July 2018

Responding to questions and assertions: embedded Polar Response Particles, ellipsis, and contrast

Jeremy Pasquereau

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RESPONDING TO QUESTIONS AND ASSERTIONS: EMBEDDED POLAR RESPONSE PARTICLES, ELLIPSIS, AND CONTRAST

A Dissertation Presented

by

JÉRÉMY PASQUEREAU

Submitted to the Graduate School of the University of Massachusetts Amherst in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

May 2018

Linguistics
RESPONDING TO QUESTIONS AND ASSERTIONS: EMBEDDED POLAR RESPONSE PARTICLES, ELLIPSIS, AND CONTRAST

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by
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ACKNOWLEDGMENTS

I thank the members of my committee for their guidance. It is difficult to point out one quality that one individual has, since it may unfortunately be interpreted as implying that other individuals do not have this quality. I have certainly been able to attest that they all share incredibly valuable qualities: passion for linguistics, intelligence, erudition, and rigor. Thank you to Rajesh Bhatt for being enthusiastic and positive, for encouraging me to ask him whatever questions I may have, and for finding answers since I took my first class with him in the Spring of 2012. Thank you to Vincent Homer for his help with working on this dissertation. His rigor and attention to details have set new goals for me. Thank you to Seth Cable for his incredible classes, for his very thoughtful comments on a previous draft of this dissertation (and other work I did), and for giving me research opportunities. Thank you to Lyn Frazier. I really hope to attain the level of understanding she has of linguistics; she is of course a specialist of psycholinguistics, but she is also a linguist who understands and engages with issues in many other subdisciplines of linguistics from semantics to phonetics. Finally, thank you to Alejandro Perez-Carballo for agreeing to be a member of this committee and for his feedback on things I worked on.

I started studying linguistics officially in 2009 at the Université Lyon II but really the first book about linguistics that I read was *Le cours de linguistique générale* by Saussure while I was in the last year of my BA in Angers. A couple of books later, I was thoroughly convinced linguistics was what I had been looking for and sent out emails to different linguistics departments. Colette Grinevald (a.k.a. Craig) responded to my email within minutes. She directed me towards the Dynamique du Langage laboratory webpage and I was hooked. Many encouraging emails later, she put me in touch with Denis Creissels. I cannot thank her enough for all this, and I cannot thank Denis enough for his interest in
working with me, for his patient tutoring as we worked side by side every week reading about Caucasian linguistics in Russian or worked on Karata texts together. I have incredibly fond memories of this time and can only hope to one day reciprocate this experience. I would like to thank Alice Harris for acting as an advisor for this work while at UMass. I can only hope to one day write such informative and well-researched papers and books on such interesting topics. Thank you also to Gilles Authier for his encouragement and invitations to present in Paris, and to Timur Maisak, Dmitri Ganenkov, Natasha Bogomolova, and Diana Forker for keeping me in the loop of Daghestanian linguistics. Finally I would like to extend a warm and big thank you to my dear friend, collaborator, and Karata informant, Rashidat Khalidova for being so helpful and for sharing so much with me (from her language to her home).

While at UMass, I worked on a number of projects under the official or unofficial supervision of many people that have not been cited so far. Thank you to John McCarthy for supervising my first Generals Paper, thank you to Brian Dillon for meeting with me so much and advising me on a number of experimental projects, thank you to Angelika Kratzer for being supportive of my efforts whether in semantics or in Caucasian linguistics, thank you to Ellen Woolford for helping me work through syntax problems in the first years, thank you to Kyle Johnson for all his answers to my numerous questions about syntax, thank you to Barbara Partee for the individual/group meetings and for inviting me to her house for Russian-themed dinners. Last but not least, thank you to John Kingston for his advice on a variety of things ranging from Karata phonology to fieldwork to wine, and to Tom Maxfield for being so helpful with navigating the graduate program.

I am deeply grateful to Amanda Rysling for caring for me for the past five years, for her incredible support and valuable advice on most things from experiments to ice-cream and coffee. I would also like to thank my friends while I was in Massachusetts: Joshua Levy for being supportive and taking my mind off linguistics with ice-cream or music, Shayne Sloggett for his help with my experimental endeavors and sense of humor, Ilya
Kurenkov, Magda Oiry, Benjamin Storme, Jérémy Zehr, Caroline Andrews, Deniz Ozyildiz, and David Erschler for making my time at UMass more pleasant than it could have been. Thanks also to Lorenzo Bonino for being such a good roommate, Ilaria Frana, Giorgia Zorzi, Nicoletta Biondo, Jan Casalicchio, Ekaterina Vostrikova, Petr Kusliy for their judgements. More generally, I would also like to express my gratefulness to all the participants in the questionnaire study reported in the appendix. Thanks to the members of the linguistics department in Nantes for inviting me to give presentations when I would come back to France, it was always a very pleasant and informative experience. Finally thanks to the Surrey Morphology Group members for bearing with me while this dissertation was being revised. I would like to thank my friends in France and abroad even though, in the last few years, my time spent with them diminished. I would also like to thank my family, especially my parents, Laurence and Christian Pasquereau, for all their work, support and trust, as well as my brother, Aurélien, and my sister, Alexandra.
Chapter 1 introduces the topic of this dissertation, embedded Polar Response Particles (PRPs) in European French, and the issues to be addressed, as well as a number of terminological and methodological precisions.

Chapter 2 looks at the differences in use of matrix and embedded bare PRPs, i.e. *oui*, *non*, and *si* on their own as opposed to being followed by a coda. Matrix bare PRPs have many uses but embedded bare PRPs only have a proper subset of those uses. This justifies looking at embedded PRPs on their own.

Chapter 3 distinguishes three configurations that embedded PRPs can be in: bare, fragment-peripheral, or clause-peripheral. The literature on PRPs has not really distinguished those cases before, treating them by default as different interchangeable realizations of the same syntactic structure. I show that in fact, bare and fragment-peripheral
PRPs on the one hand, and clause-peripheral PRPs on the other are not interchangeable although they do, in some cases, ultimately have basically the same underlying syntactic structure. Embedding provides good evidence that bare and fragment-peripheral cases are best treated as involving ellipsis of a sentential constituent (and not as being pro-forms). Following Laka 1990, I show that clause-peripheral PRPs are to be given a different analysis depending on whether the coda is identical to the antecedent of the PRP.

Chapter 4 looks at constraints on the distribution of embedded PRPs. There are two main subparts. The first part concerns the kind of predicates that can embed PRPs in European French. The second part shows that embedded PRPs are positive polarity items.

In the previous chapters, we did not distinguish between PRPs as responses to polar questions and responses to assertions since they behave the same with respect to the different phenomena investigated (excluding part 2 of chapter 3). Chapter 5 shows that, on the surface, PRP responses to questions and assertions differ in two ways. In response to an assertion, a PRP response must contrast with the assertion, but in response to a question, any PRP response is acceptable (whether it contrasts or not). I provide a uniform analysis of embedded PRPs that derives this asymmetry. The second asymmetry has to do with how strong PPIs embedded PRP responses to assertions are. While embedded oui/non in response to questions are PPI sensitive to Anti-Additive environments, in response to assertions, they are sensitive to DE environments.

Chapter 6 takes a close look at the interpretation of embedded non and argues for an analysis in which non is always interpreted negatively and takes part in negative concord with the closest c-commanded Pol head in its scope.

Chapter 7 concludes with a summary of the main issues and findings of the dissertation as well as a discussion of potential extensions for further research.
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CHAPTER 1
INTRODUCTION

1.1 What this dissertation is about

This dissertation investigates a closed series of lexical items, Polar Response Particles\(^1\), which appear to communicate the same propositional content as a full clause would, but which do not on the surface contain the syntactic structure which a clause does (1 and 2). The central goal of this dissertation is to understand what PRPs are and to propose an account that derives their truth and felicity conditions.\(^2\)

(1) A: Est-ce qu’il pleut?
   is it that it rains
   \textbf{Is it raining?}

---

1. In the literature they are also known as ‘polarity particles’ or ‘yes/no particles’ or ‘response particles’ among others. The particles \textit{oui}, \textit{non}, and \textit{si} can be used to respond to questions and to assertions therefore I use the term Polar Response Particles (proposed in Sailor 2012). On the other hand, \textit{oui}, \textit{non}, and \textit{si} are not used exclusively as responses, for instance (ia) is an example of \textit{non} used as a tag question and (ib) is an example where \textit{oui} and \textit{non} are conjoined with \textit{ou} ‘or’ in an indirect question.

(i) a. Tom va \textit{venir}, \textit{non}?
   Tom goes \textit{come} \textit{no}
   \textit{Tom will come, won’t he?}

   b. Dis -moi si oui ou non Tom va \textit{venir}.
   tell me if yes or no Tom goes come
   \textit{Tell me whether Tom will come.}

   But I will not be talking about those. If it turns out that \textit{oui}, \textit{non}, and \textit{si} in those uses are the same \textit{oui}, \textit{non}, and \textit{si} used as embedded PRPs then we may want a more general name. But for now, I think the name conveys that I am mainly interested in responses.

2. I worked on this dissertation project from about April 2015 until August 2017. The more time went by, the more discoveries I made and still make. Unfortunately, not all of them appear in the dissertation and not all questions have been answered.
B1: Oui.  
yes  

It’s raining.

B2: Non.  
no 

It’s not raining.

(2) A: Est-ce qu’il ne pleut pas?

Is it not raining?

B1: Non.  
no 

It’s not raining.

B2: Si.  
si 

It is raining.

But PRPs are not always bare (3B1), they can appear at the left edge of a full clause (3B2).

(3) A: Est-ce qu’il pleut?

Is it raining?

B1: Oui.  
yes 

It’s raining.

B2: Oui, il pleut.  
yes it rains 

Yes, it’s raining.

We saw that bare PRPs can be answers on their own. Repeating that answer in (3B2) should be redundant but it is not. It is therefore mysterious what the PRP contributes in each instance. Most work (Kramer & Rawlins 2010; 2011, Authier 2013, Krifka 2013, Holmberg 2001; 2013, Roelofsen & Farkas 2014) on PRPs has been concerned with that question (4).
Question 1: What kind of objects are PRPs?

a. Are they the remnant of ellipsis or are they proforms?

b. How is their denotation related to the denotation of their antecedent?

c. What is the contribution of the particle and of the clause when they appear together?

The answer to question 1 is likely to be different from language to language but even for one language (e.g., English) it is subject to debate. For instance, Kramer & Rawlins (2011) relate both clause-edge and bare particles by proposing that yes and no are adverbs that come with a TP that can be elided. On the other hand, Krifka (2013) argues that yes and no are sentence-level proforms.

In my dissertation I take a close look at the workings of French PRPs in order to answer question 1 for European French. Most extant work agrees that PRPs are in some sense propositional. This intuition finds support in a language like French where they can be embedded under the same complementizer que as finite clauses (5).

Est-ce qu’Alexandre est arrivé?

Is it that Alexandre is arrived?

Has Alexandre arrived?

B1: Je pense qu’il est arrivé.

I think that he is arrived

B2: Je pense que oui.

I think that yes

I think that he’s arrived.

I think so

(cf. lit. *I think that yes).

This leads me to look more closely at the conditions on their embedding (6), a question which has been mostly ignored (except for Authier 2013).
(6) Question 2: To what extent can PRPs be embedded?

a. To what extent can answers be embedded?

b. Why can’t fragments be embedded?

Indeed, from the examples in (5), one could draw the generalization that French PRPs are objects which can occur wherever a clause can occur. But this generalization is wrong. For instance (7) shows that while a full clause can be embedded under the negative predicate *ne pas penser* ‘not think’, *oui* cannot.

(7) B1: Je ne pense pas qu’il est/soit arrivé.

I NEG think NEG that he is/is.subj arrived

*I don’t think that he’s arrived.*

B2: *Je ne pense pas que oui.*

I NEG think NEG that yes

*Intended: I don’t think so.*

As mentioned earlier, a characteristic feature of PRPs is that they are used as answers to polar questions. It could be that whatever restrictions we find on the embedding of French PRPs stems from restrictions on the embedding of answers. After all, we know that cross-linguistically, different kinds of objects can be embedded – questions, imperatives – with various constraints. Maybe answers can be embedded too but under certain conditions. In that regard, the contrast between the impossibility to embed fragment answers and the possibility to embed PRPs is striking (*cf* 8 and 9).

(8) A: Qui a frappé à la porte ?

who has knocked at the door

*Who knocked on the door?*
B1: Clovis.  
B2: * Je pense que Clovis. 
I think that Clovis

*Int. I think that Clovis did.*

(9) A: Est-ce que Clovis a frappé à la porte ?

is it that Clovis has knocked on the door

*Did Clovis knock on the door?*

B1: Oui.  
B2: Je pense que oui. 
I think that yes

*I think that Clovis did.*

It is all the more striking because, it looks like fragments become embeddable once a PRP is added to them.

(10) A: Est-ce que Clovis a frappé à la porte ?

is it that Clovis has knocked on the door

*Did Clovis knock on the door?*

B: Je pense que Clovis non.

I think that Clovis no

*I think that Clovis didn’t.*

3. It is possible to answer a wh-question with a polarity fragment but then, two fragments are necessary (one positive, one negative), or, if there’s just one fragment, it needs to be negative.

(i) A: Qui a frappé à la porte ?

who has knocked at the door

*Who knocked on the door?*

B: Je pense que Clovis oui mais Frank non.

I think that Clovis yes but Frank no

*I think that Clovis did but Frank didn’t.*
Looking at embedded PRPs in European French not only promises to bring answers to question 2, but I show that it also gives us new diagnostics to inform our answers to question 1.

Finally, my research seeks to answer a third question (11).

(11) Question 3: What do PRPs mean?

As mentioned already, one defining characteristic of PRPs across the languages that have them seems to be, as examples (1) and (2) show, that they can be used to give an answer to a polar question. But, at least in French, they can also be used to respond to assertions (12).

(12) A: Je pense qu’il est arrivé. B: Moi, je pense que non.

I think that he is arrived me I think that no

I think that he’s arrived. I think that he’s not arrived.

Question 3 is particularly tricky to answer because PRPs are ubiquitous. Not only can they be used as answers to polar questions, but they are also used in a number of environments that do not obviously involve a question that needs to be answered. This state of affair could of course be a result of the actual meaning of PRPs, but it could also be the result of discourse operators that interact with the meaning of non-embedded PRPs. Looking at PRPs in embedded environments is thus a way to tease apart what is actually due to the semantics of PRPs and what is due to discourse.

5. This example is only good with contrastive focus on Clovis. It is best with a coordination structure (i) (Homer p.c.).

(i) Je pense que Clovis non mais Childéric oui.

I think that Clovis no but Childéric yes

I think that Clovis didn’t but Childéric did.
Still we will see that even in embedded environments, PRPs retain a number of seemingly different uses. The goal is to assign a unified semantics to each of oui, non, and si in embedded contexts. The challenge is to find one that is general enough to predict all of their uses without overgenerating.6,7.

1.2 Background assumptions and methodology

1.2.1 Terminology

The interpretation of PRPs is dependent on context, specifically on another sentence. This sentence usually precedes the PRP (13a) but sometimes it can follow it (13b) (I will not consider this latter case). I call the sentence in the context relative to which a PRP is interpreted ‘the antecedent’ of the PRP (sometimes XP_Ant in schemata). In (13), the antecedent of non ‘no’ is the constituent Marie va venir ‘Marie will come’.

(13) a. Au fait, Tom pense que Marie va venir mais moi je pense que non.  
   by_the_way Tom thinks that Marie goes come but me I think that no
   By the way, Tom thinks that Marie will come but I think she won’t.

   b. Au fait, moi je pense que non mais Tom pense que Marie va venir.
   by_the_way me I think that no but Tom thinks that Marie goes come
   By the way, I think she won’t but Tom thinks that Marie will come.

When discussing what PRPs can do and the conditions on their uses, several parameters need to be controlled for: (parameter i) whether the antecedent is embedded (14),

6. French matrix PRPs have been looked at in Hoeybye 1939; Cohen 1952; Wunderli 1974; Wilmet 1976; Pohl 1976; Plantin 1982; Diller 1984; Lebaud 1995; Kerbrat-Orecchioni 2001; Schapira 2012; Takagaki 2014 but embedded PRPs have been largely ignored, one notable exception being Authier 2013. There is also Zwanenburg 1967 about French matrix PRPs but it is written in Dutch and I have not been able to read it.

7. About 6 months into my research on embedded oui/non/si, after having made quite a few exciting empirical discoveries (or so I thought) and decided that I was going to write my dissertation on this topic, I came across Jean-Marc Authier’s 2013 paper on precisely this topic. It turned out that many of the discoveries I had made had in fact already been discovered. Still I think that I have significantly expanded the empirical basis.
(14) Parameter i: Is the PRP antecedent embedded?

   a. Au fait, Marie va venir mais Tom pense que non.

   by_the_way Marie goes come but Tom thinks that no

   *By the way, Marie will come but Tom thinks she won’t.*

   b. Au fait, Tom pense que Marie va venir mais moi je pense que non.

   by_the_way Tom thinks that Marie goes come but me I think that no

   *By the way, Tom thinks that Marie will come but I think she won’t.*

(15) Parameter ii: antecedent = question or assertion?

   a. Au fait, Tom pense que Marie va venir mais moi je pense que non.

   by_the_way Tom thinks that Marie goes come but me I think that no

   *By the way, Tom thinks that Marie will come but I think she won’t.*

   b. Au fait, Tom se demande si Marie va venir mais moi je pense

   by_the_way Tom _REFL_ asks if Marie goes come but me I think que non.

   that no

   *By the way, Tom wonders whether Marie will come but I think she won’t.*

   in a dialogue or a conjoined assertion (16),

(16) Parameter iii: relation antecedent/PRP = conjunction or dialogue?

   a. Au fait, Tom pense que Marie va venir mais moi je pense que non.

   by_the_way Tom thinks that Marie goes come but me I think that no

   *By the way, Tom thinks that Marie will come but I think she won’t.*
b. A: Au fait, Tom pense que Marie va venir.
    by_the_way Tom thinks that Marie will come
    
    By the way, Tom thinks that Marie will come.
B: Moi je pense que non.
    me I think that no
    
    I think she won’t.

I call the utterance that contains this antecedent the ‘antecedent utterance’ or $U_{Ant}$, and the utterance that contains the PRP the ‘PRP utterance’ or $U_{PRP}$.

(17) a. Dialogue
A: $[U_{Ant} \ldots \text{XP}_{\text{antecedent}} \ldots]$  
B: $[U_{PRP} \ldots \text{que PRP, XP}_{\text{prejacent}} \ldots]$

b. Conjunction
A: $[U_{Ant} \ldots \text{XP}_{\text{antecedent}} \ldots]$ conjunction $[U_{PRP} \ldots \text{que PRP, XP}_{\text{prejacent}} \ldots]$

I use the phrase ‘doxastic anchor’ to refer to the individual(s) whose beliefs are expressed in a given sentence. Often the doxastic anchor can be identified with the attitude holder as in (18B1), but some PRP utterances do not have an (overt) attitude holder as in (18B2). ‘Doxastic anchor’ is therefore a cover term. We can therefore say that the doxastic anchor is Tom in B1 and the speaker in B2.

(18) A: Est-ce que Tristan a l’habitude de courir?
    
    is it that Tristan has at all the habit to
    
    Is Tristan used to running?

B1: Tom pense que oui.  
    Tom thinks that yes
    
    Tom thinks that he is.

B2: Bien sûr que oui.  
    of course that yes
    
    Of course he is.
1.2.2 On the antecedents of PRPs

I argue in chapter 3 that coda-less PRPs involve an elided clause. I assume that this elided clause has an antecedent $XP_{ant}$, i.e. there is a syntactic structure (LF) in the context that is identical to the elided clause, $XP_{prej}$. I mostly follow Holmberg 2013’s theory of PRP antecedent retrieval via copying. For Holmberg, polar response particles are in [Spec, FocP] and involve ellipsis of a clause (PolP) to their right (19). This elidable PolP is identical at LF to the PolP of the question which contains a polarity variable. In the answer, the polarity variable in PolP is assigned a value by focused yes/no.

(19) Structure of English PRP responses to questions in Holmberg 2013

Following Holmberg 2013, I assume for French embedded PRPs that the syntactic structure corresponding to the antecedent PolP is copied to the right of the PRP and elided. However, unlike Holmberg, I assume following Kramer & Rawlins 2010 and Roelofsen & Farkas 2014 that French embedded PRPs lexicalize a Pol head: whether this head is spelled out as oui, non, or si depends on its featural specification. The Pol variable can have one of three values: [affirmative], [negative], or [open]. The value [open] is the value that non-negative polar questions have. Importantly, the value [open] is overwritten in assertions by [affirmative] if it is positive or [negative] if it is negative. This is summarized in (20).
How big the copied (antecedent) PolIP can be depends on the illocutionary force of the utterance it is in. Spelling out the constraints on what antecedents PRPs can take would go beyond the scope of this dissertation. I give an overview of a few of the constraints involved below.

1.2.2.1 The antecedent is contained in a question

In example (21A1), the 2-person question bears on the predicate *penser* ‘think’ and (21A2) is an example of an embedded question. Notice that in the response (21B), the PRP *oui* is anaphoric to the embedded proposition in the questions (i.e. *Tristan is used to running*) or to the questioned proposition (i.e. *You think that Tristan is used to running*).

(21) A1: Est-ce que tu penses que Tristan a l’habitude de courir ?

*Do you think that Tristan is used to running?*

A2: Je me demande si Tristan a l’habitude de courir.

*I myself ask if Tristan has the habit to run*

B: Je pense que oui/non.

*I think that yes/no*

*I think that he is/isn’t.*

*I think that I think that he is.*

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But if the subject of the embedding predicate is not second person, then a PRP may only address the matrix question and not the embedded clause.

(22) A1: Est-ce qu’il pense que Tristan a l’habitude de courir?

is it that he thinks that Tristan has the habit to run

Does he think that Tristan is used to running?

B1: Je pense que oui.

I think that yes

I think that he thinks that Tristan is used to running.

# I think that he is used to running.

B2: Je pense que non.

I think that no

I think that he does not think that Tristan is used to running.

# I think that he is not used to running.

Even with a second person subject, whether a PRP answer may actually pick up the embedded clause in the question depends on the embedding predicate. For instance, if the embedding predicate is transmettre ‘convey’, a PRP may only address the matrix question and not the embedded clause.

(23) A1: Est-ce que tu transmets bien que Tristan a l’habitude de courir?

is it that you convey well that Tristan has the habit to run

Do you convey clearly that Tristan is used to running?

8. Thank you to Vincent Homer (p.c.) for pointing out the availability of the matrix reading.
B1: Je pense que oui.
I think that yes

*I think that I convey clearly that Tristan is used to running.*

# *I think that he is used to running.*

B2: Je pense que non.
I think that no

*I think that I do not convey clearly that Tristan is used to running.*

# *I think that he is not used to running.*

1.2.2.2 The antecedent is contained in an assertion

Note that when an antecedent assertion is embedded inside another assertion, the restrictions on the subject or the kind of embedding predicate used do not seem to be as strict as with embedding questions. In response to (24), a non response is ambiguous: it can take the whole clause as its antecedent or just the embedded clause whereas the same response to the corresponding question can only take the matrix clause as its antecedent (cf. 22).

(24) A: Au fait, il pense que Tristan a l’habitude de courir.

by_the_way he thinks that Tristan has the habit to run

*By the way, he think that Tristan is used to running.*

B: (Moi) je suis sûr que non.

me I am sure that no

*I am sure that he does not think that Tristan is used to running.*

*I am sure that he is not used to running.*

And this does not seem to be linked to the epistemic nature of *penser* ‘think’ since the same is possible with the verb *transmettre* ‘convey’.
(25) A: Au fait il m’a transmis que Tristan a l’habitude de courir.
    By the way, he conveyed to me that Tristan has the habit to run

B: (Moi) je suis sûr que non.
    I am sure that he did not convey to you that Tristan is used to running.
    I am sure that he is not used to running.

But then this is not possible with e.g. souhaiter ‘hope/want’.

(26) A: Au fait il souhaite que Tristan ait l’habitude de courir.
    By the way, he wants Tristan to be used to running.

B: (Moi) je suis sûr que non.
    I am sure that he does not want for Tristan to be used to running.
    # I am sure that he is not used to running.

In conclusion, there are many constraints on what the antecedent of an embedded PRP can be. I have not identified them all and I do not have an explanation for the existence of the ones I have identified. But this does not impact the work presented in this dissertation which looks at constraints on responses containing embedded PRPs when an(y) antecedent is available.

1.2.3 A few words about questions in European French

Like other languages, European French has many means to form an utterance with interrogative illocutionary force: example (27A1) is a question formed with est-ce que which, for all intents and purposes, functions as a question particle, (27A2) is an example with auxiliary-subject clitic inversion, (27A3) a question formed from the juxtaposition
of a declarative and the tag n’est-ce pas, and (27A4) is a question formally identical to a declarative except that it has rising intonation (sometimes called ‘rising declaratives’ in the literature, see Gunlogson 2001; Farkas & Roelofsen 2017 among others).

(27)  A1: Est-ce que Tristan a l’habitude de courir ?
       is it that Tristan has at all the habit to

       Is Tristan used to running?

A2: Tristan a-t-il l’habitude de courir ?

Tristan has he the habit to run

Is Tristan used to running?

A3: Tristan a l’habitude de courir, n’est-ce pas ?

Tristan has the habit to run NEG is it NEG

Tristan is used to running, is he not?

A4: Tristan a l’habitude de courir ?

Tristan has the habit to run

Tristan is used to running?

For consistency, I use questions formed with est-ce que throughout. I have not found that the specific way a question was formed had an effect on the behavior of PRP responses, it is entirely plausible that more research will find differences. There are many ways to demand a response from one’s interlocutor, the list I gave is far from exhaustive (for European French, see Beyssade 2012 for instance).

1.2.4 Negative questions

The following question (28) is like (27A1) except that it is negative. As Ladd (1981) first noted, a negative question can have different interpretations. It turns out that those different interpretations condition the kind of responses that can be given, specifically they condition what PRPs can be used felicitously (see chapter 6). In this dissertation, I am only
interested in the low/inner negation readings of questions and I control for this by using NPIs.9

(28) A1: Est -ce que Tristan n’a pas du tout l’habitude de courir ?

is it that Tristan has at all the habit to run

Is Tristan used to running at all?

Conversely, using a PPI would bring out the high/outer negation reading (29).

(29) A1: Est -ce que Tristan n’a pas un peu l’habitude de courir ?

is it that Tristan has a little the habit to run

Is Tristan used to running a little?

Isn’t Tristan used to running a little?

When looking at what embedded oui, non, and si can do, it is useful to bear in mind that non can do two things: it can agree with the polarity of its negative antecedent or reverse the polarity of its positive antecedent.10 This can be examplified with responses to questions: in (30), the questioned proposition has negative polarity and the non response agrees with it.

