An expletive negation unlike any other in Québec French: Exploring a ‘complex NPI’ analysis

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Abstract

This paper explores ‘expletive’ uses of the negative marker *pas* in Québec French (QF) (Kemp 1982, Larrivée 1996), which despite checking every diagnostic for expletive negation (ExN), does not pattern with previously-documented cases of ExN. We show that most previous accounts of ExN can thus not explain ExN *pas*’s distribution. Building on van der Wouden’s (1994) approach to ExN as negative polarity items (NPIs), and adopting an alternative-based account of NPIs (Krifka 1995, Lahiri 1998, Chierchia 2013, a.o.), we propose a preliminary analysis of ExN *pas* as part of a ‘complex’ NPI. That is, ExN *pas* realizes one of two pieces in the composition of an NPI: (i) it does not contribute existential quantification of its own, but (ii) requires that the predicative existential expression it co-occurs with activate a set of domain alternatives. Though this analysis stands out in making a number of correct predictions about the distribution of ExN *pas*, it faces an empirical challenge, which we ultimately leave as an issue for future work.

Keywords: Expletive negation, negative polarity items, Québec French

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1. Introduction

‘Expletive’ uses of negation have received much attention in the last few decades, including most notably in a range of Romance languages (e.g. Jespersen 1917; Muller 1978, 1991; Espinal 1991, 1992, 2000, 2007; van der Wouden 1994; Larrivée 1996; Tovena 1996; Portner and Zanuttini 2000; Zeijlstra 2004; Yoon 2011; Makri 2013; Greco 2019, 2020; Delfitto 2020). This paper contributes to this literature with data from Québec French (QF). Our goal is to lay out a puzzle related to ‘expletive’ uses of the marker pas. We show that despite checking every diagnostic for expletive negation (ExN), ExN pas does not pattern with previously-documented cases of ExN. As such, most previous accounts cannot explain its distribution. We then propose a preliminary analysis, building on van der Wouden’s (1994) approach to ExN as negative polarity items (NPIs), in which ExN pas realizes one of two pieces in the composition of an NPI. Though our analysis stands out in making a number of correct predictions about the distribution of ExN pas, it faces a non-trivial empirical difficulty, which we discuss and ultimately leave as an open puzzle. ExN pas in QF thereby presents an interesting puzzle for theories of non-canonical uses of negation, and aligns with recent claims that different cases of ExN are best treated as separate phenomena (Zeijlstra 2004; Eilam 2007; Greco 2019; 2020).

In section 2, we establish the distributional properties of ExN pas. In section 3, we show that previous accounts of ExN cannot be extended to account for ExN pas’s distributional properties. In section 4, we sketch a preliminary account of ExN pas. Finally, in section 5 we conclude with a discussion of the remaining puzzle.

2. The (very limited) distribution of ‘expletive’ pas in Québec French

2.1. Distributional constraints on ExN pas

The morpheme pas in QF is generally used to express sentential negation. In example (1), pas denies the truth of the embedded proposition:

(1) Ça c’est le livre que j’ai pas aimé.  
This it is the book that I have NEG liked  
‘This is the book that I didn’t like.’

There are special environments, however, in which the presence of pas does not seem to contribute canonical negation (Kemp 1982). We show that such uses, described as ‘expletive uses of pas’ by Larrivée (1996), are heavily constrained by two factors.

First, ExN pas must occur inside a relative clause, headed either by (i) the universal quantifier tout ‘all’ (2), or (ii) superlative expressions (3). As indicated in the translations, ExN pas does not seem to reverse the truth conditions of the embedded proposition.²

(2) a. J’ai fait [tout [ce que je pouvais pas faire]].  
I have done all that I could ExN do

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¹Unless otherwise specified, the data presented in this paper come from the native-speaker author, and were also checked with 5 consultants (both linguists and non-linguists).
²In addition to le meilleur/pire ‘best/worst’, superlative sentences can be headed by several different expressions, including le premier/dernier ‘the first/last’, le plus/le moins ‘the most/least’, le maximum/le minimum ‘the maximum/minimum’ (see Kemp 1982 for several examples).
‘I did all I could.’

b. J’ai lu [ tous les livres [ que je pouvais pas lire ]].
   I have read all the books that I could EXN read
   ‘I read all the books I could read.’

(3) a. C’est [ le pire livre [ que tu peux pas lire ]].
   it is the worst book that you can EXN read
   ‘It’s the worst book you can read.’

b. Léa m’a donné [ le meilleur cadeau [ qu’elle pouvait pas me donner ]].
   Léa me has given the best gift that she could EXN me give
   ‘Léa gave me the best gift she could have given me.’

Note that all of these sentences are ambiguous between a negative use of pas and the ‘expletive’ use (see §2.2). Unless otherwise specified, we will ignore negative uses in this paper and only provide acceptability judgments for the ‘expletive’ interpretation. To make this clear, the ‘expletive’ uses of pas will be glossed as “EXN”, whereas the negative uses will be glossed as “NEG”.

