INTERPRETING EXPLETIVE NEGATION IN VIETNAMESE

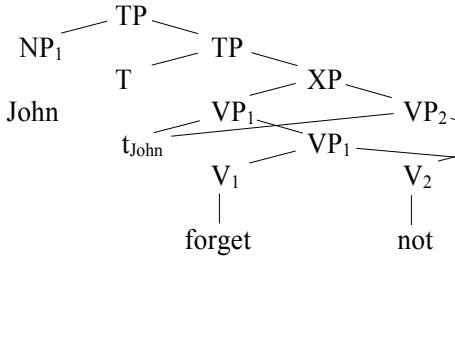
1. Vietnamese exhibits a class of sentences in which negation seems to be "expletive," i.e. make no semantic contribution: even though (1) can mean 'John forgot not to bring an umbrella,' its most prominent reading is one in which it is synonymous with (2), namely 'John forgot to bring an umbrella.'

(1) John quen khong mang o
John forget not bring umbrella

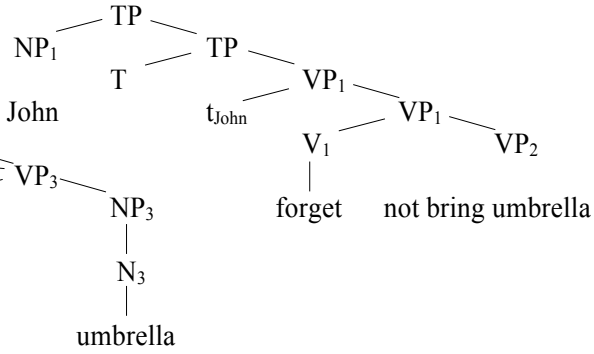
(2) John quen mang o
John forgot bring umbrella

We propose that (1) is ambiguous between (3) and (4) where (3) is the parse that underlies the expletive negation reading (for arguments that negation is a verb in Vietnamese see Trinh 2005).

(3)



(4)



1.1. The semantic equivalence of (3) and (2) follows if we assume that XP in (3) is interpreted by a rule akin to Heim & Kratzer's (1998) Predicate Modification, henceforth called "Propositional Modification."

(5) Propositional Modification (first version, to be revised): if A and B are daughters of C and both [[A]] and [[B]] are members of $D_{<s,t>}$, then [[C]] = [[A]] ∩ [[B]]

Since forgetting to bring an umbrella entails not bringing an umbrella (cf. Karttunen 1971, Abrusan 2012), we have [[XP]] = [[VP_1]] ∩ [[VP_2]] = [[VP_1]].

1.2. The mapping from (3) to the attested word order **John** < **forget** < **not** < **bring** < **umbrella** follows from the linearization rule proposed in Wilder (2008) and the assumption that XP in (3) is a projection of VP_2 but not VP_1 (we address this point in subsection **4**). Wilder's proposal is summarized in slightly modified form in (6).

(6) Linearization (Wilder 2008): If a node X c-commands a node Y, every terminal fully dominated by X precedes every terminal fully dominated by Y

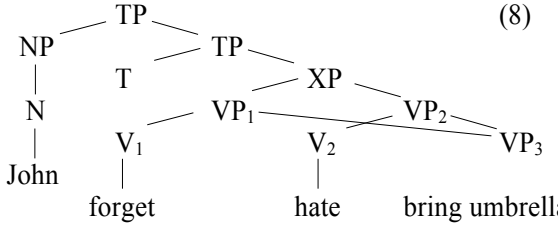
Definition: X "c-commands" Y if X and Y are non-terminals and X is either a minimal or a maximal projection and Y is dominated by a sister of X

Definition: (i) a node X "fully dominates" a node Y if X is a member of every dominance path of Y; (ii) a "dominance path" of a node X is a sequence of categories $<C_1, ..., C_n>$ 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}

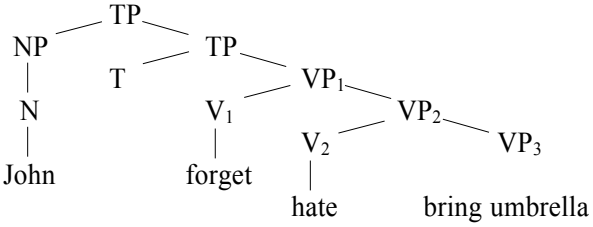
Assuming XP in (3) bears the label of VP_2, we derive from (6) the following ordering statements for (3): (i) **John** precedes every other word (by virtue of NP_1 c-commanding XP); (ii) **forget** precedes **not**, **bring** and **umbrella** (by virtue of VP_1 c-commanding the lowest VP_2 segment); (iii) **not** precedes **bring** and **umbrella** (by virtue of V_2 c-commanding V_3 and NP_3); (iv) **bring** precedes **umbrella** (by virtue of V_3 c-commanding N_3). The linear order which verifies all of these statements is **John** < **forget** < **not** < **bring** < **umbrella**, which is the order observed. (Note that traces are not linearized.)

2. One question which arises immediately is why the string **John** < **forget** < **hate** < **bring** < **umbrella** cannot be parsed as (7) to mean 'John forgot to bring an umbrella and John hated bringing an umbrella.' Instead, this string must be parsed as (8) which means 'John forget to hate bringing umbrellas.'