9. There are cases where clausal negation seems not to be interpreted (i).
   (i) a. Je me demande s’il n’est pas malade.
      I ask if he is sick
      I wonder whether he’s sick.
   b. = Je me demande s’il est malade.
      If an NPI is added, the negation must be interpreted for the sentence to be acceptable (ii).
   (ii) Je me demande s’il n’est pas malade du tout.
      I ask if he is sick at all
      I wonder whether he’s not sick at all.

10. In fact those two different uses are lexicalized in certain languages that have a separate PRP that indicates that the polarity of the negative PRP differs from that of the antecedent (i.e. that the antecedent is positive). This is the case in Romanian ba nu ‘no+rev’ (versus nu ‘no−rev’) and Hungarian de nem ‘no+rev’ (versus nem ‘no−rev’) (Farkas 2009; 2010) which also mark this distinction when what they assert is positive. One could wonder why French (and German, Icelandic, etc) only have a specific +rev PRP in the positive case (i.e. si ‘yes+rev’ versus oui ‘yes−rev’). An explanation is proposed in Roelofsen & Farkas 2014.
(30) A: Est-ce que Tristan n’a pas du tout l’habitude de courir?

Is Tristan not used to running at all?

B: Je crois que non−rev.

I believe that no

I believe that he is not used to running at all.

In (31) however the questioned proposition is positive but the non response is negative.

(31) A: Est-ce que Tristan a l’habitude de courir?

Is Tristan used to running?

B: Je crois que non+rev.

I believe that no

I believe that he is not used to running at all.

In both examples above, whether the antecedent is ‘not p?’ or ‘p?’ the non response denotes the same proposition ‘not p’. Descriptively there are thus two non: non−rev used when its antecedent is negative and non+rev used when its antecedent is positive. Whichever is used depends on the polarity of its antecedent but in any case the denotation is a negative proposition. This follows from the syntax of non responses (32) which I defend in chapter 6. I show that following Holmberg 2013, non always wants to establish an agreement dependency with the closest Pol head in its scope (this agreement dependency can result in valuation of the Pol head or concord if the Pol head is already negatively valued).
There are cases where the negation in a negative question seems to be a case of meta-negation: for instance in (33) the question is not asking whether the addressee finds that the shirt is not too small, but whether the addressee finds that the shirt is too small (would you deny that his shirt is a little too small?). These are cases of high negation as described in Ladd 1981.

(33) Context: Christian is trying on a shirt. Laurence asks the salesman the following question.

A: Est-ce qu’elle n’est pas (un peu) trop petite

is it that she NEG is NEG a little too small

sa chemise?

his shirt

Isn’t his shirt a little too small?

B: Il me semble que oui.

it to.me seems that yes

I think it is too small.

Compare with example (34) where the questioned proposition is negative and answering with embedded oui ‘yes’ is not possible.
(34) Context: Christian is playing the part of a man who became a giant overnight. The costume designer needs to find a shirt and a pair of pants in two sizes: one normal fitting set and one set that appears obviously too small for the actor. Christian is trying out the too-small set. The costume designer is afraid it does not look too small enough.

A: Est -ce qu’ elle n’ est pas (du tout) trop petite sa chemise ?

Isn’t his shirt at all too small?

B: ?? Il me semble que oui.

Int. I think it is too small.

One way to make sure whether a negative question has low or high negation is to use, respectively, NPIs and PPIs.\textsuperscript{11}

1.2.5 Blocking (accomodated) questions with \textit{au fait} ‘by the way’

Given an assertion \( p \), it is easy to accomodate a question \( p? \) such that the assertion is conceptualized as a response to this question. But since we aim at examining responses to questions and responses to assertions separately, it is crucial that when we consider responses to assertions, they do not respond to a (covertly accomodated) question. In order to block the accomodation of a question, I use the phrase \textit{au fait} ‘by the way’ to make clear that the sentence that follows does not respond to a question. The question in (35A) cannot be responded to with a sentence that starts with \textit{au fait} as (36B) shows.

\textsuperscript{11} The interpretation and acceptability of bare embedded \textit{oui} in response to a low negative question needs more investigation.
(35) A: Est-ce que Philippe a écrit un livre?
   is it that Philippe has written a book

   Did Philippe write a book?

   B: # Au fait je suis sûr que non.
      by_the_way I am sure that no

      Int. I am sure that he did not.

Likewise, notice that if an assertion B and its response C follow a possible covertly accomodated question A, the dialogue is unacceptable (36).

(36) A: Est-ce que Philippe a écrit un livre?
   is it that Philippe has written a book

   Did Philippe write a book?

   # Dialogue
   B: Au fait, je suis sûr que Philippe a écrit un livre.
      by_the_way I am sure that Philippe has written a book

      By the way, I’m sure that Philippe wrote a book.

   C: (Moi) je suis sûr que non.
      me I am sure that no

      I am sure that he did not.

Therefore if a dialogue consisting of assertions B and C is acceptable, it follows that this dialogue is not preceded by a (possible covert accomodated) question, and it follows that the antecedent of the PRP can only be the preceding assertion.¹²

¹². The same point holds of the coordination of an assertion and its PRP response.
This is very important given that if a PRP response can be conceived of as responding to a question\textsuperscript{13}, then the judgments concerning the acceptability of the assertion-response pair are different.

\begin{itemize}
  \item [(i)] A: \emph{Est-ce que Philippe a écrit un livre ?} \\
      \emph{Did Philippe write a book?}
  \\
  B1: \emph{Au fait, je suis sûr qu’il en a écrit un et Martin est sûr que oui (aussi).} \\
      \emph{Int. By the way, I am sure that he has of one written one and Martin is sure that yes (too)}
  \\
  B2: \emph{Je suis sûr qu’il en a écrit un et Martin est sûr que oui (aussi).} \\
      \emph{I am sure that he has of one written one and Martin is sure that yes (too)}
\end{itemize}

\textsuperscript{13} In fact it is fairly easy to accommodate the dialogue as responding to a question, which may explain the subtlety of some of these judgments.
CHAPTER 2
CARVING OUT THE OBJECT OF STUDY

2.1 Introduction

This dissertation takes at its object of study embedded Polar Response Particles, that is, particles that can be used to respond to questions or assertions and that can be embedded. Both properties are perfectly exemplified in French oui, non, si which can unambiguously be embedded under the complementizer que (37).

(37) A: Est-ce que Tom va venir ?
   is it that Tom goes come

   Will Tom come?

B1: Oui/Non.

B2: Je pense que oui/non.
   I think that yes/no

   I think that he will/will not.

There is a relatively significant amount of work on responses to polar questions and more specifically PRP responses in different languages\(^1\). As far as I am aware, the work whose focus is embedded PRPs amounts to two papers (Bernini 1995; Authier 2013) and

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1. I should also say that I only mention ‘responses to polar questions’ because not all authors who have looked at PRPs have looked at them in response to assertions.
a handout (Sailor 2012)\(^2\) while the work on matrix PRPs is by comparison extensive\(^3\). The imbalance in the attention borne to embedded PRPs might itself already be a valid reason to focus on them. But I believe there are even better reasons to look at embedded PRPs separately from matrix PRPs: as this chapter shows, matrix PRPs and embedded PRPs are not interchangeable, and embedding reveals syntactic and semantic properties that are invisible or non-existent in matrix contexts.\(^4\) The structure of this chapter is as follows: in section 2, I show that matrix and embedded PRPs in French are not interchangeable, which justifies looking at embedded cases separately, and in section 3, I consider two English constructions which are close to the current object of study but nevertheless different enough that they do not fall within the purview of this dissertation.

### 2.2 French embedded PRPs are plausibly different from matrix PRPs

Whether PRPs are embedded or not, European French uses the same phonological strings: *oui*, *non*, or *si*. If we take those facts at face value, the null hypothesis is that e.g. *oui* spells out the same underlying structure and has the same meaning whether it is embedded or not. But an alternative hypothesis is that embedded *oui* and matrix *oui* happen to be homophones but actually are different lexical items similar to the way *back*, the body part, and *back*, the action of going backwards, are homophones in English. Both hypotheses similarly apply to *non* and *si*.

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2. This is not to say that no one else has worked on embedded PRPs. Embedded PRPs are discussed in more work (e.g. Servidio 2014) but usually for the sake of completeness, as a tangent of the focus of the paper.

3. Holmberg has written extensively on this topic see Holmberg 2007; 2011; 2013; 2015 among other, descriptions of this area of the grammar of several languages exist: Bernini 1995 on Italian, Jones 1999 on Welsh, Farkas 2009; 2010 on Hungarian and Romanian, Kramer & Rawlins 2011 on English among many others. Again, let me stress that this list is very far from being exhaustive: the authors cited have written more on the topic and other authors having written on the topic are not cited here. Other references will be found in the dissertation.

4. I am not claiming that matrix and embedded PRPs cannot be given a unified analysis. I leave this to further work.
(38) a. Null hypothesis $H_0$ (unique lexical item hypothesis): embedded *oui* and matrix *oui* are one and the same lexical item which can be used in embedded or matrix contexts

b. Alternate hypothesis $H_A$ (homophony hypothesis): the phonological string *oui* happens to be used to spell out two different lexical entries, one is used in matrix contexts whereas the other one is used in embedded contexts

Are there any reasons one might want to reject $H_0$ in favor of $H_A$? The answer to this question is a matter of analysis and in this chapter I strictly stick to description so I will not provide an answer to it but I will show that $H_A$ is plausible and this is why we should not conflate matrix and embedded cases of PRPs in description or take what we say about one to necessarily apply to the other.

First I look at PRPs cross-linguistically: while French uses the same lexical items *oui*, *non*, and *si* both in matrix and embedded contexts, some languages use different lexical items in those contexts which could indicate that even in languages like French, PRPs in matrix contexts and PRPs in embedded contexts are in fact the lexicalizations of distinct syntactico-semantic bundles. Another indication that the formal identity of respectively *oui*, *non*, and *si* in matrix and embedded contexts should not necessarily be taken as reflecting identity in meaning and structure is provided in subsection 2.2.2: *oui*, *non*, and *si* in embedded contexts have only a proper subset of the uses that *oui*, *non*, and *si* have in matrix contexts.

### 2.2.1 Evidence from other languages

One fact suggesting that in a specific language one phonological string is used to spell out two different lexical items $X$ and $Y$ is the existence in other languages of distinct phonological strings for each of (the counterpart of) $X$ and $Y$.

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5. Of course, all the difficulty is to identify the counterparts of $X$ and $Y$ across languages Suppose that in a language $A$, we hypothesize that a phonological string $Z$ spells out both lexical item $X_A$ and lexical item $Y_A$. 

24
Homophony cross-linguistically

If, in a language L, the reason why two lexical items are pronounced the same way is arbitrary (i.e. homophony), then there exists another language I in which they are not pronounced the same way.

If, as Hₐ states, the fact that the same phonological string is used in two contexts is arbitrary (to the extent that other cases of homophony are arbitrary), then we expect this arbitrariness not to be repeated language after language. In an (unpublished) cross-linguistic study of 46 languages (see Appendix in 7), I found that many languages indeed use different lexical items depending on whether they are embedded. A few examples are provided below.

In Brazilian Portuguese, the PRP *sim* ‘yes’ can be used in embedded contexts (40B1) but not in matrix contexts (40B4), whereas the PRP *não* ‘no’ can be used in both matrix and embedded contexts (40B2 and B5). One way to respond to (40A) positively in matrix contexts is to use the main verb of the response (40B4).

(40) A: O Tom vai à festa?

the Tom goes to party

*Is Tom going to the party?*

B1: O irmão dele disse que sim.

the brother his says that yes

*His brother said that he was.*

B2: O irmão dele disse que não.

the brother his says that no

*His brother said that he was not.*

B3: Vai.

goes

*He is.*

B4: *Sim.

yes

B5: Não.

no

*No, he isn’t.*

finding that Xₐ and Yₐ are spelled out differently in a language B is a prediction of that hypothesis only if it can be shown that Xₐ = Xₐ and Yₐ = Yₐ.
In Dutch, the particles *wel* and *niet* can be embedded under the complementizer *van*\(^6\) (41B1 and B2) but they cannot be used in non-embedded environments (41B3 and B4) (Hilda Koopman, Marlin Meijer p.c.). Conversely, the particles *ja* and *nee* can be used in matrix contexts (41B3 and B4) but not under *van* (41B1 and B2).\(^7,8\)

(41) A: Komt Jan naar het feest?

Is Jan coming to the party?

B1: Zijn boer zei van wel/*ja.

his brother says of yes

His brother says he is.

B2: Zijn broer zei van niet/*nee.

his brother says of no

His brother says he is not.

B3: Ja./*Wel.

B4: Nee./*Niet.

In the Lapscheure variety of West Flemish, matrix PRPs obligatorily show overt agreement with their elided subject (Haegeman & Weir 2016): a positive response to (42A) can be given using the particle *ja* ‘yes’ provided that it agrees with the elided third person subject *Marie* (cf. 42B1 and 42B2). The same goes for the negative response with *nee* (cf. 42B3 and 42B4).

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6. They cannot be embedded under the complementizer *dat*. This is an interesting fact but it is irrelevant here. A similar phenomenon in Italian is discussed in chapter 3.

7. The particles *ja* and *nee* cannot be embedded under *dat* either.

8. Marlin Meijer (p.c.) tells me that *ja* and *nee* can be embedded under *zo* ‘if’ in the antecedent of a conditional construction. In other words, it is not the case that *ja* and *nee* cannot be embedded at all in Dutch: they cannot under *van* (or *dat*) but they can under *zo*. The same pattern holds in English and German: *yes/no* and *ja/nein* cannot be embedded under respectively *that* and *dass* but they can be under, respectively, *if* and *wennlals*. In English, *if yes/no* seems to be in relatively free variation with *if so/not*. That a PRP not embeddable under attitude verbs is nevertheless embeddable in the antecedent of a conditional might possibly be a trend but I do not have data from other more diverse languages to know. Still, those data raise a number of cross-linguistic questions, e.g. are there languages in which *if PRP* is bad but *I think that PRP* is good? If *I think that PRP* is good, does it entail that *if PRP* is good too?
In embedded contexts however, the non-agreeing forms of *ja* and *nee* must be used and they do not alternate with the agreeing forms of the particles (cf. 43B1 and 43B2 as well as 43B3 and 43B4).

In each of the three languages I gave examples of, we observe asymmetries between matrix and embedded PRPs: in Brazilian Portuguese, only one of the two embedded PRPs *não* ‘no’ can also be used in matrix contexts whereas *sim* ‘yes’ cannot. In Dutch, a whole distinct set of PRPs is used in matrix and embedded PRPs and, in the Lapscheure variety


of West Flemish, agreement with the subject takes place in matrix but not in embedded environments. This suggests that in those languages matrix PRPs and embedded PRPs may have different semantics and/or syntax. This then raises the possibility that in languages that use the same lexical items in matrix and embedded contexts (e.g., French, Estonian, Georgian, . . .) PRPs might also differ in their semantics and/or syntax (just as in languages where this is reflected in the morphology) but it is obscured through homophony. While this is not an argument for H_A in French, it does make this hypothesis (more) plausible and this is why we should pay special attention to matrix PRPs on the one hand, and embedded PRPs on the other hand, and not immediately assume that they form a natural class. This is perhaps made even more pressing by the fact that within French, there are reasons not to conflate the two at first sight as I show in the next section.

2.2.2 Evidence from within French

Wiltschko (in press) points out that English yes and no have more uses than just responses to questions and assertions. In this section, I show that matrix oui, non, si have the same uses as yes and no whereas embedded oui, non, si have only a subset of them.

2.2.2.1 Response to polar questions

A PRP response to a polar question can be unembedded (44B1) or embedded (44B2).

(44) A: Est-ce que Tom est arrivé ?

is it that Tom is arrived

Did Tom arrive?

B1: Oui/non.

yes/no

He did./He didn’t.

B2: Je crois que oui/non.

I believe that yes/no

I believe that he did/didn’t.
2.2.2.2 Response to assertions

Likewise, a PRP response to an assertion can be embedded (45B2) or not (45B1). 9.

(45) A: Tom est arrivé.
    Tom is arrived
    Tom arrived.

B1: Oui/Non.

B2: Je crois que non.
    I believe that no
    I believe that he didn’t.

B3: #Je crois que oui.
    I believe that yes
    I believe that he did.

2.2.2.3 Response to wh-questions

Wiltschko in press shows that yes/no can be used in response to a wh-question. As (46B) shows, the same holds in French: B’s response to A’s question conveys that B also wants to know the answer to the question asked by A, that B thinks the question asked by A is a good question in the situation that it is asked. Note in particular that oui cannot be used out of the blue.

(46) A: Où était Tom tout ce temps ?
    where was Tom all this time
    Where was Tom all this time?

B: Oui !
    yes
    Yes!

9. The fact that embedded oui is not possible here has to do with external constraints on the felicity conditions of embedded PRPs in response to assertions which are the topic of chapter 5.
C: Et bien il faisait des courses.
   and well he did some shopping

Well he was shopping.

However, a PRP response to a wh-question cannot be embedded. Example (47) is a dialogue with three persons: A asks a wh-question, B can react to A’s question with B2 but not an embedded PRP (B1) and finally C gives a response to the wh-question. Only B2 is a felicitous reaction to A.

(47) A: Où était Tom tout ce temps ?
   where was Tom all this time

Where was Tom all this time?

   B1: #Je suis d’accord que oui.     B2: Je suis d’accord ...
      I am in_agreement that yes       I am in_agreement
      I agree ...

C: Et bien il faisait des courses.
   and well he did some shopping

Well he was shopping.

2.2.2.4 Response to imperatives

In response to an imperative, a matrix PRP can be used (48B).

(48) A: Passe un bon séjour !
   spend a good stay

   Have a good stay!

B: Oui !

A PRP response to an imperative however cannot be embedded (49B2).
(49) A: Passe un bon séjour !
    spend a good stay
    Have a good stay!

B1: J’espère !                 B2: #J’espère que oui !
    I hope                              I hope that yes
    I hope!                        Intended: I hope so!

2.2.2.5 Response to exclamatives

Matrix PRPs can be used in response to exclamatives (50B).

(50) A: Quel magnifique couché de soleil !
    what beautiful sunset
    What a beautiful sunset!

B: Oui !

A PRP response to an exclamative cannot be embedded though (cf. 51B2 and B1/B3).

(51) A: Quel magnifique couché de soleil !
    what beautiful sunset
    What a beautiful sunset!

B1: Carrément !                 B2: #Carrément que oui !
    really                              really that yes
    It really is!

B3: Carrément que c’est un beau couché de soleil !
    really that it is a beautiful sunset
    It really is a beautiful sunset!
2.2.2.6 Response to non-verbal stimuli

Polar response particles may respond to non-verbal stimuli as (52) from Cooper & Ginzburg 2011 (adapted from English to French) show.

(52) a. Context: A opens the freezer to discover smashed beer bottles.
   A: (Oh) Non!

   b. Context: Little Clovis approaches a socket holding a nail:
   Parent: Non Clovis!

It would seem that this use of non cannot be embedded. For instance, if we enrich example (52a) to (53), matrix non is perfectly fine but embedding it under dire ‘say’ is very odd.

(53) Context: A hosted a party last night at B’s place while B was gone, without B’s approval. B came back this morning and he opened the freezer to discover smashed beer bottles
   B: (Oh) Non!

More context: A asks C, who was there, what B said when he opened the freezer.
   C: #B a dit que non!
   B has said that no

2.2.2.7 Acceptance / Refusal

Non-embedded oui/non can be used to express acceptance as in (54) or refusal as in (55).

(54) A: Je vous ordonne de sortir.  
   I order you to leave
   (Grevisse & Goosse 2007)

   B: Oui.
(54) A: J’ aimerais te poser quelques questions.  (Cooper & Ginzburg 2011)
    I would like you to ask some questions
    I would like to ask you
B: Non!
    a. = You would not like to ask me questions.
    b. = I don’t want to answer questions.

B’s utterance in (54) and (55) is ambiguous. Most often it has the b. reading (acceptance and refusal respectively) but I think that the expected a. reading is not impossible. The question is: can embedded PRPs have the b. readings?

(56) A: J’ aimerais te poser quelques questions.
    I would like you to ask some questions
    I would like to ask you
B: Je préfère que non.
    a. = I prefer that you do not ask me questions
    b. = # I prefer not to answer

B’s answer can only mean ‘I prefer that you do not ask me questions’ not ‘I prefer not to answer’, i.e. it does not have the refusal reading.

2.2.2.8 A quoted PRP cannot be embedded

What I want to show here is that embedded PRPs are not a way to report someone’s utterance of oui, non or si. Imagine a scenario with three participants A, B, and C as in (57): A asks a question to B and B gives a oui response. C did not hear what B answered and asks. The only way for A to report what B answered (namely oui) is with A3 or A4, but not A2.
(57) Context: A and B are talking. C is listening, this part of the conversation does not concern him. C having not followed the conversation perks up and asked what B said in response to A's question.

A1: Tu viens demain ?

you come tomorrow

_Are you coming tomorrow?_

B: Oui.

C: Qu’est-ce qu’il a dit ?

what is it that he has said

_What did he (B) say?_


he has said that yes he has said yes

_He said yes._

In conclusion, embedded PRPs in French seem to have only a proper subset of the uses that matrix PRPs have as summarized in Table 2.1.

<table>
<thead>
<tr>
<th></th>
<th>matrix PRP</th>
<th>embedded PRP</th>
</tr>
</thead>
<tbody>
<tr>
<td>response to polar Q</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>response to assertion</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>response to wh-Q</td>
<td>✓</td>
<td>X</td>
</tr>
<tr>
<td>response to imperatives</td>
<td>✓</td>
<td>X</td>
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<tr>
<td>response to exclamatives</td>
<td>✓</td>
<td>X</td>
</tr>
<tr>
<td>response to non-verbal stimulus</td>
<td>✓</td>
<td>X</td>
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<tr>
<td>acceptance / refusal</td>
<td>✓</td>
<td>X</td>
</tr>
<tr>
<td>quotation</td>
<td>✓</td>
<td>X</td>
</tr>
</tbody>
</table>

Table 2.1: Summary of matrix and embedded PRP uses
2.3 English *so/not* and ‘embedded’ *yes/no* are not embedded PRPs

I translate *yes* and *no* as, respectively, *oui* and *non* but while French bare PRPs can be embedded under the finite complementizer *que*, bare *yes/no* cannot be embedded under *that* as evinced by the inacceptability of B1’s response in (58). B1’s response become acceptable however is *that* is removed (58B2) or if *so/not* is used instead (58B3).

(58) A: Is Tom coming?
   
   B1: *I think that yes/no.
   
   B2: I think *yes/no.
   
   B3: I think *so/not.

So why focus on French embedded PRPs if English has embedded PRPs too as in (B2) or (B3)? There is good reason to think that what we see in French and other languages is different from the two phenomena in B2 and B3 and that we may not want to classify the structures in B2 and B3 as ‘embedded PRPs’ if this term is used strictly to refer to the structure we find in French.

2.3.1 *yes/no* are not embedded PRPs

Let us look at the structure with *yes* and *no* exemplified in (58B2). First I show that there is reason to doubt that it really involves embedding whereas embedded PRPs in French are clearly embedded, secondly I show that they have different properties.

Why might one even consider (59) as a case of embedding since the complementizer *that* is not allowed as (58B1) shows? Because English has two finite-clause complementizers: *that* and a silent/covert complementizer as shown in (59).

(59) English has two finite-clause complementizers: *that* and ∅

   a. I think that Tom is coming.

   b. I think Tom is coming.
One could therefore explain the contrast between (58B1) and (58B2) by positing the hypothesis in (60a). An alternative hypothesis is that yes/no in (58B2) is just juxtaposed to I think (60b).

(60)  

a. Silent complementizer hypothesis: In English, yes/no can be embedded only under the silent complementizer.

b. Juxtaposition hypothesis: In English, yes/no can be juxtaposed to certain predicates.

While the silent complementizer hypothesis has some plausibility\(^{10}\), one reason to doubt that it is correct (i.e. that yes/no are indeed embedded in (58B2)) is that this construction

\(^{10}\) The silent complementizer hypothesis is plausible because among the languages that have embedded PRPs (see Appendix in Chapter 7), embedded PRPs seem to impose constraints on what the complementizer they are under is. For instance, in Modern Greek a finite clause can be embedded under the complementizer oti or pos. Grammatical descriptions of the language claim that the two are in free variation, with only register differences at play (pos is claimed by some grammars to be more formal) (Marika Lekakou p.c.).

(i) A: Tha erthi o Thomas sto party?
mod come.3sg the Tom to.the party
‘Is Tom coming to the party?’

B1: O aderfos tu mu ipe pos/oti tha erthi
the brother his me-gen said-3sg that mod come-3sg
His brother told me that he will come.

B2: O aderfos tu mu ipe pos/oti de tha erthi.
the brother his me-gen said-3sg that neg mod come-3sg
His brother told me that he will not come.

However when embedding nai ‘yes’ and oxi ‘no’, oti seems to be strongly dispreferred.

(ii) B1: O aderfos tu mu ipe pos/?oti nai.
the brother his me-gen said-3sg that yes
His brother told me that he will come.

B2: O aderfos tu mu ipe pos/?oti oxi.
the brother his me-gen said-3sg that no
His brother told me that he will not come.

Therefore, if the silent complementizer hypothesis is correct, English would behave like other such languages (e.g. Modern Greek) in that its embedded PRPs would select for a specific complementizer, the silent complementizer in English. Furthermore, if the silent complementizer hypothesis were correct, the conditions on yes/no embedding would fall in line with the conditions on embedded stripping constructions, namely, embedded stripping is only possible if the silent complementizer is used as argued in Wurmbrand 2016. (Actually Wurmbrand 2016 does not argue that ‘embedded stripping is only possible under the silent complementizer’. Rather she takes the impossibility of that with embedded stripping as reflecting the absence of a complementizer. This is a
cannot be used in questions. This starkly contrasts with French embedded PRPs, whose embedded status is quite uncontroversial and which can be used in questions\(^{11}\) (61).

(61) a. Je me demande si elle aime danser... Tu crois que oui/non ?

I REFL ask if she like dance you think that yes/no

\(I\) wonder if she likes to dance... \(D\)o you think she does/she does not?

b. ??I wonder if she likes to dance... Do you think yes/no?

Moreover, just like yes and no can follow I think, other expressions can too, e.g. adverbs (62a). Whatever is going on with English yes/no, it is thus not specific to those particles. In contrast, French cannot embed adverbs whereas it can embed PRPs (62b).

(62) a. I think yes / no / sure / definitely / maybe.

b. Je pense que oui / non / si / *bien sûr / *certainement / *peut-être.

I think that yes no si sure definitely maybe

Another difference between French embedded PRPs and English yes/no as used in (58B2) is that, while matrix yes/no can respond to assertions (Farkas & Bruce 2009), it seems that yes/no in constructions like (58B2) cannot respond to assertions\(^{12}\) (63b).

