FRENCH N-WORDS: AGAINST AN INDEFINITE ANALYSIS OF *PERSONNE*[*]

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1. INTRODUCTION

In this paper, we provide an analysis of French N-word *personne* and show that it cannot be interpreted as an indefinite coupled with a negative Operator. Rather we claim that *personne* is better analysed as the negative counterpart of *tous les NP* 'all the NP'. In order to achieve this goal, we discussed the status of both French indefinites and Universal Quantifiers (∀QPs, henceforth). Taking into account the syntax, semantics, and prosody of indefinites, wh in-situ and ∀QPs, we provide a new and more detailed characterization of the Quantificational realm.

1.1. Theoretical assumptions

It is traditionally understood that the sentences in (1) and (2) yield scope ambiguities:

(1)	Every man loves a woman	(every > a); (a > every)
(2)	Tous les hommes aiment une femme	(tous >une);(une>tous)

Since May (1977), syntacticians consider the possibility of a syntactic operation applying at LF, capturing scope ambiguity. May's Scope assignment is a movement operation obeying the usual principles that governs movement in general: this special operation is a syntactic adjunction. From the beginning of Scope Theory, QR has been considered as grammatically encoded and is required for interpretation's sake: it is a covert scope taking mechanism generating scope. As such it is free. This presupposes that QR applies to all Quantifiers (QPs) without exception. However as Reinhart (1997) notes and as will be shown later, this is empirically incorrect. ∀QPs and ∃QP do not act alike in the presence of syntactic islands: ∀QPs cannot escape their own clause while ∃QP can. Their behaviour seems to indicate a different sensitivity to syntactic islands, suggesting that we should admit at least two types of QPs: the notion of QR needs to be constrained, whence the availability of non-quantificational indefinites interpreted in-situ.

Thanks to cross-linguistic works and theory-internal motivations, Beghelli (1995) and Szabolcsi (1997), Puskás (2001) among others have been able to argue that QPs never end up

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in an adjoined position and should be better understood as a syntactic operation triggered by feature-checking requirements. In other words the landing site of a QP at LF is selective, contrary to what is thought under the QR approach. Beghelli (1995) shows that QPs are best analysed if distinguished in different types: each type of QP has different semantic properties and different scope interpretations.

We show that ∀QPs are not uniform and neither are ∃QPs. We use the terms 'existential' and 'indefinite' interchangeably, in a non-theoretical way, to refer to French DPs like *un NP* 'a NP' or *quelqu'un* 'somebody. As will soon become clear, though, we formally characterise it as (i) a pure variable bound by an ∃QP (Heim (1982), Diesing (1992)) and (ii) as [+specific] and [+range] QPs.

1.2. Our proposal

Contra Beghelli (1995) and Beghelli and Stowell (1997) (B&S), we argue that distributivity is not syntactically encoded and that *tous les, chaque* and *chacun* are ∀QPs. As such they are non-referential.[1] Our working hypothesis is in line with traditional analyses in assuming that all ∀QPs are specific (Beghelli (1995)). However, we distinguish two kinds of "specific": while existential presupposition is defined as —along with Starke (2001)—range presuppositional reading in terms of a subset of a previously mentioned group (Enç's 1991 partitivity), specificity proper refers to familiar individuals (epistemic specificity).[2] Moreover, we claim that specificity is tied to the speaker, but not necessarily to the hearer. On the basis of the redefined concepts of distributivity, universality and specificity we provide a finer distinction of the three ∀QPs and argue that French ∀QPs (*tous les, chaque, chacun des*) each have different features.

In the Genevan variety of French, one can identify three types of indefinites all endowed with different prosody, semantics, and syntax. Similarly, three different kinds of wh in-situ are discussed: the latter show exactly the same behaviour characterising indefinites, namely Swiss-French wh in-situ have corresponding properties in terms of prosody, semantics, and syntax (see Starke (2001) for a first characterization of these elements).

Contra Déprez (1997), Mathieu (2002), we argue that N-words cannot be analysed as being composed of an Op_{neg} and an indefinite, since they show ∀QP-like semantico-syntactic properties.

The results we get will allow us to treat scope relationships between the different quantificational elements in terms of Starke (2001)'s idea of Relativized Minimality (RM), which is an enriched version of Rizzi (1990)'s RM .

In section 2 we present the semantic and prosodic behaviour of indefinites, wh in-situ, ∀QPs and N-words in French. In section 3 we extend Starke's idea of RM to indefinites providing an analysis for the syntactic behaviour of the various types of indefinites and wh in-situ in French and we argue that this analysis has to be extended to ∀QPs. In section 4, we introduce some influential views on N-words in French , Greek and Italian. We argue in section 5 that *personne* cannot be an indefinite, rather it should be better understood as the negative counterpart of a ∀QP. We provide an analysis of *personne* in terms of scope, suggesting that this N-word is composed of *tous les NP* and an Op_{neg}, where the ∀QP takes widest scope ([∀¬]). In section 6 we propose that the left periphery of the clause is composed of a variety of domains and that the quantificational domain is found right above IP, but below TopP. Section 6 is our conclusion.

[1] See Fodor and Sag (1982) for a characterisation of referentiality vs. to quantification.
[2] For a better characterization of the various ways specificity has been discussed, see Farkas (1994), (2002).

2. DESCRIPTION OF THE DATA

In this section we will describe the distribution of indefinites, wh in-situ, ∀QPs and N-words with respect to (i) intonation, (ii) interpretation, and (iii) syntax.

2.1. Indefinites

We use the term *indefinite* to refer to NPs like *un NP* 'a NP' (vs. one NP). In the variety of French under examination, we identify three versions of indefinites. They each can be associated with a different intonation related to a different interpretation. We show that intonation plays a fundamental role in deciding the interpretation of an indefinite object. Syntactically they exhibit various scope behaviours. The first kind of indefinite is the one we define as neutral indefinite. This indefinite is always associated with a flat intonation:

(3) Monica aime un homme (n'importe lequel)
Monica loves a man

(3) is non-presuppositional and take narrow scope when interacting with ∀QPs (4).

(4) Toutes les filles aiment un homme. (toutes > un), *(un > toutes)

Considering the fact that it takes narrow scope and that it does not involve any presupposition, we assume that this indefinite is a pure variable. By variable, we mean that the indefinite is interpreted as a pure variable having no quantificational force and no referent at all, i.e., via unselective binding. The existential construal of neutral indefinites is achieved by Existential closure (Heim (1982), Diesing (1992)). Hence we assume that neutral indefinites occur in non-presuppositional contexts as (5) suggests:

(5) a. Ron a un ennemi
Ron has an enemy
b. Nous allons tous essayer de savoir qui c'est
we are all trying to figure out who it was

(5a) can be uttered out-of-the-blue with no presupposition. This is confirmed by (5b) which indicates that the identity of the enemy is not known and that it is not even presupposed.

A second type of indefinite can be characterised as exhibiting a fall-rise intonation:

(6) Monica aime ∨ un homme, (i.e., Chandler)
Monica loves some man

In (6), what is associated with this particular intonation is the whole DP and not only the indefinite *un*. The fall-rise intonation is signalled by the diacritic '∨'. Fall-rise indefinites trigger a specific presupposition. This indefinite cannot be considered a pure variable. Specific Indefinites are not felicitous if uttered out-of-the-blue. Then, (5), would be infelicitous with a specific indefinite. Now, in the following context, only the specific use of the indefinite is felicitous, since the context is familiar:

(7) **Context A**: a magician shuffles the cards, lays them fan-shaped, taking pains to have one card show. He presents the deck to his victim. He then says

Conjurer:

a. # Prenez une carte (n'importe laquelle)
Pick a card whatever you like

b. # Prenez UNE (exactement) carte
Pick (exactly) a card

c. Prenez ∨ une carte
Pick a card (specific)

Context B:

Speaker A: Did you watch *Friends* yesterday? Is Monica still going out with that unsecure guy ?

Speaker B: M'enfin! Depuis 3 saisons, tous les fans de la série *friends* savent que Monica sort avec ∨ un homme /#UN homme / # un homme

'But fans of *Friends* have known for three seasons that Monica is dating ∨ a man /#A man / # a man'

The two indefinites we have considered so far are also different in terms of scope behaviour: when interacting with ∀QPs, fall-rise indefinites obligatorily takes wide scope, contrary to neutral indefinites:

(8) Toutes les filles aiment ∨ un homme. *(toutes > ∨un), (∨ un > toutes)

Finally, the last indefinite we discuss is associated with downfall intonation typical of focalisation. Note that this intonation is indicated by capital letters.

(9) Monica aime UN homme (exactly one – and no more)
Monica loves some man

Based on É. Kiss (1998), we identify the focalised indefinite in (9) as being an Identificational Focus [+ exhaustive] and [- contrastive].[3] Interpretatively, we assume that indefinite exhaustive Foci extract an individual from a list, as in (10): in (10) *chaque fantôme* 'every ghost' distributes over a list of castles. In this list, the speaker points out exactly one castle and not another, but nobody knows which one. This corresponds to the definition of range-based presupposition given in the introduction. In that sense, the exhaustive focus *UN château* ranges over a list of castles, where the whole list must be presupposed. In itself, then, the focalized indefinite is not specific but still presuppositional:

(10) Chaque fantôme hante UN château (chaque > UN) ; *(UN > chaque)
Every ghost haunts exactly one castle

Under the analysis just sketched out for specific indefinites this predicts that it does not appear in the same context. This is confirmed by the examples in (11):

(11) **Context**: a magician shuffles the cards, lays them fan-shaped and presents them to his victims. He then says:

[3] See É. Kiss (1998) for further details.

Conjurer:
a. # Tout le monde prend une carte (n'importe laquelle)
b. Tout le monde prend UNE (seule) carte
c. # Tout le monde prend ∨ une carte
everybody picks a card

In (11), there is a card game: there is then a referent. From that game, the conjurer proposes to pick up a card, without specifying which one. There is a Range and the victim is left with the choice to pick up any card. This only rule is to pick only one card. This is the quantificational non-specific use of the Indefinite

Summing up so far, we can say that: (i) a neuter intonation on a indefinite creates a variable interpretation (cf. Diesing's Existential closure). As such, it is interpreted as non-presuppositional; (ii) a fall-rise intonation on the indefinite creates a specific interpretation, i.e., it is interpreted as having an unique referent; (iii) a downfall intonation creates an exhaustive interpretation (crucially not contrastive), yielding a range-based presupposition. Let us now turn to the distribution of wh in-situ in Swiss-French.[4]

2.2. wh in-situ

As it is the case for indefinites, wh in-situ show different kinds of intonation, interpretation, and syntax. Interestingly, the paradigm we find for indefinites is paralleled by interrogative words. Note that in French yes/no questions are characterised by a rising intonation at the end of the sentence (Cheng and Rooryck (2000)). We observe that in non-presuppositional contexts, a wh in-situ receives a rising intonation, typical of yes/no questions ; presuppositional wh in-situ can have either a fall-rise intonation if they carry a specific presupposition or a downfall intonation if they carry a range-based presupposition which triggers exhaustive focus :[5]

(12) Speaker A: Tu as mangé quoi?
you have eaten what
Speaker B: Rien
Nothing

In (12) no presupposition is involved, hence the possibility of having a negative answer. The wh-word is uttered with a slight rising intonation. Note that this intonation should be distinguished from the one of echoic questions: echo intonation is characterized by a heavy rising stress on the wh in-situ, causing a rupture in the prosodic realization of the utterance, while the yes/no rising intonation doesn't. Rising wh in-situ are incompatible with ∀QPs, as (13) illustrates:

(13) * Tous les étudiants lisent quoi?
All the students read what

[4] The description we supply differs in a radical way from that usually provided in the literature (see Starke (2001) for a first characterization of these data. See also Baunaz (2004) for a somewhat finer description).
[5] Yet range is not associated with focus: if a specific DP is focussed, no range presupposition arises:

(i) J'ai vu seulement JEAN (et pas Marie)
I have seen only JEAN and not Marie

Here the focalised DP cannot be associated with a range reading but it can only have a contrastive reading. According to this perspective, range doesn't turns out to be equated with Focus.

Turning now to fall-rise wh in-situ, they display this intonation which characterises specific indefinites. Encouraging is the fact that they appear in the same contexts, as (14) shows:

(14) Speaker A : Tu as mangé ∨ quoi ?
you have eaten what
Speaker B: *Rien.
Nothing

The wh being presuppositional, the negative answer is not felicitous. When combined with ∀QPs, the fall-rise wh in-situ takes wide scope. Consider (15):

(15) Tous les étudiants ont lu ∨ quel livre/∨ quoi? (∨ wh > ∀), *(∀ > ∨ wh)
all the students have read which book/what

In this case the specific interrogative word necessarily takes wide scope over the ∀QPs.

As for the downfall wh in-situ they are endowed with a range-based presupposition and appear in the same contexts range presuppositional indefinites do (16).

(16) Speaker A : Tu as mangé QUOI ?
you have eaten what
Speaker B: * Rien
Nothing

Downfall wh in-situ cannot co-occur with ∀QPs, like rising wh in-situ:

(17) * Tous les étudiants ont mangé QUOI ?
all the students have eaten what

Summing up so far, we observed that with wh in-situ (i) a neutral intonation creates an non-presuppositional interpretation; (ii) a fall-rise intonation creates a specific interpretation (unique referent) and that (iii) a downfall intonation triggers a range interpretation.

2.3. N-words

So far we have described indefinites and wh in-situ through two different means: their intonation and their interpretation. Intonation seems to play a crucial role in distinguishing among the various interpretations these elements can get. If N-words were indefinites, we should find the same one-to-one correspondence between intonation and interpretation. Yet this correlation does not hold for N-words and sticking to the relationship between intonation and interpretation would be misleading. Then if it is true that a neutral intonation on an N-word doesn't seem to create any particular interpretation, we show that the parallel between indefinites and N-words does not hold for fall-rise and downfall intonations on *personne*.

As expected, a neutral intonation does not create any particular type of presuppositional interpretation allowing (18) to be uttered out-of-the-blue.

