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Some "PPIs" are just hyper-existentials

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Abstract:

This paper shows that the French indefinite pronouns (*quelqu'un*, *quelque chose*) are neither PPIs (Baker 1970), nor double NPIs (Szabolcsi 2004).

It claims that the scope restrictions involving negation and the impossibility to get a generic interpretation of these items, can only be explained by assuming that they have a strong vocation for existential readings, which can be seen as a qualified come-back to Russell's (1905) view. The paper establishes that this preference is a lexical property of the French determiner *quelqu-*.

B. Russell (1905) introduces a semantic analysis of English *some* as an existential quantifier. A sentence like "Some man is being obnoxious" would be analyzed under this view as :

1. There is an x such that x is a man, and x is being obnoxious.

Russell extends this proposal to English *a* and claims that a sentence including an indefinite description like *an F is G* translates in formal logic as the formula : " $\exists x Fx \wedge Gx$ ".

This analysis has been widely accepted as the classical semantic analysis of indefinites, but the main problem it raises is that it cannot be generalized to any context, as shown by the work of Kamp and Heim in the 80's. They have shown that there are contexts (e.g. *donkey sentences*) in which an indefinite NP *cannot* translate as an existential quantifier. A rather common wisdom since is to assume that indefinites have no quantifying force of their own, that they are mere variable-introducers to be bound by operators provided by the linguistic context.

In the present work on the French semantic pronouns *quelqu'un*, *quelque chose*, we make some sort of qualified come-back to the classical view of Russell by establishing that the constraints on the use and interpretation of these indefinite pronouns cannot be captured without assuming that they have a strong vocation for existential readings. I will establish that this analysis is the best way for explaining the very special behavior of these items with negation, a well-known data which motivates their analysis as *positive polarity items* since Baker (1970). In addition, I will show that this vocation for existential readings can also cover the observation, rarely signaled and discussed in the literature, that indefinite pronouns do not accept true generic readings (in contrast to indefinite determiners).

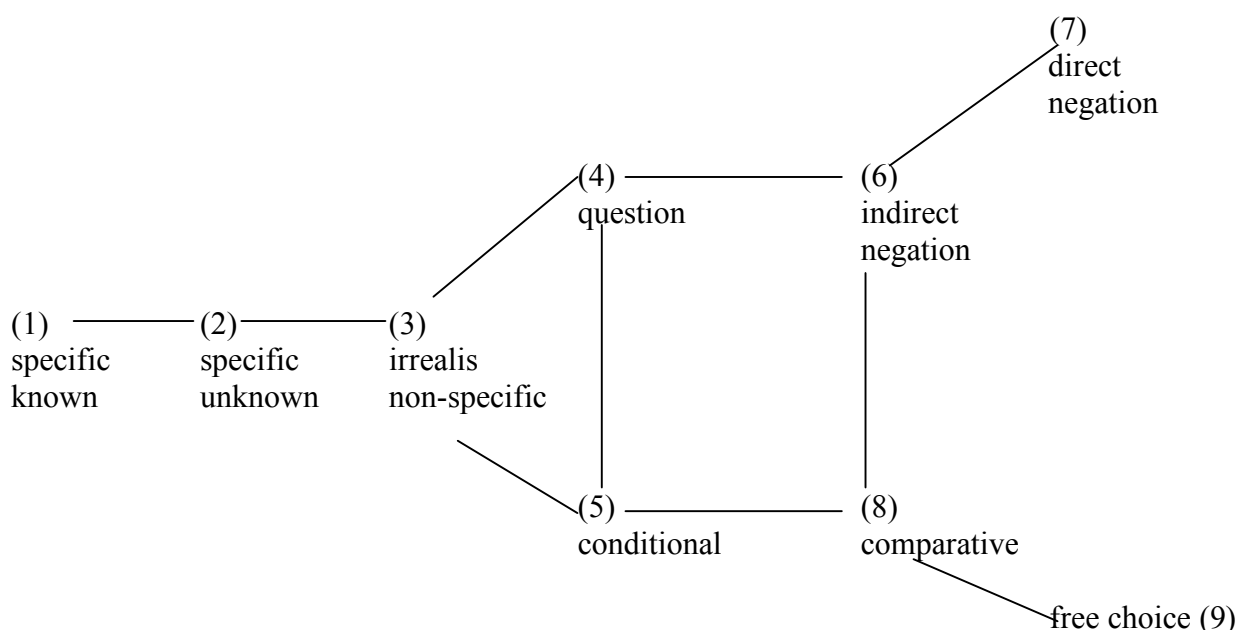
By considering in some details the contexts in which French indefinite pronouns are licit/illicit in the close vicinity of a negation, I will try to show that these pronouns are neither *positive polarity items*, nor *double negative polarity items* (as proposed by Szabolcsi 2004) but just variable place-holders having a strong aversion for contexts asserting the non-existence of satisfiers for the variable.

Since in French indefinite pronouns are based on the determiner *quelque*, I will collect some arguments for establishing that this existential preference can be considered as a lexical property of this specific determiner, a somewhat paradoxical conclusion, since the singular

determiner *quelque* is no longer used in modern French except in the scope of modal operators (Corblin 2004), so in contexts to the antipodes of existential binding. A way of dissolving the paradox will be suggested.

1. Some differences between *quelque chose/ quelqu'un* and *un N*.

Let us take as an observation-grid the following map due to Haspelmath (1997) :



Implicational map of indefinite pronouns uses, from Haspelmath (1997 : 4).

