

A syntactic argument for a semantic EPP

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The exact nature of the EPP has been a subject of debate ever since it was postulated Chomsky (1981). Mostly, the debate swirls around agreement and expletives. This paper takes a backdoor approach, examining sites of quantifier interpretation, and determines that the EPP feature plays a role in interpretation by selecting for a certain semantic type.

Problem. Universally quantified subjects (UQS) in French must take narrow scope with respect to (sentential) negation.

- (1) **Tous les élèves ont pas vu le film.**
all the students have not seen the movie.
'Every student didn't see the movie.' ($\neg > \forall, *\forall > \neg$)

Under the copy theory, we can deduce that there is a restriction on interpreting the quantifier in subject position.

- (2) 1. If a constituent C is not interpreted in position P, either ...
(a) There is no copy of C in P
(b) There is a restriction R on interpreting C in P
2. There is a copy of the UQS in [Spec, IP] (It is pronounced there).
3. Therefore, there is a restriction on interpreting UQS in [Spec, IP].

Curiously, only subject UQs must take narrow scope. Other UQs spoken above negation take wide scope. For instance, UQs in **adjuncts** (3), **raising** verb subjects (4), and **focus** (5):

- (3) **Tous les jours, Paulette oublie pas d'arroser ses tulipes.**
all the days Paulette forgets not of-to.water her tulips
Every day, Paulette doesn't forget to water her tulips. ($*\neg > \forall, \forall > \neg$)
- (4) **Tous les élèves semblent [ne pas aimer le film].**
all the students seem *ne* not to.like the movie
'All the students seem not to like the movie.'
= For all students x, it seems that x does not like the movie. ($*\neg > \forall, \forall > \neg$)
- (5) **TOUS les élèves ont pas aimé ce film.**
ALL the students have not liked this film
'ALL the students didn't like this movie.' ($*\neg > \forall, \forall > \neg$)

This paradigm shows that UQs have no problem scoping above negation (against the proposal in Szabolsci and Zwarts (1997)).

What is restriction R? It seems that there is a restriction on interpreting (but not pronouncing) UQs in [Spec, IP]. We can even make a generalization:

Preliminary generalization: Universal quantifiers cannot be interpreted in [Spec, IP].

This is a bold statement, but doesn't work, for two reasons.

First, it's theoretically undesirable to say that there's something wrong with the specifier position of IP (or of any projection). Instead, the head that projects is responsible for the properties of its specifier.

Second, the generalization is empirically incorrect. UQ's within subjects must take wide scope over negation.

- (6) **Le cadet de chaque famille n'a pas eu le bac.**
the youngest.child of each family *ne*-has not had the finishing.exam
'The youngest child of each family didn't pass the *Baccalauréat*
= For each family x , the youngest child of x didn't pass the Bac. ($*\neg > \forall, \forall > \neg$)

There's no restriction on interpreting UQs in [Spec, IP]. So what is restriction R? What rules out UQ subjects while sparing UQs inside them? I say the EPP feature. If restriction R applies to the EPP feature, we can derive the paradigm we've laid out without the two pitfalls our previous generalization ran into.

The EPP feature on I° selects its goal. The selection is not syntactic, since a copy is pronounced. However, the EPP feature does make a semantic selection.

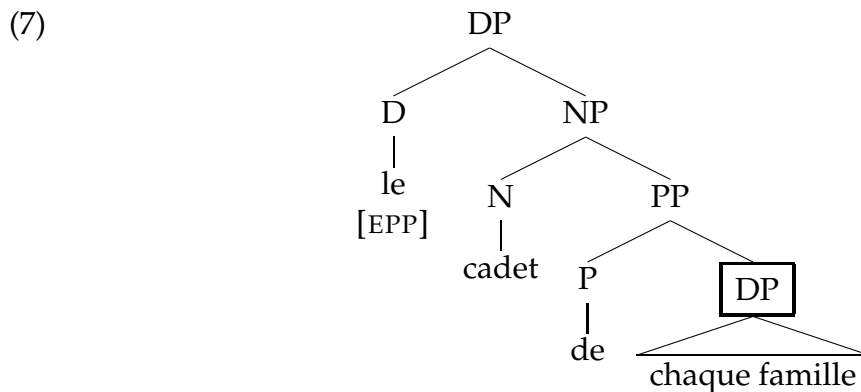
What kind of semantic selection? Generalized Quantifier theory, where a quantifier is of semantic type et,t , while other DPs are of type e (entities). We can recast the previous generalization in semantic terms, and properly identify restriction R.