(18) a. Marie (n') a aimé personne.
Marie NE has loved nobody
b. Marie (n') a rien dit.
Marie NE has nothing said

In a context where no presupposition is conveyed, *personne* must have a neutral intonation. This is illustrated in (19):

(19) J'étais de mauvais poil aujourd'hui: j'ai parlé à personne.
I was in a bad mood today : I have spoken to nobody

Recall that fall rise intonation on an N-word may create a specific presupposition. Contrary to fall-rise indefinites, though, fall-rise *personne* must be contrasted. Compare the example in (20) to the next one:

(20) **Context**: Have you seen someone that you knew at the party?
a. Non, je n'ai vu ∨ personne / * personne
No, I NE have seen nobody
b. * Non, je n'ai pas vu qui que ce soit
No, I NE have seen anybody (adapted from Mathieu (2002:274 (102)))

In (20) *personne* contrasts with *quelqu'un* 'someone'. Note that the fall-rise intonation on the presuppositional *personne* seems to share similar properties with Contrastive Topics (CT), provided that CT are understood as involving the notion of 'givenness', typical of topics, and combining both a fall-rise intonation and a contrastive reading similar to focus (see e.g. Molnár 1998). Note that they are crucially non-exhaustive, as *personne* is in (21). Interestingly, the fall rise intonation on a the ∀QP *tous les NPs* also creates a CT intonation:

(21) Jean n'a pas vu ∨ tous les films, mais certains
Jean NE has seen all the movies, but some

We won't discuss the properties of CTs here, and leave it to future research, suffice to note that on ∀QPs and *personne*, a fall rise intonation creates a different interpretation than the one found with indefinites and wh in-situ (see Puskás (to appear) for a discussion of CT and negation).

Finally a downfall intonation on an N-word creates an exhaustive interpretation, just like for indefinites and wh in-situ.

(22) **Speaker A** : Did you go to the cinema last night? I am sure that you saw M. and L., they where there too
Speaker B: Non, j'ai vu PERSONNE

Note that *PERSONNE* in (22) triggers a contrast with what speaker A implies, that Speaker B saw M. and L. The difference with indefinites and wh in-situ lies in the fact that *PERSONNE* in (22) is clearly contrastive, while it is crucially not with UN (9) and QUOI (16).

We conclude that when it comes to N-words, intonation does not have the same effects as it has with indefinites and wh in-situ. Hence, *personne* has to be treated differently.

2.4. Universal QPs ("QPs) in French[6]

When it comes to ∀QPs, the interaction between intonation and interpretation is tricky. Interpretatively, we assume, following Beghelli (1995) and Vangsnes (1999) among others that ∀QPs are "specific" (in their terms, i.e, they carry along existential presupposition):

(23) a. All linguists speak at least two languages
b. All the linguists speak at least two languages (Vangsnes (1999:19))

In (23a) *all* denotes the universal set of all the linguists, i.e it has a generic construal. In (23b) *all the* is a sub-set of the universal set. A subset of individuals is extracted from the universal set. In this case the subset refers to a given or familiar group. Considering what has just been stated, it is impossible to associate a non-presuppositional reading with a ∀QP. Indeed, a neutral intonation on a ∀QP doesn't seem to create any presuppositional interpretation, rather the presuppositional interpretation prevails.

A fall rise intonation on a ∀QP does not create a specific presupposition. It tends towards a CT reading when in the scope of negation:

(24) Jean n'a pas vu ∨ tous les films, (mais certain)
J. NE has not seen all the films but certain

Yet when no Op_{neg} is involved, the interpretation of the ∀QP is not affected by this intonation.

Finally, a downfall intonation on a ∀QP may create an exhaustive interpretation triggering a range reading. Not all ∀QPs, though, can receive a downfall intonation: *chacun/chaque* cannot be interpreted as range presuppositional, while *tous les* can.

(25) a. * CHAQUE ETUDIANTS a vu Reykjavik, (et pas aucun/personne)
every student has seen Reykjavik
b. * CHACUN DES ETUDIANTS a vu Reykjavik, (et pas aucun/personne)
each of the students has seen Reykjavik
c. TOUS LES ETUDIANTS ont vu Reykjavik, (et pas aucun/personne)
all the/every students have seen Reykjavik

Oddly enough, *tous les* does not seem to need to be associated with a downfall intonation to be interpreted as being range. Note that the same results with ∀QPs objects:

d. ?? Joey a embrassé CHAQUE FILLE à NY (et pas aucune/personne)
Joey has kissed every girl of NY
e. ?? Joey a embrassé CHACUNE DES FILLES à NY (et pas aucune /personne)
Joey has kissed each of the girls of NY
f. Joey a embrassé TOUTES LES FILLES à NY (et pas aucune/personne)
Joey has kissed all the girls of NY

We conclude that intonation does not produce the same interpretive effects on ∀QPs that it does on indefinites and wh in-situ. In this respect, they resemble N-words. We will thus leave aside this aspect and concentrate on the intrinsic properties of these QPs.

[6] This section is a short version of Baunaz's (2002) third chapter. Part of this study is the result of a joint work with Genoveva Puskás.

In this section, we describe French ∀QPs. We restrict our description to partitive *tous les* 'all the NP' and *chacun des* 'each of' on the one hand and *chaque NP* 'every NP' on the other hand. We will discuss their status both in terms of scope and of features involving distributivity, collectivity and specificitiy.[7] The main conclusions we will arrive at are that distributivity is not syntactically encoded (contra Beghelli (1995), B&S (1997)) but is rather better understood as a semantic notion (see Gil (1995), Winter (2000), Baunaz (2002), Puskás (2002)).

French Quantification does not resemble English Quantification, or at least not the way English has been traditionally described. If it did, sentences in (27) would be ambiguous between surface and inverse scope (26). However, French does not exhibit this ambiguity:

(26) Every man loves a woman (every > a); (a > every)

(27) a. Tous les hommes aiment une femme (every > a); *(a > every)
All men /every man love(s) a woman
b. Chaque homme aime une femme (every > a); *(a > every)
each/every man loves a woman
c. Chacun des hommes aiment une femme (every > a); *(a > every)
each of the men love a woman
for every man (x), there is a woman (y) and (x) loves (y)
**there is a woman (y), such that every man (x) loves that woman*

The sentences in (27) are not ambiguous: only wide scope of the ∀QP is available. French exhibits Scope Rigidity. It is not true, however, that the same linear string yields the same construal, as (28) illustrates:

(28) a. Tous les hommes aiment UNE femme (every > a); *(a > every)
all men/every man love(s) A woman
b. Chaque homme aime UNE femme (every > a); *(a > every)
each/every man loves A woman
c. Chacun des hommes aime UNE femme (every > a); *(a > every)
each of the men love A woman
all men/every man love(s) ***exactly*** *one woman, and no more*

Examples (27) strongly resemble (28) in that they apparently involve the same expressions. However, the sentences in (28) have slightly different readings from those in (27). Even though both involve wide scope of ∀QPs, the indefinites involved in (27)-(28) differ in both meaning and prosody: (28) involves focalized range-based indefinites, while (27) neutral non-presuppositional ones.

The examples we just discussed suggest that only surface scope is available with these constructions. Does this mean that only surface scope is available? Observe the intonational pattern exhibited by the indefinites illustrated in (29):

(29) a. Tous les hommes aiment ∨ une femme (∨ un > ∀) ; *(∀ > ∨ un)
there is a woman (y), such that for all men (x), it is the case that (x) loves her
b. # Chaque homme aime ∨ une femme
c. # Chacun des hommes aime ∨ une femme

[7] Scope interactions between Indefinites and ∀QPs will be discussed in section 2.4.4.

In (29), the object is uttered with a slight fall-rise intonation typical of specificity. If *une femme* is not uttered with a slight fall-rise intonation, the inverse reading is unavailable and only surface scope shows up. A note on the judgements given in (29b)-c: both examples are ungrammatical if (i)Ú *une femme* is specific and if (ii) Ú *une femme* takes wide scope over *chaque* and *chacun*. A further reading is possible: if the ∀QP distributes over the event (and not over the indefinite) the sentence is fine, a fact also noticed by Puskás (2002). Hence the availability of (30):

(30) a. Tous les garçons ont reçu ∨ un prix
all the boys have received a prize
b. Chaque garçon a reçu ∨ un prix
every boy has received a prize
c. Chacun des garçons a reçu ∨ un prix
each of the boys has received a prize (Puskás (2002 :106-7 (3)))

In the examples just given, we see that *chaque* and *chacun* seem to syntactically pattern alike. The very fact that (29b-c) are not felicitous under the relevant reading suggests that the indefinite is blocked and cannot take wide scope. We claim that we face a case of RM. As (29) shows, Ú *une femme* is not blocked by *tous les hommes*, but is by *chaque homme* / *chacun des hommes*. We suggest that the two groups of QPs display different syntactic behaviours. While *chaque* and *chacun* are specific, below we claim that *tous les* is not, rather it triggers range-based presupposition.

Before discussing the various scope interactions indefinites and ∀QPs may enter in and the restriction ruling these interactions, we will first discuss the main properties of ∀QPs: we will argue against B&S (1997) that Distributivity is not a syntactic notion: we follow Baunaz (2002) and Puskás (2002) and provide evidence for a non-syntactic analysis of Distributivity. We will arrive at the conclusion that the position B&S (1997) propose for ∀QPs, namely DistP, is not further motivated. Moreover we give syntactic evidence that *all* in English and *tous les NP* in French belong to the same class as *every*, *each* and *chaque*, *chacun* in the two languages at stake, i.e., that of ∀QPs.

2.4.1. *Collectivity and Distributivity*

Above, we have implicitly introduced the notion of distributivity and collectivity. (27) shows ∀QPs taking wide scope over neutral non-presuppositional indefinites. In the three examples at stake, the ∀QP literally distributes over women: men co-vary with women. Choe (1997) claims that distributivity implies a distributor (the sorting key) and a distributee (the distributed share). The distributee can be an event.

In standard syntactic theories of Quantification i.e., May (1985) among others, ∀QPs form a uniform class. B&S (1997) shows that a more fine-grained typology is in order, though, since *every* and *each* do not behave in the same way: *each* can often take wide scope when *every* cannot. Moreover *every* and *each* behave alike with respect to distributivity, while *all* is analysed differently: the two groups of QPs have a distinct syntax. They conclude that *each* is an inherent [+distributive] quantifier; *every* is [% distributive], meaning that it is unspecified for distributivity and *all* is never [distributive], and they classify *all* as a GQP (Group Denoting) along with indefinites and bare numerals. Beghelli (1995), B&S (1997) consider *every* and *each* as both ∀ and distributive, called DQPs. *Every* and *each* are the only distributive quantifiers in English. The distributive construal (31) arises from pseudo-distributivity (also called weak distributivity):

(31) Two men carried three suitcases

Pseudo-distributivity arises with syntactically plural GQPs (namely, *all*, indefinites, bare numerals and definites). With these QPs, distributivity is optional, roughly meaning that they are not intrinsically distributive. They propose that a covert distributive operator (i.e., distribution over event) c-commands the pseudo-distributor GQP at LF. Hence, *all* syntactically behaves more like definites and bare numerals, typical GQPs. Different tests can show this. First, *all*, unlike *each* and *every*, can occur with predicates that need collective arguments:

(32) a. All the knights surrounded the castle
b. ?? Every knight surrounded the castle
c. * Each knight surrounded the castle

Second, *all* permit Inverse scope with a GQP in object position, while *each* and *every* are forced to have wide scope (examples (((33a,b) are from Gil (1995:322, his (2))):

(33) a. All men carried three suitcases (all>three); (three>all) (distr./coll)
b. Every man carried three suitcases (all>three); *(three>all) (distr./*coll)
c. Each man carried three suitcases (all>three); *(three>all) (distr./*coll)

Finally, (34) shows that distribution provides a distributor and a distributee. If this condition is not fulfilled, the distributive reading fails: the GQP *a different book* is meant to force the distributive construal since it acts as a distributive Share. In (34a,b), *every* and *each* distribute over *a different book*, while *all*, *the boys* and *five boys* can't:

(34) a. Every boy read a different book
b. Each (of the) boy (s) read a different book
c. * All the boys read a different book
d. * The boys read a different book
e. * Five boys read a different book (B&S (1997:90, (20)))

(35) illustrates the same contrast and shows that *all the books*, *Ulysses and Dubliners* and *two books* cannot scope over *a (different) book*, while *every* and *each* can, yielding the distributive reading:

(35) a. A (different) boy read every book
b. A (different) boy read each book
c. * A (different) boy read all the books
d. * A (different) boy read Ulysses and Dubliners
e. * A (different) boy read two books (B&S (1997:90, (21)))

Hence (35c) cannot get the interpretation where for *every book x, there is a possibly different boy who read x*. This reading is however available in (35a). On the basis of these data, B&S's (1997) conclusion is then that *all* belongs to the class of GQP, while *every* and *each* are ∀QP.

Against Beghelli (1995), B&S (1997) and Szabolcsi (1997) among others, we claim that there is no projection hosting a [+dist] feature in French. We will give various evidence in favour of this claim, mainly based on syntactic tests originating in Beghelli (1995), B&S

(1997) and show that their tests do not apply to French. Then, we will turn to another construction where ∀QPs show up: Puskás (2002) observes that the interpretation of floated QPs does not parallel that of non-floated, though their syntax does. We finally show that distributivity can show up in environment where no distributive Quantifier appears, suggesting again that distributivity is not syntactically encoded.

2.4.2. All *and* tous les *are not DistP*

Given obligatory cases of distributive reading for *tous les NP* in French, we claim, following current semantic analyses that distributivity has no syntactic effects: B&S's DistP does not exist. We assume that a semantic distributivity operator may be intrinsically related to ∀QPs, but not necessarily expressed. Moreover it is not the case that Universality reduces to distributivity, since non-∀QPs can have a clear distributive reading.