Haspelmath distinguishes some contexts (questions, conditionals, etc.), some kinds of interpretations (specific, irrealis, free-choice etc.), and introduces a typological generalization according to which, if a given language has different indefinite pronouns, a given form can only be used in connected sites of this map. We have nothing to say about this typological generalization here, and we are just taking this map as an observation grid for capturing the main relevant contexts for documenting the constraints on indefinite pronouns and indefinite determiners.

French indefinite pronouns¹ and indefinite determiners as well, have no "free-choice" reading, as illustrated by (1) and (2). The preferred form for expressing free-choice in French is *n'importe qu-*. By free-choice reading is meant the reading of the English *any* in sentences like *Pick any card*. (1) and (2) can be considered as tests that a given form has no free-choice reading : one can take the sentence with the indefinites as true without accepting the validity of the sentence with the unambiguous free choice *n'importe qu-* as true.

- (1) Tu peux inviter un ami, mais pas n'importe qui.
You can invite a friend, but not anyone.
- (2) Tu peux inviter quelqu'un, mais pas n'importe qui.
You can invite someone, but not anyone.

¹ Up to now, we use "*indefinite pronouns*" as a convenient terminology restricted to pronominal expressions based on *quelque* : *quelque chose, quelqu'un, quelque part*.

But it is well known that *un N* and *quelqu'un* behave very differently when in the syntactic scope of a clause-mate negation ("direct negation" for Haspelmath):

- (3) Je n'ai pas dit un mot.
I did not say a word.
- (4) Je n'ai pas dit quelque chose.
I did not say something.

The difference is as follows: in (3) *un mot* can be interpreted in the semantic scope of the negation, and the sentence will convey the meaning : "I did not say anything"; but in (4) *quelque chose* cannot be interpreted in the semantic scope of the negation, and (4) cannot convey the meaning : " I did not say anything". The only accessible meaning is : "There is something I did not say".

Should we, then, characterize such expressions as "PPIs" as suggested by Baker (1970)?

Note that it has often be observed that although the terminology conveys that such "PPI's" would be the symmetrical counterpart of NPIs, there are very important asymmetries between true NPIs and these expressions. An NPI has to be "licensed" by an overt part of its context, which means that if the form is placed in a context deprived of the required properties, the result is agrammatical. But for indefinite pronouns, all one can observe is not agrammaticality, but a constraint on scope hierarchy: in (4) *quelque chose* must have scope over the negation, but we have a perfect grammatical sentence.

One can imagine to extend the notion of licensing, or more exactly of anti-licensing, to the logical form, or to any form of semantic representation: grammar would count terms not allowed to sit in the scope of a clause-mate negation. This purely semantic notion of PPI would explain that such PPIs cannot be used in site [7] of Haspelmath's map. Although very different in nature from the syntactic notion of NPI commonly accepted in the literature, this semantic notion of PPI might have a chance to capture the fact and to give a good picture of the singularities of the expressions under consideration.

But there at least two problems:

1. It is not always true that a clause-mate negation refuses to take in its immediate scope the variable introduced by an indefinite pronoun. This has been repeatedly noted (a.o.) by Baker (1970), Jespersen (1917), Szabocsi (2004) and Corblin (2004).
2. There are other phenomena independent of negation, but manifesting themselves as preferred/prohibited scope hierarchies which contrasts in the same way indefinite pronouns and indefinite determiners, namely the capacity to be interpreted in the scope of the generic covert operator *Gen* (Cf. Corblin 2009a).

It is of the utmost utility, then, first to get a panoramic view of the distributions of the two kinds of expressions (i.e. regular indefinite determiners and indefinite pronouns) with relation to other quantifiers of their context, and second, to go into more details regarding the constraints involving negation and indefinite pronouns.

Haspelmath's map provides an useful tool for a survey of the distribution of indefinite pronouns/indefinite determiners.

Figure (2) represents the sites and kind of interpretations accessible to each expression.