---

matter of analysis. My point is that with both stripping and PRPs in English, embedding is possible only if the complementizer that is not used (iii.).

(iii) Embedded stripping examples from Wurmbrand 2016

a. *Abby claimed (that) Ben would ask her out, but she didn’t think that Bill (too).

b. Abby claimed (that) Ben would ask her out, but she didn’t think Bill (too).

This is appealing since stripping involve clausal ellipsis and English (matrix) PRPs have been argued to involve clausal ellipsis too (Holmberg 2011; 2013; Kramer & Rawlins 2011; Thoms 2012). Under the silent complementizer hypothesis, the conditions on PRP embedding could thus be stated at a more general level in terms of conditions on the embedding of clausal ellipsis in English. All of this shows that if yes/no are indeed embedded in (58B2), we would have a very nice picture. But those are not arguments and in fact, I believe there are difficulties (if not straight counterarguments) to such a view. I do not know whether those difficulties apply to embedded stripping constructions in English.

11. I thank Vincent Homer (p.c.) for this observation.

12. I thank Seth Cable (p.c.) for this observation.
(63)  a. French
A: Tom va venir.  
    Tom goes come 
    Tom will come. 
B: Moi je pense que non.
    me I think that no 
    I think that he will not come.

b. English
A: Tom is coming.  
B: *I think no.

In conclusion, since it is not clear that yes/no can be considered embedded PRPs alongside oui/non/si under que in French, I decided to leave out yes/no from my study.

2.3.2 so is not an embedded PRP

Concerning the construction in (58B3), it does not behave like embedded PRPs in French in at least three respects. First, the absence of an overt complementizer raises doubts as to the embedded status of so, it could be a DP proform comparable to it or this/that. In addition, so sharply differs from French embedded PRPs in two respects. In order to make the following two points, I need to get ahead of myself (see chapter 4 for the full details).

While French embedded PRPs are sensitive to the polarity of their environment, so does not seem to be. In French, embedded PRPs cannot be directly under negation (64a) whereas in English, so is insensitive to the polarity of the embedding verb.

(64)  a. French
A: Est -ce que Tom va venir ?
    is it that Tom goes come 
    Will Tom come? 
B: *Je ne pense pas que oui.
    I NEG think NEG that yes 
    Int. I don’t think he will.

b. English
A: Will Tom come?
B: I don’t think so.

Finally in responses to assertions, so can be used to express agreement unlike oui/non
(65) a. #Au fait, Marie pense que Tom va venir et je pense que oui aussi.
   by_the_way Marie thinks that Tom goes come and I think that yes too
   Int. By the way, Mary thinks that Tom will come and I think so too.
b. By the way, Mary thinks that Tom will come and I think so too.

Because it is not clear that so is truly a case of embedding and because so does not exhibit the same restriction on its embedding as French embedded PRPs, I also decided to leave it out of my study.

I am not saying that yes/no or so/not have nothing to contribute to the literature on (embedded) response particles. They just seem to be a different type of particles but they certainly have their place in a typology of response particles and it is to be hoped that the differences I pointed out in this section can ultimately be derived.

2.4 Conclusion

So why focus on embedded PRPs? We saw that in many languages, there is an overt difference between matrix and embedded PRPs which suggests that embedded PRPs may be different from matrix PRPs. Furthermore, as summarized in Table 2.1, embedded polar response particles are used in a much narrower set of cases than matrix ones. In addition, it seems that the particles we find in English in what looks like embedded contexts are either not actually embedded or behave differently from embedded PRPs in French.

Matrix and embedded PRPs in French may be altogether different objects but it could also be that the uses embedded PRPs have are the core uses of PRPs but in matrix contexts, PRPs acquire more uses via interaction with discourse-related operators. In studying PRPs, we want to separate what is contributed by the PRPs themselves from what is contributed by discourse operators and pragmatics. this is why it is useful to study PRPs in embedded contexts. Furthermore, as we will see in the rest of the dissertation, embedding gives us new diagnostics to probe the structure of PRPs (chapter 3). It also reveals striking properties of
those PRPs (chapter 4) as well as cristallizes differences between responses to questions and assertions (chapter 5).
CHAPTER 3
EMBEDDED PRPS AND SILENT CLAUSES

3.1 Introduction

In French and in English, a question or an assertion can be responded to by an utterance containing a polar response particle\(^1\). Those utterances can take several shapes. In French, they can be both embedded or not, whether they are bare (66B1), accompanied by a (polarity) fragment (66B2), or at the edge of a full clause (66B3).

(66) A: Est-ce qu’ils vont venir?

\(\text{is it that they go come}\)

\textit{Are they going to come?}

B1: Je pense que oui. \hspace{1cm} \text{Bare}

\(\text{I think that yes}\)

\textit{I think that they will.}

B2: Je pense que Tom oui. \hspace{1cm} \text{Fragment-peripheral}

\(\text{I think that Tom yes}\)

\textit{I think that Tom will.}

B3: Je pense que oui, ils vont venir. \hspace{1cm} \text{Clause-peripheral}

\(\text{I think that yes they will come}\)

\textit{I think that yes they will come.}

\(\text{---}\)

1. I use only questions but it works too with assertions but I only show questions for space reasons.
In English, clauses containing a polar response particle cannot be embedded, with
the notable exception of clause-peripheral PRPs, but can as in French be bare, fragment-
peripheral, or clause-peripheral (67).

(67) A: Are they coming?

B1: Yes.

B2: Lucille yes, but Buster no.

B3: Yes, they’re coming.

Bare *oui* and *yes* are sufficient to answer a question. Adding a coda might therefore
be redundant but it is not. It is therefore mysterious what the polar response particle con-
tributes in each instance. In fact most work on polar response particles has focussed on
those issues (Plantin 1982 for a reference on French). They can be summarized in (4).

(68) What kind of objects are PRPs?

a. Are they the remnant of ellipsis or are they proforms?

b. What is the contribution of the PRP and of the clause when they appear to-
gether?

Work on (matrix) polar response particles has taken mainly two strategies to answer
these questions which can readily be extended to the embedded domain. Some accounts
analyze matrix PRPs as having an elidable full clause as their sister (Laka 1990; Holm-
berg 2011; Kramer & Rawlins 2011; Thoms 2012; Holmberg 2013; Servidio 2014) while
another analyzes them as being purely anaphoric sentential proforms (Krifka 2013).

On the proform analysis, bare English *yes* and *no* and German *ja* and *nein* are indeed
bare just like pronouns, and fragment-peripheral PRPs are, Krifka (2013) suggests, hanging
topic structures². In such cases, the idea is that the PRP picks up the background of the

² Roelofsen & Farkas (2014)’s proposal is compatible with both approaches.
question (a property, e.g. $\lambda x[x$ is coming$]$) and applies it to the topic, e.g. *Lucille*. In this analysis, clause-peripheral cases are analyzed as the juxtaposition of two utterances: one containing a polar response particle and another one containing a clause.

Under the ellipsis analysis, Holmberg (2001; 2013); Kramer & Rawlins (2011) argue that in English *yes* and *no* are adverbs that always come with a TP which can be optionally elided. Fragment-peripheral PRPs are then the result of phrasal movement to a position higher than the polar particle. In other words, for them, bare, fragment-peripheral, and clause-peripheral cases have the same structure. As a consequence of this equivalence, Holmberg 2001; 2013, Kramer & Rawlins 2011 but other work as well (Farkas 2011) more or less implicitly take bare and clause-peripheral cases to inform each other and the semantics and syntax of polar response particles as a whole.

In the literature favoring the ellipsis analysis and in the literature favoring the proform analysis, we find plausibility arguments that show that if we assume a certain type of analysis, certain attested patterns follow. For instance, Kramer & Rawlins 2011 show that if we assume that *yes* and *no* in English involve ellipsis then two patterns of data straightforwardly follow: negative neutralization and the fact that *yes* and *no* can appear bare or followed by a full clause with no redundancy. But this pattern can also be given a convincing explanation in terms of the pro-form analysis as Krifka 2013 does. What we do not however find are arguments that clearly falsify the hypothesis argued against. I show that looking at embedded PRPs in French provides precisely that kind of argument. I present evidence that French embedded PRPs in each of the three constructions presented in (66) should be analyzed as involving ellipsis since a pro-form account would make wrong predictions. In addition, I show that all three constructions can be derived from the same underlying structure involving ellipsis (69).
The fact that the same phonological strings *oui, non, si* are used in all three constructions we identified above suggests that we are not dealing with three underlyingly distinct morphemes (which just happen to be pronounced the same) but that *oui, non, si* do indeed spell out respectively the same morpheme across all three constructions. It is thus desirable that they be given a unified analysis as different realization of the head Pol following (Sailor 2012; Roelofsen & Farkas 2014). As we will see though, there are differences in the distribution and felicity conditions of PRPs in all three constructions. The challenge for a unified analysis is to derive those differences.

I restrict the illustration of the discussion in this section to responses to questions for the sake of saving space but the conclusions that will be drawn also apply to antecedent assertions. The structure of this chapter is the following. In section 2 and 3 respectively I argue

3. This could also be a case of accidental homophony but in that case we might expect that some languages would have different particles for in bare, fragment-peripheral, and clause-peripheral contexts. I am not aware of any systematic typological study on this. In the literature on PRPs I have not spotted any differences in how PRPs are realized in each of those three constructions, however the great majority of this literature does not look at those constructions in embedded contexts, which adds another layer of possible variation.

4. One difference between a response to a question and a response to an assertion is that in response to assertions, a PRP seems to have more choice in choosing an antecedent whereas in response to questions, the antecedent is the maximal proposition that is question.

(i) A: Est-ce qu’elle prétend ne pas avoir fini son travail ?
   *is it that she pretends NEG NEG have finished her work
   *Does she pretend not to have finished her work.*

B1: #Je suis sûr que si.
   *I am sure that *si
   *Int. I am sure that she did finish her work.*
that bare PRPs and fragment-peripheral PRPs involve ellipsis. Both PRPs are thus interpreted with respect to the elided constituent, which must itself be identical to an antecedent in the discourse. In section 4 I argue that we need to distinguish between clause-peripheral PRPs according to whether their coda is identical to their antecedent. I show that this is a critical factor that has structural consequences: if a coda is identical to the antecedent of the PRP (i.e. if it is an answer), the coda is just the spell-out of the elided prejacent of the PRP, if however the coda is not an answer but a correction, it is an independent constituent

B2: Je suis sûr que non.
I am sure that no
_I am sure that she does not pretend. *I am sure that she didn’t finish._

In response to an assertion, PRPs can pick up a smaller antecedent.

(ii) A: Elle prétend ne pas avoir fini son travail.
she pretends NEG NEG have finished her work
_She pretends not to have finished her work._

B1: Je suis sûr que si.
I am sure that SI
_I’m sure that she did finish it._

B2: Je suis sûr que non.
I am sure that no
_I am sure that she does not pretend. or I am sure that she didn’t finish._

Note that we see the same interaction in English responses without PRPs.

(iii) A: Does she pretend that she has not finished her work?
B1: #I am sure that she has.
B2: #I am sure that she has not.
B3: I am sure that she does.
B4: I am sure that she does not.

(iv) A: She pretends that she has not finished her work.
B1: I am sure that she has.
B2: I am sure that she has not.

I think the English facts tell us that the interaction we see in French is not specific to the use of embedded PRPs but rather, follows from general discourse-coherence constraints. A question is a request for a given issue to be solved, whether a given proposition $p$ holds or not, in the case of a polar question. A sentence can contain several (embedded) propositions and the question operator, in French _est-ce que_ indicates which of them is requested to be solved. The PRP must solve the question, this is why it can only be anaphoric to the matrix proposition (since the matrix proposition is the one that is being questioned) except if the embedding predicate is ‘think’ in the second person. In response to an assertion, the antecedent of the PRP is not determined by a question. It is plausible that it is determined by the Question Under Discussion. In section 3.3, I will propose that what a PRP selects for is an answer in the technical Hamblin 1973 sense of the word.
that is juxtaposed to the bare PRP structure. I conclude that we can give a uniform syntactic analysis of embedded PRPs whereby they always select for an answer (in the technical Hamblin sense).

3.2 Coda-less PRPs involve ellipsis

Many kinds of phrases can appear to the left of an embedded (fragment-peripheral) PRP, e.g. DPs (70B1) and even CPs (70B2). Following Servidio 2014, I refer to the fragment to the left of the PRP as the polarity fragment.

(70) A: Est-ce que le fait que mes parents viennent les dérange ?

is it that the fact that my parents come her bothers

Does my parents’ coming bother her?

B1. Je pense que Tom oui mais Marie non. [DP]

I think that Tom yes but Marie

I think that it bothers Tom but not Marie.

B2. Je pense que, que ta mère vienne, non mais [CP]

I think that your mother come no but

que ton père vienne, oui.

that your father come yes

I think that your mother’s coming does not, but your dad’s does.

In this section I argue that bare and fragment-peripheral PRPs involve an elided constituent to their right. I present evidence that there is ellipsis and that embedded PRPs are not pro-forms.
3.2.1 Coda-less PRPs may only replace finite clauses

Embedding provides evidence that bare and fragment-peripheral particles do involve ellipsis because they are only possible where a finite clause is possible. If oui is a proform, we expect it to behave like other proforms in French. Sentence-level proforms (e.g. le, en, y) are not sensitive to whether a predicate embeds finite or non-finite clauses but PRPs are. No verb which may only take an infinitival complement (e.g. s’efforcer ‘strive’ in 71 cf. B1 and B2) may embed a PRP (B4). However such verbs can occur with a sentence-level proform (B3).

(71) A: Est-ce qu’il va finir son assiette?

is it that he goes finish his plate

Is he going to finish his plate?

B1: Il va s’efforcer de terminer.
he goes strive to finish

He’s going to strive to finish.

B3: Il va s’y efforcer.
he goes to it strive

He’s going to strive to.

B2: *Il va s’efforcer qu’il termine.
he goes strive that he

finishes

B4: *Il va s’efforcer que oui.
he goes strive that yes

B5: *Il va s’efforcer que ses carottes oui.
he goes strive that his carrots yes

Another example of the effect of finiteness is provided by raising verbs. The verb paraître ‘seem’ can appear in two constructions. In construction 1 exemplified in (72B1), the subject does not raise and the complement of the verb is a finite clause. Coda-less PRPs can be embedded in the latter construction as the acceptability of (72B2) and (72B3) shows.
(72) A: Est-ce qu’ils se sont réconciliés avec ses parents ?

Did they reconcile with her parents?

B1: Il paraît qu’ils se sont réconciliés.

It seems that they reconciled.

B2: Il paraît que oui.

It seems that yes

B3: Il paraît qu’avec sa mère oui mais avec son père non.

It seems that they did with her mother but not with her father.

But in construction 2, the subject raises and the complement of the verb can only be non-finite (cf. 73B1 and 73B2). As B3 and B4 in (73) show, a coda-less PRP cannot be embedded there.

(73) B1: Ils paraissent s’être réconciliés.

They seem to be reconciled.


they seem that they reconciled

B3: *Ils paraissent que oui.

they seem that yes

B4: *Ils paraissent qu’avec sa mère oui mais avec son père non.

they seem that with her mother yes but with his father no
This section has shown that the entailment in (74) holds for every attitude verb $P$.

\[(74)\text{ Finiteness generalization}\]

If an attitude verb $P$ exclusively selects for a non-finite clause, then $P$ cannot embed a coda-less PRP.

In the next section, I provide another argument that there is a correlation between finiteness and the possibility to embed PRPs.

### 3.2.2 Coda-less PRPs are sensitive to obviation

There is a phenomenon in French known as obviation which refers to the ban on coreference between a matrix and an embedded overt subject with some embedding verbs which select for the subjunctive mood in their complement (Ruwet 1984; Farkas 1992; Costantini 2005 among others). For instance (75a) is not good but (75b) is. The only thing that has changed though is the embedding verb, therefore I will say that espérer is -obviation whereas souhaiter is a +obviation verb.

\[(75)\begin{align*}
a. \quad & *\text{Je souhaite que je joue demain.} \\
& \text{I \textsc{souhaiter} that I \textsc{play} \textsc{subj} tomorrow} \\
& \text{\textit{Int. I want to play tomorrow.}} \\

b. \quad & \text{J’espère que je jouerai demain.} \\
& \text{I \textsc{hope} that I \textsc{play} \textsc{fut} \text{tomorrow}} \\
& \text{\textit{I hope I will play tomorrow.}}
\end{align*}\]

Obviation has been given analyses which can be classified into two kinds: competition analyses and binding-theoretical analyses (see Costantini 2005 for a good summary). Competition analyses (Bouchard 1982; 1983; Farkas 1992; Schlenker 2005) basically argue that obviation follows from the competition between subjunctive and infinitive while binding theoretical analyses (Suñer 1986; Rizzi 1990; Avrutin & Babyonyshev 1997) argue that the use of the subjunctive makes the binding domain bigger and obviation follows
from principle B. Crucially, in both approaches, obviation relies on clausal properties that are represented in the syntax of the clause.

If embedded PRPs do involve a (sometimes elided) clause, we expect them to show the same sensitivity to obviation that full clauses do. On the other hand, if they behave like proforms, we should not see any effect. Notice how the clause-level proforms le in (76) are not sensitive to obviation.

(76) A: Est-ce que tu vas jouer demain?
   it it that you go play tomorrow

   Are you going to play tomorrow?

   B1: Je le souhaite.
      I it SOUHAITE

      I want to.

   B2: Je l’esespère.
      I it hope

      I hope to.

Interestingly, obviation effects obtain with PRPs when the subject in the antecedent is the same as the matrix subject of the embedding verb (77b). This is expected if PRPs have a full clause at some level of representation. Interestingly, no such effect occurs when the antecedent is picked up by a proform (77c).

(77) *[subjectᵢ ... V⁺_{obv} ... [subjectᵢ}

   a. *Je ne sais pas si je viendrai demain mais je souhaite que je vienne
      I neg know neg if I go.FUT tomorrow but I SOUHAITE that I come.subj

      Int. I don’t know whether I’ll be able to come tomorrow but I want to.

   b. *Je ne sais pas si je viendrai demain mais je souhaite que oui.

      I neg know neg if I go.FUT tomorrow but I SOUHAITE that yes
c. Je ne sais pas si je viendrai demain mais je le souhaite.

I neg know neg if I go.FUT tomorrow but I it SOUHAITE

I don’t know whether I’ll come but I hope I will.

Obviation does not occur in two cases: if the subjects do not corefer (78) and if the embedding verb is -obviation (79). In both cases, PRPs embedding is possible which is exactly what is predicted if bare PRPs in those examples have an elided full clause.

(78) No coreference: [ subjecti ... Vobv ... [ subjectj

a. Je ne sais pas si Tom viendra demain mais je souhaite qu’il

I NEG know NEG if Tom go.FUT tomorrow but I wish that he

viennes.

come.SUBJ

I don’t know whether Tom will come tomorrow but I hope he will.

b. Je ne sais pas si Tom viendra demain mais je souhaite que oui.

I NEG know NEG if Tom go.FUT tomorrow but I wish that yes

I don’t know whether Tom will come tomorrow but I hope he will.

c. Je ne sais pas si Tom viendra demain mais je le souhaite.

I NEG know NEG if Tom go.FUT tomorrow but I it wish

I don’t know whether Tom will come tomorrow but I hope he will.

(79) -obviation verb: [ subjecti ... V−obv ... [ subjecti

a. Je ne sais pas si je viendrai demain mais j’espère que je viendrai.

I NEG know NEG if I go.FUT tomorrow but I hope that I come.fut

I don’t know whether I’ll come tomorrow but I hope I will.
b. Je ne sais pas si je viendrai demain mais j’espère que oui.
   I NEG know NEG if I go,FUT tomorrow but I hope that yes
   I don’t know whether Tom will come tomorrow but I hope I will.

c. Je ne sais pas si je viendrai demain mais je l’espère.
   I NEG know NEG if I go,FUT tomorrow but I it hope
   I don’t know whether Tom will come tomorrow but I hope I will.

Similar examples can be constructed with fragment-peripheral PRPs: in (80a), the matrix and embedded subject are coreferential and this is disallowed by the embedding verb *souhaiter* since it is obviative. Example (80b) is better because no such coreference arises and example (80c) is also better because the embedding verb *espérer* does not disallow coreference between matrix and embedded subjects.

(80) a. *Je ne sais pas si je les ai tous invités mais je souhaite que Marie
   I NEG know NEG if I them have all invited but I SOUHAITE that Marie
   oui.
   yes
   Int. I don’t know whether I have invited them all but I want to have invited Marie.

b. Je ne sais pas si Tom les a tous invités mais je souhaite que
   I NEG know NEG if Tom them has all invited but I SOUHAITE that Marie oui.
   Marie yes
   I don’t know whether Tom has invited them all but I want him to have invited Marie.
c. Je ne sais pas si je les ai tous invités mais j’espère que Marie
   
   I NEG know NEG if I them have all invited but I hope that Marie
   oui.
   
   yes
   
   I don’t know whether I have invited them all but I hope to have invited Marie.

In section 3.2.1, we saw that PRPs are selected by attitude verbs that can embed finite clauses and I proposed that this follows if we assume that embedded PRPs are finite clauses (with an elided constituent). In this section, we further saw that if indeed a PRP constituent contains a elided clause, then obviation effects are predicted.5.

5. So far we have not seen any effect of the shape of the antecedent (i.e. its syntax) on the felicity of an embedded PRP, all the contrasts we observed follow from restrictions on what the attitude verb can embed. Testing whether the shape of the antecedent of a PRP has an effect on the felicity of the PRP (e.g. by creating a clash between the shape of the antecedent and the selectional restriction of the attitude verb) yields data that are not easy to interpret. In fact, although there are interesting examples of clashes, I have not reached firm conclusions. For instance, Greviss & Goosse (2007) note that when the antecedent is an infinitive, pas is used rather than non. The two examples they give turn out to be confounded given the obviation facts observed above. Nevertheless, their observation seems to hold in examples like (i): the question in (i) is just an infinitival VP and answering with an embedded PRP is not felicitous (ia) whereas an answer with pas is good (ib). An embedded PRP response becomes acceptable if the question is finite (ic).

(i) a. #A: Aller en pension ? Je crois que non.
   go to boarding_school I think that no
   
   go to boarding_school I think not
   Go to boarding school? I don’t think I will.
   
   c. A: Est -ce que je veux aller en pension ? Je crois que non.
   is it that I want go to boarding_school I think that no
   Do I want to go to boarding school? I think that I don’t want to.
   
   But in (ii) where the PRP non responds to an assertion, whether in a dialogue or not, the infinitival clause aller bien is the antecedent of non.

(ii) a. A: Elle prétend aller bien. B: Moi je crois que non.
   she pretends go well me I think that no
   A: She pretends that she is well. B: I think that she is not. (or I think that she does not pretend that ...)
   
   b. Elle prétend aller bien mais je crois que non.
   she pretends go well but I think that no
   She pretends that she is well but I think that she is not. (* but I think that she does not pretend that ...)
3.2.3 **Coda-less PRPs are sensitive to antilogophoricity**

We can use antilogophoric effects to diagnose the presence of an elided constituent. According to Dubinsky & Hamilton (1998), epithets are antilogophoric pronouns, i.e. DPs subject both to principle B and the antilogophoric constraint in (81).

**(81) Antilogophoricity constraint for epithets (Dubinsky & Hamilton 1998)**

An epithet must not have as its antecedent the perspective bearer\(^6\).

In (82A), a question is asked with the epithet *cet imbécile* ‘this idiot’ anaphoric to an individual called Jean. In the B1 and B2 responses to this question, the attitude holder/perspective bearer\(^7\) B1 is unacceptable because the epithet *cet imbécile* is preceded by the co-indexed perspective bearer *Jean*, however notice that B2, where the DP-level pronoun *le* is used, is completely acceptable. (The phrase *c’est évident* ‘it is obvious’ is peripheral and only serves to make the sentence more natural given that it repeats almost word-for-word the formulation of the question.)

**(82) A: Est-ce que tu crois que Marie et Alex aiment cet imbécile, ?**

Do you think that Marie and Alex love this idiot

B1: *Jean* pense qu’ elles aiment cet imbécile, c’est évident.

Jean thinks that they love this idiot it is obvious

In conclusion, it does not seem to be the case that an infinitival clause can never be the antecedent of a PRP.

---

6. The perspective bearer is an individual from whose perspective the attributive content of the epithet is evaluated (Dubinsky & Hamilton 1998).

7. As noted by Dubinsky & Hamilton (1998), the subject of psychological verbs and verbs of saying typically has perspective over the sentential complement.
B2: Jean\textsubscript{i} pense qu’elles l’\textsubscript{i} aiment, c’est évident.

Jean thinks that they love him, it is obvious

Jean thinks that they love him, it’s obvious.

In a PRP response to (82A), if the embedded bare PRP involves ellipsis, we expect the response to be as unacceptable as (82B1), if however the embedded PRP is a proform, we expect the response to be as acceptable as (82B2). As the response in (83B6) shows, the ellipsis hypothesis makes the right prediction: embedded PRPs are sensitive to antilogophoricity. Ways to make this response better are use the clause-level proform *le* as in (83B4) or make the perspective bearer not the antecedent of the epithet as in (83B5).

(83) B3: *Jean\textsubscript{i} pense que oui, c’est évident.

Jean thinks that yes it is obvious

B4: Jean\textsubscript{i} le pense, c’est évident.

Jean it thinks it is obvious

Jean thinks so, it’s obvious.

B5: Je\textsubscript{j} pense que oui, c’est évident.

I think that yes it is obvious

I think that they do, it’s obvious.

B6: *Jean\textsubscript{i} pense que Marie oui, c’est évident.

Jean thinks that Marie yes it is obvious

In conclusion, I have argued that if we assume that embedded bare PRPs involve an elided clause, three phenomena follow:

- the finiteness generalization
- the antilogophoricity contrasts
- the obviation effects
3.2.4 The interpretation of *non* as evidence for elided structure

The data and phenomenon discussed in this section are given a much more detailed coverage in chapter 6 where I discuss in details what conditions the interpretation of embedded *non*. Interestingly, the generalization I arrive at presupposes that bare *non* comes with an elided syntactic structure and we can thus take this phenomenon as a further argument for elided structure. In this section, I limit myself to a few data points.

In answer to a negative question $\neg p$?, answering with *non* asserts the questioned proposition $\neg p$ without negating it (keeping pronunciation and the position of negation constant (Holmberg 2013; Goodhue & Wagner submitted) as the responses in (84B1) and (84B2) show.

(84) A: Est-ce qu’ils n’ont pas été au travail à l’heure cette année ?

_is it that they NEG have NEG been at work on time this year_

_Have they not shown up for work on time this year?_

B1: Je crois que non.

_I believe that no_

_I believe that they have not shown up for work on time this year._

B2: Je crois que Tom non mais Marie oui.

