

### Phrasal negation: what it tells us about the syntax of universal quantifiers ( $\forall$ QPs) and N-words

In this talk I show that French argument N(egative)-words (*personne* ‘nobody’, *rien* ‘nothing’, *aucun des NP* ‘none of the NP’) and sentences involving an argument  $\forall$ QPs plus *pas* ‘not’, must be analyzed in the same way, i.e., as involving a phrasal negation (vs. sentential negation). The argument is based on an analysis developed by Doetjes 1997 on Floating Quantifiers (FQs) in French.

French allows FQs (1b) (Sportiche 1988). The sentences in (1) are truth conditionally equivalent and both  $\forall$ Qs quantify over the DP *les filles*. I adopt Doetjes’ approach to FQ. Their determiner-like properties are accounted for by arguing that FQs are adnominal Qs. Their domain of quantification is *pro* in (2a). FQs bind the trace (ec) of the moved DP they quantify over (their nuclear scope) (2b) and agreement between the QP and the noun arises. Their syntactic scope is the whole VP they merge with; in that respect only, they resemble adverbials. I assume that FQs are XP-adjoined to any position where it c-commands a member of its chain, i.e., the moved DP they quantify over. As in Boskovic 2004, FQs do not reconstruct, while non-FQs might.

Just like in (1), the three sentences in (3) have the same truth-conditions and the position of *pas* varies. In French, *pas* ‘not’ is a sentential operator, appearing sentence medially. I claim that despite its sentence medial position, when it interacts with argument  $\forall$ QPs just like in (4), *pas* only negates the  $\forall$ QP argument, not the event denoted by the predicate, as formulated in (5a) vs. (5b). Syntactic and interpretive evidence shows that the relation between the  $\forall$ QP and the negative element is very local: interpretatively, existential QPs cannot intervene in between (4); syntactically modifiers like *presque* ‘almost’ cannot be inserted in between, as illustrated by the contrast in (6a,c) vs. (6b,d); in (7a) sentential *pas* licenses singular partitive *de*-NP objects (with non-specific readings), but *pas* in (7b-d) doesn’t. Finally with object related  $\forall$ QPs, *pas* only occupies sentence medial positions, just like FQs (3b)/ (8): (9) shows that negation does not operate on the predicate, but that it quantifies over the object  $\forall$ QP. The unmarked reading is again (5a). Adopting Doetjes’ approach, I propose that *pas* in (3), (4), (6), (8), (9) behaves like floated *tous*, in that it merges with the XP the  $\forall$ QP adjoins to, yet operating on the  $\forall$ QP only. I conclude that *pas* is interpreted as a phrasal negation operating over the  $\forall$ QPs, as in (10). Phrasal *pas* cannot move by itself, leaving in-situ the XP it modifies. Before spell-out, then,  $\forall$ QP and *pas* form a constituent, i.e., just like intrinsically N(egative)-words.

N-words are taken to express sentential negation, involving movement to SpecNegP for checking purposes (Zanuttini 1991 vs. Giannakidou 2000). Based on the same evidence as above, I argue that N-words rather involve phrasal negation: scope interaction, the non-licensing of partitive *de*-NP objects (11) are again pieces of evidence going in that direction. If N-words are inherently negative, they can also be translated into two equivalent logical formulae (12). I claim that French N-words are composed of a  $\forall$ QP (of the presuppositional *tous DP* type) scoping over a phrasal negative operator (*à la* Zanuttini 1991 vs. Déprez 1997, Mathieu 2002). Since the sequences *pas* - $\forall$ /  $\forall$  - *pas* in (3) also combine a  $\forall$ QP and a phrasal negative operator and are always interpreted as (5a)/(10), then the logical conclusion is that within N-words the order of operators is reversed (13). Semantically the negative part of N-words acts like phrasal *pas*: it does not take sentential scope, rather the event denoted by the predicate ends up being negated as a result of negating one of its participants (Corblin & Tovena 2003) (14).

Historically *personne* comes from the Latin countable NPI *persona*, *rien* ‘nothing’ from *res* ‘thing’ and *aucun* ‘none’ meant ‘someone’. Because the complex DP *personne* is the negative version of presuppositional *tous DP*, I propose that it involves a presuppositional null *persona* as its restriction, which is bound by the  $\forall$ QP, triggering 3p.sg default agreement (16a). The negative phrasal operator is adjoined to the left of the DP restriction and operates on the null *persona*: the Q-variable relation between  $\forall$  and *persona* is not blocked, since neg and  $\forall$  are of different types : neg doesn’t take a restriction (16b). *Personne* resembles more *tout le monde* ‘everybody’ than *tous DP* : both don’t have FQ counterparts (15). The presence of an overt restriction with  $\forall$ QPs allows FQ structures. Since *Aucun DP* show overt FQ structures (17), I assimilate them to the FQ structures discussed above (18) : the restriction cliticises onto the finite verb and the quantificational part is obligatorily merged to an XP (Boskovic 2004, Doetjes 1997). Under this approach, some N-words are considered as involving FQ structures, *à la* Doetjes 1997. All N-words behave like  $\forall$ QPs of the *tous DP* type.

