

INTERPRETING EXPLETIVE NEGATION IN VIETNAMESE

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Abstract

Vietnamese shows instances of sentential negation which seems to make no semantic contribution. We propose to analyze these as cases of structural ambiguity. The proposal incorporates the assumption that constituents may be "multi-dominated," and turns out to account for facts beyond those concerning "expletive negation" constructions.

1. A puzzle about negation

The sentences in (1) have semantically equivalent alternatives in (2).¹

(1) a. John quên đọc báo J. forget read newspaper	(2) a. John quên không đọc báo J. forget not read newspaper
b. John thôi đọc báo J. stop read newspaper	b. John thôi không đọc báo J. stop not read newspaper
c. John tránh đọc báo J. avoid read newspaper	c. John tránh không đọc báo J. avoid not read newspaper

Note that the sentences in (2) are ambiguous: **không** can but does not have to be expletive. Thus, (2a), (2b) and (2c) can mean 'John forgot to not read the newspaper,' 'John stop not reading the newspaper' and 'John avoids not reading the newspaper,' respectively.

1.1. Hypothesis 1: optional interpretation

The simplest hypothesis would of course be that semantic interpretation of **không** 'not' is generally optional. But this hypothesis fails to account for (3).

(3) a. John không quên đọc báo J. not forget read newspaper 'John did not forget to read the newspaper' / '*'John forgot to read the newspaper'
b. John định không đọc báo J. intend not read newspaper 'John intends not to read the newspaper' / '*'John intends to read the newspaper'

¹ Similar facts are observed in earlier stages of English (cf. van der Wurff 1998), Russian (cf. Abels 2002, 2005), Japanese and Korean (cf. Yoon 2013), Hungarian (Edith Moravscik p.c.), certain dialects of German (Manfred Krifka p.c.).

1.2. Hypothesis 2: agreement

We might consider (1) and (2) as cases of syntactic agreement: semantically equivalent material is pronounced twice, understood once (cf. Chomsky 1995 and subsequent works).

(4) **he_[+3sg] read-s_[+3sg] the newspaper**

Note that different readings may result depending on whether certain feature on a lexical item is intrinsic and hence interpretable, or resulting from agreement and hence uninterpretable (cf. Kratzer 1998, 2009, Heim 1994, Stechow 2003).

(5) a. **only I_[+1sg] did my_[+1sg] homework**
'No one who is not me did my homework'
b. **only I_[+1sg] did my_[+1sg] homework**
'No one who is not me did his homework'

We could tell a similar story for (1) and (2): negation is expletive when it is **[+neg]**, non-expletive when it is **[+neg]**.

(6) a. **John forget_[+neg] not_[+neg] read newspaper**
'John forgot to read the newspaper'
b. **John forget_[+neg] not_[+neg] read newspaper**
'John forgot to not read the newspaper'

Problem: presupposition projection

However, Vietnamese has another negative head, **chưa**, which has the logical meaning of **không** 'not' but also triggers the presupposition that its argument is to become true at some point in the future. Thus, **chưa** means something like 'not yet.'

(7) Semantics of **chưa**
 $[[\mathbf{chưa}]](p) = [[\mathbf{not}]](p)$ if p will (likely) be true, undefined otherwise

(8) a. **John chưa đọc báo**
J. not-yet read newspaper
b. $[[\mathbf{(8a)}]] = \frac{\mathbf{John did not read the newspaper}}{\mathbf{John will read the newspaper}}$

When **chưa** is embedded under **quên** 'forget,' the logical meaning disappears but the presupposition survives.

(9) a. **John quên chưa đọc báo**
John forgot not-yet read newspaper
b. $[[\mathbf{(9a)}]] = \frac{\mathbf{John forgot to read the newspaper}}{\mathbf{John will read the newspaper}}$

Problem: NPI licensing

Another fact which argues against the agreement approach is that negation can license NPIs under the "expletive" reading (cf. Linebarger 1987).