Section 2.4.1 shows that B&S's arguments in favour of a syntactic reflex of a $Op_{[+Dist]}$ does not hold for French, resulting in the expected conclusion that *tous les* is a ∀QP: lack of syntactic distinctions between *chaque*, *tous les* and *chacun* and a closer look at the Syntax of English *all* confirm this point. Section 2.4.2.2 presents Puskás (2002) argument in favour of a semantic-based distributivity. Section 2.4.2.3 lines up some of the problems introduced by the semantic notion of distributivity. Of course it is not meant to solve any of these problems and more work is needed in this area.

2.4.2.1. Collective predicates vs. distributive predicates

Collective predicates cannot take distributive subjects (36)-(37), while distributive predicates can (38)-(39).

(36) a. Tous les garçons se rassemblent dans la cour
all the boys gather in the courtyard
b. * Chacun des garçons se rassemble dans la cour
each of the boys gather in the courtyard
c. * Chaque garçon se rassemble dans la cour
every boy gather in the courtyard

(37) a. Tous les chevaliers entourent le château
all the knights surround the castle
b. * Chacun des chevaliers entoure le château
each of the knights surround the castle
c. * Chaque chevalier entoure le château
every knight surround the castle

(38) a. Tous les garçons se sont endormis
all the boys fell asleep
b. Chacun des garçons s'est endormi
each of the boys fell asleep
c. Chaque garçon s'est endormi
every boy fell asleep

(39) a. Tous les garçons meurent
all the boys die

b. Chacun des garçons meurt
each of the boys dies
c. Chaque garçon meurt
every boy dies

As expected by Beghelli (1995) analysis, these data suggest that *chaque* and *chacun* are clear distributive quantifiers, while *tous les* is ambiguous between two different readings. Recall that one of Beghelli's main point in favour of *all* not being a [+dist] quantifier is thast *all* does not license *a different* NP (see (34) and (35)). However once we use this test to force distributivity in French, we find opposite results.

(40) a. Tous les étudiants ont lu un livre différent
every student (pl) have read a book different
b. Chaque étudiant a lu un livre différent
every student has read a book different
c. Chacun des étudiants a lu un livre différent
Each of the students has read a book different

In French, *un livre différent* 'a different book' in (40) is perfectly acceptable under its distributee reading; in fact it is its only possible reading here. The collective reading is unavailable. Contrary to English *all*, however, (40a) suggests that French *tous les* can also be construed as distributor. In (40), the indefinite is uttered with no special intonation: neither the fall-rise nor the downfall intonation is involved. What would happen if they were?

(41) a. Tous les étudiants ont lu UN livre différent
b. Chaque étudiant a lu UN livre différent
c. Chacun des étudiants a lu UN livre différent

In (41) distributivity is still forced and the sentences are grammatical. *UN livre différent* acquires an exhaustive reading. Now observe the data in (42):[8]

(42) a. # Tous les étudiants ont lu ∨ un livre différent
b. # Chaque étudiant a lu ∨ un livre différent
c. # Chacun des étudiants a lu ∨ un livre différent

Strangely, the three sentences are infelicitous when *un livre différent* is uttered with the fall-rise intonation. However in (42), we don't have the same reading as in (40) and (41): *un livre différent* being specific, it is clearly not distributed over i.e, it is not a distributive share, in B&S (1997) terms.

Where B&S seem to be wrong, is when it comes to the QP *all*: at least in French, their test for distributivity does not work, since they are perfectly compatible with *un livre différent*, under a neutral intonation. This is again confirmed by the following data, still contrasting with the English ones in (34)- (35):

[8] The diacritic # indicates that under the intended reading the sentence is not felicitous, i.e., in the three sentences at stake, ∀QPs cannot take wide scope over the specific indefinite. If the ∀QPs distributes over event, the three sentences in (42) are rescued. Again, in that case, only a reading where *un livre différent* has an anaphoric reading is available, i.e., 'an N which is not identical to the one mentioned before' (B&S (1997:90, fn.13)).

(43) a. Un étudiant différent a lu tous les livres
a student different has read every books
b. Un étudiant différent a lu chaque livre
a student different has read every book
c. Un étudiant différent a lu chacun des livres
a student different has read each of the books

Still, in (43), the distributive reading is the only available interpretation: for all book (x), there is a possible different student who read (x). If *UN* is focalised, the exhaustive reading results:

(44) a. UN étudiant différent a lu tous les livres
b. UN étudiant différent a lu chaque livre
c. UN étudiant différent a lu chacun des livres

Again the non-distributive reading is infelicitous, as can be seen in (45):

(45) a. # ∨ Un étudiant différent a lu tous les livres
b. # ∨ Un étudiant différent a lu chaque livre
c. # ∨ Un étudiant différent a lu chacun des livres

tous les NP ('every'/'all') turns out to have distinct syntactic behaviours from English *all*: while a distributive reading is possible in French (46), it is not in English:

(46) a. Tous les nains rentreront dans la grotte l'un après l'autre[9]
every the dwarfs enter.fut.3.sg in the cave one after the other
b.?? All the people discovered the cave one after the other
(Junker (1995:83, her (3.25)))

Note that the French data presented in this section sharply contrast with their English counterparts and suggest that distributivity is not syntactically encoded.

2.4.2.2. QFloats (Puskás (2002))[10]

In a recent paper, Puskás (2002) shows that Floating Quantifiers (QFs) in French are evidence for the non-syntactic status of distributivity. Part of her task is to show that there is no position devoted to distributivity.[11] *Chacun* and *tous* can both float in French, whereas *chaque* cannot.[12] This is illustrated through (47) to (51).

(47) a. Tous les enfants ont mangé deux glaces
all the children have eaten an ice-cream

[9]Note that there seems to be speaker variations in this respect as in Junker's (1995:83) example:
(i) a. ?? Tous les gens découvrirent la grotte l'un après l'autre
All the people discovered the cave one after the other (Junker (1995:83, her 3.25))
b. ??? Chacun des enfants prendra un ballon l'un après l'autre
each of the children took a ball one after the other (Junker (1995:82, her 3.23))
To us, these sentences are perfectly correct.
[10] Most of the examples in this section are from Puskás (p.c, notes de cours (2003-2004)).
[11] An important result Puskás arrives at is that QFs are necessarily situated in a position higher than the VP
[12] See Puskás (2002) and Junker (1995) for analyses of floating possibilities in French.

b. Les enfants ont tous mangé deux glaces
The children have all eaten an ice-cream

(48) a. Chacun des garçons ont mangé deux glaces
each of the boys have eaten two ice-creams
b. Les garçons ont chacun mangé deux glaces
the boys have each eaten two ice-creams

(49) a. Chaque garçon a mangé deux glaces.
Every boy has eaten two ice-creams
b. * Les garçons ont chaque mangé deux glaces.
The boys have every eaten two ice-creams

(50) a. Tous les collègues ont signé une carte. (coll/dist)
All the colleagues have signed a card
b. Les collègues ont tous signé une carte. (coll/?*dist)
The colleagues have all signed a card

(51) a. Tous les garçons ont lu deux livres. (coll/dist)
all the boys have read two books
b. Les garçons ont tous lu deux livres. (*coll/dist)

If distributivity were tied to a syntactic position, both (50b) and (51b) should be non-distributive. Hence, if a QP is construed as distributive it does not necessarily occupy [Spec, DistP], either at Spell-Out or at LF. This claim is supported by the following examples:

(52) a. Tous les collègues ont signé la carte (coll/*dist)
all the collegues have signed the card
b. Les collègues ont tous signé la carte. (dist. over event)

(53) a. Chacun des collègues a signé la carte. (*coll/dist. over event)
each of the collegues has signed the card
b. Les collègues ont chacun signé la carte. (dist. over event)

Recall that distributivity can operate either over a GQP (in Beghelli's terms) or over an event (see Kratzer (1989)). According to Kratzer (1989), stage level predicates have an external argument (or event argument) whereas an individual level predicate lacks this argument. In (52) and (53) no indefinite is involved, on the contrary the presence of the definite DP triggers a collective reading in (52a) where *tous les* is not floated. If *tous* is floated, however, the distributive reading of the ∀QP is triggered and distribution over events results: in such case we face different events of signing. *Chacun* being strictly distributive, no collective reading is triggered in (53) and distribution over events is compulsory. If a verb does not involve an event argument -and as a consequence, no multiple events is triggered—the distributive reading over events is not available. Then *tous les* is compatible with the stage level predicate while *chacun* is not, as (54) and (55) illustrate:

(54) a. Tous les collègues connaissent la secrétaire. (coll/*dist)
all the collegues know the secretary
b. Les collègues connaissent tous la secrétaire. (coll/*dist)
the collegues know all the secretary

(55) a. * Chacun des collègues connaît la secrétaire.
Each of the collegues knows the secretary
b. * Les collègues connaissent chacun la secrétaire
the collegues know each the secretary

The aim of this section was to give further support in favour of a non-syntactic analysis of distributivity. Thanks to Puskás (2002), we have shown that [+dist] is not a syntactic feature, and as such, does not head a particular projection.[13]

2.4.2.3. *All* and *tous les* are Universal QPs

In this section, we give examples in both English and French, showing that *all* and *tous les* behave like *chacun/chaque* when it comes to syntactic islands. We argue that this is an argument in favour of their universal status.

In terms of extraction the paradigm in (56) shows that ∀QPs are not free to scope over the whole clause when embedded under a syntactic island (Reinhart (1997), (5)).

(56) a. **Someone** reported that Max and **all the ladies** disappeared (∃>∀) ; *(∀ > ∃)
b. **Someone** will be offended if we don't invite **most philosophers** (∃>∀);*(∀>∃)
c. **Many students** believe anything that **every teacher** says (∃>∀) ; *(∀>∃)

In (56), the ∀QP cannot be extracted out of (i) an embedded clause (56a), (ii) a wh-island (56b) and an NP-Complex (56c), contrasting with indefinites (Reinhart (1997:(6))):

(57) a. **Every one** reported that Max and **some lady** disappeared (∀>∃);(∃>∀)
b. **Most guests** will be offended if we don't invite **some philosopher** (∀>∃);(∃>∀)
c. **All students** believe anything that **many teachers** say (∀>∃);(∃>∀)

All behaves like *every* and *most*. Note that if *all* and *many* in (57c) where commutative, only one reading would be available.

Roughly the same syntactic tests can be applied to French to distinguish between French ∀QPs and GQPs. If it were like indefinites, *tous le*s NP should be able to escape syntactic islands. If it were like [+dist] Quantifiers, *tous les* NP should be clause-bound.

We have seen that in English, *all*, like *every* and *each*, cannot escape embedded clauses. This is illustrated for French in (58): under the Inverse Scope reading, all the following sentences are bad:

(58) a. * Une apprentie sorcière pense que tous les sortilèges sont faciles
an apprentice witch thinks that every /all the spells are easy
b. * Une apprentie sorcière pense que chaque sortilège est facile
an apprentice witch thinks that every spell is easy
c. * Une apprentie sorcière pense que chacun des sortilèges est facile
an apprentice witch thinks that each of the spells is easy

[13] The idea that distributivity is not syntactic is also supported by Gil (1995) who claims that distributivity is a semantically marked notion. We refer to Gil (1995) for further discussion.

Abstracting away from the available Generic interpretation of the indefinite subject, the sentence in (58) are all unavailable in French. However, if a slight fall-rise intonation is involved, the three examples in (59) become grammatical, and surface scope results:

(59) a. ∨ Une apprentie sorcière pense que tous les sortilèges sont faciles
an apprentice witch thinks that every /all the spells are easy
b. ∨ Une apprentie sorcière pense que chaque sortilège est facile
an apprentice witch thinks that every spell is easy
c. ∨ Une apprentie sorcière pense que chacun des sortilèges est facile
an apprentice witch thinks that each of the spells is easy

If *tous les* NP is in the matrix subject position and the indefinite is embedded in a lower clause, *tous les* NP, like *chaque* and *chacun*, will take widest scope iff the indefinites has a neutral/downfall intonation:

(60) a. Tous les magiciens pensent qu'une/UNE baguette est envoûtée (∀ > ∃) ; *(∃> ∀)
every / all the wizards think that a wand is cursed
b. Chaque magicien pense qu' une/UNE baguette est envoûtée (∀ > ∃) ;*(∃ > ∀)
every/each wizard thinks that a wand is cursed
c. Chacun des magiciens pense qu'une/UNE baguette est envoûtée (∀ > ∃) ; *(∃ > ∀)
each of the wizard thinks that a wand is cursed

If the indefinite is uttered with a slight fall-rise intonation, only inverse scope is available:

(61) a. Tous les magiciens pensent qu' ∨ une baguette est envoûtée
every / all the wizards think that a wand is cursed
b. Chaque magicien pense qu' ∨ une baguette est envoûtée
every/each wizard thinks that a wand is cursed
c. Chacun des magiciens pense qu' ∨ une baguette est envoûtée
each of the wizard thinks that a wand is cursed

The data just presented suggest that *tous les* can appear in the same environment as *chaque* / *chacun*. *Tous*, unlike *all*, is ambiguous between a collective and a distributive reading.

A closer investigation of the Universal realm in French revealed that distributivity is not the correct factor for the partition of the ∀QPs vs. non-∀QPs. As such we suggest extending the Universal field to apparent non-distributive QPs, as is generally advocated (see Gil (1995)). All of this suggests contra B&S, that distributivity is not a syntactic phenomenon, but rather a semantic one. Some hint in favour of such an analysis is that ∀QPs are semantically plural. This holds for both distributive and non-distributive ∀QPs. Gil (1995) says that "NPs such as all men and every man characteristically specify or allude to sets containing more than one member." Gil (1995). Syntactically, however, English distributive ∀QPs are always singular, while non-distributive are not.

(62) a. All men$_i$ can achieve their$_i$ goals if they$_i$ try hard enough
b. Every man$_i$ can achieve his goal if he$_i$ tries hard enough

(63) a. All winners$_i$ will receive a gold medal. They$_i$ will also be awarded with a free trip to Pattaya
b. Every winner$_i$ will receive a gold medal. He$_i$/They$_i$ will also be awarded with a free trip to P.

