndez-Benito 2010, Crnič 2019, Bar-Lev & Fox 2020). The FC reading, however, is impossible for minimizers.

(34) a. John is allowed to do anything to help.
          '$\forall x$. John is allowed to do x to help'
      b. # John is allowed to lift a finger to help.
          Intended reading: John is allowed to do anything to help

In Vietnamese, the situation is, in a sense, the reverse. It is the complex NPIs which can occur, and have the FC reading, under existential modals. Simple NPIs are excluded.

(35) Intended reading: 'John is allowed to read any book'
      a. # John được phép   đọc quyển sách nào
          John is allowed to read ANY book
      b. John được phép   đọc bất kỳ quyển sách nào
          John is allowed to read BK   ANY book
          'John is allowed to read any book'

Table 2: Biased questions vs. FC reading

	simple NPIs	complex NPIs	NPIs	minimizers
biased questions	✓	✗	✗	✗
FC reading	✗	✓	✓	✗
	Vietnamese		English	

I hope to account for the facts we just discussed in future research.

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