A second peculiar requirement on EXN pas is that it must co-occur with a very limited set of existential predicates inside the relative clause in which it occurs. What unites all of these expressions is that they convey existential quantification, be it over worlds or over individuals (Kratzer 1981; Freeze 1992):³

(4) Predicates compatible with ExN pas
   a. The modal verb pouvoir ‘can’
   b. The existential predicate il y a ‘there is’
   c. Possessive uses of avoir ‘have’
   d. The lexical verb exister ‘to exist’ (reported in Kemp 1982)⁴

We illustrate this for the first three kinds of predicates listed in (4) with examples with relative clauses headed by tout (5) and superlatives (6). Also shown is the fact that ExN pas is incompatible with other lexical predicates, such as trouver ‘find’ and aimer ‘love’.

(5) Relative clauses headed by tout:
   a. J’ai lu tous les livres { que je pouvais pas lire } / { qu’il y a pas } /
      I have read all the books that I could EXN read / that.∃ EXN / 
      { qu’on a pas }.
      that we have EXN
      ‘I read all the books { I could read } / { there is } / { that we have }.’

³An anonymous reviewer suggested an example where ExN pas does not co-occur with an existential predicate, but co-occurs with a strong NPI like de/dans ma vie ‘in my life’. The relevant sentence they provided is: C’est la plus belle affaire que j’ai pas vue dans ma vie ‘It’s the most beautiful thing I’ve EXN seen in my life’. However, all of the native QF speakers we consulted (and the native-speaker author of this work) disagree with this judgment and reject an ExN interpretation of this sentence.

⁴Our consultants (and the native-speaker author of this work) all feel like the use of ExN pas with exister is degraded. We have included it, however, because Kemp (1982) reports instances of ExN pas with this verb.
b. *J’ai lu tous les livres que j’ai pas trouvés.
I have read all the books that I have ExN found
(Int.) ‘I read all the books that I found.’

(6) Superlatives:

a. C’est les pires bandits {que tu peux pas avoir} / {qu’il y a pas} / it is the worst bandits that you can ExN have / that.∃ ExN /
{qu’on a pas}.
that. we have ExN
‘These are the worst bandits {that you can have} / {there are} / {that we have}.’

b. *C’est les pires bandits que Lou aime pas.
It is the worst bandits that Lou likes ExN
(Int.) ‘It’s the worst bandits that Lou likes.’

In sum, assuming that superlatives encode universal quantification over degrees (Heim 1999), the conditioning environment of ExN pas boils down to (7):

(7) Conditioning environments for ExN pas:
ExN pas appears inside relative clauses, iff
i. the head of the relative clause contains a universal quantifier, quantifying either over individuals (2) or sets of degrees (3), and
ii. the relative clause contains an expression conveying existential quantification, either via an ability modal, plain existential, possessive have or exister (5)-(6).

These appear to be the only environments in which ExN pas can be used in QF.

Before moving on, it is important to mention that the presence of pas in biased questions and exclamatives (e.g., in sentences like Isn’t he happy?/!) has been previously described as an instance of ‘expletive negation’ (Vinet 2000, 2001). However, we assume that these cases are fundamentally distinct, and following Portner and Zanuttini (2000), Han (2002), Romero and Han (2004), and Delfitto (2020), that they constitute special cases of regular, polarity-reversing negation. In fact, the presence of negation in biased questions and exclamatives in QF is not regulated by any of the conditions in (7), suggesting that we can safely treat them as separate phenomena, regardless of what the right analysis might be.

2.2. ExN pas complies with ExN diagnostics

Apart from hints in translations, we have not yet motivated our labelling of pas as ExN, nor have we motivated the fact that it should be differentiated from regular instances of negation in the first place. In this section, we show that ExN pas checks all of the previously-established diagnostics for identifying ExN. Greco (2019), building on previous work, lists several diagnostics, all of which can be confirmed with ExN pas.

A first diagnostic concerns the licensing of polarity sensitive expressions like neg-words and NPIs. NPIs are known to be licensed under the scope of regular negation, as illustrated in (8a) for the NPIs pantoute and du tout ‘at all’.⁵ In contrast to regular

⁵See Burnett and Tremblay 2012, 2014 for a discussion of the NPI pantoute, which translates as ‘at all’.
negation, ExN *pas* cannot license such expressions (8b). Recall that the sentence in (8b) is ambiguous between a negative use of *pas* and ExN *pas*. As specified in the glosses, the judgments provided for the (b)-sentences in this section are all for ExN *pas*.

(8)  

<table>
<thead>
<tr>
<th>Example</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. J’aime <strong>pas pantoute/du tout</strong> ce livre-là.</td>
<td>I.Don’t like this book at all.</td>
</tr>
<tr>
<td>b. <em>C’est</em>* le pire livre que tu peux <strong>pas pantoute/du tout</strong> lire.</td>
<td>It is the worst book that you can EXN at all read</td>
</tr>
</tbody>
</table>

EXN *pas*, on the other hand, readily co-occurs with positive polarity items (PPIs) like *quelqu’un* ‘someone’, in contrast with regular instances of negation. This is shown in (9).