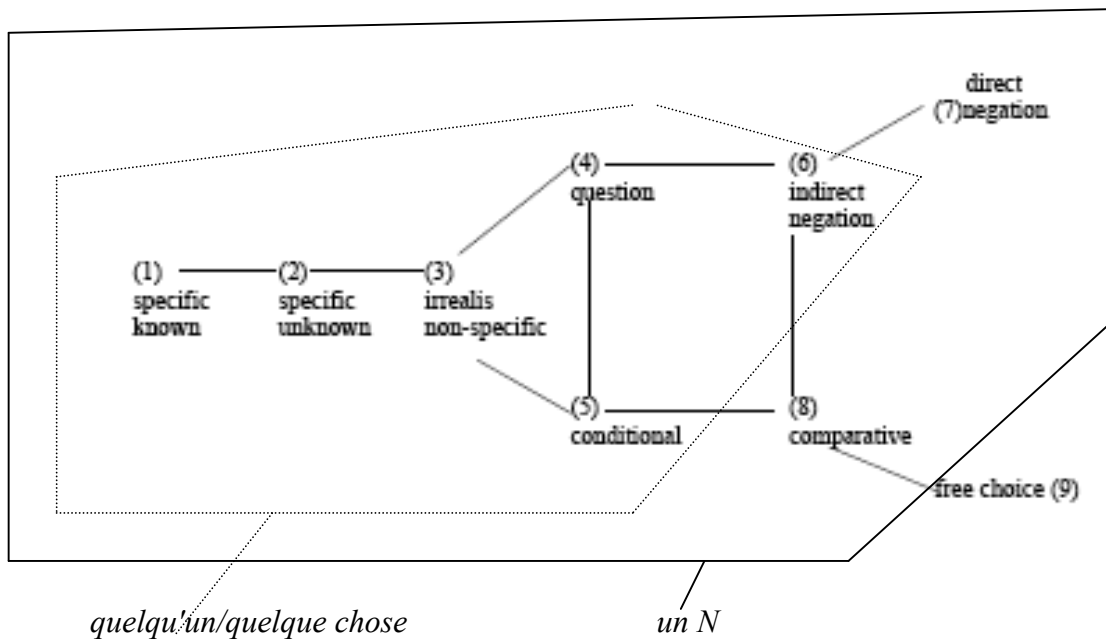


Figure 2 : interpretations of indefinite pronouns and determiners

Figure 2 notes that in contrast to the indefinite NP *un N*, the indefinite pronouns *quelqu'un*, *quelque chose* cannot be interpreted as the argument of a comparative construction. (5) is correct (and ambiguous), although (6) can only be interpreted by an existential binding of the variable associated to the indefinite pronoun:

- (5) Ce singe est plus intelligent qu'un homme.
This monkey is more intelligent than a man.
- (6) Ce singe est plus intelligent que quelqu'un.
This monkey is more intelligent than someone.

Sentence (5) has two interpretations:

- (i) For any man *x*, this monkey is more intelligent than *x*.
(ii) There is a man *x*, such that this monkey is more intelligent than *x*.

Sentence (6) can only have the interpretation (ii).

This fact, which, to my knowledge, has remained unnoticed in the literature, is not easy to explain at face value.

What we know for sure about the argument of comparative constructions is that it is a licensing context for NPIs. But it is not the case that in general, NPI licensors cannot take indefinite pronouns in their semantic scope. Interrogatives, for instance are also NPI licensors, as (7) illustrates:

- (7) Est-ce-que vous avez la moindre idée de ce qu'il a pu faire?
Int. particle-you have the slightest idea of what he did?

le moindre is considered as the prototypical NPI in French, and it is, as expected, licensed by interrogatives.

Placed in such a context, indefinite NPs and indefinite pronouns behave exactly alike: they can be interpreted either by existential closure (out-scoping the interrogative operator) but they can be interpreted in the scope of the interrogative operator as well:

- (8) Est-ce que vous avez vu quelqu'un?
Int. particle-you have seen someone.

Sentence (8) means either (i) or (ii), "?" being a notation for the interrogative operator associated to the interpretation : "I wonder if ()" :

(i) ? (There is a person x such that you have seen x).

(ii) There is a person x such that ? (you have seen x)

And this duality of interpretation is preserved once *quelqu'un* is replaced by *a person*.

The relevant property of comparative constructions might be that they allow the variable introduced by an indefinite determiner to be interpreted in the scope of a *generic* quantifier. If one accepts to analyze generic reading via an invisible quantifier GEN, in the spirit of Krifka and al. (1995), one will interpret (9) as (10):

(9) Pierre est plus malin qu'un singe.

Pierre is more clever than a monkey.

(10) GEN x [(monkey (x) → (Pierre is more clever than x))]

To be more precise, (9) is ambiguous, and allows both existential closure and the generic reading represented in (10).

Once admitted that (9) admits a generic reading, one has to make a more general observation : it is a striking fact that in general, indefinite pronouns (by contrast to indefinite determiners) do *not* accept true generic readings. By "true" generic reading, I mean a generic reading arising in the absence of any linguistic expression that one would be inclined to translate as some sort of (possibly weak) universal quantifier. This observation is illustrated by (11-16):

- | | | |
|------|--|--------------------------|
| (11) | Un homme est difficile à convaincre.
A man is difficult to convince. | Generic reading possible |
| (12) | Quelqu'un est difficile à convaincre.
Someone is difficult to convince. | No generic reading |
| (13) | Une chose n'a pas d'âme.
A thing has no soul. | Generic reading possible |
| (14) | Quelque chose n'a pas d'âme.
Something has no soul. | No generic reading |
| (15) | Une chose n'a pas de prix.
A thing has no price. | Generic reading possible |
| (16) | Quelque chose n'a pas de prix.
Something has no price. | No generic reading |

In contrast, as soon as an explicit quantifier is introduced, the indefinite pronoun can be interpreted in the scope of this quantifier.

(17) Quelqu'un *peut* être difficile à convaincre.

Someone can be difficult to convince.

(18) Quelque chose peut avoir une âme.

Something may have a soul.

(19) Quelque chose a *en général* un prix.

Something in general has a price.

Even for very well-known generic sentences like (20), and for very large extension terms like *man* (interpreted in such generic sentences as "human being"), if the indefinite NP is replaced

by an indefinite pronoun (although its domain restriction is also "human being"), the sentence is awkward:

- (20) Un homme est mortel.
A man is mortal.
- (21) Quelqu'un est mortel.
Someone is mortal.

The empirical generalization emerging from these observations is:

Empirical generalization 1:

The French indefinite pronouns cannot be interpreted in the scope of the invisible generic operator GEN in contexts open to generic readings of indefinite determiners.