Hypothesis: The EPP feature on I° selects for constituents of semantic type e .

It gets around the pitfalls:

1. The EPP feature is a feature of I° , and is solely responsible for the content of [Spec, IP], under current assumptions about Agree.

2. It attracts the UQ in (1), but not the one in (6). The UQ in (6) is pied-piped along with the attracted UQ.



It derives the paradigm

Basic case— The subject DP is attracted to [Spec,IP] by the EPP feature on I°. However, it semantically selects for an *e*-type denotation of the DP. A quantified DP can be interpreted as type *e*; here it would be interpreted in [Spec, IP] as a variable to satisfy the EPP’s restriction. Assuming that the quantifier needs to be interpreted as such at some point in the derivation, a lower copy of the quantifier must be interpreted.

- (8) a. *Tous les élèves ont pas vu le film.* =
Every student didn’t see the movie. ($\neg > \forall, * \forall > \neg$)
b. [IP [DP tous les élèves] [I° ont] [NegP pas [... [[**tous les élèves**]]] ...

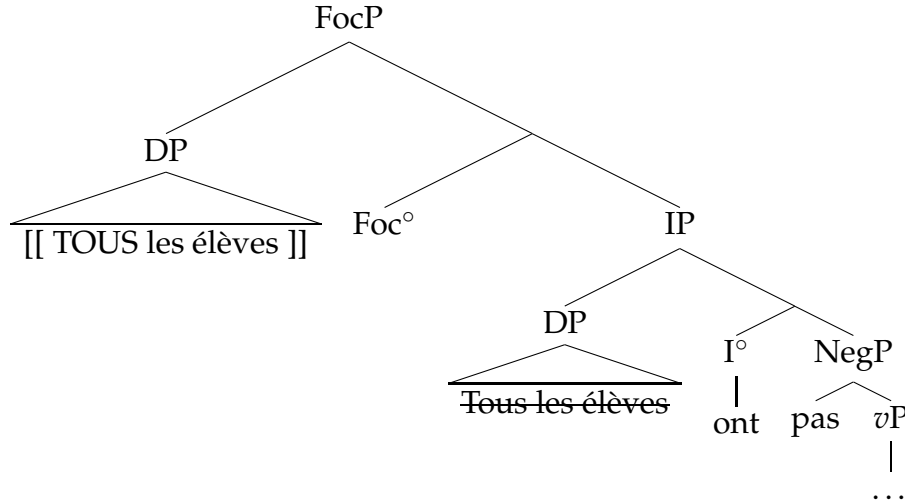
Adjuncts— These aren’t attracted by the EPP feature to begin with.

- (9) *Tous les jours, Paulette oublie pas d’arroser ses tulipes* =
Every day, Paulette doesn’t forget to water her tulips. ($*\neg > \forall, \forall > \neg$)

Focused UQ subjects— These are attracted by the EPP feature. Under our hypothesis, they must be interpreted somewhere else, namely the Split-CP level proposed by ?, which applies as well to French as it does to Italian.

- (10) a. *TOUS les élèves ont pas vu le film.* =
ALL the students didn’t see the movie. ($*\neg > \forall, \forall > \neg$)

b.



Raising predicates— The subject raises to a higher [Spec, IP] via the EPP, but gets wide scope.

- (11) *Tous les élèves semblent ne pas avoir vu le film.* =
All the students seem not to have seen the movie. ($*\neg > \forall, fn$)

Note that if there is matrix negation, the raised subject must take narrow scope.

- (12) *Tous les élèves ne semblent pas avoir vu le film.* =
Not all the students seem to have seen the movie. ($\neg > \forall, *\forall > \neg$)

If both clauses are negated, the UQ subject is interpreted in between.