(9)  

<table>
<thead>
<tr>
<th>Example</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. ? J’ai <strong>pas</strong> donné ce livre-là à <em>quelqu’un</em>.</td>
<td>‘I didn’t give a book to anyone.’</td>
</tr>
<tr>
<td>b. <em>C’est</em>* le pire livre que tu peux <strong>pas donner</strong> à <em>quelqu’un</em>.</td>
<td>‘It’s the best book you can EXN give to someone/anyone’</td>
</tr>
</tbody>
</table>

A second diagnostic is the inability for ExN to appear in negative coordination constructions involving *ni* ‘nor’ and the additive particle *non plus* ‘neither’ (Delfitto and Fiorin 2014). In contrast, regular negation can occur in such constructions (10a). Example (10b) shows that ExN *pas* also complies with this diagnostic:

(10)  

<table>
<thead>
<tr>
<th>Example</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. On a <strong>pas</strong> ce restaurant-là à Québec {pis/ni} à Montréal</td>
<td>‘We don’t have this restaurant in Quebec nor/and in Montreal (neither).’</td>
</tr>
<tr>
<td>b. C’est le meilleur restaurant qu’on a <strong>pas</strong> à Québec {pis/*ni} à Montréal</td>
<td>‘It’s the best restaurant we have in Québec City and also in Montréal.’</td>
</tr>
</tbody>
</table>

Finally, a third diagnostic concerns the intuitive semantic contribution of ExN: clearly, *pas* in examples like (2) and (3) does not deny the truth of the embedded propositions. One way to see this more clearly is to look at what happens when it combines with a negative operator. Should it contribute regular negation, then the two negative operators should logically cancel each other out and give rise to a positive (i.e., double negation) reading, as shown in (11a). However, as seen in (11b), ExN *pas* – unlike regular negation *pas* – cannot give rise to such a reading (stress marked with capitalization):

(11)  

<table>
<thead>
<tr>
<th>Example</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. J’ai <strong>pas PAS</strong> acheté ce livre-là.</td>
<td>‘I didn’t not buy this book’ (= I bought this book)</td>
</tr>
</tbody>
</table>
b. C’est le pire livre que tu aurais pas pu \textsc{EXN} trouver.

‘It’s the worst book you could’ve ever not found.’ (≠ you could’ve ever found)

In sum, we have shown in this section that ExN _pas_ in QF can only occur in a specific set of environments (7), where it does not seem to convey canonical negation. Moreover, this use of _pas_ checks every standard diagnostic for identifying ExN. Despite this, we argue in the next section that ExN _pas_ diverges in a number of respects from previously-described instances of ExN, concluding that it should be treated as a distinct phenomenon.

3. On the ‘non-uniformity’ of expletive negation

3.1. ExN _pas_ versus other cases of ExN

Despite complying with standard diagnostics, the distribution of ExN _pas_ in QF is clearly distinct from previously-described cases of ExN. For one, ExN _pas_ is not attested in the environments usually associated with ExN. For instance, a prototypical licensing environment for ExN in Romance and other languages is the scope of so-called “adversative predicates” (van der Wurff 1999). Such predicates include verbs like _deny, doubt, fear_, and _prevent_. An example with _avoir peur_ ‘to be afraid’ is provided in (12). While ExN _ne_ in European French (EF) is licensed by this kind of predicate, ExN _pas_ in QF is not:

(12) a. J’ai peur que ça _ne_ puisse se reproduire.  
I have fear that it \textsc{EXN} could refl happen.again  
‘I am afraid that it could happen again.’

b. *J’ai peur que ça puisse _pas_ se reproduire.  
I have fear that it could \textsc{EXN} refl happen.again  
(Int.) ‘I am afraid that it might happen again.’

Comparatives are another commonly-reported environment for ExN (see e.g. Delfitto 2020). Again, ExN _ne_ is licensed in this environment, but not _pas_:

(13) a. Ton livre est plus cher que je n’aurais _ne_ pu l’imaginer.  
your book is more expensive that I \textsc{EXN}-have could imagine.it  
‘Your book is more expensive than I could have imagine.’

b. *Ton livre est plus cher que j’aurais _pas_ pu l’imaginer.  
your book is more expensive that I have \textsc{EXN} could imagine.it  
(Int.) ‘Your book is more expensive than I could have imagine.’

Moreover, as far as we know, none of the previously-described cases of ExN have been reported to appear in the conditioning environments described in (7). For instance, expletive uses of _ne_ in EF and _no_ in Spanish are not possible in superlative sentences:

(14) a. *C’est le pire livre qu’on _ne_ pourrait lire.  
It is the worst book that we \textsc{EXN} could read

b. *Es el peor libro que _no_ puedes leer.  
It is the worst book that \textsc{EXN} can read  
Intended: ‘It’s the worst book you can read.’
The fact that ExN *pas*’s distribution is so different from previously-described cases of ExN suggests that the two constitute separate phenomena. In the rest of this section, we nonetheless consider two previous accounts that consider ExN distinct from canonical negation: (i) accounts which tie ExN to negative concord (§3.2); and (ii) accounts which propose that ExN should be analyzed as a mood marker (§3.3). We argue that, indeed, neither kind of approach could be extended to account for the limited distribution of ExN *pas*. In section 4, we then discuss a third type of account, one which ties ExN to negative polarity (van der Wouden 1994). Our analysis of ExN *pas* will build on this analysis.