To my knowledge this empirical generalization has not been explicitly made in the literature, and it makes the landscape of indefinite pronouns distributions even more complex. The notion of PPI, whatever difficulties it encounters, has at least the merit to unify the identity of indefinite pronouns by a special relation to negation. And the same is true for the notion of double NPI introduced by Sczabolcsi (2004). In both analyses indefinite pronouns are just variable introducers with special requirements on their context having to do with negation. If we are correct, negation or more generally monotonicity, is not the only contextual feature relevant for characterizing their special behavior. Genericity, a feature at first glance unrelated to negation is also relevant.

2. More about the constraints on negation scope.

As already recalled, formulating correctly the constraints on negation scope is far from being an easy matter.

In simple sentences, it is enough to say that indefinite pronouns cannot be interpreted in the scope of a clause-mate negation. But this is valid only for simple sentences, since it has been noticed repeatedly that it is possible to do so (to interpret an indefinite pronoun in the scope of a clause-mate negation) in some configurations involving more complex environments embedding this simple context.

Szabolcsi (2004) claims that in English, if a negation with an indefinite pronoun in its immediate syntactic scope is itself in the scope of an anti-additive operator, it is possible to interpret the indefinite variable in the scope of its clause-mate negation.

For French, the "anti-additive" operators of Szabolcsi (2004) are exactly the operators called "négatifs" in Corblin & de Swart (2004): verbal negation (*ne...pas*), negative quantifiers (*personne, rien, aucun...*), and the preposition *sans*.

These operators are identified by a set of properties listed in Corblin & de Swart (2004). Two of them, as a matter of illustration are:

a) the licensing of a *de* direct object:

- (22) Pierre n'a pas de pain.
Pierre has not *de-bread*.
- (23) Pierre est resté deux jours sans manger de pain.
Pierre stay two days without eating *de-bread*.

b) the licensing of *du tout*.

- (24) Pierre ne mange pas du tout.
Pierre do not eat-*du-tout*.
- (25) Personne du tout n'est venu
Nobody -*du-tout* came.

None of these operators can take an indefinite pronoun in its "immediate" scope in simple sentences:

(26) *Personne n'a mangé quelque chose.* Only existential binding
 Nobody ate something.

(27) *Il est parti sans dire quelque chose.* id.
 He left without saying something.

By "immediate scope" is meant that if there is an intervening operator between the negation and the indefinite pronoun, the indefinite variable can be interpreted in the scope of the operator, which is itself outscoped by the negation :

(28) *Pierre n'a pas toujours quelque chose à faire.* neg > toujours > indefinite
 Pierre has not always something to do.

The relevant empirical generalization is formulated as follows by Szabolcsi (2004):

"Some-type PPIs do not occur within the immediate scope of a clause-mate anti-additive operator [negation, FC]".

But it is known that this constraint disappears when the negative operator itself is in the scope of another operator, as illustrated by (29)-(31).

(29) *Je ne crois pas que Jean n'a pas dit quelque chose.*
 I do not believe Jean did not say something.

(30) *Je suis surpris que Jean n'ait pas appelé quelqu'un.*
 I am surprised Jean did not call for someone.

(31) *Si Jean n'a pas appelé quelqu'un, il a eu tort.*
 If Jean did not call for someone, he was wrong.

Szabolcsi's claim is that all the operators which license NPIs have this "by-pass" role, and are what she calls "rescuers": they will make accessible the interpretation of the pronoun in the immediate scope of the negative operator:

"Some-type PPIs do not occur within the immediate scope of a clause-mate anti-additive operator [negation, FC] unless this anti-additive operator itself is in an NPI licensing context."

It seems that this generalization holds for French as well. Consider a NPI licenser like *Je ne crois pas que...* as in (32):

(32) *Je ne crois pas qu'il ait la moindre chance.* Licensor of NPI
 I do not think he has the slightest chance.

If, in this context, one embeds a sentence otherwise awkward or obligatorily existential, the whole sentence is grammatical and admits, without any problem, an interpretation of the variable in the immediate scope of the clause-mate negation, as illustrated by (33):

(33) *Je ne crois pas qu'il n'a pas invité quelqu'un.*
 I do not think he did not invite someone.

But, and on this I part with Szabolcsi's claim, at least for French data, it seems that *any operator* taking the negation in its scope will have the same effect, with no special privilege for NPI licensers. Consider (34):

- (34) Pierre ne mange pas quelque chose le matin.
Pierre does not eat something in the morning.

This sentence is not acceptable, unless the indefinite pronoun *quelque chose* is interpreted by existential closure, giving: "there is something Pierre does not eat in the morning."

If this sentence is embedded under "Il est fréquent que...", the resulting sentence is grammatical, and licenses the interpretation of the indefinite pronoun in the immediate scope of the clause-mate negation in (35):

- (35) Il est fréquent que Pierre ne mange pas quelque chose le matin.
It is frequent that Pierre does not eat something in the morning.

The sentence (35) can easily be interpreted as: it is frequent that Pierre does not eat anything in the morning. And the same is true for the indefinite pronoun *quelqu'un* in (36) :

- (36) Il est fréquent que Pierre ne passe pas ses vacances avec quelqu'un.
It is frequent that Pierre does not spend his holidays with someone.

But the context "Il est fréquent que ..." is not a NPI licenser as shown by (37):

- (37) Il est fréquent que Pierre ait *la moindre idée.
It is frequent that Pierre has the slightest idea.