_I believe that Tom no but Marie yes_

_I believe that Tom has not shown up for work on time this year but Marie has._

The next question is exactly the same except that the adverb *souvent* ‘frequently’ has been added: notice that now answering with *non* asserts the negation of the questioned proposition $\neg p$\(^8\)

---

8. This data point was first noticed in English in Holmberg 2013 and given in Thoms 2012 too. Similar patterns were reported in Brasoveanu, Farkas, & Roelofsen 2013.
(85) A: Est-ce qu’ils n’ont souvent pas été au travail à l’heure cette année?

Have they frequently not shown up for work on time this year?

B1: Je crois que (Tom) oui.

I believe that (Tom) yes

B2: # Je crois que (Tom) non.

Int. I believe that (Tom) no

B3: Je crois que (Tom) non.

I believe that Tom no

As summarized in table 3.1, why does non negate the questioned proposition in examples (85) but not in (84)?

<table>
<thead>
<tr>
<th>No-scope bearing operator</th>
<th>Scope-bearing operator = souvent</th>
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<td><img src="image" alt="¬p" /></td>
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Table 3.1: Meaning of non as a function the scope-bearing operators it contains

In chapter 6, I show that the interpretation of embedded non is governed by the generalization in (86).
(86) Generalization about the interpretation of non

In the LF representation of a sentence containing embedded non:

a. if negation is the outermost scope-bearing operator in XP_{prej}, non does not contribute negation

b. if negation is NOT the outermost scope-bearing operator in XP_{prej}, non contributes negation

I argue that this is because embedded non wants to establish an agreement dependency with clausal negation in its prejacent.\(^\text{11}\) Crucially this generalization and this analysis depend on the presence of syntactic structure in the syntax of embedded non. In fact, the same generalization (and analysis) apply to non-elided cases of embedded clause-peripheral PRPs: in (87), the non response to A asserts the questioned proposition in A.\(^\text{12}\)

\(^{11}\) This dependency is subject to intervention by any scope-bearing operator. When intervention occurs, both non and clausal negation are interpreted as negative semantically. For more details, see 6.

\(^{12}\) Note that clause-peripheral non can reverse the polarity of its antecedent if it has special prosody and its coda is the reverse of the (negative) antecedent (i).

(i) A: Est-ce qu’ils n’ont pas été au travail à l’heure cette année ?

is it that they NEG have NEG been at work on time this year

Have they not shown up for work on time this year?

B: Je crois que (les nouveaux) NON, ils ont (bien) été au travail à l’heure cette année.

I believe that the new no they have well been to the work on time this year.

I believe that (the new ones) they did show up for work on time this year.
(87) A: Est-ce qu’ils n’ont pas été au travail à l’heure cette année ?

Have they not shown up for work on time this year?

B: Je crois que (les nouveaux) non, ils n’ont pas été au travail à l’heure cette année.

I believe that (the new ones) they have not shown up for work on time this year.

However in response to (88A), the non response in B1 sounds contradictory, the only way to assert the questioned proposition is with clause-peripheral oui in B2. The only reading available with clause-peripheral non is one which negates the questioned proposition (B3).

(88) A: Est-ce qu’ils n’ont souvent pas été au travail à l’heure cette année ?

Have they frequently not shown up for work on time this year?

B1: #Je crois que (les nouveaux) non ils n’ont souvent pas été au travail à l’heure cette année.

Int. I believe that (the new ones) they have frequently not shown up for work on time this year.
B2: Je crois que (les nouveaux) oui, ils n’ont souvent pas été au travail à l’heure cette année.
I believe that the new no they NEG have often NEG been to the work on time this year.

*I believe that (the new ones) they indeed have often not shown up for work on time this year.*

B3: Je crois que (les nouveaux) non ils n’ont pas souvent pas été au travail à l’heure cette année.
I believe that the new no they NEG have NEG often NEG been at work on time this year.

*I believe that (the new ones) they have not frequently not shown up for work on time this year.*

More details are provided in chapter 6.

3.3 Clause-peripheral PRPs: one or two sentences? It depends

Clause-peripheral polar response particles as in (89B2) are constituted on the surface of: (i) a PRP, (ii) a sentence to its right: the coda.

(89) A: Est-ce que tu crois qu’il est coupable ?

is it that you think that he is guilty

*Do you think he’s guilty?*

B1: Je crois que oui.

I believe that yes

*I believe that he is guilty.*
B2: Je crois que oui, il est coupable.
I believe that yes he is guilty.

I believe that yes he is guilty.

At issue in this section is the characterization of the relation between the bare PRP in (8B1) and the clause-peripheral PRP in (8B2). We will see that the response to this question is dependent on the relation between the coda and the antecedent of the PRP.

### 3.3.1 A definition of identity of antecedent and coda

In what follows, I will often compare the coda to the antecedent of the PRP and discuss whether they are identical or not since the structure of a clause Peripheral construction is dependent on this relation. By ‘identical’, I mean to say that the coda is $\pi$-given. I define $\pi$-givenness in (90) (based on Merchant (2001)’s notion of $E$-givenness).

(90) $\Pi$-givenness

The coda of an embedded (clause-peripheral) PRP, $C$, counts as $\pi$-given iff there is a constituent $A$ in the context, and, module $\exists$-type-shifting (i.e. Polarity-closure)

a. $A$ entails $P$-closure($C$), and

b. $C$ entails $P$-closure($A$)

Let me illustrate how I calculate $\pi$-givenness when the antecedent is a question.

(91) A: Est-ce qu’[il est coupable] ?
Is it that he is guilty

*Is he guilty?*

B: Je crois que oui, il est coupable.
I believe that yes he is guilty

*I believe that yes he is guilty.*
There is a constituent in (91A) – \([\text{il est coupable}]\) – which entails the P-closure of the coda, \(C\), in B’s response – \(\exists g_{<t,t>}. g(\text{he is guilty})\) – under the assumption that the domain of the function \(g\) is \(\{\lambda p_{<t>}. p, \lambda p_{<t>}. \neg p\}\). Conversely, \(C\) – \(\text{he is guilty}\) – entails the P-closure of the constituent \(A\) – \(\exists g_{<t,t>}. g(\text{he is guilty})\). The coda \(C\) in B’s response is therefore \(\pi\)-given in dialogue (91).

When the antecedent is an assertion as in (92), it – \(\text{he is guilty}\) – entails the P-closure of the coda \(C\) in B’s response – \(\exists g_{<t,t>}. g(\text{he is guilty})\).

(92)  

A: [Tom est coupable].

\(\text{Tom is guilty}\)

\(Tom is guilty.\)

B: Moi, je crois que non, il n’est pas coupable.

\(me\ I\ believe\ that\ no\ he\ is\ not\ guilty\)

\(I\ believe\ that\ no\ he\ is\ not\ guilty.\)

Conversely, the coda, \(C\), in B’s response – \(\text{he is not guilty}\) – entails the P-closure of \(A\) – \(\exists g_{<t,t>}. g(\text{Tom is guilty})\). The coda \(C\) in B’s response is therefore \(\pi\)-given in dialogue (92).

### 3.3.2 Previous accounts

Three broad types of account have been proposed to characterize the relation between the PRP and the coda in English. In the ellipsis account, e.g. Kramer & Rawlins 2011; Holmberg 2015, both the bare PRP in (8B1) and the clause peripheral PRP in (8B2) have the same syntactic structure, i.e. the bare PRP structure is the result of the ellision of the coda.\(^{13}\) Extended to French embedded PRPs, bare \(oui\) is the result of eliding the coda, spelled-out, in the clause peripheral structure under identity (93).

---

\(^{13}\) Kramer & Rawlins 2011 propose that matrix PRPs in French are the lexicalization of a \(\Sigma\) head and this is why they can be embedded, whereas they are adverbs in English which is why they cannot be embedded. They do not consider French clause peripheral structures embedded or not. My interpretation of their account is based on their treatment of clause peripheral PRPs with respect to bare PRP structures in English as well as their proposition that French PRPs lexicalize \(\Sigma\).
(93) Extension of ellipsis account

a. Bare PRP
   TP
   Je
   crois
   que
   oui
   il est coupable

b. Clause-peripheral PRP
   TP
   Je
   crois
   que
   oui
   il est coupable

In the proform account of Krifka 2013, clause-peripheral PRP structures are appositive structures. Krifka considers English yes/no and German ja/nein and proposes that ja/nein are of syntactic category TP. Based on putting together Krifka’s account of embedded ja in the antecedent of conditional constructions with his account of clause-peripheral ja, a bare PRP is a sentential proform, and a clause-edge PRP is the result of juxtaposing the bare PRP with a full clause, each headed by its own speech act operator (94).

14. I hasten to say that Krifka 2013 does not discuss French and only discusses embedded ja/nein in German under wenn ‘if’ (i.e. in the antecedent of the conditional construction). My discussion of what a proform analysis would look like for French embedded PRPs is thus just my interpretation of what an account like Krifka’s could look like if it were extended to the French data.
The third account I consider is Laka 1990. This account makes a distinction that the previous two do not make on the basis of the English examples in (95). Laka (1990, p. 158) observes that clause-peripheral *no* in English has two uses: one where it merely reflects the negative polarity of the coda (B1); and one where it denies the proposition questioned in the antecedent (B2) and where the coda expresses a correction (Van Leusen 2004).

(95) A: Do you play piano?

   B1. No I don’t.

B3. No I don’t, I sing.

Laka analyzes clause-peripheral PRPs differently depending on whether the coda is identical to the antecedent: in B1, *no* is part of the same sentence as its coda (96) whereas in B2, *no* and its coda are in different sentences (97).

(96) a. [no [I don’t]] b. [no [I don’t]]

(97) a. [no [I don’t]] [I sing] b. [no [I don’t]] [I sing]

Examples similar to (95) can be constructed for French in embedded contexts (98).

(98) Est-ce que Tom joue du piano ?

is it that Tom plays of the piano

*Does Tom play piano?*

B1. Je crains que non il n’en joue pas.

I fear that no he NEG of it plays NEG

*I fear that no he does not play piano.*

B2. Je crains que non il chante.

I fear that no he sings

*I fear that no he sings.*
(99) Extension of Laka’s 1990 account of clause-peripheral PRPs

a. Clause-peripheral PRP with coda identical to antecedent

```
TP
  Je
    crains
      que
        non
          il n’en joue pas
```

b. Clause-peripheral PRP with non-identical coda

```
TP
  Je
    crains
      que
        non
          il chante
```

Laka’s examples can be contructed for *oui* too (100).

(100) Est-ce que Tom joue du piano ?

is it that Tom plays of.the piano

*Does Tom play piano?*

a. Je crains que oui il en joue.

*I fear that yes he of.it play.SUBJ

*I fear that yes he plays it.*
b. Je crains que oui, il n’ a pas aimé l’ accordéon.

I fear that yes he NEG has NEG liked the accordeon.

\[I \text{ fear that he does, he didn’t like accordeon.}\]

All three analyses we have considered try to relate bare PRPs to clause-peripheral PRPs. As far as I can tell, Kramer & Rawlins 2010; 2011 always analyze a clause-peripheral PRP and its coda as being part of the same sentence, whereas Krifka 2013 always analyze them as two sentences, and Laka 1990 occupies an intermediate position: if the coda is not identical to the antecedent, it is two sentences, if the coda is identical to the antecedent (abstracting away from polarity), it is one sentence. For both Kramer & Rawlins and Krifka though, a clause-peripheral PRP construction does not involve an elided constituent while for Laka it does when the coda is not identical to the antecedent of the PRP. Those differences and similarities are summarized in Table 3.4.

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<td>coda=ant</td>
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<td>1</td>
<td>2</td>
</tr>
<tr>
<td>coda≠ant</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

Table 3.4: Clause-peripheral PRPs: 1 or 2 sentences?

Do embedded clause-peripheral PRPs in French involve one or two sentences? I show that the answer to this question depends on whether the coda is identical to the antecedent as proposed by Laka (1990) for yes and no in English. This disqualifies both the extensions to Krifka 2013 and to Kramer & Rawlins 2011’s.

First, we will see that if the coda is not identical to the antecedent of the PRP, the PRP and its coda are part of two different sentences: the first sentence involves a bare PPR with its elided prejacent (which is identical to a constituent in the context, i.e. its antecedent) and the second sentence contains the coda. Secondly, we will see that if the coda is identical to the antecedent of the PRP, both the PRP and the coda are part of the same sentence, in fact
part of the same CP. That is, when the coda is identical to the antecedent of the PRP, the
clause-peripheral PRP construction has the same syntax as the bare PRP construction.

3.3.3 Two structures depending on the coda

In this section, I argue that Kramer and Rawlins’ and Krifka’s analyses make wrong
predictions for French embedded peripheral PRPs and that, therefore, Laka’s is the most
suitable.

3.3.3.1 Overt realization of elided coda

The coda in (101B2) is the realization of the elided prejacent in (101B1). It can be
elided because it is identical to the proposition in the scope of the question operator in A.

(101) A: Est-il que Marie fait du piano?

is it that Marie does of the piano

Does Marie play piano?

B1: Je pense que non.

I think that no

I think that she does not.

B2: Je pense que non, elle ne fait pas de piano.

I think that no she NEG does NEG of the piano

I think that no, she does not play piano.

If following Laka 1990, a clause-peripheral PRP is followed by a coda that is not iden-
tical to its antecedent (102B3 in response to 101A), there is an elided constituent (102a).

(102) B3: Je pense que non, elle fait de la guitare.

I think that no she does of the guitar

I think that no, she plays guitar.
a. Ellipsis

Je pense que non [elle ne fait pas de piano], elle fait de la guitare.

b. No-ellipsis

Je pense que non, elle fait de la guitare.

This predicts that it should be pronounceable and it is (103).

(103) B4: Je pense que non elle ne fait pas de piano, elle fait de la guitare.

I think that no she NEG does NEG of piano she does of the guitar

*I think that no she doesn’t play piano, she plays guitar.*

### 3.3.3.2 Topicalization from elided clause

Remember that I proposed that we can analyze polarity fragments as resulting from movement of a topic out of the elided constituent at least in some cases. If, as I have been arguing, a PRP construction containing a coda non-identical to the antecedent is underlying composed of a bare PRP with its elided prejacent plus the coda, then it should be able to topicalize from it. This is indeed attested (104B2).

(104) A: Est -ce que Marie fait du piano ?

is it that Marie does of the piano

*Does Marie play piano?*

B1: Je crains que non, elle fait de la guitare.

I fear that no she does of the guitar

*I fear that no, she plays guitar.*

B2: Je crains que du piano non, elle fait de la guitare.

I fear that of the piano no she does of the guitar

*I fear that piano she does not play, she plays guitar.*
To recapitulate, given an antecedent $p$ (in a question or an assertion), if the coda to the right of the PRP is $p$, the coda is the spell-out of the elided constituent in a bare PRP structure. On the other hand, if the coda is not $p$, then it is a sentence juxtaposed to a bare PRP structure that involves an elided constituent.

(105) Structure of embedded clause-peripheral PRPs

Antecedent: $p?$ or $p$

a. Coda ($p$) = antecedent
   ... que oui, $p$

b. Coda ($q$) $\neq$ antecedent
   ... que oui $p$, $q$

3.3.3.3 Subjunctive assignment across clause-peripheral PRP

Among the attitude verbs that select for a finite clause in French, some verbs select for a clause whose main predicate is in the subjunctive mood, *sembler* ‘seem’ is such a verb.\(^\text{15}\) The clause-peripheral PRP structure in (106B1) is acceptable but becomes unacceptable if the coda is in a different sentence from the matrix subjunctive-assigning verb (106B2). To make clear that there are two sentences, I separate them with *en fait c’est sûr* ‘in fact it’s sure’. This example becomes acceptable again if the embedded verb is not in the subjunctive (106B3).

\(^\text{15}\) Note that *sembler* ‘seem’ may assign both indicative or subjunctive mood whereas *sembler à quelqu’un* ‘seem to someone’ selects for the indicative mood only.

\(\text{(i) a. } \text{Il me semble que Tom fait/}fasse \text{ de l’} \text{escrime.} \text{ it seems to me that Tom do.IND/do.SUBJ de the fencing}
\text{It seems to me that Tom fences.}
\text{b. } \text{Il semble que Tom fait/fasse \text{ de l’} \text{escrime.} \text{ it seems that Tom do.IND/do.SUBJ de the fencing.}\)
A: Est-ce qu’ils ont acheté ce livre?

Have they bought this book?

B1: Il semble que oui, ils l’aient acheté.

It seems that yes they bought it.

B2: *Il semble que oui ... en fait c’est sûr ... ils l’aient acheté.

It seems that yes in fact it is sure they bought it.

B3: Il semble que oui ... en fait c’est sûr ... ils l’ont acheté.

It seems that they bought it ... in fact it’s certain ... they bought it.

I take those facts to indicate that the problem with (106B2) is that the subjunctive-marked verb must be in the same sentence embedded under the predicate that licenses this mood. We can therefore use subjunctive marking as a diagnostic for same-sentencehood.  

16. One might argue that I am not licensed in reaching the conclusion that ‘we can use subjunctive marking as a diagnostic for same-sentencehood’ because, in fact, two structures are compatible with the data we have seen. Either, the bare PRP structure and the (non-identical) coda are indeed each part of a different sentence (as we have been assuming) as illustrated in (ia), or they are part of the same sentence but different constituents in the scope of the attitude verb as illustrated in (ib).

(i)  A: Est-ce que Marie fait du piano?

Does Marie play piano?

B: Je pense que non, elle fait de la guitare.

I think that no she does of the guitar

I think that no, she plays guitar.

a. Two sentences

Je pense que non, [elle ne fait pas de piano], Elle fait de la guitare.

b. Juxtaposed clauses in one sentence

Je pense que non [elle ne fait pas de piano], [elle fait de la guitare].

It is important to see that whatever the exact structure and generalization are, the answer does not jeopardize the conclusion I come to in this section that the extension of Laka’s analysis is the only one that predicts the pattern of subjunctive assignment we observe with embedded clause peripheral PRPs in French since, whatever analysis we assume (either a. or b.), the alternative analyses of Kramer and Rawlins 2011 and
In our extension of Kramer and Rawlins treatment of English matrix PRPs to French embedded PRPs, the coda is always part of the same clause as the PRP and the matrix predicate. This predicts that the coda can be marked by the subjunctive-mood in exactly Krifka 2013 make wrong predictions. In what follows, I will nevertheless discuss why one might entertain those two structures.

One reason to think that a structure such as the one-sentence option is possible is example (iiB1): if the coda were not in the scope of *penser* ‘think’, the sentences would be contradictory (Rajesh Bhatt p.c.). The sentence with its elided prejacent realized overtly has the same judgment.

(ii) A: Est *-ce que Marie fait du piano?*

Does Marie play piano?

B1: Tom pense que non, elle joue de la trompette mais moi je ne crois pas qu’ elle sache en jouer.

Tom thinks that she does not, that she plays trumpet but I don’t believe that she knows how to play trumpet.

B2: Tom pense qu’ elle ne fait pas de piano, elle joue de la trompette mais moi je ne crois pas qu’ elle sache en jouer.

Tom thinks that she does not, that she plays trumpet but I don’t believe that she knows how to play trumpet.

Vincent Homer (p.c.) points out that a question like (iii) is not acceptable which is reason to doubt that juxtaposed TPs can be embedded really.

(iii)* Est *-ce que tu penses que Jean est français, il habite à Toulouse?*

Let me say straight-away that I do not have an answer to the question of whether embedded juxtaposition is possible. But in response to Homer’s comment, I have two things to say. (1) I agree with him that (iii) is not acceptable, but it becomes better if the juxtaposed structure embedded in the question is a denial, correction sequence, which is what all the cases of non-identical codas are. (In fact, I find (iva) acceptable under the reading paraphrased as (ivb).) It might be that embedded juxtaposition is possible only if the embedded structure is a denial followed by a correction.

(iv) a: ?Est *-ce que tu penses que Jean ne joue pas du piano, il joue de la guitare?*

Do you think that Jean does not play piano, he plays guitar?

b: Est *-ce que tu penses que c’ est vrai que Jean ne joue pas du piano, il joue de la guitare?*

Do you think that it’s true that Jean does not play piano, he plays guitar?

(2) Still, suppose there is indeed no embedded juxtaposed structure and my Laka-style analysis of embedded clause Peripheral PRPs is correct, we are then led to analyze (iiB1) as containing two sentences: one with an embedded bare PRP and another sentence corresponding to the correction *she plays trumpet*. How do we
those cases where the equivalent structure without a PRP can. By contrast, our extension of Krifka’s hypothesis predicts that subjunctive assignment across a PRP is never possible since according to this hypothesis, a PRP and its coda are different speech acts. Finally, our extension of Laka’s hypothesis makes a more contrasted set of predictions: a coda identical to the antecedent of the PRP should be perfectly acceptable with subjunctive marking whereas a coda that is not identical to the antecedent of the PRP should be degraded with subjunctive marking. Those predictions are summarized in Table 3.5.

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>coda=ant</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>coda≠ant</td>
<td>yes</td>
<td>no</td>
</tr>
</tbody>
</table>

Table 3.5: Can the coda receive subjunctive-assignment from the matrix verb?

Cases like (106B1) falsify the extension of Krifka 2013 since subjunctive assignment is clearly possible across an embedded clause-peripheral PRP which shows that the coda cannot be its own speech act phrase in this example. In order to adjudicate between the extensions to Kramer & Rawlins 2011 and Laka 1990, we must look at cases where the coda that follows the embedded (clause-peripheral) PRP is not identical to the antecedent of the PRP as in the dialogue in (107): in both B1 and B2, the coda is not identical to the antecedent and only the indicative mood is possible.¹⁷

¹⁷ account for the fact that (iiB1) is not a contradiction, i.e. the second sentence is interpreted in the scope of the attitude predicate?

¹⁷. The same holds with non. In response to A in (i), B1 is correctly predicted to be felicitous since the coda is identical to the antecedent of the PRP, but becomes much less felicitous if the subjunctive-marked coda is different (B2). This again can be made felicitous again by marking the coda with the indicative (B3).

(i) A: Est-ce qu’ils ont acheté ce livre ?
    is it that they have bought this book
    Have they bought this book?

    B1. Il semble que non, ils ne l’aiment pas acheté.
    it seems that no they NEG it have.SUBJ NEG bought
    It seems that no they didn’t buy it.
(107) A: Est-ce qu’ils ont acheté ce livre ?

is it that they have bought this book

*Have they bought this book?*

B1: Il semble que oui, il leur a beaucoup plu.

it seems that yes it them has much pleased

*It seems that they did. They really liked it.*

B2: #Il semble que oui, il leur ait beaucoup plu.

it seems that yes it them has.SUBJ much pleased

This is not predicted by our extension of Kramer and Rawlins 2011 treatment since it is not sensitive to the type of coda used. This contrast follows if we assume, following Laka, that when the coda is not identical to the antecedent, the clause-peripheral PRP structure is in fact composed of the juxtaposition of a bare PRP structure (with an elided prejacent) and a sentence.

To recapitulate, I have argued that one structure that a clause-peripheral PRP is in can be seen as the realization of the elided prejacent of a bare PRP.

(108) Coda = answer

```
   PRP PolP
   /
  coda
```

B3Il semble que non, ils aient acheté un autre livre.

it seems that no they have_pembought an other book

B3 Il semble que non, ils ont acheté un autre livre.

it seems that no they have bought an other book

*It seems that no, they bought another book.*
In case, the coda is not identical, I have shown that it is juxtaposed to a bare PRP structure, either in a separate sentence or in the same sentence in the scope of the embedding predicate.

\[(109) \text{ Coda } \neq \text{ answer} \]

3.4 Conclusion

This chapter has argued that embedded PRPs in French have the structure in (110) following in the steps of ellipsis-based analyses like Holmberg 2013, Kramer & Rawlins 2011 or Roelofsen & Farkas 2014.

\[(110) \text{ Structure of embedded PRPs in French} \]

Evidence has been provided that embedded coda-less PRPs involve ellipsis and that embedded clause-peripheral PRPs must be analyzed differently depending on whether the coda is an answer or a correction. We can capture all of this by analyzing embedded PRPs as having the structure in (110).
CHAPTER 4

LIMITATIONS ON THE DISTRIBUTION OF EMBEDDED BARE PRPS

4.1 Introduction

Polar response particles are found embedded in a number of environments. When we look at the class of predicates that PRPs can be embedded under, we find predicates of speech (murmurer ‘mutter’, chuchoter ‘whisper’, . . .), predicates of thought (penser ‘think’, croire ‘believe’, avoir l’impression ‘have the feeling’ . . .), predicates of likelihood (être possible ‘be possible’, être probable ‘be likely, peut-être ‘maybe’, sans doute ‘no doubt’, . . .), and some predicates of preference: préférer ‘prefer’, espérer ‘hope’, souhaiter ‘hope’, . . . Syntactically, those predicates can be verbs, adjectives, adverbs, or even nouns (111).¹

(111) A: Est-ce que le laver apporte des maladies ?

is it that REF. wash bring some diseases

*Does bathing bring diseases?*

B: L’opinion que oui est encore prévalente.

the opinion that yes is still prevalent

*The opinion that washing brings diseases is still prevalent.*

Polar response particles in French can also be embedded under the complementizer si ‘if’ in the antecedent of a conditional construction (112).

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¹ When we look at the list of verbs and adjectives that allow PRP embedding in French, it is striking that many of them overlap with the predicates that Hooper 1975 called ‘assertive’, see appendix section A.
(112) A: Est -ce que Tom va venir ?
Is it that Tom goes come

Is Tom going to come?

B1: Si oui, dis lui d' apporter du vin.
if yes tell him to bring some wine

If so, tell him to bring wine.

B2: Si non, fais -moi penser à lui donner de nos restes.
if no make me think to him give of our leftovers

If not, remind me to give him some of our leftovers.

They are also found in result clauses (113).

(113) A: Est -ce que tu prends des notes ?
is it that you take some notes

Are you taking notes?

B: Je m’ennuie tellement que oui.
I 1sg.REFL am_bored so_much that yes

I’m so bored that (yes) I am.

In this section, I present two areas where the parameters that control PRP embeddability are systematic. The first area is desire predicates. The second area is the polarity of the constituents in which PRPs are embedded. In section 2, I show that whether a PRP can be embedded under a given predicate is correlated with the temporal orientation of that predicate (that is, whether it allows its complement to be evaluated at a time that precedes the time of evaluation of the embedding predicate). In section 3, I show that embedded PRPs are Positive Polarity Items.
4.2 Desiderative and directive predicates

4.2.1 Introduction

As far as I am aware, a total of two generalizations concerning the distribution of embedded PRPs have been made in the literature (Rowlett 2007; Authier 2013). Both happen to be about French embedded PRPs and both try to explain a contrast involving espérer ‘hope’ and vouloir ‘want’: the former can embed PRPs (114B1) but the latter cannot (114B2).²

(114) A: Est-ce que Marie va pouvoir rentrer pour Noël ?

