

A semantic constraint on polar questions in Vietnamese

1. Introduction – Polar questions in Vietnamese are formed by appending the negation *không* at the end of a sentence which has the syntactic profile of one which bears verum focus. Verum focus is marked in Vietnamese by the presence of the light verb *có*, whose lexical meaning is ‘have’, in the auxiliary system. We will gloss *không* as NEG (mnemonic for ‘negation’) and *có* as AFF (mnemonic for ‘affirmation’).

(1) a. Nam đọc sách (Nam read book / ‘Nam reads books’)
b. Nam có đọc sách (Nam AFF read book / ‘Nam does in fact read books’)
c. Nam không đọc sách (Nam NEG read book / Nam doesn’t read books’)
d. Nam có đọc sách không (Nam AFF read book NEG / ‘Does Nam read books?’)

We will use “prejacent” as a descriptive term to refer to the sentence preceding the clause final NEG in polar questions. Existing analyses of Vietnamese yes/no questions take the clause-final NEG to be phonologically identical to, but syntactically and semantically different from, sentential negation. Specifically, clause-final NEG is analyzed as a “question marker” which is a C head, and the prejacent is assumed to raise to [Spec,C] (cf. Trinh[2005], Duffield[2007], Phan[2024]). This analysis gets the word order right and, at the same time, does justice to the fact that Vietnamese is consistently head-initial. However, there are several facts about Vietnamese polar questions that it fails to capture. In this paper we propose a different analysis in which clause-final NEG in polar questions is regular sentential negation. Our starting point is the condition on questions proposed by Fox (2019, 2020).

(2) Partition by Exhaustification (PbE)

$\{exh(Q)(p) \mid p \in Q\}$ is a partition of the context set

PbE says that the elements of a question Q, once exhaustified with respect to Q, should partition the context set. The case for PbE was made using constituent questions. Polar questions were not discussed. In this paper, we argue that PbE helps explain several observations about polar questions in Vietnamese.

2. Proposal – We propose to analyze polar questions in Vietnamese as having the logical form $[S_1 [Q S_2]]$, where the silent operator Q denotes the function $[\lambda p. \lambda q. \{p, q\}]$. S_2 is derived from S_1 by replacing the positive polarity head *có* (YES) in S_1 with the negative polarity head *không* (NO), and everything in S_2 is elided except NO. The polar question in (1d) would then have the analysis in (3), where strikethrough indicates ellipsis.

(3) $[S_1 \text{ Nam AFF read book}] Q [S_2 \text{ Nam NEG read book}]$

Thus, clause-final NEG in polar questions is just sentential negation. In what follows we will let POSANS and NEGANS stand for the positive answer (α YES β) and the negative answer (α NO β), respectively, of the polar question α YES β NO. PbE turns out to account for many puzzles not captured, or discussed, in previous works (cf. Trinh[2005], Duffield[2007], Phan[2024]). These puzzles share the following form: a polar question is deviant although POSANS and NEGANS, as independent declaratives, are both acceptable. The form of our explanation is this: given the meaning of POSANS and NEGANS, the context that must be accommodated for the question to satisfy PbE turns out to be one in which the question is infelicitous for other reasons.

2.1. Quantifiers – As evidenced by (4) and (5), $[\alpha \text{ YES } \beta \text{ NO}]$ is deviant when α is quantificational. In these cases, POSANS and NEGANS are not logical negation of each other. The questions would only satisfy PbE in a context where either everyone reads books or no one reads books. But such a context would militate against the quantifiers in favor of the definite *mọi người* (‘the people’), as the latter comes with a homogeneity presupposition.

(4) #ai cũng có đọc sách không?
everyone YES read book NO
a. ai cũng có đọc sách
everyone YES read books = $\forall xPx$
b. ai cũng không đọc sách
everyone NO read books = $\forall x\neg Px$

(5) #một số người có đọc sách không?
some people YES read book NO
a. một số người có đọc sách
some people YES read books = $\exists xPx$
b. một số người không đọc sách
some people NO read books = $\exists x\neg Px$

2.2. Only – As evidenced by (6), $[\alpha \text{ YES } \beta \text{ NO}]$ is deviant when α is *chỉ* NP (‘only NP’). For (6) to satisfy PbE, a context must be accommodated where Nam is either the only one that reads books or the only one that does not. But in such a context, the use of *chỉ* (‘only’) would be superfluous and hence infelicitous (cf. #only John is the husband, in a monogamous context.)

2.3. Adverbs – Adverbs such as *chắc chắn* ('certainly') may occur in polar questions but must follow YES, as shown by the contrast between (7) and (8). In (7), POSANS and NEGANS are logical negation of each other, while this is not the case in (8). For (8) to satisfy PbE, a context must be accommodated where it is either certain that Nam reads books or certain that Nam does not. But in such an “opinionated” context, the use of *chắc chắn* ('certainly') would be infelicitous due to the option of using the plain sentence (cf. *it is (#certainly) raining* when one looks out the window and sees rain.)

(7) Nam có chắc chắn đọc sách không? (8) #Nam chắc chắn có đọc sách không?
 Nam YES certainly read book NO Nam certainly YES read book NO
 a. Nam có chắc chắn đọc sách Nam certainly YES read book = $\square p$ a. Nam chắc chắn có đọc sách
 Nam YES certainly read book = $\square p$ Nam certainly YES read book = $\square p$
 b. Nam không chắc chắn đọc sách b. Nam chắc chắn không đọc sách
 Nam NO certainly read book = $\neg \square p$ Nam certainly NO read book = $\square \neg p$

2.4. Embedding – Vietnamese is an in-situ language. Constituent questions can “associate out” of embedded positions, while polar questions cannot, as illustrated by the contrast between (9) and (10). In (10), POSANS and NEGANS are not negation of each other. For (10) to satisfy PbE, a context must be accommodated such that Nam either wants Mary to meet Lan or wants Mary not to meet Lan. In such a context, however, (10) would be equivalent to (11), and we propose that grammar favors (11) over (10), i.e. that grammar disprefers unnecessary embedding.

3. Chinese – The Chinese counterparts of what we call “polar questions” in Vietnamese are the so-called A-not-A questions, exemplified in (12a). Our analysis of A-not-A questions is similar to our analysis of Vietnamese polar questions, as illustrated in (12b).

(12) a. ta xihuan bu xihuan zheben shu
he like not like this book 'Does he like this book?'
b. [S, he like this book] Q [S, he not like this book]

It turns out that A-not-A questions behave very similarly to Vietnamese [α YES β NEG] with respect to quantifiers (Wu 1997), *only* (Hagstrom 2005, Soh 2005), adverbs (Li and Thompson 1979, Ernst 1994), and embedding (McCawley 1994). We submit that our account of Vietnamese can be straightforwardly extended to Chinese. Due to lack of space, however, we will not be able to discuss A-not-A questions in more details in this abstract.

Selected references – Duffield, N. 2007. Aspects of Vietnamese clausal structure: separating tense from assertion • Fox, D. 2019. Partition by exhaustification: Comments on Dayal (1996) • Hagstrom, P. 2005. A-not-A questions • Phan, T. 2024. The Syntax of Vietnamese Tense, Aspect, and Negation • Soh, H.-L. 2005. Wh-in-situ in Mandarin Chinese • Trinh, T. 2005. Aspects of Clause Structure in Vietnamese • Wu, J. 1997. A model-theoretic approach to A-not-A questions