Before moving on, however, we should stress that there does not need to be one unified account of ExN across languages, as has been highlighted in previous work (e.g., Zeijlstra 2004; Eilam 2007; Greco 2019, 2020). That is, it is conceivable that different reported cases of ExN should in fact be characterized in different ways, depending on the syntactic environments in which they occur, and the meanings they get associated with. In addition, it is conceivable that many cases of apparent expletive uses of negation are in fact cases of regular negative operators, whose negative force is obscured by the syntactic environment in which they appear (see e.g. Citko 2003, Abels 2005, and Margulis 2019).

### 3.2. Expletive negation as negative concord

A number of scholars have proposed to connect ExN to Negative Concord (e.g., Espinal 1992, 2000; Zeijlstra 2004). The main idea is that both need to be licensed by some higher operator. For instance, Espinal (2000) argues that while neg-words in Catalan and Spanish are licensed under the scope of negative operators, ExN is licensed under the scope of nonveridical operators. Nonveridicality is defined, roughly, as in (15):

\[(15) \text{Rough definition of nonveridicality (see Giannakidou 2011)}\]
\[
\text{In a context } C, \text{ an operator } OP \text{ is nonveridical iff the truth of } OP + p(roposition) \text{ in } C \text{ does not require that } p \text{ be true in } C.
\]

To illustrate the potential relation between ExN and nonveridicality, consider the following example from Catalan, which takes a nonveridical complement and licenses ExN *no* (see also example (12a) from EF above):

\[(16) \text{Em temo que no escullin nou director. } [\text{Catalan, Espinal 2000}]\]
\[
\text{I fear that EXN elect.SUBJ.3PL new director}
\]
\[
\text{‘I’m afraid that a new director would be elected.’}
\]

The complements of *fear*-predicates are nonveridical. In (12b), if it is true that the speaker is afraid that a new director will be elected, *it does not have to be true* that a new director will be elected. That is, the truth of the matrix proposition does not entail the truth of the embedded proposition, and so the sentence in (16) complies with the definition in (15). Espinal’s proposal thus correctly predicts the presence of ExN in the complements of *fear*-predicates across different Romance languages.

\[6\text{Attempts to unify all cases of ExN have been put forth, most notably in Yoon 2011 and Makri 2013. That being said, such accounts suffer the empirical burden that—despite significant overlap—there is much crosslinguistic variation with respect to the environments in which ExN is licensed. That is, if ExN (i.e., all apparently non-negative uses of negation) has a unified source across languages, then the extensive variation remains a significant empirical puzzle.}\]
However, this analysis cannot be extended to ExN *pas*, for a number of reasons. For one, we have already seen in (12b) that ExN *pas* in QF, contrary to ExN *ne* in EF (12a), is not licensed under the scope of *fear*-predicates. This means that a nonveridical approach to ExN *pas* would run into undergeneration issues: we would need to explain why ExN *pas* is not licensed under the scope of adversative verbs and other nonveridical operators.

Conversely, we have also seen in (14) that ExN in EF and Spanish is not licensed in the environments that license ExN *pas* in QF. In fact, these environments—namely, relative clauses with existential predicates that are headed by universal or superlative heads, see (7)—are not straightforwardly compatible with a nonveridical analysis. For example, it is not clear that the embedded proposition in (17) is nonveridical. That is, if it is true that

\[
\text{Russia is the biggest country there is.}
\]

Therefore, unless further stipulations about nonveridicality are put forth, this approach to ExN *pas* does not straightforwardly account for the presence of ExN *pas* in (17).

Finally, a third—and crucial—issue for a nonveridical approach to ExN *pas* is that it would have little to say about ExN *pas*’s peculiar dependency on existential predicates. That is, recall from (7) that ExN *pas* must co-occur with one of four ‘existential’ predicates; it simply does not occur with other predicates in the language:

\[
(18) \quad \text{*C’est le pire bandit que Lou aime pas. (Int.) \ ’It’s the worst bandit that Lou likes.’}\]

An adequate theory of ExN *pas* should seek to explain this fact, which to our knowledge pertains exclusively to expletive negation in QF (see e.g. (16), where ExN *no* in Catalan co-occurs with *escollir* ‘to elect’).

### 3.3. Expletive negation as a mood marker

In an attempt to offer a unified semantics of ExN across languages, Yoon (2011) argues that ExN, which she refers to as “Evaluative Negation”, should be crosslinguistically construed as a subjunctive mood marker (see also Makri 2013 for a similar modal approach). Just like Espinal (2000), she argues that ExN is licensed under the scope of nonveridical operators. However, while Espinal argues that ExN is semantically vacuous, Yoon argues that ExN does have a contribution to meaning: namely, it contributes a conventional

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7Giannakidou (1998) argues that superlatives can count as (indirect) nonveridical triggers, because of the fact that they induce a negative implicature. She argues that Russia is the biggest country triggers the (conventional) implicature that there is no country bigger than Russia. This might explain the presence of ExN in EF comparatives like (13). But if this were the right analysis of ExN *pas*, we would still have to explain why it is not licensed under the scope of other nonveridical operators, and why other instances of ExN are not licensed in the environments that license ExN *pas*.