However (63b) seems to suggest that *every* can also bind plural pronouns in a following clause, i.e., patterning like *all.*

Another reason to consider distributivity as a semantically marked feature is that *each*, *every*, *chacun* and *chaque* normally do not occur with mass nouns:[14] mass nouns do not denote individualised entities hence cannot be construed as distributors. Hence *chaque* and *chacun* generally appear with countable nouns for distribution to apply.

We claim that *tous* is not specified for [+dist], but can get a distributive construal if a silent semantic *D* Operator activates the Distributive reading. It cannot be denied that *tous* might be involved in distributive readings, as well as in collective readings. Summarising the data just sketched, we can see that there is indeed a discrepancy among ∀QPs.

2.4.3. *Specificity/range*

Recall that our working hypothesis states that ∀QPs are specific, in a broad sense. In this section, though, we develop this idea exploiting the definition of specificity given in section 1.2. We conclude that—although not all ∀QPs are specific, they all are presuppositional.

Enç (1991) points out that QPs are always specific, since they quantify over a 'contextually given set' (Enç (1991:11)). We assume that *chaque*/*chacun* are intrinsically specific QPs, while *tous les* is range-based. Consider the relevant range context:

(64) **Range context :** The bride and the groom drew up the guests' list for the marriage. After receiving the list, Rachel, the maid of honour, asks the bride:

Rachel : Tu veux que **toutes les filles** soient présentes à ton enterrement de vie de jeune fille ?
Do you request that all the girls be.subj.3pl present at your bachelorette-party?

a. # Tu veux que chacune des filles soie présente à ton enterrement de vie de jeune fille ?
Do you request that each of the girls be.subj.3pl present at your bachelorette-party?

b. # Tu veux que chaque fille soie présente à ton enterrement de vie de jeune fille ?
Do you request that every girl be.subj.3pl present at your bachelorette-party?

In range contexts only *tous les* is felicitous, *chacun/chaque* are incompatible.

Intervention effects seem to support the fact that we face two different kinds of ∀QPs. In the next section we show that *tous les*, *chacun* and *chaque* can be interveners in scope islands, when interacting with indefinites, though yielding different results.

2.4.4. *Intervention Effects*

We have just suggested that some ∀QPs are specific and other range-based; crucially they are all quantificational. We predict that they should not be able to topicalize since topics must be non-quantificational, as confirmed in (65) and (66) for topicalization and CLLD respectively:

(65) a. * Chaque étudiant, je l'ai aidé
Every student, I him have helped

[14] Unless in special registers. See Vangsnes (1999:39) for a detailed description of the phenomenon.

b. * Chacun des étudiants, je l'ai aidé
each of the students, I him have helped
c. Tous les étudiants, je les ai aidés
all the /every student, I him have helped

Oddly enough we realise that, despite its quantificational force, *tous les* turns out to be able to topicalise.[15] We leave this problem for further research.

(66) a. * Chaque étudiant, j'ai aidé
every student I have helped
b. * Chacun des étudiants, j'ai aidé
each of the students I have helped
c. * Tous les étudiants, j'ai aidé
All the/every student I have helped

Above, we have seen that specific indefinites do not focalise: only range-based indefinites do. If our approach in terms of features is correct, we expect range-based elements to be able to focalise. Fortunately it is exactly what happens with *tous les* in (67), recall the examples in (25), repeated here as (67):

(67) a. * CHAQUE ETUDIANTS a vu Reykjavik
every student has seen Reykjavik
b. * CHACUN DES ETUDIANTS a vu Reykjavik
each of the students has seen Reykjavik
c. TOUS LES ETUDIANTS ont vu Reykjavik
all the/every students have seen Reykjavik

These data confirm the idea that quantificational elements come in at least two flavours: on the one hand, we have *tous les* 'all the' that can be focalised and on the other hand, *chacun* and *chaque* that cannot. Drawing a parallel with indefinites, we can then stipulate that *tous les* is range-based, just like exhaustive indefinites and *chaque/chacun* are specific. According to RM, movement of an element is blocked by an element of the same type. If the notions of specificity and range were syntactically encoded, we expect them to be sensitive to locality constraints. This is exactly what we find. *Chacun* and *chaque* block wide scope of specific indefinites, while *tous* does not:

[15] Note however that when preposed, *tous les étudiants* necessarily triggers some contrastive interpretation suggesting that we are facing contrastive focalisation. This conclusion is to rash however: first contrastive focalisation in French –just as in Italian- does not require the presence of a resumptive clitic in the presupposed part of the sentence; second it best shows up in clefts –unlike Italian, as (i) illustrates:

(i) C'est JEAN que j'ai aidé, pas MARIE
It is JEAN that I helped, not MARIE

Crucially ∀QPs cannot be focalised in this way, as (ii) shows. (In (ii) we give examples of contrastive focalisation in French which suggests that ∀QPs, if they focalise, stay in situ in overt syntax (see (67))):

(ii) a. ?? C'est TOUS LES GARÇONS que j'ai aidé, pas UN
b. * C'est CHAQUE GARÇON que j'ai aidé, pas UN
c. * C'est CHACUN DES GARÇONS que j'ai aidé, pas UN

This may suggest that the case we are discussing, namely (65), involves neither topicalization, nor focalisation. It might be a case of contrastive topicalization (G. Puskás, p.c). More research needs to be done in this area.

(68) a. Tous les hommes aiment ∨ une femme
All the men love a woman
b. # Chaque homme aime ∨ une femme
every man loves a woman
c. # Chacun des hommes aime ∨ une femme
each of the men loves a woman

What blocks movement of the specific indefinite is not the fact that it crosses a [+Q] element, since in this case we would expect (68a) to be ungrammatical. Rather it is the fact that it crosses a specific ∀QP. This means that specific indefinites are blocked by specific [+Q]. In the same way *chacun* and *chaque* block movement of specific indefinites, *tous les* prevents range indefinites from moving, i.e. range indefinites take narrow scope.

(69) a. Tous les étudiants ont lu UN livre (Tous > UN) ; *(UN > Tous)
all the students have read a book
b. Chaque étudiant a lu UN livre (∀QP > UNQP) ; *(UN > ∀QP)
every student has read a book
c. Chacun des étudiants a lu UN livre (∀QP > UNQP) ; *(UN > ∀QP)
each of the students has read a book

In a feature-based typology, we distinguish between quantificational and referential elements (and variable, but still, variables are somehow related to QPs, since they have to be bound by them) on a one hand, and between specific, range and non-presuppositional on the other hand. Fall-rise indefinites scope over ∀QPs and, as we will argue, they are [+Q] and certainly not variables: they are interpreted as specificity-based presuppositional; *un* is a true variable, i.e., has to be bound by an Op∃ and *UN* is exhaustively focalised: it involves range-based presupposition. We then discussed the fact that *chaque/chacun* 'each/every' are specificity-based, while *tous les* 'all the' is range-based.[16] On the basis of RM we conclude that *tous les* is range, while *chacun* and *chaque* are specific.

2.4.5. *Conclusion*

Summing up this section, we have shown that distributivity is not a syntactic notion. We also gave evidence that *tous les* is a ∀QP contrarily to what assumed in Beghelli (1995), B&S (1997). Thanks to RM we determined that *tous les* is range presuppositional whereas *chacun* and *chaque* are specific (70).

(70) a. chacun: [+universal] ; [+distributive] ; [+specific]
b. chaque: [+universal] ; [+distributive] ; [%specific][17]
c. tous les NP:[+universal] ; [%distributive] ; [range]

3. INDEFINITES / WH IN-SITU: SYNTACTIC CONSTRAINTS

It seems that indefinites and wh in-situ pattern alike when confronted to the same syntactic constraints. We know that overt wh mvt is sensitive to various syntactic effects: i) weak islands ; ii) strong islands; iii) WCO and SCO. Here we focus on weak islands. Wh-

[16] In section 3, we show that indefinites and wh in-situ pattern alike in this respect.
[17] We assume that *chaque* is ambiguous between a specific and a generic reading, whence the % diacritic. In this talk we leave aside the discussion of the generic reading.

movement creates A'-dependencies. If indefinites, wh in-situ, and N-words are affected by mvt, we expect some locality constraints—paralleling those affecting overt wh mvt—to show up. Here we present indefinites and wh in-situ. N-words will be discussed in section 4.

3.1. Weak islands: Argument/adjunct Asymmetry

As discussed in section 2.4.2.3, indefinites and ∀QPs display different scope behaviours. Assuming that wide-scope indefinites indicate LF-movement to a c-commanding position, we have shown that only specific indefinites are Island Free, while range and non-presuppositional indefinites are not (see (60)-(61)). The same pattern arises with weak islands:

(71) a. Tous les garçons se demandent quand Jean invitera ∨ une fille
*(∀ > ∨ une) ; (∨ une > ∀)
b. Tous les garçons se demandent quand Jean invitera UNE fille
(∀ > UNE) ; *(UNE > ∀)
c. Tous les garçons se demandent quand Jean invitera une fille
(∀ > une) ; *(une > ∀)
all the boys wonder when J. will invite a girl

Only specific indefinites can take wide scope over an external ∀QP, range and non-presuppositional indefinites cannot. When it comes to wh in-situ, we note that the latter show locality effects: both are trapped in weak islands.

(72) a. Tu demandes qui a fait ∨ quoi /*quoi /*QUOI
you wonder who has done what
b. Tu demande si Alexandre a lu ∨ quel livre / *QUEL LIVRE/ *quoi
you wonder if Alexandre has read which book

(73) a. * Tu demandes qui a cuisiné ce poulet ∨ comment/ COMMENT/ comment
you wonder who has cooked this chicken how
b. * Tu demandes si elle veut partir ∨ comment / COMMENT/ comment
you wonder if she wants leave how

Argument specific wh in-situ does not show any sensitivity to wh-islands, while adjunct specific wh in-situ are stuck (see Starke 2001). On the basis of the data described in (72) and (73), we conclude that we are confronted to a classical argument/adjunct asymmetry, typical of wh-movement. All of this leads us to conclude that wh in-situ and specific indefinites in French indeed move at LF.

3.2. Intervention Effects

A second type of Islands that is worth considering is the one discussed in Beck (see also Rizzi's (1991) observations). There she shows that Op movement at LF is blocked if another Op intervenes (acting as a barrier for extraction), as shown in (74):

(74) * $[\ldots X_i \ldots [Q \ldots [\ldots t_i^{LF} \ldots]]]$ (Beck (1996:1 (2)))

If we try to construct a sentence with two non-commutative QPs we obtain the following results:

(75) a. elle a **pas** lu ∨ un livre *(Neg > ∨un) ; (∨ un > Neg)
b. elle a **pas** lu un livre (Neg > un) ;*(un > Neg)
c. elle a **pas** lu UN LIVRE (Neg > UN) ;*(UN > Neg)
'she has not read a book'

Specific indefinites can move past negation and take scope over it. When it turns to neutral and range indefinites, the opposite result is obtained: only narrow scope is available. (76) shows that no matter the position of the indefinite (subject or object), the scope relationship between negation and the three indefinite-types are preserved:

(76) a. Une femme n'a **pas** vu Marie (Neg > une) ;*(une > Neg)
b. ∨ une femme n'a **pas** vu Marie (∨ une > neg) ; *(neg > ∨ une)
c. UNE femme n'a **pas** vu Marie *(UNE > neg) ; (neg > UNE)
A woman NE has not seen Marie

Interestingly, a similar pattern arises with wh in-situ in the same syntactic configuration:

(77) a. * elle a **pas** lu quoi ?
b. * elle a **pas** lu QUOI ?
c. elle a **pas** lu ∨ quoi ? (wh > pas) ; *(pas > wh)
She has not seen what

Note however that where we get an LF-blocking in (76), we find ungrammaticality in (77). As far as we can see, we are here confronted to two different effects: Intervention I leads negation to create an impossible barrier to cross, whereas Intervention II –where sentential negation intervenes—only blocks a reading. The result is however comparable: in both cases, either a wh or an indefinite cannot be LF-moved past a [+Q] phrase, unless specific.

Let us now turn to the interaction between ∀QPs on the one hand, indefinites and wh in-situ on the other hand. As for interactions between *tous les* and indefinites/wh-in.-situ, only specific Op turns out to take wide scope:

(78) a. Tous les étudiants lisent UN livre (∀ > UN) ; *(UN > ∀)
b. Tous les étudiants lisent ∨ un livre *(∀ > ∨ un) ; (∨ un > ∀)
c. Tous les étudiants lisent un livre (∀ > un) ; *(un > ∀)
all the students read a a book
d. ?? Tous les étudiants lisent QUOI?
e. Tous les étudiants lisent ∨ quoi ? (∨ WH > ∀) ; * (∀> ∨ WH)
f. * Tous les étudiants lisent quoi?
All the students read what

Turning now to *chaque* and *chacun*: as illustrated in (79) and (80), contrary to (78) both specific indefinites and specific wh in-situ are blocked.

(79) a. Chaque étudiant a lu UN livre (∀ > UN) ; *(UN > ∀)
b. # Chaque étudiant a lu ∨ un livre
c. Chaque étudiant a lu un livre (∀ > un) ; *(un > ∀)
every student has read a book
d. * Chaque étudiant a lu QUOI ?

e. *? Chaque étudiant a lu ∨ quoi ?
f. * Chaque étudiant a lu quoi ?
every student has read what

(80) a. Chacun des étudiants a lu UN livre (∀ > UN) ; *(UN > ∀)
b. # Chacun des étudiants a lu ∨ un livre
c. Chacun des étudiants a lu un livre (∀ > un) ; *(un > ∀)
Each of the students has read a book
d. * Chacun des étudiants a lu QUOI ?
e. * Chacun des étudiants a lu ∨ quoi ?
f. * Chacun des étudiants a lu quoi ?
each of the students has read what

We claim that we are here dealing with a pure case of RM. First recall the intrinsic specifications of ∀QPs in (70) : *tous les* is [+range] and is not necessarily distributive, while *chaque/chacun* are [+specific] and necessarily distributive. Second we claimed that fall-rise indefinites and fall-rise wh-in-situ are [+Specific], while neutral Op are non-presuppositional and downfall QPs are [+range]. Then following RM we expect the following constraints:

(81) specific Op:
a. $Q_{specific}$ …Q …$Q_{specific}$
b. * $Q_{specific}$ …$Q_{\mathbf{specific}}$ …$Q_{specific}$
c. $Q_{specific}$ …$Q_{\mathbf{range}}$…$Q_{specific}$

range Op :
d. * Q_{range} …Q_{range}…Q_{range}
e. * Q_{range}… $Q_{\mathbf{specific}}$ … Q_{range}
f. * Q_{range} …Q …Q_{range}

Non-presup. Op :
g. * Q…Q…Q
h. * Q… $Q_{\mathbf{specific}}$…Q
i. * Q…$Q_{\mathbf{range}}$…Q

According to what we have seen so far, we arrive at the conclusion the Q_{spec} are absolute blockers for extraction:

(80) * Q … [$Q_{\mathbf{specific}}$ … t

As exemplified in (80) no element can cross a specific QP.