Is it that Marie will can return for Christmas

Will Marie be able to come back for Christmas?

B1: Je ne sais pas mais j’espère que oui.

I neg know not but I hope that yes.

I don’t know but I hope she will.

B2: *Je ne sais pas mais je veux que oui.

I neg know not but I want that yes.

Rowlett 2007 claims that PRPs cannot be embedded under predicates that select for the subjunctive mood while Authier 2013 claims that PRPs cannot be embedded under bouletic predicates.³ In this section, I show that these generalizations are wrong, then I show that the

---

2. It seems to me that the example becomes better if the full clause is pronounced.

(i)? Je ne sais pas mais je veux que, oui, elle rentre.

I neg know not but I want that yes she return.SUBJ

I don’t know but yes, I want her to come back.

I think that this example does not constitute a counterexample or an exception to the pattern I am describing. In this example, clause-peripheral oui seems to function as a parenthetical indicating that the speaker agrees with or ratifies the bias expressed by the question. In this parenthetical use, it is then plausible that oui is not interpreted the same way as bare oui.

3. Note that the existing generalizations I mentioned are not the focus of the papers they were made in, in fact they are rather marginal to the point their author is trying to make.
empirical domain of the attempted generalizations is much larger than those two attitude verbs, finally I propose a new generalization and discuss two potential analyses as well as their difficulties.

The first generalization is proposed in Rowlett (2007, p. 148). The goal of the chapter is to explain the distribution of indicative and subjunctive moods. Rowlett argues that if a clause has assertive force then its main predicate is in the indicative mood, and if it is not assertive, then its main predicate is in the subjunctive mood\(^4\). He presents six arguments to support this hypothesis. One of those arguments is the distribution of polar response particles. According to Rowlett, French PRPs ‘replace finite assertive clauses’ only (p. 100)\(^5\). He therefore predicts that PRPs cannot be embedded under verbs which selects for subjunctive clauses only (since, according to him, subjunctive-marked clauses are not assertive). I name this prediction ‘Rowlett’s prediction’ (115). It is this prediction that I test here (regardless of the potential link with a notion of ‘assertivity’).

\(^4\) Rowlett does not offer a definition of what an (non-)assertive clause is. He points out in his footnote 7 p. 149 that there is no precise definition of the term and that ‘[it] needs to be understood in broad terms’. While what those broad terms are is not further specified, he writes that the presupposition of an assertion is one of the things that make a clause assertive. He gives the following example: finite embedded interrogative clauses as in (i) have indicative mood (and are assertive according to his hypothesis) because they presuppose a (prior) assertion.

(i) B: \[\text{Je ne sais pas si je viens.}\]
\[I \text{ \text{NEG} know \text{NEG} if I come}\]
\[I \text{ don’t know if I’m coming.}\]

According to Rowlett, this example ‘wouldn’t be felicitous unless the speaker had reason to believe that the hearer suspected s/he was coming (and therefore presupposes a prior assertion).’ Putting aside the validity of the hypothesized link between a clause presupposing an assertion and that clause being assertive, it is unclear that (i) is really only felicitous if the hearer suspected or said that the speaker is coming. A context can certainly be imagined in which (i) is uttered felicitously and yet the hearer has no idea what the speaker is talking about: (i) is felicitous as a response to the question in (ii) and yet the speaker of (i), B, has no reason to believe that the hearer, A, suspects that she is coming.

(ii) Context: Anna just stopped by Bettie’s office to ask whether she wanted to come with her to the free outdoors buffet she just found out about.

A: \[\text{Il y a un picnic dehors. Est -ce que tu viens ?}\]
\[it \text{ there has a picnic outside \text{it} that you come}\]
\[There’s a picnic outside. Are you coming?\]

\(^5\) It is not clear what enables Rowlett to take for granted that the clauses that French PRPs replace are assertive in the first place.
Rowlett’s prediction

If a verb selects for a clause in the subjunctive mood, this verb does not embed a PRP

The prediction is that we should observe a one-to-one correlation between subjunctive-selecting predicates and the (im)possibility to embed a polarity particle. It works for our initial contrast: espérer ‘hope’ selects for the indicative mood (116a) and it can embed a PRP (114B1) whereas vouloir ‘want’ selects for the subjunctive mood (116b) and cannot embed a PRP (114B2).

(116) a. Je ne sais pas mais j’espère qu’elle le pourra / *puisse.

I NEG know NEG but I hope that it can.FUT can.SUBJ

I don’t know but I hope she will.

b. Je ne sais pas mais je veux qu’elle le *pourra / puisse.

I NEG know NEG but I want that it can.FUT can.SUBJ

I don’t know but I want her to.

But let us look at the bouletic verb souhaiter. We might expect the two bouletic verbs souhaiter and vouloir to pattern alike with respect to PRP embeddability since they pattern the same with respect to mood selection: they both select for the subjunctive mood (117B2, 116b) unlike espérer ‘hope’ which selects for an indicative clause (116a)6,7. But

6. Note that espérer ‘hope’ can take the subjunctive in certain contexts. Most clearly, when used as an imperative.

(i) Espérons qu’il vienne demain.

hope.IMP that he come.SUBJ tomorrow

Let’s hope he comes tomorrow.

7. In Italian, Bernini 1995 mentions that sì ‘yes’ and no ‘no’ can be embedded under sperare ‘hope’, preferire ‘prefer’ and desiderare but not volere ‘want’. French has a verb désirer ‘desire’. It seems to me that to the extent that embedding a PRP under vouloir is bad, it is as bad to embed it under désirer. I have not checked the Italian data. It is possible that Italian desiderare is closer to French souhaiter than désirer.
in fact *souhaiter* can embed *oui* (117B1) like *espérer* ‘hope’ (114B1) contrary to Rowlett’s prediction\(^8\) (115).

(117) A: Est-ce que Marie va pouvoir rentrer pour Noël ?
   Is it that Marie will can return for Christmas

   *Will Marie be able to come back for Christmas?*

8. In fact, several of the judgements I report are different from the ones Rowlett reports. For instance, he reports that (ia) and (ib) are not acceptable.

   (i) a. Je ne sais pas mais je souhaite que oui.
      I know not but I wish that yes.
   
      b. Il est peu probable que oui.
      it is little probable that yes

This is not what I have found when probing my intuitions and those of my informants. To confirm some of them, I included a few relevant sequences in two questionnaire studies in which I asked European French native speakers to rate sentences containing different desire verbs embedding the PRP *oui* (ii).

(ii) a. Je ne sais pas si Esteban va venir à la fête mais j’espère que oui.
     I know not if Esteban goes to the party but I hope that yes
     
     b. Je ne sais pas si Aurélien va réussir son examen mais je souhaite que oui.
     I know not if Aurélien goes pass his exam but I wish that yes
     
     c. Je ne sais pas si Claire va venir en vacances avec nous mais je veux que oui.
     I know not if Claire goes come on holiday with us but I want that yes
     
     d. Je ne sais pas si Laurence va aller à la piscine avec nous mais je voudrais que oui.
     I know not if Laurence goes go to the pool with us but I want that yes

The first questionnaire study (50 participants) was online: participants saw the sentence presented to them in chunks (Rapid Serial Visual Presentation) and they were given 2 seconds to categorize the sentence as acceptable (1) or unacceptable (0). The second questionnaire study (52 participants) was offline: participants could take as much time as they wanted to read and judge the sentence by rating it on a Likert scale from 1 (unacceptable) to 7 (acceptable). I report the mean rating for each embedding verb along with the standard error in parentheses (iii).

(iii) Rating of *V que oui* sequences

<table>
<thead>
<tr>
<th><em>V</em> que oui</th>
<th>online (1 or 0)</th>
<th>offline (1-7)</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>espérer</em> ‘hope’</td>
<td>1 (0)</td>
<td>6.61 (.08)</td>
</tr>
<tr>
<td><em>souhaiter</em></td>
<td>.98 (.02)</td>
<td>6.25 (.15)</td>
</tr>
<tr>
<td><em>vouloir</em> ‘want’</td>
<td>.33 (.07)</td>
<td>3.88 (.26)</td>
</tr>
<tr>
<td><em>voudrait</em> ‘would want’</td>
<td>.77 (.06)</td>
<td>5.23 (.23)</td>
</tr>
</tbody>
</table>

I do not have an explanation for the differences in judgements that Rowlett and I report. It is possible that there is inter-speaker variation in which case we just happened to tap into different dialects. Another possibility is that the acceptability of those constructions varies as a function of context and we just used different contexts. Although I tried to be attentive to contextual effects, it is entirely plausible that I missed something.
B1: Je ne sais pas mais je souhaite que oui.

I NEG know NEG but I SOUHAITER that yes.

*I don’t know but I hope/want she will.*

B2: Je ne sais pas mais je souhaite qu’elle le *pourra / puisse.*

I NEG know NEG but I wish that she it can.FUT can.SUBJ

*I don’t know but I hope/want she will.*

Table 4.1 further confirms that Rowlett’s proposal (that PRPs cannot be embedded under verbs that otherwise select for a clause with the subjunctive mood) can be safely discarded\(^9\): in the columns I sort embedding verbs according to whether they require indicative or subjunctive mood in their complement (some allow both so they appear in both columns); in the rows, verbs are sorted according to whether they can embed PRPs. No obvious correlation can be discerned.

\(^9\) Authier 2013 already makes the point that Rowlett’s generalization is not right.
<table>
<thead>
<tr>
<th>+ indicative</th>
<th>+ subjunctive</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>belief, opinion</em> il est probable, ‘it is probable’ <strong>il est vraisemblable</strong> ‘it is believable’, <strong>soupçonner</strong> ‘suspect’, il est souhaitable ‘it is desirable’ <strong>volitional</strong> il vaudrait mieux ‘it’d be better’, souhaiter ‘wish’, préférer ‘prefer’ <strong>psychological reaction</strong> craindre ‘fear’, avoir peur ‘be afraid’, pourvu vu que ‘may p’, regretter ‘regret’, douter ‘doubt’</td>
<td></td>
</tr>
<tr>
<td>-PRP</td>
<td>-PRP</td>
</tr>
<tr>
<td>nier ‘deny’, contester ‘contest’ si jamais ‘if ever’, si seulement ‘if only’</td>
<td>volitional vouloir ‘want’, il est nécessaire ‘it is necessary’, ordonner ‘order’, exiger ‘demand’, recommander ‘recommend’, interdire ‘prohibit’, refuser ‘refuse’</td>
</tr>
</tbody>
</table>

Table 4.1: No correlation between the selected mood and the possibility to embed PRPs

The second generalization I am aware of is proposed in Authier (2013). He puts forth the hypothesis that PRPs cannot be embedded under any bouletic verbs (118).

(118) Authier’s generalization

French PRPs cannot be embedded under bouletic verbs.
But here again, this generalization turns out to be untenable since there are clear cases of bouletic predicates that embed PRPs, e.g. *préférer* ‘prefer’, *avoir envie* ‘feel like’, . . . as shown in table 4.2. In particular, he reports that PRPs cannot be embedded under *souhaier* and as I showed above, this is a point on which the judgments I report sharply differ from his.

<table>
<thead>
<tr>
<th>bouletic V</th>
<th>+PRP</th>
<th>-PRP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><em>souhaier</em> ‘wish/hope/want’, <em>avoir envie</em> ‘feel like’, <em>préférer</em> ‘prefer’, <em>voudrait</em> ‘want.COND’ <em>faudrait</em> ‘must.COND’</td>
<td><em>vouloir</em> ‘want’, <em>falloir</em> ‘need/must’</td>
</tr>
</tbody>
</table>

Table 4.2: No correlation between bouletic attitude and the possibility to embed PRPs

So how come *espérer* ‘hope’ and *souhaier* can both embed PRPs whereas *vouloir* ‘want’ cannot? What do the former two have in common that *vouloir* ‘want’ does not? It turns out that there are a few ways in which *espérer* and *souhaier* pattern together to the exclusion of *vouloir*. But before I turn my attention to this, I want to use the remainder of this section to consider a potential explanation that relates to a proposed asymmetry between *want* and *hope* in Scheffler 2009 attributed to Truckenbrodt. The observation was first made in German but it is taken to also hold at least in English (and perhaps other languages). The observation is that in response to the question in (119A), an assertion with *wollen* ‘want’ (119B2) is not as felicitous as an assertion with *hoffen* ‘hope’ (119B1) – the judgements reported are those in Scheffler 2009.

(119) A: Kommt Peter heute?
    comes    Peter   today
    Is Peter coming today?
Here again the question is why can the answer be embedded under *hope* but not under *want*? The contrast is taken as evidence that *hoffen* ‘hope’ has an ‘epistemic component’ that *wollen* ‘want’ does not have. The idea is that using *hope that p* gives at least a partial answer to the question because it conveys that *p* is the case in at least some of the doxastic worlds of the attitude holder whereas *want* does not convey information about the beliefs of the attitude holder but only about their desires. The French equivalents of (119) in (120) pattern the same: it is also odd in French to respond with *vouloir* ‘want’ to the question in A (in a context where the speaker in B does not have any particular relationship to Peter).

(120) A: Est-ce que Peter va venir aujourd’hui ?

Is Peter coming today?


I hope that he goes come

I hope he is.

Int. I want him to.

If we accept the given interpretation of this contrast, we could hypothesize that what is wrong with the examples in (114) where *oui* is not acceptable under *vouloir* ‘want’ is not that PRPs are anti-licensed by *vouloir* ‘want’ but that an answer with *vouloir* is just not felicitous (whether it embeds a PRP or a clause without a PRP). I think though that this is not sufficient to explain the contrast observed between *espérer que oui* ‘hope that yes’
and *vouloir que oui ‘want that yes’. First, if we make the question about vouloir ‘want’, a response with this verb is perfectly natural\textsuperscript{10} but it still cannot embed a PRP (121), although a parallel example with for instance espérer ‘hope’ does not show this asymmetry (122).

(121) A: Est-ce que tu veux que Tom vienne ?  

is it that you want that Tom come.SBJ

Do you want Tom to come?

B1: Je veux qu’il vienne en effet.  

I want that he come.SBJ indeed

I want him to come indeed.

B2: #Je veux que oui en effet.  

I want that yes indeed

Int. I want him to come indeed.

(122) A: Est-ce que tu espères que Tom va venir ?  

is it that you hope that Tom goes come

Do you hope that Tom will come?

B1: J’espère qu’il va venir en effet.  

I want that he goes come indeed

I hope that he will come indeed.

B2: J’espère que oui en effet.  

I hope that yes indeed

I hope that he will come indeed.

\textsuperscript{10} I do not know what Scheffler/Truckenbrodt would predict for such an example where the question is about the ‘wanting’. Regardless, what is important here is that a PRP under vouloir ‘want’ remains unacceptable while the full PRP-less clause is acceptable.
Secondly, to the extent that Scheffler/Truckenbrodt’s contrast between answers with hope and want holds with full clausal complements in French (in a context where the responder does not have any sort of authority over the Peter’s doing), this contrast disappears under certain conditions. Namely, if the attitude holder is an authoritative figure. For instance, in (123), Tom’s mother certainly has authority over Tom’s plans and if she wants Tom to go to a birthday party, it follows that Tom will go to the birthday party (or at least it is implied). Still, oui is not good under vouloir ‘want’ (B2) whereas the full clause counterpart (B1) is now a perfectly felicitous response.

(123) Context: Tom is 6 years old and has been invited to a birthday party. He does everything his mother wants him to do, this is well-known.

A: Est-ce que Tom va venir?

is it that Tom goes come

Will Tom come?

B1: Sa mère veut qu’il vienne.

his mother want that he come.

His mother wants him to.

⇝ Luc will come.

B2: *Sa mère veut que oui.

his mother want that yes

Int. His mother wants him to.

Finally, if the unacceptability in (114B3) were really reducible to the unacceptability of want as a response to a question, then a PRP embedded under vouloir ‘want’ should be perfectly acceptable in a response to an assertion, but that is not the case (cf. 124a and b).
(124) a. Tom veut que Marie vienne mais moi je veux qu’elle ne vienne pas.

*Tom wants Marie to come but I want her not to.

b. *Tom veut que Marie vienne mais moi je veux que non.

Int. *Tom wants Marie to come but I want her not to.

I take these three arguments as falsifying the hypothesis that the unacceptability of embedded PRPs with vouloir ‘want’ follows from Scheffler/Truckenbrodt’s observation about the unacceptability of want-responses to questions. Besides we will see that PRPs are unacceptable under a whole class of verbs of which vouloir ‘want’ is just one example.

In conclusion, we have seen that the unacceptability of embedded PRPs with want cannot be explained away by a presumed restriction on embedded PRPs to indicative-selecting attitude verbs (Rowlett 2007), nor by a presumed restriction to non-bouletic verbs (Authier 2013), nor by a presumed more general unacceptability of responses containing want (Scheffler 2009/Truckenbrodt). Whatever produces unacceptability when one attempts to embed a PRP under vouloir ‘want’ has to do with the nature of PRPs themselves and how they interact with the embedding verbs. In what follows, I pursue the following strategy: identify the set X of features that both espérer ‘hope’ and souhaiter have and vouloir ‘want’ does not have, such that PRPs need an embedding verb that has X in order to be embedded.11 There are several ways in which espérer ‘hope’ and souhaiter pattern together to the exclusion of want. The most interesting one from the point of view of embedded PRPs is

11. This could be put a different way: identify the set Y of features that vouloir ‘want’ has and that both espérer ‘hope’ and souhaiter do not have, such that PRPs are not compatible with an embedding verb that has Y.
that *vouloir* ‘want’ restricts the temporal orientation of its complement to non-past times whereas *espérer* ‘hope’ and *souhaiter* impose no such restrictions on their complement.

### 4.2.2 Establishing a descriptive generalization

Remember our basic initial puzzle: *espérer* ‘hope’ and *souhaiter* can embed PRPs while *vouloir* ‘want’ cannot. We want to find what it is that makes *espérer* and *souhaiter* so different from *vouloir*. A major difference is that the predicates *espérer* and *souhaiter* can take a clausal complement with any time reference while *vouloir* requires that its complement have non-past time reference with respect to the time of evaluation of the ‘wanting’\(^\text{12}\)\(^,\)\(^\text{13}\):

the context in (125) sets the time of the event of Luc’s coming before the time of evaluation of the hoping or wanting. This is possible with *espérer* ‘hope’ (a) and *souhaiter* (b) but not with *vouloir* ‘want’ (c)\(^\text{14}\).

(125) Context: I had a dinner party at my house last night. Luc was there. He had to catch a plane early in the morning but he left late due to his car not starting. The next morning I have not heard about him and I say:

\[
(\text{i}) \quad \text{Je suis doctorant parce que je le veux.}
\]

*I am grad student because I want it.*

\[
(\text{ii}) \quad \text{Il ait pu rentrer chez lui à temps.}
\]

*I want that he have can return at his place on time*

\[
(\text{iii}) \quad \text{I wanted that he managed to come back home on time.}
\]

But in that case, it is not clear that the time of the embedded clause event and the time of the evaluation of *vouloir* ‘want’ can be ordered: the time of evaluation of *vouloir* is the time at which (i) is uttered in \(w_0\) whereas the time of the event of the embedded clause is the time at which Luc comes home in a world \(w\) where the facts written in the novel are true. The acceptability of (i) may thus be due to the impossibility of ordering time intervals/points across worlds as opposed to time intervals/points in one and the same world.

---

12. Actually people speak of future orientation (rather than non-past) but it seems to me that non-past is more accurate (at least for French) in light of examples like (i)

\[
(\text{i}) \quad \text{Je suis doctorant parce que je le veux.}
\]

*I am grad student because I want it.*

13. I have observed that *souhaiter* may take its complement \(p\) with past time reference only if the attitude holder is ignorant as to \(p\).

\[
(\text{i}) \quad \text{Je veux qu’il ait pu rentrer chez lui à temps.}
\]

*I want that he have can return at his place on time*

14. Example (125c) becomes good if the attitude holder is the author of a novel.
Those examples suggest that there is a correlation between a verb’s inability to embed a PRP and its imposing restrictions on the time reference of its complement, in particular that its complement not be past oriented as in the case of vouloir ‘want’.

Let me expand on this with a rather important caveat to keep in mind before I continue my discussion. If a verb imposes a restriction on the time reference of its complement, it can be that its complement must be interpreted obligatorily at a non-past time (with respect to its time of evaluation). This is what we see with vouloir ‘want’ and its complement. But other kinds of temporal orientation are conceivable. It could be, for instance, that a verb requires that its complement be interpreted obligatorily at a past or non-future time. It is not clear to me now that there exists in French any such verb, that is a verb that can embed a finite clause (with a que complementizer) and that requires its complement to be interpreted at a past time. Intuitive examples like se souvenir ‘remember’ or regretter ‘regret’ which could plausibly be thought to be past-oriented (after all remembering is in an intuitive sense about the past) do in fact readily allow their (finite que-) complement to be evaluated at a (future) time that follows the time of evaluation of the ‘remembering/regretting’ as in (126)/(127).
(126) Je me souviens que Marie va venir cet été.
I remember that Marie goes come this summer

I remember that Marie will come this summer.

(127) Je regrette que Marie vienne cet été.
I regret that Marie come.SUBJ this summer

I regret that Marie will come this summer.

I do not know whether this gap results from my just not being able to think of a verb with another temporal orientation than non-past, or if this gap reflects something principled. In any case, because of this gap, all the examples I give of verbs that impose a specific temporal orientation on their complement are verbs that require that their complement be interpreted at non-past times, e.g. *vouloir* ‘want’. For this reason, in this chapter, I take ‘verbs that restrict the temporal reference of their complement’ and ‘verbs that require their complement to be interpreted at non-past times’ to be (extensionally) equivalent. This methodological precision having been made, let me continue the discussion of the correlation we found between verbs that restrict the interpretation of their complement (to non-past times) and verbs that cannot embed PRPs.

If we assume a causal relation between those two properties, we predict that whatever operation allows the complement to have past time reference (w.r.t to the reference time of the embedding predicate) allows PRP embedding. This is what we observe with two operations that make *vouloir* accept a complement with past time reference: the addition of *conditionnel* morphology and the shift to a non-bouletic use.

4.2.2.1 Effect of the *conditionnel* morphology on *vouloir* ‘want’

French has a TAM category known as *conditionnel* which has several uses. One use is to mark the verb in the consequent of a counterfactual conditional construction (128a and the perfect *conditionnel* in 128b). This use gave its name to the whole category. But it has
many more uses like future in the past for instance and the formation of weak modals as we will see.15

(128) a. Si Tom venait, je serais ravi.
    if Tom came I be.COND glad
    *If Tom came, I would be glad.

b. Si Tom était venu, j’aurais été ravi.
    if Tom was come I have.COND been glad
    *If Tom had come, I would have been glad.

We have seen that vouloir ‘want’ cannot embed PRPs or a clause with past reference. However, marking vouloir with conditional morphology makes those possible as the minimal pair in (129) shows.

(129) a. *Je ne sais pas si Marie va venir nous aider mais je veux vraiment que oui.
    I NEG know NEG if Marie goes come us help but I want really that yes
    *I don’t know whether Marie will come to help us but I really want her to.

15. All those uses are traditionally described as involving the conditionnel ‘mood’ because all those uses are marked with the same morphology: that found in the consequent of a counterfactual conditional construction. I am not claiming that the conditional ‘mood’ is a theoretically relevant notion. In fact, Iatridou 2000 argues that it is not. My point is merely that whatever distinction the conditional morphology lexicalizes, it seems to be relevant for PRP embedding licensing.
b. Je ne sais pas si Marie va venir nous aider mais je voudrais vraiment que oui.
I don’t know whether Marie will come to help us but I’d really like it if she did.

As announced above, while bouletic vouloir ‘want’ does not allow its complement to have past reference, adding conditional morphology makes this possible (130). The context is the same as in (125).

(130) Context: I had a dinner party at my house last night. Luc was there. He had to catch a plane early in the morning but he left late due to his car not starting. The next morning I have not heard from him and I say:

a. *Je veux qu’il ait pu rentrer chez lui à temps.
I want that he have.SUBJ can return at his.place on time

Int. I want that he managed to come back home on time.

b. Je voudrais qu’il ait pu rentrer chez lui à temps.
I want.COND that he have.SUBJ can return at his.place on time

I wish he had managed to come back home on time.

Yet another mechanism that makes vouloir ‘want’ possible with a past-oriented complement or PRP is the shift to its non-bouletic reading as I discuss in the next section.
4.2.2.2 *vouloir*: from bouletic to non-bouletic

The verb *vouloir* in its usual bouletic use cannot embed a PRP. This verb has another use which is only available when the subject is from the (non-exhaustive) list in (131). For lack of a non-misleading term, I call this use of *vouloir* ‘want’ ‘non-bouletic’.

(131) Subjects that shift *vouloir* to a non-bouletic verb

la logique ‘logic’  
la théorie ‘theory’  
la raison ‘reason’  
la rumeur ‘rumor’  
la logique ‘logic’  
la théorie ‘theory’  
la raison ‘reason’  
la rumeur ‘rumor’. . .

In this use, *vouloir* ‘want’ can embed a PRP: in reply to the question (132), one could respond (132B1) or (132B2).

(132) A: Est-ce qu’il faut vouvoyer ses beaux parents ?  

is it that one must say _vous_ to one’s parents_in_law  

*Must one say "vous" to one’s parents-in-law?*

B1: La tradition veut que oui.  
The tradition wants that yes  

*According to tradition, one must say "vous" to their parents-in-law*

16. In German, *wollen* ‘want’ is also ambiguous between bouletic and non-bouletic, albeit not with the same conditioning.

(i) Anna will in Paris sein.  

Anna wants to be in Paris

Schenner 2009

It is possible that *vouloir/wollen* can indeed be used as both a bouletic and a non-bouletic verb in French and German, but the conditions on the use of the non-bouletic use differ.
B2: La politesse veut que oui.

The politeness wants that yes

*According to the rules of politeness, one must say "vous" to their parents-in-law.*

Also, if *vouloir* is used with its non-bouletic value, its complement can be past oriented (133): the event of Saint Patrick using the shamrock is situated before the time of evaluation of the modal, which is the time of the utterance.

(133) La tradition veut que saint Patrick se soit servi de la feuille de trèfle pour illustrer le mystère de la Trinité.