8It should also be noted that ExN *pas* is not a neg-word, as it does not abide by standard diagnostics for neg-words (see e.g., Zeijlstra 2004 and Fălaşu and Nicolae 2016 for a recent overview of these diagnostics). For instance: (i) unlike neg-words, it needs to be c-commanded by its ‘licensor’ (i.e., the universal DP); (ii) unlike neg-words, ExN *pas* is not felicitous as a fragment answer to a positive question; and (iii) unlike neg-words, ExN *pas* cannot give rise to double negation readings (see (11b)).
implicature to the effect that the proposition embedded under the scope of the relevant nonveridical operator is either unlikely or undesirable.

A first issue that would arise if we tried to extend this analysis of ExN to ExN pas is empirical: ExN pas is not associated to likelihood or desirability in any clear way. For instance, the sentence in (17) from the previous subsection does not convey anything about a country’s likelihood to be big, or about whether this is desirable or not.

Second, since this analysis is dependent on nonveridicality, it raises the exact same questions, and runs into the exact same issues, as approaches that tie ExN to negative concord. In particular: (i) why would the conditioning environments for ExN pas not also license ExN in other languages?; (ii) why would ExN pas not also be licensed under the scope of other nonveridical operators?; and (iii) why would ExN pas mandatorily co-occur with an existential predicate? Since the modal approach to ExN does not provide us with straightforward answers to these questions, we are led to the conclusion that another analysis must be sought.

4. A preliminary account: ExN pas forms a ‘complex’ NPI

In the previous section, we detailed two accounts of ExN, and argued that neither can be extended to capture the limited distribution of QF pas. We now provide a preliminary, alternative account, which builds on van der Wouden’s (1994) observation that ExN tends to pattern with NPIs. Adopting an alternative-based approach to NPIs (Krifka 1995, Lahiri 1998, Chierchia 2013, a.o.), we go one step further in suggesting that ExN pas realizes just one of two ingredients in the composition of an NPI: it does not contribute existential quantification of its own (unlike e.g. English any), but requires that the predicative existential expression it co-occurs with activate a set of domain alternatives. In other words, we suggest that ExN pas forms a complex NPI with the existential predicate it modifies. We lay out this suggestion in section 4.1. We then show in sections 4.2 and 4.3 how this approach to ExN pas (i) can derive many of its peculiar distributional properties, and (ii) makes a number of correct predictions.

4.1. ExN pas and alternative-based accounts of negative polarity

On alternative-based accounts of negative polarity (Krifka 1995, Lahiri 1998, Chierchia 2013, a.o.), NPIs are existential items that obligatorily activate alternatives. For instance, English any has the same denotation as the plain indefinite some (19a), but in addition activates a set of domain alternatives (ALT) which consist of subsets of the relevant quantificational domain (19b).

\[
\text{(19) a. } \llbracket \text{any} \rrbracket = \lambda P. \lambda Q. \exists x \in D \ [P(x) \land Q(x)] \\
\text{b. ALT: } \{\lambda P. \lambda Q. \exists x \in D'[P(x) \land Q(x)], D' \subseteq D\}
\]

Once they are active, alternatives need to be factored into meaning. One way to implement this is through the insertion of an exhaustification operator EXH, akin to silent only, defined in (20). Given a sentence \(\phi\) and a set of alternatives (ALT) to \(\phi\), EXH(\(\phi\)) asserts \(\phi\) and negates the alternatives that are not entailed by the assertion.

\[
\text{(20) } \llbracket \text{EXH} \rrbracket^{\text{w}}(\phi) = \phi_w \land \forall p \in ALT(\phi) \ [p_w \rightarrow \phi \subseteq p]
\]
To illustrate how this works in more detail, let us consider the sentence in (21). This sentence asserts (21a) and comes with the set of ALT in (21b). As previously mentioned, domain alternatives consist of subsets of the relevant quantificational domain. If we assume that the domain D is the set of things in the kitchen, the set ALT of domain alternatives could then be the following: \{there are pastries left on the table, there are pastries left in the oven, there are pastries left in the kitchen, etc\}. All these alternatives are entailed by the assertion in (21a). Thus, exhaustification is vacuous and simply return the assertion, as in (21c). As a result, the NPI any is licensed in (21). More generally, if the insertion of EXH results in a syntactically well-formed structure and gives rise to a semantically coherent meaning, the NPI is licensed. In contrast, if it leads to a contradiction, the sentence is ungrammatical (see § 4.2).

(21) There aren’t any pastries left.
   a. Assertion: EXH [∃x ∈ D [pastries(x) ∧ left(x)]]
   b. ALT: ∃x ∈ D’ [pastries(x) ∧ left(x)], D’ ⊆ D
   c. After exhaustification: ∃x ∈ D [pastries(x) ∧ left(x)]

In the remainder of this paper, we explore the following hypothesis: ExN pas is just one of the two ingredients in the composition of an NPI. Unlike regular NPIs (e.g., any), ExN pas does not contribute existential meaning of its own. Instead, its sole contribution is to force the existential expression it co-occurs with to activate a set of ALT. In other words, we treat pas and the existential predicate it co-occurs with as a complex NPI. Note that this is only a preliminary analysis. Further research is required to understand, for instance, what the exact nature of the syntactic and semantics dependency between pas and the existential predicate is, and we will not attempt to provide a full decomposition here. Our current goal is simply to show that a complex NPI account leads us to a number of correct predictions about the distributional properties of ExN pas.