Summing up what we have seen so far, we reach the following conclusions:

- The variety of French under examination shows at least 3 different instances of wh in-situ which can be described in the same way as indefinites:
  - (i) fall-rise wh in-situ; (ii) downfall wh in-situ; (iii) rising wh in-situ.
  - (i)+ (ii) involve existential presupposition: (i) is specific; (ii) is range
  - (iii) is non-presuppositional
- Syntactically indefinites and wh-in-situ behave in the same way
  - (i) fall-rise wh in-situ are not trapped either in weak islands or in strong islands

- (ii) downfall wh in-situ are stuck in weak islands, but not in strong islands
- (iii) rising wh in-situ are not presuppositional and cannot be LF-moved

Note moreover that French wh-words are not intrinsically interrogative. In (82) we show that wh-words appear as (i) NPI, (ii) exclamatives, (iii) relative pronouns, (iv) some indefinites can also be morphologically constructed with the wh-morpheme *qu* :

(82) a. Quoi qu'il fasse, ce gars est un nul
whatever he does, this guy is a jerk
b. Quel homme !
what a man
c. La fille avec qui Joey a rendez-vous ce soir est arrivée
the girl with whom Joey has a date tonight is arrived
d. Quelque chose me dit que Joey n'a pas bien compris
Something tells me that J. NE has not well understood
e. Quelqu'un n'aime pas la musique de Phoebe
Somebody NE likes not Phoebe's music
f. Quelques amis sont venus manger chez Chandler et Monica
Some friends are come to eat at Chandler and Monica's

The syntactic behaviour of these elements and the fact that these wh-words occur in non-interrogative environments suggest that they are all indefinites. Because they are blocked by [+Q] interveners, we conclude that they are all constructed with an indefinite and an Op.

According to RM, movement of an element is blocked by an element of the same type. Since specific indefinites are not blocked by other specific NPs like *cet homme* 'this man' in (83), but are by [+Q] (84) we conclude that (i) specificity is not quantificational and that (ii) specific indefinites are quantificational:

(83) Cet homme aime ∨ une femme
this man loves a woman

(84) a. # Chacun des hommes aime ∨ une femme
each of the men loves a woman
b. ?? Combien est-ce qu' ∨ une femme a lu de livres
how many EST-CE QUE a woman has read of books

(84a) illustrates the case in which a specific indefinite is blocked by a Q_{spec}, while in (84b) Ú *une femme* intervenes between the launching site and its landing site, resulting in a degradation. We follow Heim (1982) and Diesing (1992) in assuming that indefinites are pure variables needing to be bound by an operator, i.e. via existential closure. Thus, neutral indefinites are not intrinsically quantificational: we face a case of unselective binding. Based on the scope relations described in (77) through (78), we assume that a fall-rise indefinite is composed of an $Op_{\exists}$ and a specific indefinite. Range indefinites combine an $Op_{\exists}$ and a range indefinite. This follows from the idea that both specificity and range imply presupposition of existence (see Starke (2001:13)).

(85) a. [indefinite specific-$Op_{\exists}$]
b. [indefinite range-$Op_{\exists}$]
c. [indefinite] $Op_{\exists}$:

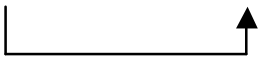
Again, because of different scope relations we assume the following basic structures for wh in-situ in French (see Hagstrom (1999) for a similar idea for wh in-situ constructions in Japanese):

(86) a. [indefinite specific -Op_{wh}] : non-Split-DP
b. [indefinite range - Op_{wh}] : non-split DP
c. [indefinite -Op_{wh}] : Split-DP (in-situ)

Note that the tentative structure in (85) is not the basic structure for (86). In other words, we do not claim that a specific wh-word is composed of [indefinite specific-$Op_{\exists}$] + Op_{wh} : such an idea would imply that there would be two operators ($Op_{\exists}$ and Op_{wh}) which need to bind a variable each. However, in this case there would be only one variable.[18] On the contrary, what allows us to draw a parallel is the fact that both involve a specific indefinite. Hence the common feature between indefinite and wh-words is not the Op binding the indefinite, but the indefinite itself.[19]

Based on Obenauer's (1994) observation that overt split-DP constructions yield non-specific reading in French, we assume that the following split-DP structure is only met with non-presuppositional indefinites and wh in-situ. Hence only (86c) yield split-DP constructions of the type in (89) (see also Pesetsky's 1998 *Intervention effect* (universal charaterization) for an extension of this idea):

(89) [variable+Q_{wh}] … C°



(85c) does not involve movement of the $Op_{\exists}$ since the latter is generated at the VP-level. In other configurations, then we get covert movement of the whole complex-DP.

4. N-WORDS

According to Mathieu (2002), N-words like *personne* and *rien* are complex DPs of the type just discussed, that is they are composed of an indefinite combined with a phonologically null Op_{neg}. We argue against this analysis and supply syntactic arguments in favour of the universal status of *personne* in French.

Following Zanuttini (1991) and Mathieu (1999), (2002) we assume that N-words are inherently negative: first they can appear in fragment answers (90); second, they cannot appear in non-negative contexts (91);[20] thirdly they can license NPIs (92) and fourthly if two N-words appear in the same clause, they create a Double Negation (DN) reading comparable to one of the readings found in (93a), which contains one N-word combined with *pas* (93b); finally clitic *ne* is not necessarily realised. As illustrated in (94), *ne* can be left out when related to either the subject n-word or the object-word, a fact noted in Mathieu (2002:233). If N-words, as well as *pas*, are inherently negative, it follows that *ne* cannot be negative, otherwise we would expect the sequence *ne ... pas/n-word* to yield DN.

(90) **Speaker A** : T'as vu qui?
You have seen whom ?

[18] We will not enter into further details since this work is still in progress.
[19] Maybe the term *indefinite* here is a bit misleading since we use this word for both what is traditionally referred to as existential and what would correspond to the notion of variable. This needs to be worked out.
[20] The ungrammaticality arises with the relevant reading, which should be associated with that of NPIs.

Speaker B: Personne (negative)
Nobody

(91) * Personne n'a appelé? (non-negative)
Did anybody telephone?

(92) a. Personne n'a vu qui que ce soit
Nobody NE has seen anybody
b. Jean n'a pas vu qui que ce soit
Jean NE has seen not anybody

(93) a. ?? Jean n'a pas rien vu (DN)
Jean NE has not nothing seen
b. Personne n'as rien dit (DN/NC)
Nobody NE has nothing seen
(i) 'There are no x and no y, such that x is a person, and y a thing, and x said y.'
(ii) 'It is not the case that there are no x and no y, such that x is a person, and y is a thing, and x said y.'

In the literature, it is generally assumed that (93b) is ambiguous between two readings: (i) corresponds to a Negative Concord reading (NC) where the two N-words converge into one single negation, while (ii) is associated with a (DN) reading in which the two N-words cancel out each other.[21]

French negation is bipartite, formed by ne_{cl} and a negative element. *Ne* can be related either with the subject N-word (94b), or by the N-word in object position (94a):

(94) a. Je **n'**ai vu personne
I NE have seen n-word
b. Personne **n'**a vu Marie
Nobody NE has seen Marie (Mathieu (2002:234, (46)))

As we get a NC reading in (94) –rather than DN- , we conclude, along with Mathieu (2002), that French *ne* is not inherently negative, while N-words are. (95) supports this claim in that it shows that *ne* is not necessarily present in French:

(95) a. J'ai vu personne
I have seen n-word
'I haven't seen anyone'
b. Personne a vu Marie
N-word has seen Marie
'No one has seen Marie' (Mathieu (2002:235, (47)))

We conclude along with Mathieu (1999), (2002) that French N-words are inherently negative.[22]

It is admitted that a single N-word can give rise to two different logical structures:

[21] It is not clear if French does indeed exhibit double negation in context where two N-words co-occur. According to Genevan speakers of French DN is restricted to the occurrence of the negative adverb *pas* and to bi-clausal constructions. In other words, (93b) is not ambiguous and only the NC reading is possible.
[22] For an alternative analysis see Laka (1990) and Ladusaw (1992).

(96) a. $\forall x\,[P(x) \rightarrow \neg\, Q(x)]$ (Universal negation)
b. $\neg\exists x\,[P(x) \wedge Q(x)]$ (Existential negation)

> The two formulae are truth conditionally equivalent; but the fact that these two options exist makes it plausible to hypothesize that some N-words would correspond to existential quantifiers under negation, some others to universal quantifiers, and some others perhaps to both. (Giannakidou 2002:5)

From these equivalent formulae, people have tried to determine on which side N-words fall: they could logically be interpreted as $\exists$ or as $\forall$. The nature of N-words'internal structure has been debated in syntax for a long time. On the one hand, there are approaches advocating for their indefinite status (Mathieu (1999), (2002) among others). On the other hand, Zanuttini (1991), Haegeman and Zanuttini (1991), Haegeman (1995) and Giannakidou (2000) argue that they are clearly universal. In the next section, we focalise on the nature of N-words.

4.1. Previous analyses

There are two possible paths to deal with the nature of N-words. The first path we explore is the one taken by linguists claiming that N-words are (at least) composed of an indefinite. This path is followed by Déprez (1997) and Mathieu (2002). The second path advocates for the universal status of N-words and will be illustrated by Zanuttini (1991) and Giannakidou (2000). Note that within these two main streams, four different perspectives can be isolated, depending on whether N-words are conceived of as being negative or not.

4.1.1. *Déprez (1997)*

According to Déprez (1997), N-words are not inherently negative; rather they "are indefinite DPs with varying quantificational force" (Déprez (1997: 104)). She argues in favour of the idea that N-words are like numerals, in that they denote the numeral 'zero', rather than 'one, two…'. In other words, *personne* means *zero personne*. She claims that N-words are non-negative which "nevertheless remain distinct from Negative Polarity items in that they can have quantificational or generic force" (Déprez (1997: 105)).

Without going into a detailed discussion of Déprez (1997), we present a main counter-argument to her analysis. Against the claim that French N-words are not inherently negative and that they are better analysed as the numeral 'zero personne', Haegeman (1996) provides examples showing that *zero personne* is not compatible with ne_{cl}, suggesting that *zero personne* is not inherently negative, while *personne* is.[23]

[23] Haegeman (1996) provides a second argument against the idea that N-words parallel numerals: "In Déprez' account, where French N-words are assimilated to zero numeral" (Haegeman (1996: 7)), the contrast between (ia-b) and (ic) is not expected. If the equation posited by Déprez was correct the three examples of French stylistic inversion should be all acceptable.

(i) a. Qu'a donné Jacques à trois personnes de son groupe ?
what has given Jacques to three people of his group
b. Qu'a donné Jacques à zero personnes de son groupe ?
what has given Jacques to zero people of his group
c. *?? Que (n') a donné Jacques à personne de son groupe?
what (NE) has given Jacques to no one of his group

Haegeman thus convincingly proves that N-words cannot be conceived of as numerals.

(97) a. Je n'ai vu personne
I NE have no one seen
'I did not see anyone'
b. * Je n'ai pas vu zéro personnes
I NE have seen Mary
c. Je n'ai pas vu Marie
I NE have NOT seen Marie (Haegeman (1996: 6, (13)))

In order to determine what its status is, we discuss two further analyses. Mathieu (2002) argue that they are indefinites combined with an Op_{neg} and Zanuttini (1991) claims that they are universal.

4.1.2. *Mathieu (2002)*

Criticizing Déprez's approach, Mathieu (2002) claims that N-words must be analysed split constructions, combining an Op_{neg} and an indefinite (or variable), paralleling with the internal structure of wh-words: both are "complex XPs consisting of a phonologically null negative operator and an indefinite expression" (Mathieu (1999:319)). Mathieu (2002) gives convincing arguments against the claim that N-words are NPIs—that is non-inherently negative polarity items which must be roofed by a negative operator to express a negative meaning: *personne* cannot appear in questions, conditional and factive constructions and be interpreted as an NPI (98):[24]

(98) a. * Personne a téléphoné?
N-word has telelophoned
'Has anyone called?'
b. * Si tu vois personne, fais-le-moi savoir
If you see N-word, let-it-me know
'If you see anyone, let me know'
c. * Je suis surpris qu'il connaisse personne
I am surprised that he knows-$_{SUB}$ N-word
'I am surprised that he knows anyone'

Based on these examples Mathieu concludes that *personne* is not an NPI, since PI do not show such effects. Rather, it is a QP, consisting of a null operator and something else. Because N-words consist of an Op_{neg} and an indefinite, the Op_{neg} obligatorily raises to NegP at Spell-out, binding a variable: since the indefinite is stranded in-situ, the result is a Split-DP:

(99) $[_{NegP}\ OP_{NEGi}\ [_{VP}\ \ldots[t_i\ \text{indefinite}]]]$ (Mathieu (2002:265, (93)))

He argues that N-words are negative indefinites and advocates the idea that "French negative statements with N-words are instances of scope marking chains in which the null operator is a sub-extracted adjunct."(ibid.). Such an analysis predicts that Op_{neg}-movement is blocked when crossing another Op in its way to NegP:

(100) a. * Je ne demande que seulement JEAN voie personne
I NE ask that only JEAN see-$_{SUB}$. Nobody

[24] See Mathieu (2002) for further discussion and examples.

b. * Je n'ai seulement VU personne
I NE have only SEEN nobody (Mathieu (2002:274, (73)))

If *seulement* is a focus marker and causes *JEAN* to be focussed, then Op_{neg}-movement to a position next to the scope marker *ne* is blocked by Op_{FOC}. Again, RM is witnessed. According to Mathieu (2002), Op_{neg}-movement corresponds to Op_{wh} phonologically null movement at Spell-Out. In the dialect of French he describes, wh in-situ are sensitive to both weak and strong islands, i.e., they behave like aduncts in terms of Rizzi (1990): Op_{wh} movement leaves non-referential traces that need to be antecedent-governed. When an operator (Op_{FOC} in (100)) intervenes, antecedent-government is blocked, creating a RM effect. Drawing a comparison between wh in-situ and N-words in French, it follows that the trace left by Op_{neg}-movement is non-referential. Adopting Mathieu's perspective, though, would lead us to make wrong predictions. If French N-words were to be analysed like non-canonical quantification, that is split-DP constructions, they should behave like wh in-situ.