*Tradition has it that Saint Patrick used a shamrock to illustrate the mystery of the Trinity.*

The switch from bouletic to non-bouletic as well as the concomitant switch from the impossibility to the possibility to embed PRPs are both correlated with the possibility to select for a complement clause with past reference. This is predicted if we hypothesize that the possibility for a verb to embed a complement with past-time reference is the condition that embedded PRPs are sensitive to. This correlation also captures the contrast in acceptability found with a class of embedding verbs that are ambiguous between a use in which the embedded complement cannot be past oriented (the directive use) and a use in which it can be past oriented (the reportative use).
4.2.2.3 Ambiguous verbs: the case of the directives

There is a series of verbs (134) which show a very systematic ambiguity between a ‘directive’ use and a ‘reportative’ use. What is interesting for us is that they can only embed PRPs in one use and not the other.\(^\text{17}\)

(134) Verbs with both directive and reportative readings

- suggérer ‘suggest’
- faire signe ‘beckon’
- indiquer ‘indiquer’
- signaler ‘signal’
- signifier ‘signal’
- aviser ‘warn/advise’
- dire ‘say’
- décréter ‘decree’

In French as in English the ambiguity has morphosyntactic consequences. In the directive use, *suggérer* ‘suggest’ for instance takes a clausal complement whose main verb is marked with the subjunctive mood (135a) or with infinitival morphology\(^\text{18}\) (135b).

(135) Directive use of *suggérer*

Context: Yesterday I saw Martin. He said something I did not like, I got angry and he advised that I run to calm down.

\(^{17}\) Sailor 2012 notices a similar contrast with embedded *so/not*. For instance, English *suggest* has the same ambiguity as I described above as an ambiguity between a reportative and a directive reading. Note that Sailor does not use those words, but describes the difference in terms of the, respectively, ‘submit (for consideration)’ reading (*that only takes a subjunctive complement*) and ‘recommend’ reading (*that can take a tensed complement*) as in (i).

(i) a. I suggest that you be on time. directiv/*reportative
   b. I suggest that John is the murderer. *directive/reportative

Sailor observes that when *so* or *not* is embedded under *suggest*, the only available reading is the reportative reading, which corresponds to a finite-CP complement.

(ii) A: Is this analysis on the right track?
   B1: I suggest that it is/isn’t. *directive/reportative
   B2: I suggest so/not. *directive/reportative

Sailor interprets this contrast as showing that verbs that embed only infinitival or ‘subjunctive’ complement clauses cannot embed *so* or *not*.

\(^{18}\) And in that case, the subject of the embedded clause is expressed as a clitic in the matrix clause.
a. Martin suggested that I do three rounds of stadium to myself calmer.
   calm
   
   *Martin told me to run around the stadium three times to calm down.*

b. Martin has suggested to do three rounds of stadium to myself calmer.
   calm
   
   *Martin told me to run around the stadium three times to calm down.*

In the reportative use however, the main verb of the embedded clause must be in the indicative mood (125a) and it cannot be in the infinitival form (125b).

(136) Reportative use of *suggérer*

Yesterday I saw Martin. We got to talking. His remarks led me to believe that he thinks the reason I run is to calm down.

a. Martin has suggested that I do three rounds of stadium to myself calmer.
   calm
   
   *Martin suggested that I run three times around the stadium in order to calm down (i.e. Martin suggested that the reason I run three times around the stadium is to calm down).*
b. #Martin m’a suggéré de faire trois tours de stade pour me calmer.

PRP embedding is only possible under *suggérer* in its non-directive use as the unacceptability of (137) and the acceptability of (138) show.

\[(137) \text{#Je ne sais pas s’il court bien tous les jours mais j’ai suggéré que }\]
\[\text{I know if he runs VF all the days but I have suggested that }\]
\[\text{oui en tout cas.} \]
\[\text{yes in any case} \]

*Int. I don’t know whether he does run every day but I suggested that he do in any case.*

\[(138) \text{Je ne sais pas s’il court pour se calmer mais son nouveau comportement suggère que oui.} \]
\[\text{I don’t know if he runs in order to calm down but his new behavior suggests }\]
\[\text{so/that it’s the case.} \]

Here again, this pattern falls under the past-reference generalization since, in their directive use, the verbs listed in (134) are non-past oriented. Take *suggérer* ‘suggest’ in (139): (139a) is unacceptable because the subjunctive in the embedded clause makes it clear that we are dealing with the directive use of *suggérer* ‘suggest’ but that reading cannot be past oriented, i.e. Martin cannot have given an order this morning that applies to yesterday. There are two ways to make this sentence acceptable: either shift the topic time of the embedded clause to a time that does not precede the time of the event of the embedding verb.
(this morning) as in (139b), or use the indicative mood in the embedded clause as (139c) which then makes the reportative reading available.

(139)  a. *Martin a suggéré ce matin que je sois arrivé à Lorient hier.
      Martin has suggested this morning that I be.SUBJ arrived in Lorient yesterday
      \textit{Int. Martin suggested this morning that I be in Lorient by yesterday.}

b. Martin a suggéré ce matin que je sois arrivé à Lorient à midi.
      Martin has suggested this morning that I be.SUBJ arrived in Lorient at midday
      \textit{Martin suggested this morning that I be in Lorient by midday.}

c. Martin a suggéré ce matin que je suis arrivé à Lorient hier.
      Martin has suggested this morning that I am arrived in Lorient hier
      \textit{Martin suggested this morning that I arrived in Lorient yesterday.}

In conclusion, assuming that the temporal orientation restriction certain verbs impose on their complement is what causes the unacceptability of embedded PRPs captures the following contrasts: (1) \textit{souhaiter que} PRP vs. *\textit{vouloir que} PRP, (2) \textit{je voudrais que} PRP vs. *\textit{je veux que} PRP, (3) (in)acceptability of PRP embedding as a function of the reading of \textit{vouloir}, (4) (in)acceptability of PRP embedding as a function of the reading of verbs like \textit{suggérer}.

4.2.3 Implementation of an analysis

We have seen that there is a correlation between predicates that do not impose a restriction on the temporal orientation of their clausal complement and predicates that allow PRPs as their complements. I posit a strong version of this correlation in (140).

(140) Past-reference / PRP complement correlation

A desire predicate $P$ can embed a PRP iff $P$ does not disallow its clausal com-
plement from being interpreted at a time that precedes the time at which P is evaluated.

Importantly, I am not saying that in order for a PRP to be embeddable the event denoted by the PRP needs to be located in the past with respect to the time of evaluation or topic time. In fact I have given many examples where the context is such that the denotation of the PRP is clearly located in the future with respect to the time of evaluation of the embedding predicate. Such an example is repeated in (141): clearly the time of the embedded event coming back for Christmas is located after the time of evaluation of the hoping/wanting.

(141) Context: It is September. A asks B about next Christmas.

A: Est-ce que Marie va rentrer pour Noël ?

Is it that Marie goes return for Christmas

Will Marie come back for Christmas?

B1. Je ne sais pas mais j’espère que oui.

I neg know not but I hope that yes.

I don’t know but I hope she will.

B2. Je ne sais pas mais je souhaite que oui.

I neg know not but I wish that yes.

I don’t know but I would like her to come back.

B2. * Je ne sais pas mais je veux que oui.

I neg know not but I want that yes.

The point is that even in a context where the denotation of the PRP is clearly located in the future, the PRP cares about whether the verb it is embedded under allows its complement to have past reference (in other contexts). This is why, we saw, souhaiter but not vouloir allows PRP embedding whether the event it denotes is in the past, present, or future.
Even verbs like *prévoir* ‘anticipate’, *prédire* ‘predict’ fall under that generalization. This is somewhat surprising since the most common usage of these verbs might suggest that they constrain the time of interpretation of their complement clause to the non-past. But the examples in (142) seem fine to me, although I think the meaning of the embedding predicates shifts slightly from its more usual meaning.  

(142) A: Est-ce que Marie est arrivée en retard à son travail ce matin ?

Did Marie arrive at her work late this morning?

B1: Je prévois/prédis qu’elle est arrivée en retard à son travail.

I anticipate/predict that she is arrived in delay at her work

*I anticipate/predict that she arrived to her work late."

B2: Je prévois/prédis que oui.

I anticipate/predict that yes

*I anticipate/predict that she did."

For instance the example in (143) with *prédire* ‘predict’ is perfectly acceptable but this use of *prédire* ‘predict’ is clearly the meaning ‘announce in advance as a result of a scientific calculation, of deductive procedures’ and not the other meaning which is ‘announce in advance as a result of supernatural inspiration’

(143) La théorie prédit qu’il est arrivé hier à trois heures.

The theory predicts that he arrived yesterday at 3 o’clock.

19. I do not mean to say that *prédire* ‘predict’ and *prévoir* ‘anticipate’ are ambiguous. I think what the examples I am using show is that their semantics is underspecified enough to be compatible with the different uses examplified. The reason why it might seem counterintuitive that those two verbs are in fact not future-oriented is that their main use – ‘see the future’ – is one that typically is.

20. Thanks to Rajesh Bhatt and Vincent Homer for this example.
In conclusion, the correlation in (140) seems reliable but it is not clear how and why the possibility of past reference conditions the possibility to embed PRPs. To really see why this is challenging, consider the schematic configuration in (144). The correlation relates the distribution of embedded PRPs to a semantic property of V.

(144) \[ V \[ CP \text{ que } [ \text{ PRP } [ \ldots ] ] \] \]

There are such cases, e.g. negative verbs and NPIs in embedded clauses, but it is hard to conceive of temporal restrictions as creating an environment that the embedded PRP could be sensitive to. So it is hard to see how such a correlation could be made to follow. Embedded PRPs care about a lexical/semantic property of the embedding predicate and not just about the temporal environment where it itself appears. In addition, whatever it is that embedded PRPs care about it cannot be the embedding predicate alone since additional material (like conditionnel morphology\(^{21}\)) affects the possibility of embedding.

\(^{21}\) There are three necessity modals in French that can embed a full finite clause (and hence have the potential to embed PRPs): vouloir ‘want’, falloir ‘it must be the case’, avoir besoin ‘need’. All three verbs cannot embed PRPs unless they bear (self-licensing) conditionnel morphology. Incidentally conditionnel morphology is how French forms weak modals from the corresponding strong modals (Von Fintel & Iatridou 2008) a.k.a. ‘self-licensing conditional morphology’. The use of the conditionnel with this meaning is very restricted. It is not the case that every verb can bear ‘self-licensing’ conditional morphology. For instance, suggérer ‘suggest’ with conditional morphology may not be used on its own (iB) unlike e.g. vouloir ‘want’, although it is perfectly fine in the consequence of a subjunctive conditional construction.

(i) A: Qu’est-ce que tu veux que je fasse ?
What is it that you want that I do.SUBJ
B: #Je suggérerais que tu viennes.
I suggestCOND that you come.SUBJ

Strong/weak necessity modals have the following characteristic (Silk 2016): a sentence with a weak modal (e.g. ‘ought p’) can be followed by one with a strong modal (e.g. ‘must p’), but the reverse order is not possible. The same characteristic holds of vouloir ‘want’ (ii), falloir ‘must’, or avoir besoin ‘need’ when they bear self-licensing conditionnel morphology.

(ii) a. Je voudrais qu’Axelle aide les pauvres. En fait, je le veux.
I wish Axelle would help the poor. In fact, I want

b. Je veux qu’Axelle aide les pauvres. En fait, je le voudrais.
I wish that Axelle help.SUBJ the poor in fact I it wantCOND

It could be that what we identified as the effect of conditionnel morphology is in fact an effect of weak modality. An analysis in terms of weak modality might go some way towards providing an explanation for
Interestingly, Portner 1997 has a system that deals with a problem with an identical shape. The generalization that certain clausal complements are sensitive to whether the embedding verb restricts the range of temporal orientation the complement can take was made and analyzed by him. It was not made to account for the distribution of PRPs in French but for the distribution of mood in English. Portner 1997 analyzes the distribution of English *that*-indicative complements as denoting propositions that cannot be embedded under predicates that limit their temporal orientation to the future. This leads him to develop a whole theory of mood and complementation to couch his analysis in. I now turn to exploring an account of embedded PRPs that takes this correlation at face-value and derives it from the interaction of embedded PRPs and the semantics of embedding verbs. This accounts takes the Past-reference / PRP complement correlation at face value and gives a treatment of embedded PRPs that directly encodes in their semantics that they can only appear as the complement of an embedding predicate that allows past-oriented complements.

In what follows, I sketch out Portner 1997’s account of mood in English, secondly I give more background on his theory, thirdly I give a ‘Portner-style’ analysis of embedded PRPs and finally I discuss the pros and cons of this kind of account.

the role of the conditional morphology in licensing embedded PRPs. Still one would have to explore what it is in the weak/strong modal alternation that embedded PRP licensing is sensitive to, in particular, what is the mechanism that changes the selectional requirement of the verb. This account also lacks generality: it says nothing of the reportative/directive or bouletic/non-bouletic alternations we saw earlier. It could of course be the case that these alternations have an explanation that is separate from the explanation for the effect of the conditionnel morphology. It would be however much more desirable to find conditioning factors that are as general as possible, especially in the face of the past-reference / PRP complement correlation.

22. Rajesh Bhatt (p.c.) points out to me that ‘the two problems are rather different - while mood arguably characterizes the entire clause; we don’t know that PRPs do’. Although mood and PRPs look like different phenomena, there is no clear argument to my knowledge that shows that they are actually different. In choosing to explore applying Portner’s analysis of mood to embedded PRPs in French, I am therefore suggesting that to the extent that mood characterizes the entire clause, so do PRPs.
4.2.3.1 Portner’s theory and analysis of mood in English and its relevance for French embedded PRPs

Consider the English examples in (145) taken from Portner 1997. The verb *ask* can take a *for*-infinitive complement (a) or a *that*-subjunctive complement but not a *that*-indicative complement (b). The verb *hope* behaves minimally differently: it can take a *for*-infinitive complement as well (c) but instead of a *that*-subjunctive complement, it takes a *that*-indicative complement (d).

(145)  

(a) I ask for Tom to be here at 5 pm.  
(b) I ask that Tom be/*is* here at 5pm.  
(c) I hope for Tom to be here at 5pm.  
(d) I hope that Tom is/*be* here at 5pm.

Portner develops a theory in order to give an analysis that aims to ‘find interpretations for the indicative and *for*-infinitive which allow an explanation of the data’ in (145). He leaves out *that*-subjunctive complements because, while he assumes that they do fall within the purview of his theory, he also assumes that they are subject to further distributional constraints that muddy the contribution of mood.23 He observes that verbs that cannot take a *that*-indicative complement such as *want* or *ask* are verbs that place a non-past temporal reference requirement on the interpretation of their complement. Interestingly, I independently arrived at a very similar conclusion concerning the distribution of embedded PRPs

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23. This is because, in particular, not every non-past oriented attitude verb has the option of embedded a *that*-subjunctive clause. For instance, while *ask* in (145) can embed either a *for*-complement of a *that*-subjunctive complement, *want* (i) and *say* can embed a *for*-complement but not a *that*-subjunctive one.

(i)  
(a) *I want* that Tom *be* here at 5pm.  
(b) I want for Tom to be here at 5pm.

Yet, Portner’s analysis alone predicts that *for*- and *that*-subjunctive complements are interchangeable. So he assumes that, additionally to constraints regulating mood, other constraints regulate the possibility of using *that*-complements and does not discuss *that*-subjunctive complements further.
in French: verbs that place a non-past temporal reference requirement on the interpretation of their complement cannot embed PRPs. This is summarized in table 4.3.

<table>
<thead>
<tr>
<th>Shape of CP</th>
<th>English</th>
<th>French</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>that-indicative</td>
<td>for-infinitive</td>
</tr>
<tr>
<td>$V_{+CP_{non-past}}$, e.g. <em>want</em> ‘vouloir’</td>
<td>✗</td>
<td>✓</td>
</tr>
<tr>
<td>$V_{+CP}$, e.g. <em>hope</em> ‘espérer’</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

Table 4.3: Distribution of *that indicative* CP in English and embedded PRPs in French

In his theory of complementation, Portner (1997) proposes a formal treatment of *for-infinitive* complements in English according to which they denote propositions limited to non-past situations – non-maximal situations in Portner’s terminology (see definition below) –, whereas *that*-indicative complements necessarily denote maximal propositions – sets of maximal situations in Portner’s terminology (see definition below). Furthermore, he analyzes embedding predicates as differing in whether they restrict the type of complement they can take or not: for instance, *want* (or *ask*) may only combine with a complement which denotes a set of non-past (non-maximal) situations whereas *hope* does not impose such restrictions on the set of situations its complement denotes. Accordingly, the reason why example (146b) with *want* is bad is that the *that*-indicative complement must denote a set of maximal situations whereas *want* requires a set of (non-maximal) non-past situations.24 The specific implementation of this analysis is given in the following sections.

(146) Examples adapted from Portner 1997, p. 183

a. James hopes/wants for Tom to arrive in Richmond soon.

b. James hopes/*wants that Tom arrives in Richmond soon.

24. To put it another way, maximal situations can represent both past and non-past situations but non-maximal situations can only represent non-past situations here. So *want* can only combine with non-maximal situations and *hope* can combine with both.
In the remainder of this section, I explain Portner’s analysis of the judgments in (146) and show how this treatment can be used to develop a lexical entry for embedded PRPs in French that directly captures the Past-reference / PRP complement correlation.

4.2.3.2 A Portner 1997 style analysis for embedded PRPs

4.2.3.2.1 Background on Portner’s framework

As already alluded to, Portner’s theory of complementation in English is couched in situation semantics (Kratzer 1989). This is crucial. In situation semantics, a proposition denotes a set of situations, i.e. spatio-temporal parts of worlds, and a world is thus a maximal situation. If a proposition denotes a set that contains only maximal situations (i.e. whole worlds), that proposition is said to be persistent (147).

(147) A proposition is persistent iff for every situation in the set it denotes, all its supersituations are also in the set.

Portner 1997 looks at non-persistent propositions, specifically the kind of non-persistent propositions called ‘outcomes’ in Ginzburg & Sag 2000: propositions which denote sets of (non-maximal) future situations. This is relevant for our current purposes because under a view where sentences differ in whether the sets they each denote contain maximal or non-maximal situations, (non-past oriented) want can be analyzed, as it is in Portner 1997, as selecting for precisely those sentences which denote sets of non-maximal situations that extend from the time of evaluation of want towards the future as opposed to selecting for sentences that denote sets of maximal situations or sets with both types of situations.

This section is dedicated to explaining why espérer ‘hope’, souhaiter, and vouloir ‘want’ behave differently with respect to embedded PRPs, I should therefore make precise the ideas presented above. Here again I assume Portner’s treatment of English hope and want applies to respectively espérer ‘hope’ and vouloir ‘want’. Portner assumes that

25. The verb souhaiter is discussed in the next section.
an agent $\alpha$ is always in a belief state and a desire state. Beliefs and desires are respectively represented as is usual with the use of accessibility relations $\text{Dox}_\alpha(w)$ and $\text{Bul}_\alpha(w)$ as defined in (148).

\begin{align*}
(148) \quad & \text{a. For any world } w, \text{Dox}_\alpha(w) = \{w' : \text{all of } \alpha \text{'s beliefs in } w \text{ are true in } w'\} \\
& \text{b. For any world } w, \text{Bul}_\alpha(w) = \{w' : w' \in \text{Dox}_\alpha(w) \text{ and } w' \text{ satisfies } \alpha \text{'s desires in } w \text{ at least as well as any other world in } \text{Dox}_\alpha(w)\}^{26}
\end{align*}

Following Lewis 1986 and Stalnaker 1987, Portner views an agent $\alpha$ as being disposed to act in ways which tend to reach one of the worlds in $\text{Bul}_\alpha(w)$, given the facts in the worlds in $\text{Dox}_\alpha(w)$. This leads to the conjecture that the agent conceives of a set of possibilities for how the world is $\neg\text{Dox}_\alpha(w)$, and, most importantly for Portner’s theory, has dispositions to follow courses of actions, or plans, which should rule out all but some subset of these possibilities – $\text{Bul}_\alpha(w)$ being this subset. Another crucial point that Portner makes is that doxastic alternatives are all spatio-temporally extensive whole worlds, i.e. ‘normal worlds’, and sets containing only normal worlds are ‘expandable’. This is defined in (149).

\begin{align*}
(149) \quad & \text{a. Normal worlds: Spatio-temporally extensive whole worlds, i.e. maximal situations (as opposed to odd worlds which are spatio-temporally truncated (necessarily non-maximal) situations)} \\
& \text{b. Expandable set: set which contains only normal worlds}
\end{align*}

Certain propositions are not expandable as they do not contain any whole worlds, this is the case for the denotation of $\text{for}$-complement of $\text{want}$ or $\text{ask}$. To allow for this, (148b) needs to be redefined as (150).

---

26. This predicts that a rational agent’s desire state cannot contain worlds which are incompatible with their beliefs. Portner acknowledges this prediction and chooses to ignore incompatible beliefs and desires for the sake of simplicity.
For any situation s, \( \text{Bul}_\alpha(s) = \{ w : w \in \text{Dox}_\alpha(s) \text{ and } \alpha \text{ most sucessfully carries out his/her plans in } s \} \)

According to Portner, rational agents have not just one overall buletic state, but a set of individual desires. Each desire is associated with a wanting situation and the sequence of actions leading up to reaching the situation where the desire is successfully realized is called the execution of a plan or simply ‘plan’.\(^{27}\) To implement this, the buletic accessibility relation \( \text{Bul}_\alpha \) is characterized in terms of an auxiliary function ‘\( \text{want}_{\alpha,b} \)’. The set ‘\( \text{want}_{\alpha,b}(s) \)’ is the set of plans which could satisfy \( \alpha \)’s wanting state \( s \), relative to the belief state \( b \) of \( \alpha \). A plan is modeled as a situation which follows the agent through a course of actions that ultimately results in the desired situation.

(151) For any wanting situation \( s \) of \( \alpha \) and belief state \( b \) of \( \alpha \),

\[
\text{want}_{\alpha,b}(s) = \text{the set of plans which would satisfy } \alpha \text{'s desire in } s, \text{ relative to his or her beliefs in } b = \\
\text{a. for some } w \in \text{Dox}_\alpha(b), s' \leq w, \text{ and} \\
\text{b. } s' \text{ begins with a dispositional counterpart } s'' \text{ of } s, \\
\text{c. } \alpha \text{ acts in } s' \text{ in ways which tend, given } \text{Dox}_\alpha(b), \text{ to bring it about that } s'' \text{ develops into } s', \text{ and} \\
\text{d. } \alpha \text{ is disposed in } s \text{ to act in those ways}
\]

To say that ‘\( s' \) begins with a dispositional counterpart \( s'' \) of \( s' \) is to say that in a situation where \( \alpha \)’s plan is carried out, \( \alpha \) begins with the same relevant dispositions as in \( s \), and \( s' \) and \( s'' \) are sufficiently close to playing the same roles in their respective worlds that they can be referred to as the ‘same situation’. This background now in place, I turn to deriving the acceptability patterns of embedded PRPs we saw before.

\(^{27}\) The issue of whether one must believe \( p \) or have control over \( p \) in order to want \( p \) is discussed in Portner 1997 but I do not discuss it here.
4.2.3.2 Analysis

I apply Portner’s analysis of the English indicative mood to embedded PRPs in French. Accordingly, (152B1) is unacceptable for the same reason that (152B2) is unacceptable.

(152) Context: A asks Tom’s mother whether he can come to her son’s birthday party.

A: Est-ce que Tom va venir?

is it that Tom goes come

_Is Tom coming?

B1: #Je veux que oui.

I want that yes

Int. I want him to go.

B2: *I want that he goes.

Following Portner, I assume that (152B1) has the meta-language translation in (153a) and the meaning in (153b)\textsuperscript{28}. I assume that embedded _oui_ translates to _PRP’_ which is interpreted as in (155).

\begin{align*}
(153) & \quad \text{a. } \text{want}_I'(\text{that}'(\text{C}(\text{PRP}(\text{Tom come}')))) \\
& \quad \text{b. } \left[\text{want}_I'(\text{that}'(\text{C}(\text{PRP}(\text{Tom come}'))))\right]^{r,F,R} = \\
& \quad \left[\text{that}(\text{C}(\text{PRP}(\text{Tom come}'))))\right]^{r,F,R}(\text{<NEC, want}_I,b) = \\
& \quad \left[\text{C}(\text{PRP}(\text{Tom come}'))\right]^{r,NEC,\text{want}_I,b} = \\
& \quad \{ s: \text{want}_I,b(s) \subseteq \left[\text{PRP}(\text{Tom come})\right]^{s,NEC,\text{want}_I, b} \}
\end{align*}

Let us see how this meaning is obtained (154). As in Portner 1997, the operator C takes a proposition as its argument and modalizes it by giving it a modal force \( F \) and a modal context (modal base) \( R \). The complementizer _que_ relativizes the embedded clause to those two parameters yielding a function of type \(<m, <s,t>>\)\textsuperscript{29} from modal parameters to

\textsuperscript{28} I thank Paul Portner (p.c.) for responding to my clarification e-mail.
propositions. The denotation of the attitude verb, here *vouloir* ‘want’, applies this function to the pair <NEC, Dox₁>.

(154) a. For any ψ, que PRP ψ translates as: that(C(p)), where p is the translation of ψ.

b. For any of type <m,<s, t>>²⁹, reference situation r, modal force F, and modal context R,
\[
\llbracket\text{want}^α(q)\rrbracket^{r,F,R} = \llbracket q \rrbracket^{r,F,R}(\text{<NEC, want}_α,b>)
\]

c. For any φ of type <s,t>, reference situation r, modal force F, and modal context R, \(\llbracket\text{that}(\phi)\rrbracket^{r,F,R} = \text{that function } f \in D_{<m,<s,t>>} \text{ such that for any pair of a modal force } F' \text{ and a modal context } R', f(\text{<F', R'>}) = \llbracket q \rrbracket^{r,F',R'}\).

d. For any φ of type <s,t>, reference situation r, and modal context R,
\[
\llbracket C(\phi) \rrbracket^{r,NEC,R} = NEC_R(\llbracket \phi \rrbracket^{s,NEC,R}) = \{ s: R(s) \subseteq \llbracket \phi \rrbracket^{s,NEC,R} \}
\]

The restrictions on the use of embedded PRPs in French can be stated as in (155).

(155) Restrictions on PRP-marked (elided) clauses

a. For any PRP-marked (elided) clause φ with translation p, reference situation r, modal force F, and modal context R,
\[
\llbracket \text{PRP}(p) \rrbracket^{r,F,R} \text{ is only defined if } R \text{ is prototypically expandable}
\]

b. The modal context R associated with a verb V is prototypically expandable if it has the following property: for typical situations s in the domain of R, R(s) contains only normal worlds.

29. <s,t> is the type of a proposition, <m,<s,t>> is the type of expressions which denote functions from modal parameters (modal force F and context R) to propositions. Portner uses <s,t> instead of <m, <s,t>> but defines <t> as the type of expressions that denote propositions and <s,t> as the type of expressions which denote functions from modal parameters to propositions.
c. For any reference situation $r$, modal force $F$, modal context $R$, and proposition $p$

when defined, $\llbracket \text{PRP}(p) \rrbracket_{r,F,R} = \{ s : \text{for some } s' \leq s, s' \in \llbracket p \rrbracket_{r,F,R} \}$

The issue with example (152B1) is thus that the presupposition of the PRP is not met: vouloir ‘want’ provides a modal context, want$_{I,b}$, that contains only (future) non-maximal situations since they are all plans beginning with $s$. But the use of embedded PRPs is felicitous only if the clause they are in denotes a set of full maximal situations. By contrast, verbs which contribute a normal extendable modal base such as penser ‘think’ are correctly predicted to be compatible with embedded PRPs (156a).