To illustrate the hypothesis we are exploring, consider example (22), where ExN pas occurs in a relative clause headed by tout ‘all’.

(22) J’ai fait tout ce que je pouvais pas faire.
    I have did all that I could ExN do ‘I did all I could.’

The sentence in (22) has the LF in (23a), and asserts (23b). ExN pas requires that the (existential) ability modal pouvoir trigger a set of alternatives (ALT), given in (23c). Given that the first argument of the universal quantifier tout is downward-entailing, all the alternatives are entailed by the assertion, and therefore not negated. Exhaustification is vacuous and simply returns the assertion, as shown in (23d).

(23) \[ (22) \] =
   a. EXH [tout [\lambda x [je pouvais pas faire x]] [\lambda y [j’ai fait y]]]
   b. Assertion: EXH ∀x ∈ W[∃w ∈ W[I have done x at w] → I have done x at w₀]
      with W = the set of worlds epistemically accessible from w₀

\[Downward-entailing functions are defined as follows: ‘A function f is downward-entailing iff for any A and any B, if B ⊆ A then f(A) → f(B).’\]
In the rest of this section, we first show that this account can explain many facts related to the distribution of ExN pas. We then discuss some predictions that follow from the analysis, and argue that they are borne out.

4.2. Deriving the distributional properties of ExN pas

Recall the conditioning environment for ExN pas, repeated from (7) in a simplified way:

\[(24) \text{ExN pas appears inside relative clauses (RC), iff} \]
\[\text{(i) the head of the RC contains a universal quantifier, and} \]
\[\text{(ii) the RC contains an expression conveying existential quantification.} \]

The hypothesis we are exploring here, that ExN pas forms a ‘complex’ NPI, can capture these restrictions.

The first restriction, namely (24i), states that the head of the relative clause containing ExN pas must contain a universal quantifier. That is, assuming that superlatives encode universal quantification over sets of degrees (Heim 1999, a.o.), both environments in which ExN pas occurs yield the following configuration:

\[(25) \text{EXH [\[ \forall [ ... \exists \text{pas} ...] [ ... ] ]} \]

This corresponds to the configuration we detailed in section 4.1 (see example (23)). Because the restrictor of a universal quantifier is downward entailing, on this configuration all of the alternatives are entailed by the assertion. Thus, exhaustification is vacuous and simply returns the assertion.

At this point, we also understand why ExN pas cannot appear in relative clauses headed by DPs other than those involving universal quantification. For example, ExN pas cannot appear in relative clauses headed by quelque chose ‘something’:

\[(26) \text{*J'ai fait quelque chose [ que je pouvais pas faire ].} \]
\[\text{(Int.) ‘I did something I could.’} \]
\[\text{Only means: ‘I did something I wasn’t allowed to.’} \]

In this case, the alternatives given in (27c) are not entailed by the assertion in (27b): the restrictor of quelque chose is not downward entailing. Thus, exhaustification negates all of these alternatives, yielding an inference that contradicts the assertion (indicated with “⊥”), as illustrated in (27d).  

\[(27) \text{\[ (26) \] =} \]
\[\text{a. EXH [quelque chose [ \lambda x \text{[je pouvais pas faire] x] [\lambda y \text{[j'ai fait]} y] ]]} \]

\[10\text{For details on when and why contradictions give rise to ungrammaticality, we refer the reader to Gajewski 2002 and Chierchia 2013.} \]
b. Assertion: EXH $\exists x [\exists w \in W [I have done x at w] \rightarrow I have done x at w_0]$
with $W = \text{the set of worlds epistemically accessible from } w_0$

c. ALT: $\{ \exists x [\exists w' \in W' [I have done x at w'] \rightarrow I have done x at w_0], W' \subseteq W \}$

d. After exhaustification: $\exists x [\exists w \in W [I have done x at w] \rightarrow I have done x at w_0] \land \neg \exists x [\exists w' \in W' [I have done x at w'] \rightarrow I have done x at w_0] = \bot$

As previously mentioned, if the insertion of the exhaustification operator leads to a contradiction, the NPI is not licensed and the sentence is ungrammatical.

As for the second restriction, namely (24ii), it states that ExN $\text{pas}$ must co-occur with an existential predicate inside the relative clause (see (4) above). Our preliminary analysis offers an explanation for this restriction: given that ExN $\text{pas}$ does not contribute existential meaning by itself, it requires the presence of an existential whose set of alternatives will be used by EXH.

And we can further explain why ExN $\text{pas}$ cannot co-occur with, say, necessity modals like $\text{devoir}$ ‘must’:

(28) *J’ai fait tout ce que je devais faire.
I have did all that I must ExN do
(Int.) ‘I did all I was supposed to do.’
Only means: ‘I did all I wasn’t allowed to do.’

In this case, the alternatives given in (29c) are, again, not entailed by the assertion in (29b). Thus, exhaustification negates all of these alternatives, yielding an inference that contradicts the assertion, as shown in (29d).