In the remaining of this subsection we argue against: i) the predictions raising assuming Mathieu's split-DP analysis, ii) the data he presents to illustrate intervention effects.

Mathieu's claim that N-words and wh in-situ display split-DP internal structures, is mainly based on the French construction discussed in Obenauer (1994), illustrated in (101):

(101) a. Combien$_i$ as-tu peint/*es t_i de toiles ?
how-many have you read of paintings
b. Combien de toiles$_i$ as-tu peint/es t_i?
how-many paintings have you read-masc.pl
'How many paintings have you read?'

(101a) illustrates an overt Split-DP construction: the Op_{wh} *combien* is separated from its restriction, which is left in-situ. In (101b), the whole complex [Op-indefinite/restriction] has been moved, as witnessed by Spell-Out pied-piping. According to Obenauer non-split constructions may be "specific", while split-constructions are definitively not: this is confirmed, according to Obenauer, by the fact that in French, the past participle may agree in number and gender with the moved DP[25]. This is also supported by weak island facts: recall that in French, it is easier to extract a presupposed/specific wh-object in a negative island than a non-presupposed wh-phrase (see Rizzi (1990), Obenauer (1994)). The same appears to be correct with *combien*-constructions:

(102) a. * Combien$_i$ n'as-tu pas lu t_i de livres?
How-many NE have you not read of books
b. Combien de livres$_i$ n'as-tu pas lus t_i?
How-many of books NE have you not read-$_{MASC.PL}$ (Mathieu (2004:8, (10)))

Non-presuppositional (i.e., non-specific) wh in-situ cannot be extracted out of negative islands, while presuppositional/specific can. Chang (1997), Boeckx (2000) and Cheng and Rooryck (2000) assume that wh in-situ in French are presuppositional. Mathieu (1999), (2002) does not challenge this claim[26]. Mathieu (2002) assumes that wh in-situ constructions are covert Split-DP constructions: "in [(103a)] the null operator is phonologically pied-piped,

[25] "On Obenauer's view, when agreement is instantiated the interpretation is specific (a set of [paintings] is presupposed), whereas when no agreement shows up on the verb, the reading is one according to which there is no existential presupposition associated with [paintings]." (Mathieu (2004:8))
[26] see section 3, Starke (2001) and Baunaz (2004) for data and analyses against this claim.

while in (103b) it is not" (Mathieu (2004:9)). Op_{wh} is moved to the C-system, while the restriction is left in-situ, and, as in (102a), if a QP intervenes, the sentence is out:

(103) a. Tu as lu combien de livres?
you have read how-many of books
b. * Tu n'as pas lu combien de livres?
You NE have not read how-many of books (Mathieu (2004:8, (11)-(12)))

What (103) tells us –according to Mathieu (2004)— is that in (103b), the non-overt operator moves up to SpecCP, leaving its restriction in-situ (i.e, no pied-piping of phonological features), then it behaves like overt Split-DP constructions. This leaves (103b) with the following structure:

(104) * $[Op_{wh} \ldots[Op_{neg}\ldots[\text{restriction}]]]$

Generalizing (104) to all operators Mathieu predicts that Focus, Negation, ∀QPs and wh-phrases block movement of French wh in-situ, since they all involve Operators.

Recall two points raised by Mathieu (1999), (2002): (i) wh in-situ constructions in French are always strongly presuppositional and (ii) they can never cross negation (or any Op type). Under the parallelism drawn between the syntax of overt *combien*-constructions and wh in-situ, we expect non-presuppositional wh to be bad in extraction out of Weak Islands (eWI), i.e., not strongly presuppositional wh in-situ. In (101b), *combien de livres* is strongly presuppositional, i.e., specific under Obenauer's (1994) terminology. Then, wh in-situ cannot be understood as Split-DP constructions: we get exactly the opposite result: overt 'specific' wh can appear in weak islands (102b), while covert specific wh-moved cannot (103b)[27].

Drawing a parallel with N-words, Mathieu assumes that they always carry existential presupposition: 'French N-words can only be used in scenarios where a situation with its participants is given" (Mathieu (2002: 274)). Whence the contrast in the answer (105).

(105) **Speaker A**: Did you see anyone you knew at the party?
Speaker B:
a. Non, je n'ai vu personne.
No I NE have seen nobody
b. # Non, je n'ai pas vu qui que ce soit.
No I haven't seen anyone

NPIs can only be used in non-presuppositional contexts as the (106) illustrates:

(106) **Speaker A**: Did you see anyone at the party?
Speaker B: Non, je n'ai pas vu qui que ce soit.
No, I NE have NOT seen anyone
'No, I haven't seen anyone' (Mathieu (2002:275, (102)))

And Mathieu concludes that "since in French, there is no choice between moving just the operator or the whole complex, [since the scope of negation is clause-bound], the question that arises is how a non-presuppositional reading can be obtained? I conjecture that, in this

[27] As shown in section 3.1, wh in-situ interacting with QPs are fine iff wh-phrases scope over these QPs. This is again unexpected under Mathieu's approach.

case, the constructions with NPIs are used" (2002:275).[28] If the context in (106) were really non-presuppositional, we expect *personne* not being able to be used. However, replying by *personne* to speaker A is acceptable, suggesting that N-words in French can be non-presuppositional. In section 2.3, we have already discussed the different intonations / interpretations that might be assoociated with an N-words and we saw that, crucially, it can have a non-presuppositional reading. We conclude—on the basis of what has been said—that Mathieu's conception of split-DPs does not hold.

Turning now to the intervention effects presented in (100), the data presented do not seem to be that degraded to speaker of Genevan French. These sentences improve when *ne* is left out. Ungrammaticality in (100a) also seems to be triggered by the presence of *que*, while *demander* usually selects *si* ('if/whether').

(107) a. ? Je demande que seulement JEAN voie personne.
I NE ask that only JEAN see-$_{SUB}$. Nobody
b. J'ai seulement VU personne.
I NE have only SEEN nobody

In (107a) above, the acceptability of the sentence is due to the absence of the negative scope marker. Note that such an example becomes perfectly well-formed if *seulement* is either replaced by *seul* or deleted (107b). Crucially we maintain the acceptability of a configuration in which a focus and *personne* co-occurs.

(108) a. Je ne demande que seul JEAN voie personne.
I NE ask that only JEAN see-$_{SUB}$. nobody
b. Je ne demande que JEAN voie personne.
I NE ask that JEAN see-$_{SUB}$. Nobody

The acceptability of (108) illustrates that the N-word is not blocked by the focal operator. We thus reject Mathieu's analysis.

Another problem with Mathieu's analysis lies in the way he conceives the activation of Op$_{neg}$-movement. Since *ne* alone cannot convey negativity (109) and that when occurring with only one N-word, DN never results, Mathieu assumes that *ne* is not negative.

(109) a. Je fume **pas**
I smoke not
'I don't smoke'
b. * Je **ne** fume
I NE smoke (Mathieu (2002: 261,(86)))

He thus puts forward that *ne* is a scope marker, without any semantic content. Under the hypothesis that the element occupying a head position realises the feature of that head, Mathieu seems to equate the non-negativity of *ne* with the non-negativity of Neg°:

[28] Of course, Mathieu (2002) is aware of the fact that indefinites are Island-free, in Reinhart's (1997) sense. If N-words are formed by the combination of a [OP¬ - indefinite], we expect them to be Island-free too, contrary to facts. So Mathieu (2002) is obliged to restrict N-words to their clause via the introduction of a Skolem Function at the clausal-level, binding the indefinite:

(i) Opneg$_i$ … Q$_j$*f*$_i$ (x$_j$) (Mathieu (2002:269 (100)))

The reader is referred to Mathieu (2002) for further details.

> French is therefore not a strict NC language. By a strict NC language I mean one in which the Neg head is inherently negative (such as in Italian, Spanish, the Slavic languages and Greek). In French, NC is instantiated only in the case of multiple N-word constructions (Mathieu (2002: 265))

As such, the negative head Neg° in French is not inherently negative, contra Zanuttini (1991), Haegaman and Zanuttini (1991) and Haegeman (1995).

The assumption that *ne* has no semantic content does not constitute a problem per se. Problems arise when Mathieu claims the non-negativity of Neg°. Considering that within a Minimalist framework, all movement has to be triggered by checking requirements, in Mathieu's analysis there would be no reason why the element should raise towards [Spec, NegP]. How would Op_{neg}-movement at Spell-Out be advocated for?

In the next two subsections we discuss Giannakidou (2000), Zanuttini (1991), Haegeman and Zanuttini (1991) and Haegeman (1995) who take a different path: they show that N-words do not behave like indefinites (or NPIs); rather they observe syntactic behaviours paralleling those of ∀QPs. In the next section, we will first present Zanuttini and Haegeman's approach. In section 4.1.4 we develop Giannakidou's.

4.1.3. *Zanuttini/Haegeman: N-words behaves like Universal Quantifiers*

Zanuttini (1991), Zanuttini and Haegeman (1991), Haegeman (1995) assume that *nessuno* in Italian and *niemand* in West Flemish are intrinsically negative (as Mathieu claims). Contrary to Mathieu (2002), though, Zanuttini (1991) claims that N-words behave like ∀QPs. Her arguments are based on Italian. First she notes that N-words can be modified by *quasi* 'almost' and *assolutament* 'absolutely' in Italian (110b)-(111b), a property also shared by ∀QPs (110a)-(111a), but not by indefinites/NPIs (112):

(110) a. Quasi tutti i miei amici sono sposati
almost all the my friends are married
b. Quasi nessuno è sposato
Almost nobody is married

(111) a. Ho visto assolutamente tutti i film di Tarantino
have seen absolutely all the film of Tarentino
b. Non ho visto assolutamente nessun film di Tarantino
Neg have seen absolutely no film of Tarantino

(112) a. * Ho letto quasi/assolutamente un libro
have read almost/absolutely a book
b. * Non ho letto quasi / assolumente alcunché
Neg have read almost/absolutely anything

Then she argues that topicalization of N-words is possible, as topicalization of ∀QPs is:[29]

[29] The data discussed by Zanuttini (1991) raise some questions in the light of recent studies on topicalization in Italian (Rizzi (1997) among others). The Italian strategy corresponds to CLLD, as in (i):

(i) Gianni, l'ho visto
John, cl. have.1.sg seen

(113) Proprio niente, ho detto
Absolutely noting, I have said (Zanuttini (1991:129, (213)))

Zanuttini (1991) points out that *proprio niente* is topicalized in (113).[30] NPIs, on the contrary, are incompatible with such a construction:

(114) *? Alcunché, non ho detto
'I haven't said anything' (Zanuttini (1991:130 (216)))

(114) shows that NPIs cannot be topicalized, since they wouldn't be licensed by negation. On the basis of these observations (and others), Zanuttini (1991) concludes that N-words are

> quantifiers consisting of two semantic components, a quantificational and a negative element. While being one constituent from the syntactic point of view, they differ from other quantifiers in the language in having to satisfy the requirements of both their semantic components, the quantificational and the negative one. Hence, unlike non-negative quantifiers, they have the requirement that they must raise to a position where the negative component can enter a configuration of Spec-Head agreement with a functional element of type X° which has negative features. Zanuttini (1991:138)

In the next section, we present Giannakidou's (2000) approach.

4.1.4. *Giannakidou (2000)*

According to Giannakidou (2000), Greek N-words are not intrinsically negative, rather they are "polarity sensitive universal QPs which need negation in order to be licensed, but must raise above negation in order to yield the ordering ∀ ¬"(1).[31] In Greek, N-words can appear in

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It has been claimed, since Cinque (1990), that Topicalization yields non-quantificational chains. Consequently it is inadequate to claim that ∀QPs topicalize (see fn 34 for the same reasoning on French). Indeed, if *proprio tutti I ragazzi* is preposed, no resumptive clitic is inserted, as (ii) illustrates:

(ii) a. Proprio tutti i ragazzi, ho visto
really all the boys, I-have seen
b * Proprio tutti i ragazzi, li ho visti
really all the boys, them have seen.pl

We conclude that what Zanuttini (1991) considers to be topicalized (*proprio niente* in (113)) is not. Luigi Rizzi (p.c) suggests that maybe what we face in (ii) (and consequently in (113)) is not topicalization but rather, focalization, since *proprio* is a focus marker.

[30] Zanuttini (1991) also notes that depending on the intonation, we get different interpretations in (i), with *proprio niente* still "topicalized". This is illustrated in (ia)-b:

(i) Proprio niente, non ho detto
'I haven't said nothing'
'I haven't said anything' (Zanuttini (1991:129, (214)))

Italian does not exhibit DN, but in certain contexts, where intonation seems to play a crucial role, it shows up. In (ia), if *proprio niente* is not focalized, but rather receives ' (a) primary stress on *niente* and a secondary stress on the finite verb *ho*, (b) a pause separates the two, and (c) *niente* has a rise and a fall on it, then the reading is that of double negation (…)' (Zanuttini (1991:130)). On the contrary, the NC reading arises if 'there is (a) primary stress on the preposed constituent and no stress on the rest of the clause, (b) no noticeable pause separating the two parts and, (c) only a fall on *niente*' (ibid.). Yet speakers disagree on this last interpretation: some reject NC under the focal intonation: *non* being impossible in such a structure. This needs to be worked out.