(156) a. Je pense que oui.

I think that yes

$I$ think that he will come.

b. believe’$_I$(that’(C(PRP(Tom come’))))

c. $\llbracket$believe’$_I$(that’(C(PRP(Tom come’))))$\rrbracket_{r,F,R} =$

$\llbracket$(that(C(PRP(Tom come))))$\rrbracket_{r,F,R}(<\text{NEC, Dox}_I>) =$

$\llbracket C$(PRP(Tom come))$\rrbracket_{r,\text{NEC},\text{Dox}_I} =$

$\{ s : \text{Dox}_I(s) \subseteq \llbracket \text{PRP}(\text{Tom come}) \rrbracket_{s,\text{NEC},\text{Dox}_I} \}$

The PRP-marked clause can be interpreted since its modal context contains maximal worlds.

How come espérer and souhaiter can embed PRPs? Again I follow Portner’s analysis of hope and assume that when espérer and souhaiter embed a PRP, the semantics is to be given directly in terms of the set of bletic alternatives (150), which is expandable, rather than in terms of plans (151).
This gives the same analysis of espérer ‘hope’ and souhaiter. It is plausible that they in fact have the same asserted content although one assigns indicative, the other subjunctive (but it is not clear that we should see too much in mood assignment where no optionality (i.e. alternation) is possible\(^{30}\)). I said ‘asserted content’ because there does seem to be a meaning difference although its precise nature eludes me.

(158) Que veux-tu pour Noël ?  
What do you want for Christmas?

a. *J’espère une voiture.\(^{32}\)  
   Int. I hope a car

b. J’espère une augmentation.  
   I hope a raise

c. Je souhaite une voiture.  
d. Je souhaite une augmentation.

30. There are cases where a verb can assign indicative or subjunctive to its complement and this has interpretive correlates. One example is the verbs we examined in the section on the reportative/directive alternation. Where no such alternation is possible, we cannot dismiss the hypothesis that lexicalization has occurred and the use of one or the other mood is no longer (semantically) motivated.

32. This is good if j’espère ‘I hope’ is interpreted as a parenthetical as in (i) where the word-order makes it more obvious.
4.2.3.3 Difficulties for such an account

If we import Portner’s treatment of English desire verbs and *that*-indicative complements to French desire verbs and *que*-PRP complements, and give embedded PRPs the same kind of meaning that Portner gives to *that*-indicative complements (modulo the specific contribution of each embedded PRP), we derive the unacceptability of the sequence *vouloir que PRP* ‘want that PRP’. Crucially, such an analysis of the meaning of PRPs makes the claim that a *que*-PRP complement may never denote a set of less than maximal situations (i.e. the PRP ‘marks’ the constituent it heads as denoting a set of maximal situations). It is not clear to me how to test this other than by making sure that every verb that imposes a restricted temporal orientation on its complement complies with the prediction of this account: that it cannot embed PRPs. In particular, this account predicts that any kind of temporal restriction imposed by the embedding verb onto its complement should be fatal for embedded PRPs. As was discussed earlier, verbs that can embed *que* (i.e. finite) complements and that impose a temporal orientation requirement other than a non-past one have yet to be found.

Since the account I proposed for French embedded PRPs is modeled after the account Portner proposed to account for the distribution of mood in English, it is appropriate to wonder whether this account can be right for those two different phenomena. I do not have an answer to this question but I would like to dismiss a possible mistaken interpretation of what I just did. One might think that adopting Portner’s account to account for the distribution of embedded PRPs makes us run into the same problem that Rowlett’s proposal runs into: that PRPs may only be used in lieu of sentences whose main verb is in the indicative mood, which is not accurate. But this would be wrong, at least without any

(i) Une voiture j’espère.  
A car I hope.
further argumentation. There is I believe good reason not to see the English indicative and the French indicative as coextensive. In particular, the notion of non-persistence does not pick out only subjunctive clauses in French since e.g. *souhaiter* selects for the subjunctive mood but does not impose time restrictions on the interpretation of its complement (which therefore denotes a persistent proposition).

Last but not least of the shortcomings of this account is that it has nothing to say about why adding conditional morphology makes PRP embedding acceptable under verbs under which it would be otherwise unacceptable e.g. *vouloir* ‘want’. Given Portner’s analysis of *want*, this means that conditional morphology changes its selectional requirement and, given current assumptions of how predicates select for their complement clause, this is not possible.

4.2.4 Conclusion

In this section, I have shown that the distribution of embedded PRPs is predicted (in part) by the temporal orientation requirements of the embedding predicate: if a predicate requires its complement to be non-past oriented, it cannot embed a PRP. I have discussed two possible sources for this correlation: weak/strong modality and directly encoding in the semantics of PRPs that they cannot be selected by a predicate whose temporal orientation is non-past. Next, I turn to another property that regulates the distribution of embedded PRPs: polarity.

4.3 Embedded polar response particles are PPIs

4.3.1 Introduction

We saw above that the acceptability conditions on the embeddability of *oui*, *non*, and *si* are such that PRPs are not embeddable under every attitude verb that they could potentially be embedded under. In this section, I show that embedded PRPs in European French care about the polarity of their environment (159) in a way that looks very similar to the way
items like *some* or *would rather* in English care about the polarity of their environment (160): *que PRP* and *something/would rather* cannot be in the immediate semantic scope of negation as the unacceptability of (159B2) and (160b,d) shows.

(159) Embedded PRPs cannot be in the semantic scope of negation

A: Est-ce qu’elle est là ?

is it that she is here

*Is she here?*

B1: Je pense que oui / non. B2: *Je ne pense pas que oui / non.*

I think that yes no I NEG think NEG that yes no

*I think that she is / she isn’t.* *Int. I don’t think that she is / she isn’t.*

(160) *some, would rather* cannot be in the semantic scope of negation

a. Alexandra bought something.

b. *Alexandra didn’t buy something. (*neg ⟷ something)*

33.

c. I would rather go to the movies than to the bowling alley.

d. *I wouldn’t rather go to the movies than to the bowling alley.*

The items *some* and *would rather* are part of the class of lexical items known as Positive Polarity Items (Szabolcsi 2004). I show that embedded PRPs in French belong to that class as well.

PRPs can respond to questions and to assertions and so far the phenomena I have discussed are common to both. In discussing PRPs as PPIs though, we need to look at both cases in turn because there are differences: the set of environments in which PRPs can be

33. The asterisk is meant to indicate that this example is unacceptable under the reading where *some* is interpreted in the semantic scope of negation.
embedded in response to questions is a strict superset of the set of environment in which embedded PRPs can respond to an assertion (161).

(161) PPIhood of PRPs as a function of the illocutionary force of their antecedent

If, in a discourse D, a PRP in an utterance $U_{PRP}$ is felicitous in response to an assertion, then $U_{PRP}$ is felicitous in a discourse $D'$ as a response to a question.

In this section I only discuss the more general case where PRPs respond to a question. This includes cases where PRPs are used to answer direct polar questions or indirect ones.

The answer can then be given by another speaker (in a dialogue) or coordinated to the indirect question. I show that embedded PRP responses to questions are PPIs in several stages. In section 4.3.2 I show that their distribution is sensitive to three restrictions that PPIs are known to be sensitive to. In section 4.3.3 I examine more closely how strong they are. In section 4.3.4, I show that oui/non and si differ in the locality of their sensitivity to anti-licensing. Finally in section 4.3.5, I discuss examples that seem to contradict the claim that they are PPIs and show that those examples are in fact not problematic for the claim.

### 4.3.2 Embedded PRPs are PPIs

An important idea that arose in 1970s (Fauconnier 1975; 1978; Ladusaw 1979; 1980) is that NPIs must be in the scope of expressions that reverse the direction of entailment of their argument. Since these arguments can be of different types, I define a trans-categorial notion of entailment in (162).

(162) Trans-categorial entailment (⇒) (Homer 2011)

a. For $p, q$ of type <t>: $p \Rightarrow q$ iff $p = 0$ or $q = 1$.

b. For $f, g$ of type $<\sigma, t>$: $f \Rightarrow g$ iff for all $x$ of type $\sigma$: $f(x) \Rightarrow g(x)$.

This definition makes it possible to define downward-entailingness (163).

34. See chapter 5 for polarity conditions on responses to assertions
A function $f$ of type $\langle \sigma, t \rangle$ is downward-entailing (DE) iff for all $x, y$ of type $\sigma$ such that $x \Rightarrow y$: $f(y) \Rightarrow f(x)$.

Let me illustrate with one such DE function: negation. Clausal negation in French is DE because it reverses the direction of the entailment of its argument (164): *Tom bought a red car* asymmetrically entails that *Tom bought a car*, however *Tom didn’t buy a car* asymmetrically entails *Tom didn’t buy a red car*.

(164) Tom did not buy a car.

LF: not(Tom bought a car)

a. $\llbracket$ Tom bought a red car $\rrbracket$ $\Rightarrow$ $\llbracket$ Tom bought a car $\rrbracket$

b. $\llbracket$ not(Tom bought a red car) $\rrbracket$ $\Leftarrow$ $\llbracket$ not(Tom bought a car) $\rrbracket$

Let me emphasize that my claim/observation is not that PRPs are PPIs but that embedded PRPs are PPIs. In other words, I look at the polarity of the environment where the sequence *que PRP* is. From an analytical point of view, this means that the PPIhood of embedded PRPs could be due to the lexical semantics of PRPs themselves but it could also be due to functional material covertly present in the structure above the PRPs. Whatever the analysis, the description remains that it is the whole sequence *que PRP* that is a PPI.\(^\text{35}\)

In what follows, I show that embedded *oui, non*, and *si* have similar limitations on their distribution as PPIs do (Szabolcsi 2004) by showing (i) that they are sensitive to flip-flop (a.k.a. rescuing), (ii) that *oui* and *non* are insensitive to the presence of a super-ordinate negation \(^\text{36}\), and (iii) that PRPs are sensitive to intervention and can be shielded.

\(^{35}\) I thank Hamida Demirdache (p.c.) for raising this point.

\(^{36}\) This does not apply to embedded *si*. The sensitivity of embedded *si* to a super-ordinate negation is discussed in section 4.3.4.
4.3.2.1 Flip-flop

Consider the PRP responses in (165): in (B2) and (B3), *que oui* is in the immediate scope of a DE operator\(^{37}\) and this is why the examples are not acceptable. But note that although *que oui* is still in the immediate scope of *improbable* in (B4), it is acceptable because *improbable* itself is in the immediate scope of negation.

(165) A: Est -ce que M. Paul va beaucoup influencer le débat politique après cette interview ?
Will Mr. Paul have much influence on the political debate after this interview?

B1: Il est probable que oui.
It is probable that yes

B3: #Il n’est pas probable que oui.
It NEG is NEG probable that yes

**It’s probable that he will.**

Int. It’s not probable that he will.

B4: Il n’est pas improbable que oui.
It NEG is NEG improbable that yes

B2: #Il est improbable que oui.
It is improbable that yes

**Int. It’s improbable that he will.**

It’s not improbable that he will.

\(^{37}\) The prefix *-im* in French is DE like its English counterpart because it reverses the direction of the entailment (i) like clausal negation\(^{38}\).

(i) It’s impossible that Tom bought a car.
LF: im(possible(Tom bought a car))
\[
\begin{align*}
a. & \iff \text{possible(Tom bought a red car)} \Rightarrow \text{possible(Tom bought a car)} \\
b. & \iff \text{im(possible(Tom bought a red car))} \Leftarrow \text{im(possible(Tom bought a car))}
\end{align*}
\]
Thus, in response to a question, embedded *oui* (and *non* and *si*) do not occur within the immediate scope of a DE operator unless this DE operator is itself within the scope of a DE operator.

This is exactly parallel to what happens with *quelque chose* ‘something’: in (166B1), *quelque chose* ‘something’ is not in the scope of a DE operator so it is not anti-licensed. Examples (166B2) and (166B3) however are not acceptable since *quelque chose* ‘something’ is in the immediate scope of negation and, just as we saw with *oui* in (165B4), (166B4) is acceptable because the DE operator that anti-licenses *quelque chose* ‘something’ in the embedded clause – clausal negation – is itself in the immediate scope of clausal negation.

(166) B1: Il a acheté quelque chose.
    he has bought some thing

    *He has bought something.*

    B2: #Il n’ a pas acheté quelque chose.
    he NEG has NEG bought some thing

    *Int. He has bought nothing.*

    B3: #Il est probable qu’ il n’ ait pas acheté quelque chose.
    it is probable that he NEG have.SUBJ NEG bought some thing

    *Int. It’s probable that he has bought nothing.*

    B4: Il n’ est pas probable qu’ il n’ ait pas acheté quelque chose.
    it NEG is NEG probable that he NEG have.SUBJ NEG bought some thing

    *It’s not probable that he has bought nothing.*

It will be useful to have a word to refer to the licensing of an otherwise anti-licensed PPI. I use the already coined term flip-flop (a.k.a. rescuing) (167).

(167) Flip-flop (adapted from Homer 2011)

    A case of flip-flop, as applied to PPI licensing, is a case where the addition of
a downward-entailing expression licenses a PPI which would be anti-licensed without it.

Flip-flop can also be seen with verbs that are intrinsically negative (i.e. verbs which reverse the entailments that hold of their complement). The verb nier ‘deny’ is a DE operator as (168) shows.

(168) nier ‘deny’ is DE

a. \[\llbracket (iii) \rrbracket \Rightarrow \llbracket (i) \rrbracket\]
   
   (i) Tom a acheté une voiture rouge.
   
   Tom has bought a car red
   
   *Tom bought a red car.*
   
   (ii) Tom a acheté une voiture.
   
   Tom has bought a car
   
   *Tom bought a car.*
   
   b. \[\llbracket \text{nier}(ii) \rrbracket \Leftarrow \llbracket \text{nier}(i) \rrbracket\]
   
   (iii) Il nie qu’ il a acheté une voiture rouge.
   
   he denies that he has bought a car red
   
   *He denies that he bought a red car.*
   
   (iv) Il nie qu’ il a acheté une voiture.
   
   he denies that he has bought a car
   
   *He denies that he bought a car.*

In (169B1), *que oui* is in the immediate scope of DE nier ‘deny’ and the resulting construction is not acceptable, but putting nier ‘deny’ itself in the immediate scope of negation makes the construction acceptable (169B2).
(169) A: Est-ce qu’il a tué Mme Martin ?

is it that he has killed Mrs Martin

*Did he kill Mrs Martin?*

B1: *Il nie que oui.*

he denies that yes

*Int. He denies it.*

B2: Il ne nie pas que oui.

he NEG denies NEG that yes

*He does not deny it.*

This section has shown that embedded bare PRPs are sensitive to flip-flop like *quelque chose* ‘something’. Since this is one of the reason for calling *quelque chose* ‘something’ a Positive Polarity Item, we might extend this terminology to embedded PRPs in French.39

4.3.2.2 No anti-licensing by a superordinate anti-licensing expression

PPIs are typically not anti-licensed by non-local negation. For instance, in (170b), *quelque chose* ‘something’ is not anti-licensed when the negation is farther (on the matrix predicate here).

(170) a. *Il n’a pas acheté quelque chose.*

he NEG has NEG bought some thing

*Int. He has bought nothing.*

b. Il n’est pas probable qu’il ait acheté quelque chose.

it NEG is NEG probable that he have.SUBJ bought some thing

*It’s not probable that he has bought something.*

---

39. I am not claiming that embedded PRPs are exactly the same kind of PPI as *quelque chose* ‘something’. As was pointed out in Szabolcsi 2004 the class of PPIs is far from being homogeneous and I am just claiming that embedded PRPs are a kind of PPI, whatever this kind turns out to be. I am also not claiming that arguing that an item is a PPI provides an analysis of that item, I am using the word PPI in a purely descriptive way.
Likewise with embedded *oui* and *non*, adding a negation outside the clause in which *que oui* is contained does not result in anti-licensing (cf. 171B1 and B2).  

(171) A: Est-ce que M. Paul va beaucoup influencer le débat politique après cette interview?

Is it that Mr. Paul goes much influence the debate political after this interview?

*Will Mr. Paul have much influence on the political debate after this interview?*

B1: *On peut dire qu’il n’est pas probable que oui étant donné les révélations destructrices parues récemment.*

One can say that it's not probable given the destructive revelations that were recently made.

B2: On ne peut pas dire qu’il est probable que oui étant donné les révélations destructrices parues récemment.

One cannot say that it’s probable given the destructive revelations that were recently made.

Example (172B) is another case where *que oui* is in the scope of negation but it is too far to be anti-licensed by it (i.e. *que oui* is separated from negation by a clause boundary: [NEG pouvoir [TP répondre que oui ] ]).

---

40. For reasons explained later in section 4.3.4, this claim does not apply to embedded *si.*
(172) A: Est-ce que tu as déjà été amoureuse ?

is it that you have already been in love

Have you already been in love?

B: Bah, même s’il y a eu Jérémie qui a ‘compté’ à sa façon, je

well even if it there has been Jérémie who has counted to his way I

ne peux pas répondre que oui ... De toute façon, dans l’état actuel des

neg can neg reply that yes ... Anyway in the way current of the

 choses, c’est mieux ainsi.

things it is better thus

Well even if Jeremie counted in a way, I cannot say that I have. Anyway, given the

way things are, it’s better like that.

Here again, embedded PRPs behave like the well-known PPI quelque chose ‘some-

thing’. This is expected if embedded PRPs are PPIs.

4.3.2.3 Shielding/Intervention

Another diagnostic of PPIs is that they can be shielded from anti-licensors by certain

elements - though the class of shielders is not the same as with Szabolcsi 2004’s PPIs.

4.3.2.3.1 Cognitive factives vs. other factives

PRPs are acceptable under negated cognitive factive verbs like savoir ‘know’ (173) and

être au courant ‘be aware’.
Il m’a demandé si je pensais que l’entreprise allait fermer et c’est là que je me suis rendu compte que les employés ne savaient pas que les employés ne savaient pas que oui.

*He asked me if I thought that the company was going to close and then I realized that the employees did not know that it was going to close.*

The PRP *si* is also possible (174).

Il m’a demandé si je pensais que l'entreprise n'allait pas fermer et c’est là que je me suis rendu compte que les employés ne savaient pas que *si.*

*He asked me if I thought that the company was going to close and then I realized that the employees did not know that it was going to close.*
As Homer 2011 shows, if we take the factive presupposition into account, cognitive factives are not DE (and therefore not AA)\(^{41}\), it therefore follows that they do not license NPIs (cf. 175a and b) and do not anti-license embedded PRPs\(^{42}\).

\[(175)\]

a. *Les employés ne savaient pas qu' il avait signé quoi que ce soit.

the employees \textit{neg} knew \textit{neg} that he had signed anything

\textit{Int. The employees didn’t know that he had signed something.}

b. Les employés ne pensaient pas qu’ il avait signé quoi que ce soit.

the employees \textit{neg} thought \textit{neg} that he had signed

\textit{The employees didn’t think that he had signed anything.}

\[\]

\(^{41}\) The embedded clause in (ib) asymmetrically entails the embedded clause in (ia) however (ia) does not entail (ib).

(i) a. Les employés ne savaient pas qu’ il avait signé un contrat.

the employees \textit{neg} knew \textit{neg} that he had signed a contract

\textit{The employees didn’t know that he had signed a contract.}

b. Les employés ne savaient pas qu’ il avait signé un contrat de vente.

the employees \textit{neg} knew \textit{neg} that he had signed a contract of sale

\textit{The employees didn’t know that he had signed a sales contract.}

If we take the presupposition of the \textit{ne pas savoir} ‘not know’ in (i) into account, the denotation of (ia) is as in (iia) and that of (ib) is as in (iib).

(ii) a. \[[ia]=

\textit{Assertive content: The employees did not have the belief that he had signed a contract.}

\textit{Presuppositional content: He signed a contract.}

b. \[[ib]=

\textit{Assertive content: The employees did not have the belief that he had signed a sales contract.}

\textit{Presuppositional content: He signed a sales contract.}

While the assertive content of (ia) does entail the assertive content of (ib), the presuppositional content of (ia) does not entail the presuppositional content of (ib), therefore the full denotation of (ia) does not entail the full denotation of (ib) so \textit{ne pas savoir} does not reverse the inferences in its complement.

\(^{42}\) One might object that the narrow-scope interpretation of (i) is bad and \textit{ne pas savoir} ‘not know’ does anti-license PPIs.

(i)# Il ne savait pas quelque chose.

\textit{he \textit{neg} knew \textit{neg} something}

\textit{Int. He didn’t know anything.}

I would argue that this use of \textit{(ne pas) savoir} ‘(not) know’ is not factive. Since \textit{quelque chose} ‘something’ is in the immediate scope of a DE expression – negation – it is anti-licensed.
Here again, if embedded PRPs are PPIs, the fact that cognitive factives ‘intervene’ between the anti-licensor and the embedded PRPs follows.

4.3.2.3.2 A note on douter ‘doubt’

The verb *douter* ‘doubt’ gives rise to variation in judgments. My intuition accords with Authier 2013 in that *oui* and *non* can be embedded under *douter* ‘doubt’ but some people do not accept those constructions (I represent the variation with %) as shown in (176).

(176) A: Est-ce que Tom a aimé ?
    is it that Tom has liked
    Did Tom appreciate?

B1: % Je doute que oui.
    I doubt that yes
    I doubt that he did.

B2: % Je doute que non.
    I doubt that non

According to the generalization we have been entertaining, it is in fact surprising that embedded *oui* and *non* are at all acceptable with *douter* ‘doubt’ if *douter* ‘doubt’ is AA as it is most often judged to be (Dialect A in 177). I say ‘most often’ because for some speakers, including me, an interpretation of *douter* ‘doubt’ as merely DE seems to be possible (Dialect B in 177).

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43. Of course, if *douter* ‘doubt’ is itself in the scope of a DE operator, PRPs can be embedded.

(i) A: Est-ce que Tom a aimé ?
    is it that Tom has liked
    Did Tom appreciate?

B1: Je ne doute pas que oui.
    I neg doubt neg that yes
    I don’t doubt that he did.

B2: Je ne doute pas que non.
    I neg doubt neg that no
    I don’t doubt that he didn’t.
(177) Dialect A: *douter* ‘doubt’ is AA: $douter(A \lor B) \iff douter(A) \land douter(B)$

Dialect B: *douter* ‘doubt’ is DE: $douter(A \lor B) \Rightarrow douter(A) \land douter(B)$

\[
douter(A \lor B) \neq douter(A) \land douter(B)
\]

a. $douter(A \lor B)$

Aurélien doute qu’il fume ou qu’il boive.

Aurélien doubts that he smoke.SUBJ or that he drink.SUBJ

*Aurélien doubts that he smokes or that he drinks.*

b. $douter(A) \land douter(B)$

Aurélien doute qu’il fume et il doute qu’il boive.

Aurélien doubts that he smoke.SUBJ and he doubt that he drink.SUBJ

*Aurélien doubts that he smokes and he doubts that he drinks.*

I would like to propose the following hypothesis: speakers who find *oui* and *non* acceptable under *douter* can access a reading of *douter* ‘doubt’ where it is just DE and not AA, a reading basically synonymous with *ne pas être sûr* ‘not be sure’.\(^{44}\) I assume that this is because in this case *douter que* p like *ne pas être sûr que* p gives rise to an implicature

\(^{44}\) That some people may be able to interpret *douter* as less negative than others is, I think, all the more plausible because *douter* is very close morphologically to verbs which are not negative at all, e.g. *se douter* ‘think’, *avoir des doutes* ‘have doubts’. It seems therefore plausible that certain speakers’ ‘definition’ of *douter* takes on some of the values of these other predicates. Furthermore, perhaps another indication that it can be interpreted ‘less negatively’ is that *douter* marginally takes complements headed by *si* ‘if’ (ia) in which case the meaning of *douter* is very close to that of *ne pas être sûr* with a *si* headed complement (ib) – see Littré 1873-1874 for instance.

(i) Variability in the interpretation of *douter* ‘doubt’ hypothesis

a. Je doute si je serai en mesure d’accomplir ma promesse.

I doubt if I be.FUT in position to fulfil my promise

*I doubt whether I’ll be in a position to fulfil my promise.*

b. Je ne suis pas sûr si je serai en mesure d’accomplir ma promesse.
that the attitude holder has some belief that \( p \) is the case. This hypothesis is formulated in (178).45

(178) Hypothesis: embeddability of oui/non under douter is correlated with its negativity

a. douter ‘doubt’ is interpreted as AA ⇔ douter que oui/non is \( \times \)
b. douter ‘doubt’ is interpreted as DE ⇔ douter que oui/non is \( \checkmark \)

We have been looking at embedded oui/non and here there is variation. But if we consider si whose specific distribution we will turn to in the next section, we see that one judgment that is constant across informants though is that si in the complement of douter ‘doubt’ is not accepted46: (179B1) contrasts, at least for some speakers, with (179B2). I show later that this unacceptability is consistent with the overall requirements of si.

(179) A: Est-ce que Tom n’ a pas aimé du tout ?

is it that Tom NEG has NEG liked at all

Did Tom not appreciate at all?

B1: *Je doute que si.

I doubt that yes

Int. I doubt that he did.

B2: %Je doute que non.

I doubt that non

I don’t doubt that he didn’t.

45. The extent to which this hypothesis is accurate should be investigated further. Vincent Homer (p.c.) tells me that he accepts embedded oui/non under douter ‘doubt’ with the AA reading of douter ‘doubt’. If the variability in the interpretation of douter ‘doubt’ hypothesis turned out to be wrong, the challenge would be to explain why oui and non are not anti-licensed in the scope of the specific AA operator douter ‘doubt’.

46. Here again, if douter ‘doubt’ is negated, si/non can be embedded.

(i) A: Est-ce que Tom n’ a pas aimé du tout ?

is it that Tom NEG has NEG liked at all

Did Tom not appreciate at all?

B1: Je ne doute pas que si.

I NEG doubt NEG that SI

I don’t doubt that he did.

B2: Je ne doute pas que non.

I NEG doubt NEG that no

I don’t doubt that he did not.
In summary, the distribution of embedded PRPs is sensitive to three restrictions that the distribution of other PPIs like *quelqu’un* ‘someone’ is sensitive to: sensitivity to flip-flop, insensitivity to extra-clausal negation, and sensitivity to shielding. It is therefore plausible that embedded PRPs are PPIs. However, I am not saying that embedded PRPs are necessarily the same kind of PPIs as *quelqu’un* ‘someone’, in fact there are many places where their distributions differ (for instance, the set of implications (shielding) or presuppositions (intervention) that disrupt the anti-licensing of embedded PRPs is not the same as for say *quelque chose* ‘something’). It would be useful to compare the distribution of embedded PRPs in French to that of other PPIs like *quelque chose* ‘something’ in details in order to know where French embedded PRPs stand in a typology of PPIs. I leave this for later. For now, I content myself with giving a description of the distribution of embedded PRPs in terms of the strength of the DE operator whose scope they can be in. I turn to this now.