- (1) a. Toutes les filles ont vu le Père Noël  
 b. Les filles ont toutes vu le Père Noël  
 (All.fem.pl) the girls fem.pl have (all.fem.pl) see Santa Claus
- (2) a. FQ: [QP tous [DP pro]] b. [XP FQ<sub>i</sub> [XP ... ec<sub>i</sub>...]] (Doetjes 1997:202)
- (3) a. Tous les enfants n'ont pas vu le père Noël ([¬ > ∀] ; \*[∀ > ¬])  
 b. Les enfants n'ont pas tous vu le père Noël ([¬ > ∀] ; \*[∀ > ¬])  
 c. Pas tous les enfants n'ont vu le père Noël ([¬ > ∀] ; \*[∀ > ¬])  
 (not) all the children *ne* have (not) (all) see Santa Claus = *not all the children have seen S.C*
- (4) a. Tous les garçons n'ont pas vu une fille \* (∃ > [∀ > ¬]) ; (∃ > [¬ > ∀])  
 All the boys *ne* have not seen a (certain) girl  
 b. Une fille n'a pas vu tous les garçons \* (∃ > [∀ > ¬]) ; (∃ > [¬ > ∀])  
 A (certain) girl *ne* has not seen all the boys
- (5) a. ¬ ∀x [C(x) → S(x, sc)] b. ∀x [C(x) → ¬S(x, sc)]
- (6) a. Les enfants ont presque pas tous mangé = modifies [pas tous]  
 the children have (not) almost (not) all eaten  
 b. \*Les enfants ont pas presque tous mangé  
 c. Presque pas tous les enfants ont mangé = modifies [pas tous]  
 d. \*Pas presque tous les enfants ont mangé  
 (not) almost (not) all the children have eaten
- (7) a. Juliette n' a pas vu de cheval (¬>∃) only  
 J. *ne* has not seen some patient  
 b. \* Tous les enfants n'ont pas vu de cheval  
 c. \* Les enfants n' ont pas tous vu de cheval  
 d. \*Pas tous les enfants n' ont vu de cheval  
 (not) (all) the children *ne* have (not) (all) seen a horse
- (8) a. Juliette n' a pas chanté (\*pas) toutes les chansons  
 Juliette *ne* has (not) sung (not) all the songs  
 b. Juliette ne les a pas toutes chantées  
 J. *ne* cl.pl. has not all sung
- (9) Juliette n' a pas chanté toutes les chansons de son groupe, ni toutes celles de PJ  
 Juliette *ne* has not sung all the songs of her band, *NI* all these of PJ  
*It is the case that it is not all the songs of her band and not / or all of PJ's songs that J. sang*
- (10) pas... tous DP / tous DP ... pas : [¬ ∀<sub>tous les</sub>] (where square brackets indicate constituency)
- (11) ??Personne / aucune des filles a lu de petite annonce  
 Nobody / none of the girls has read of ads
- (12) a. ¬∃x [P(x) ∧ Q(x)] (Existential negation) b. ∀x [P(x) → ¬Q(x)] (Universal negation)
- (13) N-word : [∀ □ ¬] = for all x, it is not the case that x
- (14) a. Personne (n') a mangé de chocolats. = zero people ate some chocolates  
 Nobody *ne* has eaten some chocolates  
 b. Jean (n') a regardé personne = John looked at zero people  
 John *ne* has looked at nobody
- (15) a. Tout le monde a mangé les sushis  
 Everybody has eaten the sushis  
 b. \*Le monde a tout mangé les sushis  
 the world has all eaten the sushis
- (16) a. *personne* : [XP [QP personne<sub>i</sub>] [DP persona<sub>i</sub>]] b. *personne* : [XP [QP ∀<sub>i</sub>] [DP ¬] [DP persona<sub>i</sub>]]
- (17) a. Je n'a soulevé aucun des pianos  
 I *ne* has lifted none/none of the pianos  
 b. Je n'en ai soulevé aucun  
 I *ne* cl. have lifted none
- (18) a. *aucune des filles* : [XP [QP aucune<sub>i</sub>] [DP des filles<sub>i</sub>]]  
 b. *aucune des filles* : [XP [QP ∀<sub>i</sub>] [DP ¬] [DP en<sub>i</sub>]]  
 c. *en ... aucune* : [DP en<sub>i</sub>] <sub>j</sub> ... [XP [QP ∀<sub>i</sub>] [DP ¬] t<sub>j</sub>]]