[31] "Polarity sensitivity is a form of semantic dependency between polarity items (PIs) and context" (Giannakidou (2000: 7)).

non negative contexts, unlike in French and in English. She claims that NC languages such as Greek involve ∀QPs scoping over negation. This order is finally obtained via LF-movement (corresponding to QR) of the ∀QP in a wide scope position.

The universal status of N-words in Greek follows from the fact that they show a syntactic and semantic behaviour similar to the one of ∀QPs. This is exemplified in (115), for syntax ((115) is adapted from Giannakidou (2000) her (21a), (22), (26)).[32]

(115) a. * Dhen prodosa mistika [pu eksethesan KANENAN]
not betrayed-1sg. Secrets that exposed.3pl. n-person
"I didn't reveal secrets that exposed nobody'
b. * I Ilectra dhen ipe oti idhe [TIPOTA]
The Electra not said.3sg. that saw.3sg n-thing
"Electra didn't say that she saw nothing"
c. KANENAN dhen idha
nobody not saw.1sg.
"I saw nobody"

The sentences in (115a)-b show that Greek N-words are clause-bounded: they are not licensed in syntactic islands (115a); they are not licensed long-distance (115b). Finally, (115c) exemplifies the possibility for N-words to be topicalised. Her observations reveal that N-words behave exactly like ∀QPs.

As for semantic evidence, Giannakidou provides the following observations: first, she notes, along with Zanuttini (1991), that N-words can be modified by *almost/absolutely* just as ∀QPs and unlike existentials/indefinites:

(116) a. * Electra was willing to accept almost something
b. Electra was willing to accept almost everything
c. Dhen idha sxedhon KANENAN
not saw 1.sg almost n-person (Giannakidou (2000), her (27))

A second semantic argument is supplied by the fact that ∀QPs cannot bind a Donkey anaphora (117), whereas existential/indefinites can. Again N-words pattern like ∀QPs:

(117) a. I fitites pu exun kat$_i$ / tipota$_i$ na pun, as to$_i$ pun tora.
The students that have.3pl something$_i$ /anything$_i$ subj.say.3pl, let it say.3pl now
'The students that have something$_i$ / anything$_i$ to say should say it$_i$ now'
b. * I fitites pu dhen exun TIPOTA$_i$ na pun, as min to$_i$ pun tora.
(*The students that have nothing$_i$ to say, let them not say it$_i$ now)
c. * I fitites pu aghorasan kathe vivlio$_i$, na to$_i$ ferun mazi tus
the students that bought.3pl every book, subj it.3pl with them
(*The students that bought every book$_i$ should bring it$_i$ with them.)

As illustrated, Donkey anaphora cannot be bound by ∀QPs and N-words.

A final semantic arguments is represented by the impossibility for N-words to be construed as predicate nominals. Once again, this impossibility recalls the behaviour displayed by ∀QPs consider (118) and (119)—Giannakidou's (39) and (40).

[32] Crucially, in Giannakidou (2000) capital letters do not signal a focalised element but rather emphasis.

(118) * Dhen ine KANENAS idhikos.
Not be3.sg any specialist
'He is no specialist'

(119) Frank is {a/*every} friend of mine.

Summing up what we have been through so far, N-words have been analysed in four different ways: non-negative indefinites (Déprez (1997)), negative indefinites (Mathieu (2002)), negative ∀QPs, the negative operator being prefixed to the ∀QP (or NQPs like Zanuttini (1991)), and finally as non-negative ∀QPs, with the logical operator in their scope (Giannakidou (2000)).

After having argued against Déprez (1997) and Giannakidou (2000), but along with Mathieu (2002) and Zanuttini (1991), that French N-words are necessarily negative, we have shown that an approach *à la* Mathieu (2002) is both empirically and theoretically inadequate.

Another step towards an understanding of *personne* in French is to have a look at the syntactic behaviour of this element and its scope relationship with different Op: we conclude that *personne* behave like ∀QPs, corroborating Zanuttini's (1991) and Giannakidou's (2000) conclusion. We follow Mathieu (2002) in assuming that *ne* is not negative.

4.2. The status of French N-words (once more)

Specific and Range indefinites have been claimed to combine an $Op_{\exists}$ and a indefinite of the relevant type. Based on syntactic evidence, we have shown that an specific [+Q] is an absolute blocker. The reverse seems to hold, since only specific [+Q] can be extracted out of any kind of [+Q]. Since wh-phrases in-situ behave interpretatively, prosodically and syntactically along with indefinites, then, we proposed that they should be given the same internal structure: we claimed that wh-phrases are composed of [Op_{wh} + indefinite], where the indefinite can be specific, range or non-presupposed.

If N-words have the same internal structure as wh-phrases and indefinites, we expects them to show similar syntactic behaviours. Because N-words are crucially clause-bound, and because they show similar behaviour as ∀QPs, we conclude that they cannot be analysed as having an indefinite component, but rather a universal one.

In this section we provide various pieces of evidence that *personne* is best treated as ∀QPs, just as *tous les, chaque* and *chacun*, and rather than indefinites / wh in-situ.

4.2.1. *Clause-boundness*

Recall section 2.4.2.3 where we claimed that ∀QP are clause-bound, while indefinites are not. As Zanuttini (1991) and Giannakidou (2000) notice, clause-boundeness also characterises N-words of the *personne*-type:[33]

(120) * Je **ne** crois que Marie ait dit qu'elle ait vu personne
I NE believe that M have.subj.3sg said that she have.subj.3sg seen nobody
(Déprez (1997) :111 (13a))

[33] Note that the fact that (120) exhibits Subjunctive Quantifiers does not seem to improve the judgements:

(i) * Marie **n**'a dit que Jean avait vu personne

As it has already been observed by Zanuttini (1991), N-words display a behaviour which is closer to the one characterising ∀QPs rather than the one peculiar to wh words. Wh phrases can be overtly moved from an embedded tensed clause to the matrix [spec, CP] position. Wh-phrases and indefinites are not clause-bound, while ∀QPs are.

4.2.1.1. Wh Islands

French n-word *personne* may occur in argument positions. If we assume that *ne* is a scope marker, the examples below show that N-words cannot be LF-extracted out of their clause.

(121) a. * Tu **ne** te demandes [quand voir personne]
you NEG yourself ask when no one
'You NE wonder when to see no one' (Déprez (1997:110, (9)))
b. * Je **n'**ai dit que personne allait venir
I NEG have said that no one would come

The reason for the ungrammaticality of the sentences in (121) can be accounted for by advocating that *personne* cannot move past wh-islands (see Déprez (1997) and Mathieu (2002) for similar observations).

4.2.2. *Modification by* presque

Zanuttini (1991) and Giannakidou (2000) argue that Italian and Greek ∀QPs can be modified by the degree adverb *presque* 'almost', while indefinites and NPIs cannot. In French the same result obtains: (122) shows that the adverb felicitously modifies *tous les*. (123) exemplifies the incompatibility between *presque* and indefinites, while (124) illustrates the impossible co-occurrence of such an adverb with NPIs.

(122) J'ai vu presque toutes les filles
I have seen almost all the girls

(123) a. * J'ai vu presqu'un homme
I have seen almost a man
b. * J'ai vu presque quelqu'un
I have seen almost somebody

(124) a. * J'ai vu presque qui que ce soit
I have seen almost anybody
b. * Je n'ai pas vu presque qui que ce soit
I NE have not seen almost anybody

Turning to N-words, (125) below shows that they are compatible with *presque*:

(125) J'ai vu presque personne
I have seen almost nobody

Considering that personne can be modified by the ∀QP adverb, it patterns with ∀QPs. Recall, though, that ∀QPs come in two different flavours. Modifying *chacun/chaque* by *presque* yields ungrammaticality (126).

(126) a. ?? J'ai vu presque chacune des filles
I have seen almost each of the girls
b. ?? J'ai vu presque chaque fille
I have seen almost every girl

Suggesting that *personne* is semantically closer to *tous les* than to *chacun/chaque*.

4.2.3. *Topicalization*

A third diagnostic distinguishing indefinites and NPIs on the one hand from ∀QPs on the other hand, is the possibility of being preposed (See fn 29). If "preposed" means "topicalised", then in French such a test does not provide any clue concerning the status of N-words since both indefinites/NPIs and ∀QPs are impossible in CLLD:[34]

(127) a. * Personne, je l'ai vu
Nobody I cl.3sg have seen
b. * Tout le monde, je l'ai vu
everybody I cl.3sg have seen
c. * Qui que ce soit, je l'ai vu
anybody I cl.3sg have seen
d. * Qui que ce soit, je ne l'ai pas vu
anybody I NE cl.3sg have not seen
e. * Un garçon, je l'ai vu
a boy I cl.3sg have seen
f. * quelqu'un, je l'ai vu
somebody I cl.3sg have seen

If the Italian preposed constituent is to be associated with focus, then Zanuttini's test is still not concluent for French:

(128) a. * C'est TOUT LE MONDE que j'ai vu
b. * C'est QUELQU'UN que j'ai vu
c. * C'est QUI QUE CE SOIT que j'ai vu
d. * C'est PERSONNE que j'ai vu

As it was the case for topicalization, none of the focalised XPs is grammatical. So it seems that we cannot rely on Zanuttini's and Giannakidou's test.

So far, there is no firm evidence in favor of the universal status of N-words. In section 5 we resort to scope interaction to highlight the resemblence between N-words and ∀QPs.

[34]An interesting point that needs to be raised somehow is the fact that if it is true that *tout le monde* cannot be topicalized (i.e., does not enter in ClLD-constructions), it is not true that *tous les enfants* cannot, as (i) illustrates:
(i) Tous les enfants, je les ai vu
If an intermediate negative Op intervenes, then the sentences is degraded:
(ii) ?? Tous les enfants, je ne les ai pas vu
Contrary to *tout le monde* 'everybody', *tous les* NP introduces a presuppositional restriction. Below we discuss topicalization of *tous les* NP.

5. SCOPE INTERACTIONS

Because *personne* can be modified by ∀QP adverbs and because its distribution is restricted to the clause-level, we conclude that N-words behave like ∀QPs. In this section we give further evidence in favor of this analysis resorting to Scope Interaction. *Personne* will turn out to syntactically pattern like *tous les*, rather than *chacun*/ *chaque*.

5.1. The scope of Negation

When it comes to scope relationships, N-words seem to pattern like ∀QPs rather than indefinites/wh in-situ. Recall that when in presence of a ∀QP (129), only specific indefinites and specific wh in-situ can take wide scope. For space reasons, we are going to illustrate that only w.r.t indefinites.[35]

(129) a.	Tous les étudiants lisent UN livre		(Tous > UN) ; *(UN > Tous)
b.	Tous les étudiants lisent ∨ un livre		*(tous > ∨ un) ; (∨ un > tous)
c.	Tous les étudiants lisent un livre		(Tous > un) ; *(un > Tous)
	all the students	read a book	

W.r.t *personne* indefinites behave exactly like they do with ∀QP: only specific indefinites take wide scope over negation (130).

(130) a.	Personne n'a vu UN garçon		(neg > UN); *(UN > neg)
b.	Personne n'a vu ∨ un garçon.		*(neg > ∨ un); (∨ un > neg)
c.	Personne n'a vu un garçon.		(neg > un): *(un > neg)
	nobody	NE has seen a boy	

Considering that ∀QPs are not uniform (see section 2.4) and that scope interaction between indefinites and *chaque/chacun* yields different results than (129), we shall now investigate the interaction between N-words and other ∀QPs. *Chacun* is semantically a distributor, i.e., it necesarily distributes over an individual or over an event.[36] Then, in (131), *chacun* distributes over *un livre* in (131a) and (131c) but cannot in (131b): specific indefinites cannot vary. Recall that (131b) is acceptable if *chacun* distributes over events (see section 2.4.2.2 for developement of this idea).

(131) a.	Chacun des étudiants a lu UN livre		(∀QP > UNQP) ; *(UN > ∀QP)
b. #	Chacun des étudiants a lu ∨ un livre		
c.	Chacun des étudiants a lu un livre		(∀QP > un) ; *(un > ∀QP)
	Each of the students has read a book		

In section 2.4.4. we accounted for the scope judgements in terms of RM. If Ú *un livre* moves past *chacun des étudiants* it will cross a [+specific] QP yielding a RM violation. The fact that (131b) is not acceptable under the relevant reading and the fact that in (130b) *personne* is

[35] We discuss constructions where the indefinite occupies the object position. As shown in sections 2.4.4 and 3.1, the interaction of indefinite subjects with ∀QP objects yields the same scope patterns. For space reason we only consider indefinite objects in this section.

[36] As far as we discussed it, *chaque* displays the same behaviour as *chacun*. That's why we won't discuss it any further in this section.

acceptable, suggests that *personne* is not to be assimilated to *chacun/chaque*. Rather, N-words seem to parallel the syntax of *tous les*.

We argue that N-words are composed of the ∀QP *tous les* and of a logical negative operator. If this is correct, we predict that somehow, the occurence of the negative operator *pas* combined of the universally quantified *tous les* should scopally parallel that of the occurence of *personne*. As indicated in (132), *toutes les filles* takes narrow scope in the presence of an Op_{neg}:

(132) Jean n'a pas vu toutes les filles * (∀ > ¬) ; (¬ > ∀)
J. NE has not seen all the girls

The interpretation conveyed by (132) does not correspond to a situation in which the whole set of girls is negated; rather we face an non-exhaustive negation where only a part of the set is negated. According to the idea that when *tous les* takes wide scope it has a distributive reading, this last interpretation is expected. Turning to *personne*, the reverse pattern arises:

(133) Jean n'a vu personne

In (133), *personne* negates a whole set of people.