And it is easy to find a huge set of such contexts, unable to license NPIs and nevertheless perfect "rescuers" for the "no clause-mate negation scope" constraint. I give in what follows some of them:

- (38) Je suis certain que Jean n'a pas appelé quelqu'un.
I am sure that Jean did not call someone.
- (39) Je sais que Jean n'a pas appelé quelqu'un.
I know that Jean did not call someone.
- (40) Je suis certain que personne n'avait pris quelque chose pour dîner.
I am sure that nobody had had something for dinner.
- (41) Je suis certain que Pierre n'avait pas pris quelqu'un dans sa voiture.
I am sure that Pierre had not taken something in his car.
- (42) Il y a beaucoup de gens qui ne vivent pas avec quelqu'un.
There are lots of people who does not leave with someone.
- (43) Je suis persuadé que Pierre n'a pas dit quelque chose contre moi.
I am convinced that Pierre did not say something against me.
- (44) Je suis convaincu que Pierre ne dîne pas avec quelqu'un ce soir.
I am convinced that Pierre does not have someone for dinner at night.
- (45) Pierre pourrait ne pas inviter quelqu'un.
Pierre might not invite someone.

If I am correct about the data, the conclusion to be drawn is that Szabolcsi's generalization is just a part of the picture: it is true that NPI's licensers help to by-pass the constraint "not in the scope of a clause-mate negation", but they are far from being alone to do that. Almost any operator out-scoping the negation is also a rescuer.

We have then to replace Szabolcsi's generalization by the following one:

Empirical generalization 2.

Indefinite pronouns cannot be interpreted as a variable in the immediate scope of a clause mate negation in the context : #NEG \exists (x), NEG being the higher operator of the sentence.

This generalization has been previously made in Corblin (2004: 106) for the *quelqu*-paradigm in French : "The *quelqu*- paradigm contributes a variable which cannot be interpreted in the scope of widest scope negation" .

This generalization derives correctly that nested negative propositions in general, will be much more acceptable with the indefinite pronoun interpreted in the scope of a clause-mate negation than simple propositions.

For simple propositions, it is necessary as well to add some extra-constraints which does not concern specifically indefinite pronouns, but more generally indefinite NPs.

It is a common observation that indefinites (in general) cannot be interpreted in the scope of a clause-mate negation in the context of a universal quantifier. Consider the following couple of sentences :

(46) Tout le monde n'a pas dit un mot.
Everyone does not say a word.

(47) Tout le monde n'a pas dit quelque chose.
Everyone does not say something.

Although the indefinite *un mot* can, in general, be interpreted in the semantic scope of a clause-mate negation, this cease to be the case, when both are in the syntactic scope of a universal quantifier. It looks actually impossible to interpret *un mot* in the scope of the negation in (46), and to get the meaning : " Everyone says nothing". And this is triggered by universal quantification, since in the parallel sentence (48), the interpretation in the scope of negation is accessible:

(48) Une personne n'a pas dit un mot.
A person did not say a word.

So in order to predict that sentence (47) cannot be equivalent to "Every one says nothing", nothing specific to the theory of indefinite *pronouns* is required: the fact must be a prediction of the theory of *indefinites* (in general), and the discussion is far beyond the scope of this paper.²

Let us focus on the theory of indefinite pronouns. If any kind of out-scoping operator is a rescuer, the thesis of Szabolcsi which sees PPIs as double NPIs cannot capture their specific properties, because there are licensing contexts which are not NPI licensors.

As a whole, we are left with two empirical generalization regarding the so-called PPIs in which the relation to negation plays a role less crucial than what most theories assume:

1- These items have specific scope constraints with relation to the generic operator GEN.
This property has nothing to do with negation.

² I do not know if this fact has been noticed and discussed in the literature. Note that the impossibility to outscope a regular indefinite interpreted in the scope of the clause mate negation looks a property of the sole universal quantifier, since all other quantifiers can outscope such an indefinite: *Moins de dix personnes n'ont pas dit un mot, plus de dix personnes n'ont pas dit un mot* (less than ten persons/more than ten persons did not say a word) accept an interpretation of the indefinite in the scope of the clause-mate negation.

2. These items prohibits an interpretation in the scope of a clause-mate negation iff this negation is the topmost operator of the sentence.

This strange-looking association of constraints on the very same lexical item in French does not seem to be a mere accident. I do not want to get involved here in the detailed analysis of other languages, but from the literature, it looks clear that French is not an isolated case in this respect.

No existing category gives a good idea of the singularity of these items.

If to be a PPI means that they cannot be interpreted in the scope of a clause mate negation, they are not PPIs.

The thesis that they are double NPIs is a try for giving them a nature more in accordance with their complex properties with relation to negation. But we have seen above that they can be licensed in the scope of a negation by an out-scoping operator, irrespective of this operator being a NPI licenser, or not.

Last but not least, neither the notion of PPI nor the notion of double NPI can predict that these items cannot give rise to generic quantification of their associated variable.

3 A proposal for deriving the empirical generalizations

What is decisive for allowing the interpretation of *quelqu'un*, *quelque chose* in the scope of a negation is only the fact that another explicit operator takes the negation in its scope.

If we are correct, this operator can be a modal operator, which makes the embedded proposition part of some possible world, but this operator can also be any kind of epistemic operator, even those which reinforce the validity of the embedded proposition. There is no difference in acceptability between (49) and (50), and in both sentences the interpretation in the scope of the negation is licensed:

(49) Il est possible que Pierre n'ait pas téléphoné à quelqu'un.

