

Floating quantifiers and the influence of topic and focus

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Taraldsen (2001) states that “the ungrammaticality of (1) remains an embarrassment to the text analysis (i.e. his) or any other account of Stylistic Inversion in terms of remnant VP-raising.”

(1) * Où se sont tous cachés les chats?

Where themselves are all hidden the cats.

The analysis of floating quantifiers by Sportiche (1988) is based on the observation that quantifiers may float only in case the NP that they quantify precedes (NP > Q), cf. (2) for full NPs and, even stronger, (3) for subject clitics.

(2) (a) Les étudiants ont (tous) travaillé (tous)

The students have (all) worked (all)

(b) Tous [*/tus/ /tu/] les étudiants ont travaillé

All (*with s pronounced) the students have worked.

(3) (a) Ils sont (tous) partis (tous).

They have (all) left (all).

(b) * Tous ils sont partis.

All they have left.

Sportiche’s generalisation is easily derived from proposals concerning the inner working of the computational system (upward / leftward movement being the only option). A classical analysis in which Stylistic Inversion makes use of a base-generated right-adjoined subject position (an in-situ analysis, e.g. Drijkoningen 1997) is capable of explaining (1), but suffers from the theoretical drawback of using rightward adjunction. Mending the theoretical drawback by using remnant movement with prior movement of the subject to [Spec,TP] – the analysis by Kayne & Pollock (2001) as well as Taraldsen’s – essentially ignores the empirical issue illustrated by (1): (1) is fully justified.

The basic question therefore is at which point of the derivation quantifiers may be stranded. We propose that stranding quantifiers is only possible after full licensing of the DP of which they are part. This implies that a first step needs to be made before allowing stranding, as illustrated in (4).

(4) [TP DP_i case/agr Tcase/agr [XP .. t_i ...

[XP_j ... t_i ...] [TP DP_i case/agr Tcase/agr t_j

Où sont allés [TP tous les chats]

Where are gone all the cats

This, in turn, implies that all stranding should be triggered by movements higher up into one of the functional projections that dominate the TP in a cartographic approach (Rizzi 2004). Put differently: If Stylistic Inversion is the lowest possible inversion structure without further movement of the DP beyond the position it has in (4), Q-floating is directly motivated by functional factors related to topic/focus agencement.

First, there are no differences at LF between floated and non-floated quantifiers. In all cases, the LF needs to be “simply” $\forall x, x = DP$. Note that, technically, quantifier and DP are now split apart. This will be crucial. Still, LF is the rationale behind the importance of the licensing in (4): Full interpretation implies successful feature checking. Second, it is relevant to note that Q-floating has been considered optional from a syntactic point of view. As neither syntax nor LF seem to provide an imperative trigger for the stranding, topic/focus agencement is a viable option (pace Italian Free Inversion).

With respect to Focus, Friedemann (1997) observed that the examples with a Q in final position are questionable with neutral intonation, but fully grammatical if the quantifier bears stress:

- (5) (a) Les étudiants ont travaillé TOUS.
The students have worked all
(b) Ils sont partis TOUS.
They have left all

If, as we assume, topic/focus agencement applies after Full Interpretation, and if, as shown, at LF the quantifier and the DP are split, then it is possible to move an LF-object into the Topic/Focus projections. We propose to analyse (5) not by stranding of the Q (movement of the DP leaving behind the Q), but by moving the Q alone into the Focus Phrase, as in (6).

- (6) [_{FocP} $\forall x_i$ [_{TP} t_i , $x = DP$] [...]

With respect to Topic, definite subject clitics show obligatory stranding in French, as shown in (3b). The proposal in (7) also explains the case in (2b) in which the /s/ is not pronounced, and it properly derives the cases in which the Q is stranded in an intermediate position.

- (7) [_{TopP} les étudiants / ils_i [_{TP} $\forall x$, $x = t_i$]
(a) Les étudiants / ils sont tous partis
The students / they have all left
(b) *Tous ils / */tus/ les étudiants sont partis
All they / tous with pronounced s the students have left

It is predicted is that indefinites do not occur in these cases. For French confirmation is not available due to **Tous des étudiants*, but the prediction is borne out in English: *All students have left* / **Students have all left*.

Finally, French allows for a preverbal *tous* without an accompanying DP, but also with a non-neutral stress. For these we assume a topical *pro* to be left behind.

- (8) (a) Tous ont travaillé = TOUS ont travaillé =
[_{FocP} $\forall x$ (TOUS_i) [_{TP} [_{DP} Q_i $x = DP$, $DP = pro$] T] [...]
All have worked
(b) * Ont travaillé tous = *pro* ont travaillé TOUS
Have worked all

It should be noted that (8a) is not input to remnant movement (hence (8b)), because in general French needs to have at least one pre-finite-verb constituent (cf. Drijkoningen & Kampers-Manhe 2008). (8b) is predicted to occur in Spanish.

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