(10) a. **John không buồn chào Mary**
J. not bother greet M.
b. ***John quên buồn chào Mary**
J. forget bother greet M.
c. **John quên không buồn chào Mary**
John forget not bother greet M.

(11) a. **John không bao-giờ đọc báo**
J. not ever read newspaper
b. ***John tránh bao-giờ đọc báo**
J. avoid ever read newspaper
c. **John tránh không bao-giờ đọc báo**
J. avoid not ever read n.

1.3. Hypothesis 3: Right Node Raising

A possible analysis for EN constructions is to say they involve ATB extraposition of the most deeply embedded VP out of a coordinate phrase headed by a silent conjunction **and**.

(12) **John** [XP [forgot t_{VP}] **and** [not t_{VP}]] ... [VP **read newspaper**]

The analysis is lent plausibility by the fact that ATB extraposition of VP out of conjunctions headed by the overt counterpart of **and** is possible in Vietnamese.

(13) a. **John** **quên** **và** **không** **đọc** **báo**
 J. forget and not read newspaper
 b. **John** **nên** **và** **phải** **đọc** **báo**
 J. should and must read newspaper

Problem: over-generation

It is not clear why (14a) cannot mean the same as (13b), i.e. why it cannot be given the analysis in (14b).

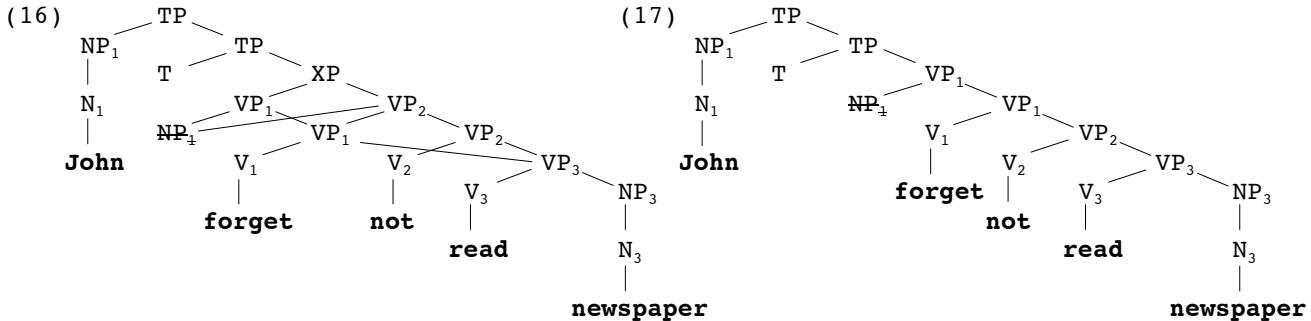
(14) a. **John** **nên** **phải** **đọc** **báo**
 J. should must read newspaper
 'John should have the obligation to read the newspaper' / *'John should and must read the newspaper'
 b. **John** [[should t_{VP}] **and** [must t_{VP}]] [VP **read newspaper**]

2. Analysis

2.1. Multidominance & Propositional Modification

We propose that (15) is ambiguous between (16) and (17) where (16) is the parse that underlies the expletive negation reading² (cf. Gärtner 2002, Citko 2005, Bachrach & Katzir 2009, Temmerman 2012, Johnson 2012, among others).

(15) **John** **quen** **khong** **doc** **bao**
 John forget not read newspaper



The constituent XP in (16) has two daughters.

(18) a. **VP**₁ = **John forget read newspaper**
 b. **VP**₂ = **John not read newspaper**

Given that $[[VP_1]] \subseteq [[VP_2]]$, we have $[[VP_1]] \cap [[VP_2]] = [[VP_1]]$. Thus, we predict that $[(16)] = [(19)]$ if we say that $[[XP]] = [[VP_1]] \cap [[VP_2]]$, or more generally if we assume the syntax-semantic mapping rule in (20), which we call "Propositional Modification" because it parallels the rule of Predicate Modification proposed in Heim & Kratzer (1998).

² For arguments that negation is a verb in Vietnamese see Trinh (2005).