In (134) both the N-word and the ∀QP take narrow scope vis à vis the specific indefinite. All in all they pattern alike with respect to scope.[37]

(134) a. ∨ Un garçon n'a vu personne (∨ un > neg) ; *(neg > ∨ un)
a boy NE has seen nobody
b. ∨ un garçon n'a pas vu toutes les filles (∨ un > ¬ > ∀)
a boy NE has NOT seen all the girls

Interestingly enough, despite the similar scope pattern, these two sentences have different interpretations, i.e, they are not used interchangeably. (134a) means that *nobody is such that it has been seen by a certain boy*, while (134b) *there are some girls among the set of all the girls that have been seen by a certain boy*.

It is a well-known fact that two QPs of the same nature cannot scopally vary.

(135) a. Tout le monde aime tout le monde
Everybody loves everybody
b. Toutes les filles aiment tous les garçons
All the girls love all the boys

In (135), no interaction between the two ∀QPs is witnessed: it is not the case that *tout le monde* and *tous les garçons* vary according to *tout le monde/toutes les filles*, and vice versa: the QPs involved in (135a) and (135b) respectively are commutative. When non-scopally commutative operator co-occur, they interact. It follows that if a different operator is inserted in (135), then non commutativity results and variation my be obtained, as (136) examplifies with sentential negation:

[37] If it is true that the specific reading is readily available, it is worth noticing that a non-presuppositional and a range reading of the indefinite in (i) is marginally possible. In this case, though, *personne* becomes generic. We do not have an explanation for such a behaviour.

(i) Un/UN garçon n'a vu personne *(un/UN > neg) ; ? (neg > un/UN)
a boy ne has seen nobody

(136) **Context**: There is a shelf where all the books for Liu's class are stored. Daryl, Uma et Quentin have just taken their final exam. Mrs. Liu, noticing that only Uma succeeded, tells her TA:

Tous les étudiants n' ont pas lu tous les livres ($\forall_1 > \neg > \forall_2$)
all the students NE have not read all the books

In this context only the reading in (136) is possible. However it is logically possible to give this sentence two other scope readings:

(137) a. $\neg > \forall_1 > \forall_2$
b. $\forall_1 > \forall_2 > \neg$

(137a) means that *it is not the case that for all the students and for all the books, all the students read all the books*: there is no interaction between the two sets. (137b) would be interpreted as *for all the students, x a student and for all the books, y a book, it is not the case that x read y,* meaning that nobody read nothing. Both readings for (136) are however uninterpretable in French, even when modifying the context. Even if none of the three students succeeded, both readings are still impossible.[38] The only possible interpretation for (136) is the one where Op¬ takes narrow scope over the first ∀QP. It is worth noting that nevertheless, (136) can easily have the following reading:

(138) $[\neg \forall] > \forall$

In (138) the interpretation corresponds to the case in which among the set of students only some of them read all the books. Such a reading may be paraphrased as *Pas tous les étudiants ont lu tous les livres* 'not all the students have read all the books': this is a constituent negation reading, not a sentential negation reading.

In the previous section we argued that *personne* is the negative counterpart of *tous les* (vs. *chaque/chacun*). We expect, then, that if *personne* is not a negative ∀QP, it should not commute with *tous les*. In (139), we show that if *tous les* is inserted instead of *Jean* in (133), it commutes with *personne*, suggesting that they share the same properties. This prediction is borne out: *personne* and *tout le monde*/*tous les livres* are commutative QPs.

(139) Personne n'a vu toutes les filles ($\neg > \forall$); *($\forall > \neg$)
Nobody NE has seen all the girls

(139) triggers the reading where nobody saw all the girls.

What we note here is that at the sentence level, i.e., w.r.t interaction with other QP types, N-words and negation do pattern alike, that is, like ∀QPs, rather than like indefinites. We claim that interpretations differ at the phrasal level: what is crucial is that scope relationships are maintained at the sentential level: both ∀QPs and N-words behave alike. However the interaction between indefinites and N-words/∀QPs in (134a-b) revealed that

[38] The reader will note that under a certain intonation with the context modification we have just proposed, (137a) becomes felicitous, (137b), on the contrary, is always infelicitous. Focussing the second ∀QPs tends to invert scope:
(i) Tous les étudiants n'ont pas lu TOUS les livres, i.e., ils en on lu aucun
Interestingly, when $\forall QP_2$ receives exhaustive focal stress it gets wide scope: this diverges from focalization of indefinites which still triggers narrow scope.

even if indefinites may take wide scope in both cases, their meanings differ. The same occurs between (136) and (139).

If the variation observed between sentences with the sequence *pas*-∀QP (scope: ¬ > ∀) and the sentences involving *personne* is not accountable for in terms of scope at the sentential level, then it should reside somewhere else. We claim that the locus of the variation in meaning is to be found in the structural position of Op¬. As for *pas*-∀QP, the negation is sentential, contrary to *personne* where negation is at the QP level.

If *personne* is composed of a ∀QP and an Op¬, then, the question arising is the exact ordering of these Operators. Logically, we have two possibilities: either the Op¬ scopes over the ∀QP or ∀QP takes wide scope. An interesting way of determining this point consists in constructing the ∀QP with constituent negation and consider the interpretation we get. In (140a) *pas* precedes *tous les étudiants* and as expected, negation scopes over the ∀QP. This is schematized in (140b).

(140) a. Pas tous les étudiants ne sont des anges (¬> ∀); *(∀ > ¬)
not all the students NE are the. angels
b. [Pas tous les]= [¬∀]

If in (139) above, *personne* has the same phrasal structure as in (140a) we predict that substituting *personne* for *pas-tous les* should yield the same interpretation. The prediction is not borne out. Hence, we conclude that *personne* has an internal structure where the ∀QP scopes over Op¬, as in (141a). (141b) illustrates sentential negation over ∀QPs.

(141) a. *Personne*: [∀¬]
b. *Pas tous les NP*: [¬ >∀] ; *[∀ > ¬]

Given these two configurations, it is not surprising that the interpretations of the two elements differ. In the case of N-words, the Op¬ (being it part of the DP) acts on the set of people exclusively. In this case negation is exhaustive. In (141b), negation is not part of the QP but rather it scopes on the all sentence and does not affect directly the ∀QP, that is why in this case negation is not exhaustive. If one wants to negate a ∀QP, one will use *personne*.

A nice prediction we can make is that if the analysis just given is correct, then we expect the scope relation ∀ > [∀¬] to be ungrammatical, since we demonstated that the ordering (∀ > ¬) is out. This is borne out:[39]

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[39] Strikingly when *tous les* is topicalized, it can be resumed by a pronoun, as (i) illustrates. (ia) vs. (ib) shows that the ∀QP is obligatorily collectively construed; when *tous* floats both a collective and a distributive reading are available (ic) and (id) :

(i) a. Tous les enfants, il les a grondés (coll ; *dist)
all the children, he them has scold
b. * Tous les enfants, ils les a grondés l'un après l'autre
all the children, he them has scold one after the other
c. Les enfants, il les a tous grondés (coll ; dist)
the children, he them has all scold
b. Les enfants, il les a tous grondés l'un après l'autre
the children, he them has all scold one after the other

This corroborates Puskás' 2002 findings discussed in section 2.4.2.2. If the adverb of negation is introduced, the sentence is widely degraded, and, as much as we understand, Op_{neg} scopes over the ∀QP:

(ii) a. ?? Tous les enfants, il ne les a pas grondés * (∀ > ¬) ; ?? (¬ > ∀)
all the children, he NE them has not scold
b. Les enfants, il ne les a pas tous grondés *(∀ > ¬) ; (¬ > ∀)
the children, he NE them has not all scold

(142) a. * Tout le monde n'a vu personne
everybody NE has seen nobody
b. ?? Toutes les filles n'ont vu personne
all the girls NE have seen nobody

In this section we demonstrated that scopal intercations between N-words and other QPs (∀QPs and ∃QPs) yield different results: *personne* scopally behaves like *tous les*, while diverging from specific indefinites. Based on the interaction of *pas* and ∀QPs, we conclude that *personne* is composed of a *tous les* and Op_{neg}.

5.2. Distributivity vs. collectivity

A final argument in favour of the universal status of *personne* comes from the distinction already discussed between collective and distributive construal. In section 2.4.5 we concluded that *tous les* varies between a distributive and a collective reading while *chacun / chaque* are intrinsic distributors. Exploiting the distributive vs. collectivity test for N-words, we obtain the following results:[40]

(143) a. Personne n'a lu un livre différent.
Nobody NE has read a book different
b. Personne n'a fait le bon choix.
Nobody NE has done the right choice

(144) Personne n'a souris à Folda
Nobody NE has smiled to F.

(145) a. Personne ne s'est rassemblé dans le parc pour manifester.
Nobody NE refl is gathered in the park to demonstrate
b. Personne n'a entouré le château.
Nobody NE has surrounded the castle

(146) Personne ne s'est rencontré.
Nobody NE refl is met

Personne can apparently be used with both collectives and distributive predicates. We conclude that *personne* is ambiguous between a distributive and a collective construal, thus patterning like *tous les*.[41]

(ii) confirms the idea put forward above, namely that object ∀QPs can never move past Op_{neg}, even at LF. Why subject ∀QPs can scope over sentential negation is still mysterious (see (136)).

[40] It is important to distinguish singularity from plurality. ∀QPs show different behaviours w.r.t. agreement: while *tous les* triggers a plural agreement, *chacun / chaque* both involve a singular agreement. A further distinction should be made between *chacun des* and *tous les*: *chacun des* is composed of a determiner *chacun* and a definite plural DP, while *tous les* is a combination of a ∀QP and a definite DP. The first DP is structurally more embedded than the second. We follow Puskás (2002) when she proposes that "[when distributors ∀QPs are] syntactically singular, we automatically get the distributive reading, as the entity denoted by the semantically plural expression is thus divided into its atoms by its lexical properties. This accounts for the obligatory distributivity of *each/chacun* compared to *all/tous"*.(Puskás (2002:121))

[41] French N-words are not restricted to *personne*. We expect N-words to behave in the same way, maybe displaying differences in the kind of ∀QP they appear to be the counterpart of. See Cattaneo (2005).

6. TENTATIVE STRUCTURE FOR THE QUANTIFICATIONAL DOMAIN

Summing up the scope interactions we identified in the previous sections, we obtain the following results:

(147) **Subject " QP –indefinite Object**
- a. tous les > un /UN ; *un/UN > tous les
- b. chacun > un/UN; *un/UN > chacun
- c. *tous les > ∨un ; ∨ un > tous les
- d. *chacun > ∨ un ; *∨un > chacun

(148) **Subject indefinite – Object " QP**
- a. tous les > un /UN ; un/UN > tous les
- b. chacun > un/UN; *un/UN > chacun
- c. * tous les > ∨un ; ∨ un > tous les
- d. * chacun > ∨ un; *∨un > chacun

Tous les and *chacun* necessarily take wide scope over *un/UN*, while only *tous les* can have narrow scope under a specific indefinite. We accounted for these facts in terms of RM. Turning to the interaction between *personne* and indefinites, we have the following pattern:

(149) **Subject indefinites-personne**
- a. ∨ un > n-word; *n-word > ∨ un
- b. * un/UN > n-word ; ?n-word > un/UN

(150) ***personne* – object indefinite**
- a. n-word > un/UN; *un/UN > n-word
- b. * n-word > ∨ un; ∨ un > n-word

(151) **Subject " QP – *personne***
- a. * tous les > n-word;?? n-word > tous les
- b. chacun > n-word; *n-word > chacun

(152) ***personne* – Object " QP**
- a. n-word > tous les; *tous les > n-word
- b. * n-word > chacun; *chacun > n-word

The scope of personne w.r.t. indefinites and ∀QPs revealed that the N-word—in the same way as *tous les*—always takes wide scope except when interacting with a specific indefinite and ∀QPs. Based on both these scopal relationships and on B&S (1997), Szabolcsi (1997) and Puskás (2001), we propose the following structural representation for the left periphery:

(153) ... > QP_{Spec} > *Spec " QP* > $\forall QP_{Neg}$ > $\forall QP_{Range}$ > Focus > IP...

We propose that specific indefinites occupy [Spec, QP_{Spec}], that range indefinites [Spec, FocP], while non-presuppositional indefinites are interpreted in-situ. *Tous les* is moved to [Spec, $\forall QP_{Range}$] and *chacun* to [Spec, ∀QP]. Finally, we claim that N-words like *personne* are moved to [Spec, $\forall QP_{Neg}$]. Presumably French wh-phrases fall in the same positions as their corresponding indefinites, i.e, specific, range and in-situ. The structure advocated for in

(153) suggests that the left periphery discussed in Rizzi (1997) can be decomposed into various domains, in much the same spirit as Puskás (2001)[42]. We claim that a [+Q] domain is encoded in the left periphery of the clause and that a gradation in terms of specificity / range has to be admitted: starting from FocP (range) up to QP_{Spec} (specific), QP_{Spec} signalling the edge between the [+Q] domain and the topical [-quantification; +specific].

7. CONCLUSION

The different properties discussed with respect to Quantificational elements can be summed up in the following table:

	Quantificational	**Vble**
Specificity-based presupposition	∨ wh-in-situ / ∨ un /Chacun/Chaque/ ∨ personne	
Range-based presupposition	WH-in situ / UN /tous/PERSONNE	
Non-presuppositional	personne	un / wh-in situ

Table 1

In this paper we showed that Intervention effects of various types can be accounted for in terms of Starke's (2001) RM. We showed that different types of presupposition can rule the distribution of QPs. Based on the typology of QPs we drew and on their different scope behaviour, we were able to characterize *personne* as a negative ∀QP. Both the distinction in terms of presupposition/non-presupposition and the scope behaviour of each of these elements led us to propose a finer grained structure for Rizzi's left-periphery, delimiting a quantificational domain.

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[42] Puskás (2001) refines the structure discussed in Beghelli *et al*. for Hungarian Quantifier positions and motivates the idea that these functional positions are ordered and should appear in the informational part of the clause below TopP, the position that hosts [+def] specific non-quantificational topics yielding (i):

(i) TopP-RefQP-QP-FP-IP

We assume that Puskás' RefQP is better labelled as SpecQP (for Specific QPs).

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