(7)



(8)



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

(9) Propositional Modification (final version): If A and B are daughters of C, both [[A]] and [[B]] are members of $D_{<s,t>}$, and [[A]] ⊆ [[B]], then [[C]] = [[A]] ∩ [[B]]

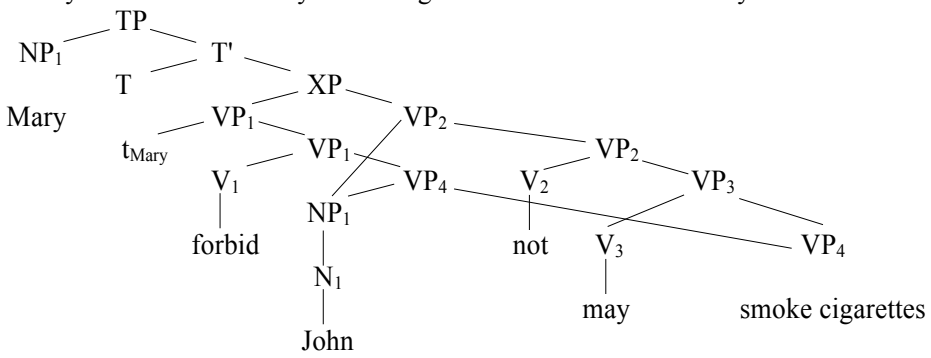
Since John forgetting to bring an umbrella entails John not bringing one but does not entail John hates bringing umbrellas, (3) is interpretable but (7) is not.

2.2. The more restrictive version of Propositional Modification turns out to capture other facts about expletive negation constructions in Vietnamese. Consider (10), which can mean 'Mary does not let it happen that John may not smoke' but which can also have the same meaning as (11), namely 'Mary forbids John to smoke.' We propose that this meaning of (10) is induced by the representation in (12), again with XP being a projection of VP_2 not VP_1 (we address this point in subsection **4**).

(10) Mary cấm John không được hút thuốc
Mary forbid John not may smoke cigarettes

(11) Mary cấm John hút thuốc
Mary forbid John smoke cigarettes

(12)



Given the revised Propositional Modification, we predict that (the intermediate segment of) VP_2 = **John not may smoke cigarettes** must be interpreted as an entailment of VP_1 = **Mary forbid John smoke cigarettes**, which means that the ordering source for the modal **duoc** 'may' must be understood as the set of injunctions issued by Mary (cf. Kratzer 1981). This prediction is correct: (10) cannot mean 'Mary forbid John to smoke and according to the house rules John may not smoke.' Thus, it is incoherent to contest (10) with "That's wrong. The house rules do not say John cannot smoke!"

3. 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. Thus, (13) cannot mean 'Mary does not allow John to smoke.' It can only mean 'Mary does not let it happen that John may not smoke.' We take this to be evidence that (13) can only be parsed as (15) but not as (14). We propose to account for this fact by stipulating the parsing principle in (16).

(13) Mary khong cho-phep John khong duoc hut thuoc
Mary not allow John not may smoke cigarettes

(14) $[_{TP}$ Mary...$[_{XP}$ $[_{VP1}$ ...not allow...$][_{VP2}$ ...$]]]$ (15) $[_{TP}$ Mary not $[_{VP}$ t_{Mary} allow John may not smoke$]]$

(16) Parsing Preference: parse negation as high as possible!

The Parsing Preference rules out (14) as a possible analysis of (13), given the possibility of (15).

4. It turns out that the Parsing Preference can serve as possible explanation for the choice of label of XP in (3) and (12). The attested word order results from XP being a projection of VP_2 not VP_1. Suppose XP were a projection of VP_1 in (3) and (12), then the resulting word orders would be **John** < **not** < **forget** < **bring** < **umbrella** for (3) and **Mary** < **not** < **may** < **forbid** < **John** < **smoke** < **cigarettes** for (12). However, both of these strings could be parsed in such a way that negation takes scope above XP, hence they must be so parsed, given the Parsing Preference. Thus, we can say that the label of XP can in principle be either VP_1 or VP_2 and the reason it ends up being VP_2 is because the other option will result in a word order which is forced by the Parsing Preference to be associated with a meaning different from the intended one (cf. Chomsky 2013).

References. **Abrusan, M. 2012.** Predicting the presuppositions of soft triggers. Linguistics and Philosophy 34: 491-535. **Chomsky, N. 2013.** Problem of Projection. Lingua 130: 33-49. Heim, I. & Kratzer, A. 1998. Semantics in Generative Grammar. Blackwell. **Karttunen, L. 1971.** Implicative verbs. Language 47: 340-358. **Kratzer, A. 1981.** The notional category of modality. In Words, Worlds, and Contexts. New Approaches in Word Semantics, edited by H. J. Eikmeyer & H. Rieser, pp. 38–74. **Trinh, T. 2005.** Aspects of Clause Structure in Vietnamese. MA Thesis, Humboldt-University Berlin. **Wilder, C. 2008.** Shared constituents and linearization. In Topics in Ellipsis, edited by K. Johnson, pp. 229-258. Cambridge University Press.