(19) [TP **John** T [VP **John** **forget** **read** **newspaper**]]

(20) Propositional Modification (first version, to be revised)

If A and B are daughters of C and both [[A]] and [[B]] are members of 2^W , then [[C]] = [[A]] \cap [[B]]

2.2. Linearization

It turns out that (16) is mapped to exactly the attested word order **John** < **forget** < **not** < **read** < **newspaper** if we adopt the linearization rule proposed in Wilder (2008) and make the assumption that XP in (16) is a projection of VP_2 but not VP_1 (see subsection 4).³

(21) Linearization Rule (Wilder 2008)

If a non-terminal node X c-commands a non-terminal node Y, every terminal fully dominated by X precedes every terminal fully dominated by Y

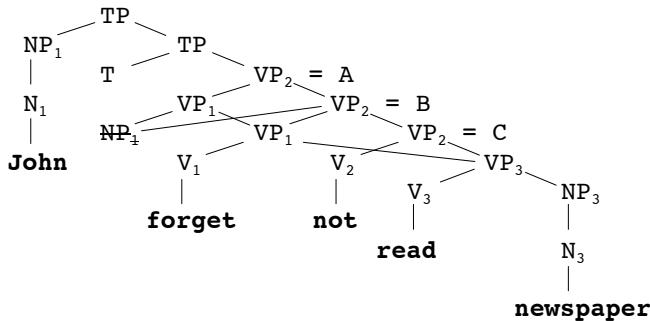
(22) Definitions

- a. X "c-commands" Y if
 - (i) Y is dominated by a sister of X
 - (ii) X is not an intermediate projection
- b. X "fully dominates" Y if X is a member of every dominance path of Y
- c. A "dominance path" of a node X is a sequence of nodes $\langle C_1, \dots, C_n \rangle$ such that C_1 is the root and C_n is X and for every i , $1 \leq i \leq n$, C_i immediately dominates C_{i+1}

(23) PF-Conditions (cf. Kayne 1994, Chomsky 1995)

- a. Precedence among terminals in a tree must be a linear ordering (i.e. a total, transitive, asymmetric and irreflexive relation)
- b. a precedes b iff a is pronounced before b

(24) Labeling XP as VP_2



(25) Ordering statements for (24)

- a. **John** < **forget**, **John** < **not**, **John** < **read**, **John** < **newspaper**
- b. **forget** < **not**, **forget** < **bring**, **forget** < **umbrella**
- c. **not** < **read**, **not** < **newspaper**
- d. **read** < **newspaper**

- The resulting string is **John** < **forget** < **not** < **read** < **newspaper**, as attested.
- If "fully dominated" is changed to simply "dominated" in (21), we would have **read** < **read** and **newspaper** < **newspaper** by virtue of VP_1 c-commanding VP_3 , thus violating irreflexivity.
- If we let intermediate projections be c-commanders, we would have **forget** < **not** by virtue of V_1 c-commanding V_3 , and **not** < **forget** by virtue of C c-commanding V_1 , violating asymmetry.
- If A is labelled " VP_1 ," B would become a maximal projection, hence a c-commander, and we would have **not** < **forget** by virtue of B c-commanding V_1 , thus generating the wrong word order.

³ Wilder's (2008) system explains the following paradigm in English, the relevant generalization being that the gap corresponding to the RNR'ed constituent must be at the right edge of the conjunct that contains it.