It is possible that Pierre did not phone to somebody.

(50) Il est prouvé que Pierre n'a pas téléphoné à quelqu'un.

It is proved that Pierre did not phone to somebody.

For generic interpretations, what is prohibited is only the interpretation in the scope of what is commonly analyzed as the invisible quantifier GEN, that is to say the generic interpretations deprived of any explicit quantifier. As already said, indefinite pronouns can be used in general sentences, if they are in the scope of an explicit quantifier like in (51) and (52) :

(51) Si quelqu'un vit longtemps, il risque d'être malade.

If someone lives for a long time, someone risks to be ill.

(52) Si un singe est plus malin que quelqu'un, il le domine.

If a monkey is more clever than someone, it will dominate him/her.

It is very difficult, at first glance, to perceive a relation between these two constraints.

Do GEN and (topmost) NEG have some semantic property in common which would explain the behavior of indefinite pronouns? On this track, one is looking for something comparable to decreasing monotonicity as an explanation for licensing NPIs.

Or is there a specific property of indefinite pronouns which would explain, as a result, that, maybe for different reasons, both GEN and topmost NEG are disliked by indefinite pronouns?

In what follows, I will make a proposal along the lines of the second view. I will claim that it is for different reasons, both in direct opposition to the properties of indefinite pronouns that the constraints regarding NEG and GEN apply for the very same lexical expression.

3.1 Existential closure revisited.

The notion of "existential closure" was introduced by Heim (1982) and a similar notion (interpretation at the top-level of the DRS) is used by Kamp (1981).

The notion is called for by the treatment of indefinites (mostly indefinite determiners, indefinite pronouns are considered more rarely in these works). The initial problem is that Russell's thesis (indefinites *are* existential quantifiers) is incompatible with some linguistic data, especially with the so-called "donkey-sentences". The proposed solution is that indefinites are not quantifiers, but only variable introducers, this introduction being made very often in the scope of unselective quantifiers which ends as binders of the variable.

But these approaches must add something special for connecting indefinites and existential quantification, since many indefinites end up as existentially quantified variables, even if no lexical quantifier of the context can be charged for this existential quantification. This is what "existential closure" does. It produces, in Kamp's system, a top-level quantification of indefinite variables if these variables are not interpreted in the scope of contextual binders.

In some sense, this may look as a revenge for Russell: indefinites may not *be* existential quantifiers, but indefinites are associated to a device that take them as existentially quantified if nothing else happens; and the considered existential quantifier is not lexically expressed, which means that this quantifier is so to speak "triggered" by indefinite expressions.

But this is not the full picture, since indefinites determiners have also *generic* interpretations. It has been proposed, in Corblin (2009b) to consider the invisible generic quantifier GEN as another closure device. As existential closure, GEN produces a quantified interpretation without any intervention of a lexical quantifier, and as existential closure, it is triggered by indefinites.³

A way of deriving the observed facts is to assume that regular indefinite determiners accept generic closure (in some special contexts), but that indefinite pronouns have a strong preference for existential closure, and do not accept to be bound by GEN. This view can be maintained even if one does not want to consider the binding by GEN as a closure. Even in that case, a theory-independent point must be conceded: in contexts where no explicit binder (lexical quantifiers) takes them in their scope, there is a strong difference between regular indefinites (possibly interpreted as generic) and indefinite pronouns (only interpreted by existential closure). The present assumption is not much more than a way of accommodating the facts. The underlying theoretical view is that indefinites can be seen as mere variable introducers, although they may not be completely unspecified about their "quantificational destiny"; in other words, it might be the case that indefinites have a less strong association to existential quantification than Russell thought, but a less negligible relationship to existential quantification than dynamic semantics suggests.

This approach assumes that in the scope of a lexical binder, there is no difference between the indefinite pronoun and the indefinite determiner: both have a dependent reading when interpreted in the scope of the quantifier, and a marked reading when interpreted by existential closure. This is illustrated by (53) and (54):

³ There is no consensus that GEN operates only for indefinites, or for some other linguistic categories like bare plurals.

- (53) Si vous voyez quelqu'un appelez-moi.
If you see someone, call me.
- (54) Si vous voyez un étudiant appelez-moi.
If you see a student, call me.

The preferred interpretation of (53) and (54) is the dependent interpretation of the indefinite variable (*si > quelqu'un/un étudiant*). The interpretation by existential closure (*there is someone/a student, such that, if you see her, call me*) is less accessible, probably because it is not likely to prefer an invisible quantification device to the local binding offered by a lexical quantifier.

I asked native speakers if one of the existential readings is more natural than the other, and I did not get very neat preferences. In cataphoric contexts, speakers tend to prefer strongly the determiner to the pronoun as (55)/(56) shows:

- (55) Si vous voyez quelqu'un, Pierre, appelez-moi.
If you see someone, Pierre, call me.
- (56) Si vous voyez un étudiant, Pierre, appelez-moi.
If you see a student, Pierre, Appelez-moi.

But it is not very easy to interpret this preference.