(29) [ (28) ] =

a. EXH [tout [ $\lambda x [\text{je devais pas faire } x]$ ] [ $\lambda y [j’ai fait y]$ ] ]

b. Assertion: EXH $\forall x [\forall w \in W [I have done x at w] \rightarrow I have done x at w_0]$

c. ALT: $\{ \forall x [\forall w' \in W' [I have done x at w'] \rightarrow I have done x at w_0], W' \subseteq W \}$

d. After exhaustification: $\forall x [\forall w \in W [I have done x at w] \rightarrow I have done x at w_0] \land \neg \forall x [\forall w' \in W' [I have done x at w'] \rightarrow I have done x at w_0] = \bot$

4.3. Some predictions: NPI effects and adjacency effects

We now turn to a discussion of some predictions, which we show follow from a complex-NPI approach to ExN $\text{pas}$. Three have to do with well-known NPI effects, and one has to do with the ‘dependency’ of ExN $\text{pas}$ on existential predicates.

It is well-known that certain expressions, such as universal quantifiers or only, block NPI licensing when they intervene between an NPI and the downward entailing operator that would otherwise provide the environment for the NPI to be used (Linebarger 1980). This is shown below for NPIs in English ((30a) is taken from Chierchia 2013, p. 373):

(30) a. ??I doubt that every student of mine will ever have any problems
b. ??If you only bring any book with you, it should be by James Baldwin.

Both of these examples involve typical licensing environments for NPIs, namely the scope of dubitative predicates and the antecedent of a conditional. But in both cases, the presence of every or only makes the sentences with NPIs considerably degraded.
If ExN \textit{pas} forms a complex NPI, as we suggested, then we might expect to also find intervention effects. In particular, when the universal quantifier \textit{tout} ‘all’ or the focus particle \textit{seulement} ‘only’ intervene between the superlative DP and ExN \textit{pas}, the felicity of ExN \textit{pas} might be affected. Example (31) shows that this prediction is borne out:

(31) a. C’est le meilleur achat que (?tout le monde) peut \textit{pas} faire.
It is the best purchase that all the people can \textit{EXN} make
(\textit{Int.}) ‘It’s the best purchase that everyone / Louise could ever make.’

b. C’est le meilleur achat que (*seulement Louise) peut \textit{pas} faire.
It is the best purchase that only Louise can \textit{EXN} make
(\textit{Int.}) ‘It’s the best purchase only Louise could ever make.’

A second well-known effect of NPI licensing is that it is generally subject to \textit{locality} effects, which as Chierchia (2013) argues, can be explained if exhaustivity is projected in the syntax and is therefore subject to independent syntactic locality restrictions (see also Progovac 1993). Locality restrictions are also found with ExN \textit{pas}, as illustrated in (32b):

(32) a. J’ai fait tout ce que je peux \textit{pas} faire.
I have done everything that I can \textit{EXN} do.
(\textit{Int.}) ‘I did everything I can do.’

b. *J’ai fait tout ce que Jean pense que je peux \textit{pas} faire.
I have done everything that Jean thinks that I can \textit{EXN} do.
(\textit{Int.}) ‘I did everything that John thinks I can do.’

Only means: ‘I did everything that Jean thinks that I’m not able to do.’

While a reading with ExN \textit{pas} is licensed in (32a), it is not in (32b). The only difference between these two sentences is that the latter features the embedding predicate \textit{penser} ‘think’, which intervenes between ExN \textit{pas} and the relativized DP headed by \textit{tout}. This shows that ExN \textit{pas} is subject to locality restrictions: it must modify the first predicate of the relative clause that is selected by the universal DP. Again, this is expected on an NPI approach to ExN \textit{pas}.

A third commonly-reported property of NPIs is that they tend to be intuitively associated with ‘domain-widening’ effects, or at least stronger meanings compared to their regular indefinite counterparts (see e.g., Kadmon and Landman 1993).\textsuperscript{11} If ExN \textit{pas} forms a complex NPI, we might expect to see similar ‘domain widening’ effects when it is used. This is indeed the case, as was already reported in Kemp 1982, pp. 275–276.

(33) ?Laurent a arrosé toutes les plantes qu’il y a \textit{pas} dans sa maison.
Laurent has watered all the plant that \exists \textit{EXN} in his house.
(\textit{Int.}) ‘Laurent watered all the plants in his house.’

The sentence in (33) sounds degraded. One potential explanation for this is that widening the domain of individuals in this case would be pragmatically-marked, since Laurent most likely does not have an indefinite number of plants in his house.

\textsuperscript{11}We use the term ‘domain widening’ only descriptively, and do not assume that NPIs need to yield widened domains (see Arregui 2008 on why this cannot be). We assume, following e.g. Krifka (1995) and Chierchia (2006, 2013), that ‘domain widening’ is tied to the activation of sub-domain alternatives.
Finally, we discuss a prediction that is specifically related to our proposal that ExN forms a ‘complex’ NPI. If ExN pas must form a complex NPI with a predicate conveying existential quantification, then we might expect there to be an adjacency requirement between the two. This expectation is indeed borne out. Example (34) shows that although the adverb vraiment ‘really’ can occur between the modal pouvoir ‘can’ and an infinitive (34a), and between this same modal and a canonical use of negation (34b), ExN pas cannot be separated with this adverb from the existential predicate with which it combines.