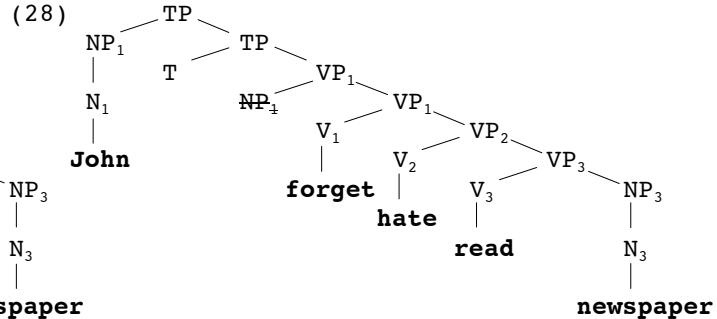
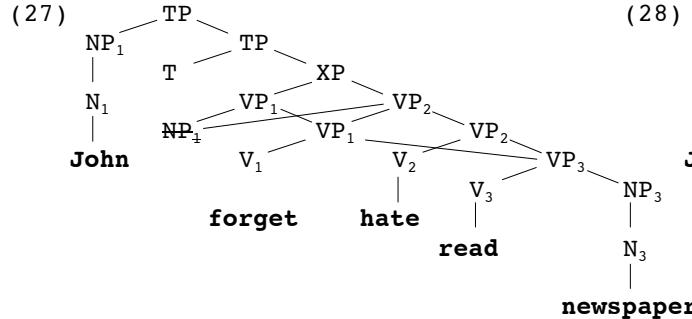
- (i) a. [John met the man who wrote ____] and [Bill met the man who published the book]
- b. [John met the man who wrote ____] and [Bill met the man who explained the book to Mary]
- (ii) a. *[John should give ____ a present] and [Bill should congratulate that girl]
- b. *[John should give ____ a present] and [Bill should introduce that girl to the dean]

3. A multi-dominance account of modal concord

3.1. Revising Propositional Modification

One question which arises immediately is why (26) cannot be parsed as (27) to mean 'John forgot to read the newspaper and John hated reading the newspaper.' Instead, this string must be parsed as (28) which means 'John forgot to hate reading the newspaper.'

(26) **John quên ghét đọc báo**
 J. forget hate read newspaper



We propose to resolve this question by restricting the domain of Propositional Modification to phrases in which one daughter entails the other.

(29) Propositional Modification (final version)

If A and B are daughters of C, both $[[A]]$ and $[[B]]$ are members of 2^W , and $[[A]] \subseteq [[B]]$, then $[[C]] = [[A]] \cap [[B]]$

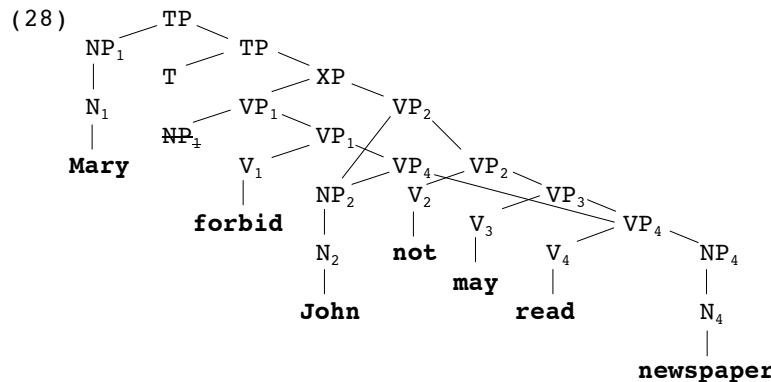
3.2. Expletive modals

The sentences in (26) have equivalent alternatives in (27) (cf. Lyons 1977, Geurts and Huitink 2006, Zeijlstra 2008).

(26) a. **Mary bắt John đọc báo**
 M. require J. read newspaper
 b. **Mary cho John đọc báo**
 M. allow J. read newspaper báo
 c. **Mary cấm John đọc báo**
 M. forbid J. read newspaper

(27) a. **Mary bắt John phải đọc báo**
 M. require J. must read newsp.
 b. **Mary cho John được đọc báo**
 M. allow J. may read newsp.
 c. **Mary cấm John không được đọc báo**
 M. forbid J. not may read newsp.

We propose the following structure for (27c). The two daughters of XP are shown in (29)



(29) a. $VP_1 = \text{Mary forbid John read newspaper}$
 b. $VP_2 = \text{John not may read newspaper}$

Given the revised Propositional Modification, we predict that VP_2 must be interpreted as an entailment of VP_1 , which means that the ordering source for the modal **may** in VP_2 must be

understood as the set of injunctions issued by Mary (cf. Kratzer 1981). This prediction is correct: (27c) cannot mean 'Mary forbid John to read the newspaper and according to the house rules John may not read the newspaper.' Thus, it is incoherent to contest (27c) with "That's wrong. The house rules do not say John may not read the newspaper."