The biggest difference, as already said, is that the sole indefinite *determiner* allows a generic interpretation. See the contrasts (11)-(16) supra. Considering that both existential closure and generic binding are general options offered by the grammar, it should not be surprising that different linguistic categories be defined by relation to these options: for instance a given expression accepts one option, but not the other. This might seem strange if the relevant categories are determiner/pronoun, but, as we will see later, the so-called French indefinite pronoun is actually a form of the *quelqu-* paradigm, that is to say, an expression based on an other indefinite determiner than the regular *a, an*.

Once considering that we have two different determiners, the regular, or "basic" one, *a*, and the determiner *quelque*, it becomes more natural to assume that this lexical difference supports semantic differences, like, for instance, a difference in the kind of implicit quantification process they select.

To prove that all the lexical forms of the singular determiner *quelqu-* are allergic to GEN might be a real work, in particular because the singular form of the determiner (*quelque*) is restricted to modal contexts in modern French (see for instance Corblin 2004) and is a determiner much less used in ordinary language than *some* in English, for instance. So we cannot offer simple examples showing that the only interpretation of a given occurrence of *quelque N* cannot be generic and is interpreted by existential binding. But we can give examples establishing that *quelque* can never be interpreted as a generic taking scope over the modal. Consider (57) and (58):

- (57) Pierre pensait qu'un singe pouvait escalader ce mur.
Pierre thought that a monkey could climb up this wall.
- (58) Pierre pensait que quelque singe pouvait escalader ce mur.
Pierre thought that some monkey could climb up this wall.

In (57) it is possible to interpret: for any monkey, Pierre thought that it can climb up the wall. But it is impossible to interpret this way (58); which can only mean : Pierre thought that there can be a monkey such that it can climb up the wall.

This is a confirmation that *quelque* cannot be interpreted in the scope of GEN and confirm the assumption that the access to the scope of GEN is a lexical property attached to the quantifier *quelqu-*

Up to now, the analysis is rather stipulative. It notes a fact, that indefinite pronouns cannot be interpreted in the scope of GEN, and derives it by assuming that indefinite pronouns, with

relation to implicit binders, have a strong preference for existential binding, and no access to the scope of GEN.

I will try to show now, that this view offers a way of understanding the apparently very complicated constraints on the possibility of interpreting the indefinite pronoun in the scope of a topmost clause-mate negation

3.2 Constraints on negation scope revisited

The crucial fact to explain is the following contrast:

- (59) *Personne ne déclare quelque chose.* *ill-formed except if existential*
Nobody declares something
- (60) *Pierre ne dit pas quelque chose.* *ill-formed except if existential*
Pierre does not say something.
- vs
- (61) *Tout le monde déclare quelque chose.* *existential or dependent*
Everyone declares something.
- (62) *Si quelqu'un ne déclare pas quelque chose...* *existential or dependent*
If someone does not declare something...

This contrast establishes that negation, as compared to other logical operators (universal quantifiers, *if*, etc...) cannot take an indefinite pronoun in its scope if the negation is the topmost logical operator.

It looks like a very bizarre constraint, as compared to what happens more generally about scope hierarchy. If it were a mere constraint of relative hierarchy (prohibition, preference) with a quantifier of the context, we would be in a well-known situation. Indefinite pronouns would just have the property of imposing a reverse hierarchy when in the syntactic scope of a negation.

But once taken into account the so-numerous exceptions to this rule documented in the literature, it becomes even controversial that there is such a rule at all. If, as we have tried to show in the previous section, the out-scoping of *any* operator over the negation removes any constraint, it becomes even questionable that it is worth mentioning that indefinite pronouns have special problems with negation as such.

A simple solution would be to assume that the existential preference of indefinite pronouns for existential binding is strictly antagonist to what a topmost negation achieves, namely the strong assertion that there is no such individual. In effect, if one tries to find out what is the distinctive property of "to be interpreted as a variable in the scope of a topmost negation", as compared to "being interpreted in the scope of an embedded negation", it seems that one has to conclude that the considered case is the only one which strongly asserts that there is no such individual.

Any other context in which an indefinite pronoun is interpreted in the scope of a negation will leave open the possibility that there are such individuals.

This is uncontroversial if the outscoping operator makes the negative proposition part not of the real world, but part of a possible world, for instance if this operator itself is a negation, or a modal operator, as in (63) and (64):

- (63) *Il n'est pas vrai Pierre n'a pas mangé quelque chose.*
It is not true that Pierre did not eat something.
- (64) *Il se pourrait que Pierre ne rencontre pas quelqu'un avant ce soir.*
It might be the case that Pierre does not meet someone before nitgh.

But this is also the case if the operator *asserts* the validity of the proposition, as illustrated by (65)-(67), which looks more problematic:

(65) Il est certain que Pierre n'a pas vu quelqu'un.

It is sure that Pierre did not see someone.

(66) Il est évident que Pierre n'a pas vu quelqu'un.

It is evident that Pierre did not see someone.

(67) Il est vrai que Pierre n'a pas vu quelqu'un.

It is true that Pierre did not see someone.

And this even true for operators which *presuppose* the validity of their argument as factive verbs:

(68) Je sais que Pierre n'a pas vu quelqu'un.

I know that Pierre did not see someone.

My intuition is that the non-existence is not a problem if it is explicitly presented as the object of an attitude or an evaluation (even positive). In these cases, so to speak, the non-existence is not merely asserted, but remains something which is under discussion, evaluated, something like an object of thought, not a bare assertion of non-existence as a topmost negation would achieve.