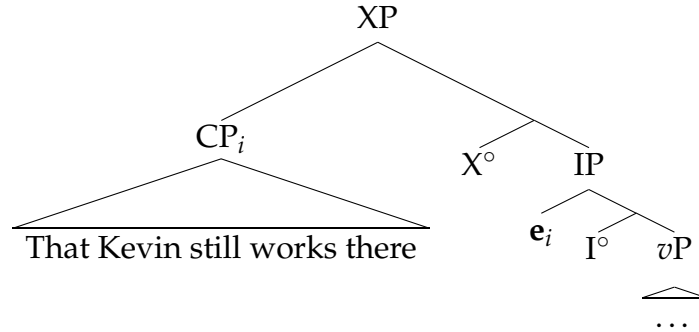
- (13) *Tous les élèves ne semblent pas ne pas avoir vu le film.* =
Not all the students seem not to have seen the movie. ($\neg > \forall > \neg$)

There must therefore be an intermediate projection, something also argued for by Bošković 2003, Johnson & Tomioka 1997, and Sauerland 2003. This projection, which I'll call FP, sits between *vP* and NegP. I propose it as the interpretation site of the UQS in (3).

Challenges: Our hypothesis rules out interpretation in [Spec, IP] of many subjects thought to be interpreted there, including quantifiers that scope over negation. Under our hypothesis, these are either being interpreted elsewhere, or are actually of type *e*.

- (14) **Sentential subjects:**
[_{CP} That Kevin still works there] surprises his neighbors.
[_{CP} Que Kevin y travaille toujours] étonne ses voisins.

(15)



- (16) a. **Az** [hogy Éva szereti Gergőt] nyilvánvaló.
 it.NOM that Eve loves Gergő obvious
 'That Eve loves Gergő is obvious.'
- b. **Azt hiszem**, [hogy Éva szereti Gergőt].
 it.ACC think-I that Eve loves Gergő
 'I think that Eve loves Gergő'

- (17) **Specificational subjects:**
 The lead actress in this movie is Dominique, isn't (it / *she)?
 L'actrice principale de ce film, (c' / *elle) est Dominique.

Existential and other types of quantifiers take wide scope.

- (18) a. **existential:** Quelques élèves ont pas vu le film.
 'Some students didn't see the movie. ($*\neg > \exists, \exists > \neg$)
- b. **degree:** Beaucoup d'élèves ont pas vu le film.
 'A lot of students didn't see the movie. ($*\neg > \exists, \exists > \neg$)
- c. **count:**
 Plusieurs élèves ont pas vu le film.
 'Several students didn't see the movie' ($*\neg > \exists, \exists > \neg$)

However, they are not bound by the copy theory the way UQs are. They can be bound at a distance by choice functions (Reinhart 1997). The most challenging quantifier is "most", which is not bound by any choice function.

- (19) **'most':** La plupart des élèves ont pas vu le film.
 'Most (of the) students didn't see the movie. ($most > \neg, *\neg > most$)

However, it doesn't 'look' like a quantifier, rather a definite DP (type *e*). Its etymology supports this. The fact that it shows some quantifier behavior doesn't matter, because a synonymous phrase that isn't a quantifier shares the same behavior.

- (20) a. La plupart des élèves (*a / ont) vu le film
 b. La plus grande partie des élèves (*a / ont) vu le film.
- (21) a. *There are most (of the) students in the garden.

b. *Il y a (la plupart / la plus grande partie) des élèves dans le jardin.

Finally EPP selection by itself doesn't ensure narrow scope for UQS. In addition, there must only be IP above NegP, until the CP-layer is reached. Thus, we predict that languages that pattern like French have the same configuration.

Typological prediction: At least one other language patterns like French in this respect: Turkish. Keleşir 2001 describes that UQS scope under negation.

(22) **Bugün her öğrenci sinema-ya git-me-di**
yesterday **every** student cinema-DAT go-neg-PRE.3SG
'Every student didn't go to the movies yesterday.' ($\neg > \forall$, $*\forall > \neg$)

Negation, she says, is seated right below I° . Thus, there is no site for UQS to be interpreted in above NegP.

One more thing: One consequence of this hypothesis is that English must have more than one position above NegP. English allows wide scope for UQS, and [Spec, IP] is unavailable as an interpretation site. Adverb placement and floating quantifiers show that English is more complex than French above the NegP level.

References

- Chomsky, N.: 1981, Lectures on Government and Binding. Dordrecht: Foris.
- Szabolsci, A. and J. Zwarts: 1997, 'Weak Islands and an Algebraic Semantics for Scope Taking'. In: A. Szabolsci (ed.): Ways of Scope Taking. Kluwer.