The other cases on "expletive modals" in (27) can be analyzed similarly.

Problem: quantificational force

It turns out (30a) does not have the modal expletive reading, even though nothing prevents the analysis in (31) in which one argument of Predicate Modification entails the other, modulo the appropriate resolution of the ordering source.

(30) **Mary bắt John được đọc báo**
M. force J. may read newspaper
'Mary forces John to be allowed to read the newsp.' /*Mary forces John to read the newsp.'

(31) [XP [VP **Mary force John read newspaper**] [VP **John may read newspaper**]]

Solution: embedded exhaustification (cf. Fox 2007, Magri 2009, Chierchia et al. 2013, among many others).

(32) [XP [A exh_D[VP **Mary force John read newspaper**]] [B exh_{D'}[VP **John may read newspaper**]]]

(33) a. D' = {John may read newspaper, John must read newspaper}
b. [[exh_X]](p) = 1 iff p = 1 & $\forall S' \in X: p \subseteq [[S']] \vee [[S']] = 0$

Problem: duals

(34) a. **Mary cấm John không được đọc báo**
M. forbid J. not may read newspaper
b. ?? **Mary cấm John phải không đọc báo**
M. forbid J. must not read newspaper

The contrast seems to parallel that in (35).

(35) a. **Mary cấm John đọc báo nên John không được đọc báo**
M. forbid J. read newspaper hence John not may read newspaper
b. ?? **Mary cấm John đọc báo nên John phải không đọc báo**
M. forbid J. read newspaper hence John must not read newspaper

Solution: future research.

4. A parsing principle

Another question left open from the discussion above is why it is not possible to replace the negative verb (e.g. **forbid**, **forget** etc.) in expletive negation constructions with a semantically equivalent sequence of negation and another verb.

(36) **Mary không cho John không được đọc báo**
Mary not allow John not may read newspaper
'Mary does not let it happen that John may not read the newspaper' / *'Mary forbids John to read the newspaper'

We take this to be evidence that (36) can only be parsed as (37b) but not as (37a). We propose to account for this fact by stipulating the parsing principle in (38).

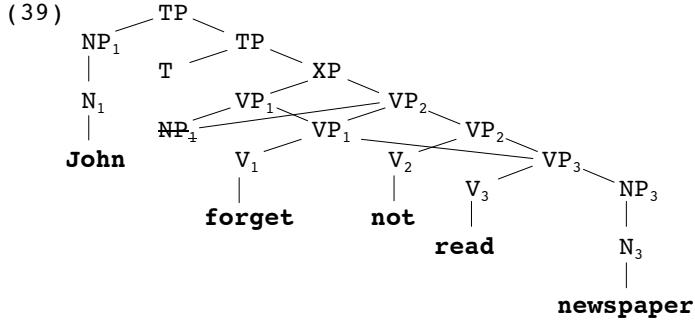
(37) a. [TP **Mary** T [XP [VP **Mary not allow John read newspaper**] [VP **John not may read newspaper**]]]
b. [TP **Mary not** [VP **Mary allow John may not read newspaper**]]

(38) Parsing Preference
Parse negation as high as possible!

The Parsing Preference rules out (37a) as an analysis of (36), given the possibility of the parse in (37b).

Consequence: projection pattern

It turns out that the Parsing Preference can serve as possible explanation for the choice of label of XP in (39).



(40) a. $XP = VP_2$: John forget not read newspaper
 b. $XP = VP_1$: John not forget read newspaper

Given the Parsing Preference in (38), the word order resulting from $XP = VP_1$ would force the sentence to be parsed as (41), thus conveying a non-intended meaning.

(41) [TP John [VP not [VP forget read newspaper]]]

Thus, projection in this case is determined by non-syntactic factors (cf. Chomsky 2013).

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