(34) a. Tu peux vraiment aimer cette personne-là.
   you can really love this person-DEM
   ‘You can really love this person.’

b. Tu peux vraiment pas aimer cette personne-là.
   you can really NEG love this person-DEM
   ‘You cannot really love this person.’

c. *C’est la meilleure personne que tu peux vraiment pas aimer.
   It.is the best person that you can really ExN love
   (Int.) ‘It’s the best person that you could really love.’

As seen in (34c), the presence of the adverb vraiment ‘really’ between pouvoir and ExN pas blocks the ExN interpretation of pas (only a negative reading is perceived). This suggests that ExN pas must be syntactically adjacent to the existential predicate with which it forms a complex NPI.  

5. Discussion: On the limited distribution of ExN pas

This paper has made several contributions. First, we added to the typology of non-canonical uses of negation by providing a description of the very limited distribution of ExN pas in QF. Second, we showed that none of the existing accounts of ExN can offer a straightforward explanation of ExN pas’s licensing environments, suggesting that ExN does not necessarily form a unified category across languages, as advocated in previous work (Zeijlstra 2004, Eilam 2007; Greco 2019; contra Yoon 2011 and Makri 2013). Third, based on ExN pas’s distribution and semantic contribution, we proposed a preliminary analysis of ExN pas as part of a ‘complex’ NPI. In particular, we suggested that ExN pas realizes just one of two pieces in the composition of an NPI: it requires that the predicative existential expression it co-occurs with trigger a set of domain alternatives. This proposal captures one of the most peculiar restrictions on ExN pas: that it can only arise if it is adjacent to one of four existential predicates in the language. And finally, if this account is on the right track, ExN pas contributes to the typology of NPIs, insofar as we may expect to find other instances of ‘complex’ NPIs across languages.

Our preliminary analysis does, however, face a non-trivial overgeneration issue. The distribution of ExN pas is limited and non-standard, in ways that are not necessarily expected if it forms a complex NPI. Therefore, we are left with the following puzzle:

12Such adjacency effects are reminiscent of proposals of non-local modification, which also resort to the formation of complex morphemes (Zimmermann 2003; Morzycki 2016). In such proposals, it is argued that determiners and modifiers can combine to form complex determiners. Interestingly, these proposals show that intervening adjectival modifiers also block the formation of complex determiners.
An expletive negation unlike any other in Québec French

(35) **Puzzle:** If ExN *pas* forms a complex NPI, why can’t it appear in other downward entailing environments?

All else being equal, if ExN *pas* forms an NPI with an adjacent existential predicate, then we may expect it to be licensed in other prototypical downward entailing environments, such as the antecedents of conditionals. The following example shows that this prediction is not borne out, even when *pas* is immediately adjacent to an existential predicate:

(36) *S’il y a pas un coiffeur de disponible, je prendrais rendez-vous.*
if.there.is ExN a hairdresser of available, I would.take appointment
(Int.) ‘If there’s an available hairdresser, I’d like to take an appointment.’

Note, however, that not all NPIs are licensed in such environments. In particular, typologies of NPIs generally distinguish between weak NPIs – which are licensed in antecedents of conditionals – and strong NPIs – which are not. Thus, the distribution of strong NPIs is more restricted than that of weak NPIs, the former only licensed by anti-additive operators (see e.g., Zwarts 1996 and Chierchia 2013). One possibility, then, would be to explain ExN *pas*’s restricted distribution by treating it as a strong NPI.

QF features prototypical weak and strong NPIs (see e.g. Burnett and Tremblay 2012, 2014). As seen in table 1, while wh-*que ce soit* items can appear in all types of environments, *de la journée* can only appear under the scope of anti-additive operators. Also shown in this table is that ExN *pas* overlaps on the weak/strong NPI divide. This shows that we can unfortunately not have recourse to the traditional weak/strong distinction in order to explain ExN *pas*’s restricted distribution. As pointed out by an anonymous reviewer, perhaps this is not cause for concern: Hoeksema (2008) shows that the licensing of NPIs exhibits much more variation than the one described by the weak/strong divide.

Table 1: Licensing environments for weak NPIs, strong NPIs, and ExN *pas* in QF

<table>
<thead>
<tr>
<th>Downward-entailing</th>
<th>wh-<em>que ce soit</em> (B&amp;T)</th>
<th><em>de la journée</em> (B&amp;T)</th>
<th>ExN <em>pas</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>first argument of tout/every antecedent of conditional comparatives few/peu</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Anti-additive</td>
<td>pas/not rien/nothing personne/no one superlatives</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

There is one property of ExN *pas* that this table does reiterate, however: the apparent need for a universal quantifier. That is, ExN *pas* must appear in configurations in which a universal DP, be it over individuals (*tout*) or degrees (superlatives), has been relativized. While, as we have shown, this fact is compatible with our complex NPI analysis of *pas*, it does not immediately follow from our analysis, or any analysis of NPI licensing for that matter. Understanding this important and striking component of the distribution of ExN *pas*, an endeavour we leave for future work, will surely shed light on the semantic underpinnings of this item and the study of polarity more generally.
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