The general fact underlying this assumption is that any "indirect" presentation of an assertion weakens its strength. For instance, there is a difference between (69) and (70)-(71):

(69) John is here

(70) There is no doubt that John is here

(71) It is certain that John is here.

The first sentence is associated to a stronger commitment of the speaker, maybe because the assertion is not in the scope of any attitude and presented as a mere fact.

In this view, the so-called PPIs have actually nothing against being interpreted in the scope of a clause-mate negation, but they have something against their use in the direct assertion of non-existence of individuals making true the sentence.

And it is possible to see this behavior as a manifestation of their strong vocation for existential readings: the interpretation in the scope of a top-most negation can be seen as the more antagonist option w.r.t. the preference for existential readings.

This proposal has some advantages compared to analyses one can find in the literature :

1. It proposes a single analysis for two different and otherwise unrelated constraints (no generic reading, no interpretation in the scope of a topmost negation).

3. It addresses new questions about the nature of such constraints, since the notion of PPI, as a reverse image of the notion of NPI is no longer a key for deriving the properties of indefinite pronouns.

The proposal assumes that lexically distinguished variable place-holders (i.e. indefinites in the dynamic semantic sense) come with preference/exclusions regarding their semantic representation. An indefinite pronoun is used only when the existence of particular individuals of a class is considered in the sentence: this excludes both cases in which it can be "implicitly" assumed that any member of the class is considered, and cases in which the sentence declare that no member of the class can be considered because the class is empty.

The contrast between indefinite pronouns and determiners is worth discussing in this perspective.

But this determiner is also characterized as a modal or epistemic determiner (cf. Corblin 2004, Jayez & Tovena 2005, Jayez & Tovena *forthcoming*) in contrast to the indefinite pronouns *quelqu'un*, *quelque chose*, and to the plural form *quelques*.

In episodic contexts, for instance, *quelqu'un* is natural:

(76) J'ai invité quelqu'un à dîner ce soir.

I invited someone for dinner at night.

But in the same context, *quelque* is not acceptable:

(77) J'ai invité quelque collègue à dîner ce soir.

I invited some colleague for dinner at night.

Quelque is associated to epistemic ignorance or indifference, and can only be interpreted in modal contexts. This makes almost impossible to interpret it by existential closure.

I do not think that this fact can be interpreted as an argument against the present view.

A theory independent observation is that the epistemic value is not a lexical property of the determiner *quelqu-* in all its realizations, but only of the singular form of the determiner. The relevant notion of lexicalization for such a case might be : specialize a given form of the paradigm (e.g. singular) to modal contexts, or, equivalently, ban it from existential closure readings.

But as a member of a given lexical paradigm, the lexicalized form does not acquire a capacity that other forms do not have. In this case, the singular *quelque* remains unable to be interpreted in the scope of a topmost negation, or as a variable in the scope of the invisible generic operator.

This special case leads to remind that the wording "existential preference", or "existential vocation" that we use for short can be misleading. We do not assume that the forms of the paradigm prefer to be interpreted by existential closure (over being interpreted in the scope of some other quantifier of their context). It is in that case that the existence of a form having the properties of the singular *quelque* would be a blatant counter example. What we do assume is that *quelqu-* can only be used when the existence of particular individuals of a class is considered in the sentence, which excludes both interpretation in the scope of a topmost negation (existence denied) and generic readings (no particular individual considered). Under this conception, the existence of a member of the paradigm behaving as the epistemic *quelque* is perfectly compatible with the analysis.

4 Conclusion

4.1 A short summary of the proposal

Indefinite French pronouns (*quelqu'un*, *quelque chose*) are neither PPIs, nor double NPIs. They are indefinites (variable introducers) with a distinctive property defined as their "existential vocation", which is the source of two constraints:

- 1) In the absence of any lexical quantifier, they do not accept to be interpreted in the scope of the invisible operator GEN.
- 2) They cannot be interpreted in the scope of a top-most negation, which would boil-down to assert the non-existence of satisfiers for the variable.

4.2 Open issues

The parallel between what is commonly given as the semantics of *quelque* and the specific constraints on its behaviour w.r.t. other operators of its context discussed in this paper is very striking.

Quelque is defined in Generalized Quantifier Theory as an existential determiner, a determiner asserting that the intersection of two sets is not empty. And moreover, it is commonly associated with *quelque* an implicature that not all the elements of the restrictor are members of its scope. This mirrors quite well the constraints we subsume, rather imperfectly,

under the heading "existential vocation". Structures strongly asserting the non-existence of satisfiers are ruled out by the constraints on negation : no interpretation in the scope of a top-most negation. The constraint regarding genericity can be reworded as follows: when interpreting *quelque*, never assume that *all* the individuals of the class are concerned (no binding by an invisible GEN). The ban on GEN can be thought of as an image of the "not all" implicature invoked in the analysis of the expression meaning.

It looks as if these parts of the meaning of *quelque* were not just contents to freely combine with other operators, and possibly to cancel in the scope of the relevant contents (e.g. negation or GEN) but were features that the behavior of the expression w.r.t. other operators should preserve in any licit combination.

Suppose the meaning of *quelque N* be defined as: "there are such Ns (existential in the TQG sense), and assume by default that not all Ns are such" (the result of the classical "scalar implicature"). What is striking when one considers what is licit and what is not in terms of interaction between *quelque* and operators of its context, is that combinations which would blatantly produce opposite results are just ruled out.

The theoretical import of this case study, if we are correct in the case analysis, would remain to be considered.

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