4.3.3 PRPs differ in strength

I have shown that PRPs can be classified as being PPIs, however not all PPIs behave the same way. One parameter according to which they differ is the size of the set of DE anti-licensing expressions they tolerate being in the scope of. Zwarts (1998) identifies three type of NPIs which he calls ‘weak’, ‘strong’, and ‘superstrong’. Such environments are created by entailment-reversing operators of four different types: downward-entailing (180), anti-additive (181), anti-multiplicative (182), and anti-morphic (183).

(180) Downward-Entailingness (DE)

A function $f$ of type $<\sigma, t>$ is downward-entailing (DE) iff for all $x, y$ of type $\sigma$ such that $x \Rightarrow y$: $f(y) \Rightarrow f(x)$.

(181) Anti-Additivity (AA)

A function $f$ is Anti-Additive (AA) iff $f(A \lor B) \Leftrightarrow f(A) \land f(B)$
(182) Anti-Multiplicativity (AMu)
A function $f$ is Anti-Multiplicative (AMu) iff $f(A \land B) \iff f(A) \lor f(B)$

(183) Anti-Morphicity (AM)
A function $f$ is Anti-Morphic (AM) iff

a. (AA) $f(A \lor B) \iff f(A) \land f(B)$, and

b. (AMu) $f(A \land B) \iff f(A) \lor f(B)$

The PRPs *oui/non* and *si* are all PPIs as we saw before but *si* is in fact felicitous only in a subset of the environments where *oui/non* are felicitous. We will see that DE functions anti-license *si* but not *oui/non*. In fact, *oui/non* are only anti-licensed by AA operators.

4.3.3.1 *oui/non* are anti-licensed by AA operators

The generalization I want to put forward is that *oui/non* are anti-licensed by AA operators, which entails that they are also anti-licensed by AM operators but not by DE operators. So far most of the examples of anti-licensed *oui/non* I have given are under AM operators (e.g. clausal negation). Let me convince you that AA is the right property with the verb *nier* ‘deny’. According to the definitions above, *nier* ‘deny’ is not AM because it is not AMu ($nier(A) \lor nier(B) \neq \Rightarrow nier(A \land B)$), but it is AA as examples (184) and (185) show. (The predicate *refuser* ‘refuse’ behaves the same.)

(184) *nier* ‘deny’ is AA: $nier(A \lor B) \iff nier(A) \land nier(B)$

a.  

\[nier(A \lor B)\]

Aurélien nie qu’il fume ou qu’il boit.

Aurélien denies that he smokes or that he drinks

\[Aurélien\ deny\ he\ smokes\ or\ that\ he\ drinks.\]
b. \( \text{nier}(A) \land \text{nier}(B) \)

Aurélien nie qu’il fume et il nie qu’il boit.

Aurélien denies that he smokes and he denies that he drinks

Aurélien denies that he smokes and he denies that he drinks.

(185) nier ‘deny’ is not AMu: \( \text{nier}(A \land B) \not\iff \text{nier}(A) \lor \text{nier}(B) \)

a. \( \text{nier}(A \land B) \)

Aurélien nie qu’il fume et qu’il boit.

Aurélien denies that he smokes and that he drinks

Aurélien denies that he smokes and that he drinks.

b. \( \text{nier}(A) \lor \text{nier}(B) \)

Aurélien nie qu’il fume ou il nie qu’il boit.

Aurélien denies that he smokes or he denies that he drinks

Aurélien denies that he smokes or he denies that he drinks.

The verb nier ‘deny’ is AA but not AM and it anti-licenses oui/non (186a). Note that once negated (flip-flop), it is acceptable (186b).

(186)

a. #Mon père se demande si c’est bien Thomas qui a cassé sa montre car celui-ci nie que oui.

Int. My father wonders if it’s indeed Thomas who broke his watch because he denies that yes

b. #Mon père se demande si c’est bien Thomas qui a cassé sa montre car celui-ci nie que oui.

Int. My father wonders if it’s indeed Thomas who broke his watch because he denies that he did.
b. Mon père se demande si c’est bien Thomas qui a cassé sa montre car celui-ci ne nie pas que oui.

My father wonders if it’s indeed Thomas who broke his watch because he does not deny that he did.

Example (187B1) shows that *que oui* is good under the DE expression *peu probable* ‘not very probable’\(^{47}\).

\[(187)\]

A: Est-ce que Paul a sali la veste que je lui ai prêtée ?

*Is it that Paul has dirtied the blazer that I have lent*.

*Has Paul dirtied the blazer that I lent him?*

B1: Il est peu probable que oui.

*It is little probable that yes*.

*It is not very probable that he has.*

B2: #Il n’est pas probable que oui.

*it NEG is NEG probable that yes*

*Int. It is not probable that he has.*

The generalization also captures that *oui* and *non* are acceptable under *ne pas être sûr* ‘not be sure’ (188) since this predicate is DE (189) but not AA (190) because *ne pas être sûr*(A \lor B) \neq *ne pas être sûr*(A) \land *ne pas être sûr*(B).

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\(^{47}\) Rowlett 2007, p. 150 reports that *oui* embedded under *peu probable* ‘lit. little probable’ is as unacceptable as *oui* embedded under *impossible* ‘impossible’. My judgments are quite different: as I report, my informants (and I) find the former much more acceptable than the latter.
(188) a: Marie lui a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si 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vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment venir et il a demandé si Brigitte voulait vraiment 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Here I detail how I diagnosed that ne pas être sûr ‘not be sure’ is DE (and not AA). First note that if the proposition ‘Tom bought a red car’ in (189ai) is true, it follows that the proposition ‘he bought a car’ in (189aii) is true too while the reverse does not necessarily hold. However, once these propositions are embedded under ne pas être sûr ‘not be sure’, the entailment goes in the following direction: if the proposition ‘I’m not sure that Tom bought a car’ is true, then the proposition ‘I’m not sure that Tom bought a red car’ must be true (while the reverse does not necessarily hold).

(189) ne pas être sûr ‘not be sure’ is DE
a: \[ (i) \Rightarrow (ii) \]

(i) Tom a acheté une voiture rouge.

Tom has bought a red car

**Tom bought a red car.**

(ii) Tom a acheté une voiture.

Tom has bought a car

**Tom bought a car.**

b: \[ \text{Je ne suis pas sûr que (i)} \Leftrightarrow \text{Je ne suis pas sûr que (ii)} \]

(iii) Je ne suis pas sûr que [ Tom a acheté une voiture rouge ](i).

I am not sure that Tom has bought a red car

**I'm not sure that Tom bought a red car.**

(iv) Je ne suis pas sûr que [ Tom a acheté une voiture ](ii).

I am not sure that Tom has bought a car

**I'm not sure that Tom bought a car.**

However *ne pas être sûr* ‘not be sure’ is not AA because if the proposition ‘I’m not sure that he smokes and I’m not sure that he drinks’ is true, it is possible/consistent for the proposition ‘I’m sure that he smokes or drinks’ to be true too (i.e. *ne pas être sûr*(A ∨ B) \(\not\equiv\) *ne pas être sûr*(A) ∧ *ne pas être sûr*(B)).

(190) *ne pas être sûr* ‘not be sure’ is not AA: *ne pas être sûr*(A ∨ B) \(\not\equiv\) *ne pas être sûr*(A) ∧ *ne pas être sûr*(B)

a: *ne pas être sûr*(A ∨ B)

Aurélien n’est pas sûr qu’il fume ou qu’il boive.

Aurélien NEG is NEG sure that he smoke.SUBJ or that he drink.SUBJ

**Aurélien is not sure that he smokes or that he drinks.**
b: \( \text{ne pas être sûr}(A) \land \text{ne pas être sûr}(B) \)

Aurélien n’ est pas sûr qu’il fume et il n’est pas sûr qu’

Aurélien \( \text{NEG is NEG sure that he smoke.}\text{SUBJ and he NEG is NEG sure that il boive.} \)

\( \text{he drink.}\text{SUBJ} \)

Aurélien is not sure that he smokes and he denies that he drinks.

Adversative predicates like regretter ‘regret’, être surpris ‘be surprised’ can also embed oui and non. This again follows from our generalization since they are not AA, but just DE (strictly speaking, they are not even DE but Strawson-DE).

(191) Je me demandais si elle était amoureuse de toi ... je regrette que

I myself asked if she was in love of you I regret that oui/non.

yes/no

I was wondering whether she was in love with you ... I regret that she is/isn’t.

This is summarized in table 4.4.

<table>
<thead>
<tr>
<th></th>
<th>regretter</th>
<th>DE pas sûr</th>
<th>peu probable</th>
<th>AA pas probable</th>
<th>nier</th>
</tr>
</thead>
<tbody>
<tr>
<td>oui</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>non</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>

Table 4.4: Acceptability of embedded PRPs as a function of their embedding predicate in response to questions - Summary v1

4.3.3.2 \( \text{si is anti-licensed by DE operators} \)

As mentioned earlier, embedded \( \text{si} \) is a stronger PPI than embedded oui and non because it is anti-licensed by merely DE operators. For instance, while embedded non is perfectly
acceptable in the immediate scope of the DE adverb *peu* ‘few’ in (192B1), embedded *si* is not (192B2).

(192) A: Est-ce que Paul n’a pas du tout sali la veste que je lui ai prêtée?

Is it that Paul NEG has NEG at all dirtied the blazer that I to.him have lent

*Has Paul not dirtied at all the blazer that I lent him?*

B1: Il est peu probable que non

it is little probable that no

*It’s not very probable that he has not.*

B2: #Il est peu probable que *si.*

it is little probable that SI

*Int. It’s not very probable that he has.*

Embedded *si* is likewise not possible under *ne pas être sûr* ‘not be sure’ and *douter* ‘doubt’, both of which were shown to be DE, although the corresponding PRP-less full sentence is perfectly acceptable (cf. 193a and b).

(193) Marie lui a demandé si Brigitte ne voulait vraiment pas venir du tout

Marie to.him has asked if Brigitte NEG wanted really NEG come at all

et ...

and

*Marie asked him if Brigitte really didn’t want to come at all and ...*

a. #... il a répondu qu’il n’était pas sûr que *si.*

he has replied that he NEG was NEG sure that SI

*Int. ... he answered that he was not sure she did.*
b. ... il a répondu qu’il n’était pas sûr qu’elle voulait venir.

he has replied that he NEG was NEG sure that she wanted come

... he answered that he was not sure she did.

I summarize what we have seen so far in table 4.5: oui and non are anti-licensed by at least AA operators whereas si is anti-licensed by at least DE operators.

<table>
<thead>
<tr>
<th></th>
<th>regretter</th>
<th>pas sûr</th>
<th>peu probable</th>
<th>pas probable</th>
<th>nier</th>
</tr>
</thead>
<tbody>
<tr>
<td>oui</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>non</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>si</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
</tbody>
</table>

Table 4.5: Acceptability of embedded PRPs as a function of their embedding predicate in response to questions - Summary v2

4.3.4 PRPs differ in locality of anti-licensing

We saw in section 4.3.2.2 that embedded oui and non are not anti-licensed if the AA/AM operator they are in the scope of is extra-clausal. The embedded PRP si markedly differs in that respect since it is anti-licensed even if the DE operator it is in the scope of is extra-clausal. In (194), matrix non and si are perfectly acceptable (A1 and A2). However only non can be embedded (cf. A3 and A4).

(194) A: Tom est triste ces jours-ci ...

Tom is sad these days ...

*Tom is sad these days* ...

B: Pourquoi ? Est-ce qu’il n’a pas du tout réussi son examen ?

why? is it that he NEG has NEG at all passed his exam

*Why? Did he not pass his exam?* (lit. *Was he not successful at all in taking the exam?*)
A1: Non et sa copine est partie.

no and his girlfriend is left

No, he didn’t and his girlfriend left him.

A2: Si mais sa copine est partie.

si but his girlfriend is left

Yes, he did but his girlfriend left him.

A3: On ne peut pas dire que non mais sa copine est partie.

we NEG can NEG say that no but his girlfriend is left

One cannot say that he didn’t but his girlfriend left him.

A4: #On ne peut pas dire que si et sa copine est partie.

we NEG can NEG say that si and his girlfriend is left

Int. One cannot say that he did and his girlfriend left him.

While embedded non is not anti-licensed by the extra-clausal negation (above the infinitival clause dire que non), si is. In other words, embedded non, like the PPI quelque chose ‘something’, is not anti-licensed by a super-ordinate entailment reversing operator but si is. Although this extra-sensitivity is a bit unusual for a PPI, it is not unattested. Spector (2014) argues that a distinction should be made between PPIs which are anti-licensed locally (the most usual case so far) and PPIs which are anti-licensed globally which he calls ‘global PPIs’. He shows that in French the disjunctions ou ‘or’ and soit...soit ‘either...or’ are both PPIs but they differ in that, among other things, soit...soit is a global PPI that can never be in the scope of a DE expression, e.g. peu ‘few’, even though it is non-local (cf. 195a and b).
(195)  a. *Il est peu probable que le fugitif ait fui soit en Allemagne soit
       en Italie.

       **Int.** *It is not very likely that the fugitive fled either to Germany or to Italy.*

b. Il est peu probable que le fugitif ait fui en Allemagne ou en
       Italie.

       *It is not very likely that the fugitive fled to Germany or to Italy.*

Despite being sensitive to extra-clausal negation, note that *si* can be rescued. In response to the question in (194B), (196) is a perfectly acceptable response: *nier* ‘deny’, as we saw, anti-licenses PRPs but *si* is rescued because *nier* ‘deny’ is itself in the scope of the entailment reversing quantifier *personne* ‘no one’.

(196)    LF: personne >> nier >> si
        B: Personne ne peut nier que si mais sa copine est partie.
        nobody  NEG can deny that SI but his girlfriend is left

        **Nobody can deny that he did but his girlfriend left him.**

The generalization that emerges is that *si* is a global PPI anti-licensed by DE operators. On the other hand, *oui* and *non* in response to questions (i.e. as Q-responses) are only locally anti-licensed by elements which are at least AA (they are not sensitive to the presence (local or not) of simply DE expressions). This is summarized in table 4.6.
4.3.5 More complicated cases

There are three cases which seem to break the generalization that embedded PRPs are PPIs, cases where a PRP is under a negated predicate: negative polar questions, negative counterfactual conditional constructions (consequent48), and negative imperative constructions. As it turns out, there is reason to believe that those cases are not really a problem for our generalization since other better-known PPIs behave the same way as embedded PRPs in those three constructions.

The example in (197) is a negative polar question: note that the PRPs oui/non can be embedded under the negation of the embedding predicate répondre ‘reply’.

(197) Ne m’avez-vous pas demandé, me dit-elle, si je vous regardais comme un honnête homme, et ne vous ai-je pas répondu que oui / non ?

Haven’t you asked me, she told me, if I regarded you as an honest man, and haven’t I replied that yes no

This is also possible with si (198).

---

48. PRPs can also occur under a negated predicate in the antecedent of a conditional but I do not discuss those cases since they are plain cases of rescuing/flip-flop.
Ne m’avez-vous pas demandé, me dit-elle, si je ne vous regardais pas comme un honnête homme, et ne vous ai-je pas répondu que si ?

Haven’t you asked me, she told me, if I did not regard you as an honest man, and haven’t I replied that I do?

It so happens that those environments (i.e. those negative questions with those embedding predicates) do not anti-license other PPIs like *quelque chose* ‘something’ (199) or *un peu* ‘somewhat’ (200).

(199) *quelque chose* ‘something’

a. Ne vous ai-je pas donné quelque chose ?

Didn’t I give you something?

b. *Je ne vous ai pas donné quelque chose.

Int. I didn’t give you anything.

(200) *un peu* ‘somewhat’

a. Ne vous ai-je pas donné un peu la même chose ?

Didn’t I give you somewhat the same thing?

b. *Je ne vous ai pas donné un peu la même chose.

Int. I didn’t give you somewhat the same thing.
There is reason to think that the examples in (197-200) are examples of biased questions involving what was identified in Ladd 1981 as high negation where the speaker asks ‘is it not the case that p?’ In fact Romero 2014 analyzes the negation ne pas in those cases as being the spell-out of an operator \textsc{falsum} which ‘shields’ PPIs \textit{sic}.

Somewhat more surprising is the fact that PRPs can be embedded under negated predicates in the consequent of conditionals as in (201) since they are not DE and therefore do not reverse the AA environment created by the negated embedding predicate.

(201) Consequent

A: Est -ce qu’il va venir ?

\begin{tabular}{l}
\textit{is it that he goes come} \\
\end{tabular}

\textit{Will he come?}

B: Si j’avais su qu’il deviendrait une vraie poule mouillée, je n’

\begin{tabular}{l}
\textit{if I had know that he become\textsc{cond} a true hen wet I\textsc{neg}} \\
aurais pas dit que oui.
\end{tabular}

\begin{tabular}{l}
\textit{have\textsc{cond} \textsc{neg} said that yes} \\
\textit{If I had known that he’d become a wet blanket, I would not have said that he could come.}\textsuperscript{49}
\end{tabular}

Still notice that in the same environment, the PPI \textit{quelqu’un} ‘someone’ is not anti-licensed either (202).

\textsuperscript{49} Notice that the translation I give in English contains the modal ‘could’. I have the strong intuition that indeed the meaning of the French sentence with embedded \textit{oui} involves deontic modality although the antecedent does not contain a deontic modal, at least not overtly.
(202) Si Jean avait été compétent, il n’aurait pas appelé quelqu’un pour venir l’aider.

If Jean had been competent, he would not have called anyone for help.

Polar questions and conditional constructions are environment were negation does not anti-license PPIs. If PRPs are a kind of PPI, their acceptability under negation in those environments might be reducible to the acceptability of PPIs in general under negation in those environments.

Finally, I found quite a few examples of PRPs embedded under negated predicates in imperatives, but there were only two verbs used dire ‘tell’ (203) and répondre ‘reply’.

(203) Déjà, est-ce que tout ça est ‘normal’ ? S’il vous plaît, ne me dites pas que oui.

First, is all of this normal? Please don’t tell me it is.

It is not clear to me that the PPI quelqu’un ‘someone’ can ever be felicitously embedded in such an environment but, interestingly, with dire ‘tell’ an extracausal negation can license an NPI in a declarative but not in an imperative (204).

(204) a. *Ne me dis pas qu’il a acheté quoi que ce soit !

Int. Don’t tell me that he bought anything.
b. Tu ne m’as pas dit qu’il avait acheté quoi que ce soit.

*You didn’t tell me that he had bought anything.*

Maybe this shows us that *dire* in an imperative is such that when it is negated, it does not create an environment which antilicenses an embedded PRP since it cannot license an NPI. In any case, it is interesting that an NPI is not licensed in the environment where *oui* is licensed.

To summarize, in this section I have shown that what may appear problematic to my claim that embedded PRPs are PPIs is in fact not problematic since other PPIs behave the same way in those environments. In other words, the task is not to explain why embedded PRPs specifically are not anti-licensed in these environments, but why PPIs in general are not.

### 4.3.6 Conclusion

We have seen that there is convincing evidence that embedded PRPs are PPIs. Furthermore, we saw that *si* is a stronger PPI than *oui/non* since it is anti-licensed in DE environments and it is also global. In response to questions, there seem to be three categories of predicates that embedded PRPs are sensitive to: DE, AA, and negated cognitive factives as summarized in table 4.7.

<table>
<thead>
<tr>
<th></th>
<th>not DE</th>
<th>DE</th>
<th>AA</th>
</tr>
</thead>
<tbody>
<tr>
<td>oui</td>
<td>✓</td>
<td>✓</td>
<td>%</td>
</tr>
<tr>
<td>non</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>si</td>
<td>✓</td>
<td>✗</td>
<td>✗</td>
</tr>
</tbody>
</table>

Table 4.7: Acceptability of embedded PRPs as a function of their embedding predicate in response to questions - Final summary
All embedded PRPs are anti-licensed in AA environments, and only *si* is anti-licensed in DE environments. As hypothesized above, this assumes that *douter que PRP* ‘doubt’ is AA for some speakers and DE for others.

Regretfully, I have not provided an explanation for why they are PPIs and why they differ in strength. This is the main and, without doubt, the most interesting mystery that remains to be solved. Moreover, in the process of coming up with an analysis that accounts for their PPIhood, one will have to decide whether the source of their PPIhood is located within the PRPs themselves or somewhere higher in the complementizer structure.

### 4.4 Conclusion

I have examined two factors that limit the distribution of embedded PRPs: the select- tional requirements of desiderative/directive verbs (non-representational attitudes in Bolinger 1968 and Anand & Hacquard 2013) and the polarity of the environment they are in.

It is striking that there are intuitively related phenomena in other languages that are sensitive to the same kind of limitations. Let me mention two here. Falauš 2009 studies the distribution of the Romanian determiner *vreun* and accounts for two limitations on its distribution: it must either occur in a negative environment (it is an NPI) or in the scope of a propositional operator, EPIST, that entails that not all of the epistemic agent’s doxastic alternatives are such that the proposition below the operator, p, is true. Importantly, this predicts that *vreun* cannot be embedded under *want* and directive verbs but it can under *hope* and *prefer*. This pattern is strikingly similar to the constraints on the distribution of *que PRPs*: both are polarity sensitive items and both seem to be anti-licensed in the scope of certain volitional/desiderative verbs but not others. One major difference though is that *vreun* is not acceptable in the scope of factive verbs whereas embedded PRPs are acceptable.

With respect to the question of whether embedded PRPs themselves are PPIs or whether the PPIhood comes from something else in the complementizer zone, it is perhaps relevant
to mention Basque. In Basque, the particles *ba* ‘yes’ and *ez* ‘no’ can be embedded only if they are suffixed with *-etz*. Interestingly, a suffix *-etz* can optionally be added to the complementizer of indirect questions. This is interesting because Adger & Quer 2001 argue that (unselected) indirect questions in English have the distribution of NPIs. Their analysis posits a covert determiner above CP in English which, they argue, is overt in Basque. It is therefore tantalizing to entertain an analysis of French embedded PRPs according to which what makes them PPIs is a clause-level PPI determiner just like what makes unselected indirect questions NPIs, according to Adger & Quer 2001, is a clause-level NPI determiner.
CHAPTER 5
RESPONDING TO ASSERTIONS (VERSUS QUESTIONS)

5.1 Introduction
This chapter deals with the acceptability conditions of the Polar Response Particles *oui*, *non*, and *si* in embedded contexts in European French. In the previous chapters we saw that their distribution is subject to restrictions that have to do with the polarity of the environment they are in and with the type of predicate that embeds them. Importantly these restrictions have to do with absolute acceptability, that is, a PRP embedded under *il faut* ‘it must be’, for instance, is bad no matter the context. In this chapter, I discuss another kind of condition on the acceptability of embedded PRPs: felicity conditions. We will see that in some contexts, what PRP can be used (of *oui*, *non*, and *si*) depends on the context they occur in, specifically what kind of utterance they respond to. Note that in the previous chapters, whether a PRP was in a response to a question or to an assertion did not make a difference.

We have seen that embedded PRPs can be used to respond to questions as (205) shows.

(205) A: Est -ce que Philippe a écrit un livre ?
    is it that Philippe has written a book
    
    *Did Philippe write a book?*
B: Je suis sûr que non.
    I am sure that no
    
    *I am sure that he did not.*
And we have also seen that, as has been noted for matrix particles in other languages (Farkas & Bruce 2009; Roelofsen & Farkas 2014), embedded PRPs in French can also be used to respond to assertions (206).

(206) A: Au fait, Philippe a écrit un livre.

by_the_way Philippe has written a book

By the way, Philippe wrote a book.

B: (Moi) je suis sûr que non.

me I am sure that no

I am sure that he did not.

The fact that in European French (and other languages) embedded PRPs can be used to respond to both questions and assertions seems to call for a unified analysis of PRPs and, in fact, as noted above, discourse models have been proposed to explain precisely why it is that PRPs can be used in response to questions as well as to assertions (Farkas & Bruce 2009). But those models have not taken into account, at least not specifically, cases of embedded PRPs. Indeed a close examination of embedded PRPs in French reveals a number of (surface) asymmetries between responses to questions and responses to assertions that have not been noticed so far and thus not taken into account in such models. One such asymmetry is illustrated in (207) and (208): while to the question, either oui or non can be used depending on the targeted meaning, in response to the assertion, only non can be used.¹

1. The same holds of the coordination of an assertion and its PRP response.

(i) a.# Au fait, Philippe a écrit un livre et Martin est sûr que oui (aussi).

by_the_way Philippe has written a book and Martin is sure that yes (too)

Int. By the way, Philippe wrote a book and Martin is sure of it.

b. Au fait, Philippe a écrit un livre mais Martin est sûr que non.

by_the_way Philippe has written a book but Martin is sure that no

By the way, Philippe wrote a book but Martin is sure he did not.
(207) A: Est-ce que Philippe a écrit un livre?
is it that Philippe has written a book

*Did Philippe write a book?*

B1: Je suis sûr que oui.
I am sure that yes

B2: Je suis sûr que non.
I am sure that no

* I am sure that he did.*

(208) A: Au fait, Philippe a écrit un livre.
*By the way, Philippe wrote a book.*

B1: #Je suis sûr que oui (aussi).
I am sure that yes (too)

B2: (Moi) je suis sûr que non.
me I am sure that no

*Int. I am sure that he did (too).*

As discussed in more detail in section 5.3, in response to an assertion, an embedded PRP needs to be in an utterance, $U_{PRP}$, that contrasts with the utterance that contains the antecedent of the PRP, $U_{Ant}$. On the other hand, the distribution of embedded PRPs in response to questions is not so restricted.

Another asymmetry concerns the PPIhood of embedded PRPs. We saw in chapter 4 that in response to questions, embedded *oui* and *non* are PPIs anti-licensed by AA operators. For instance in (209), *oui* is not anti-licensed because it is in the scope of *ne pas être sûr* ‘not be sure’ which is only DE.
By the way, Marie asked him if Brigitte really wanted to come and he answered that he was not sure she did.

However if the antecedent is an assertion, the response becomes infelicitous (210).

I argue in section 5.4 of this chapter that the unacceptability of (210) is an example of the generalization that in response to assertions, embedded oui and non become global PPIs anti-licensed by (an odd number of) DE operators (c.f. 209 and 210).

In summary, PRP responses to questions and assertions differ in two respect: contrastiveness and PPI strength/locality. Two kinds of approaches can be taken to explain these two asymmetries, I call them ‘the homophony approach’ and ‘the unified approach’ (211).

Hypothesis 1 (homophony approach): There exist two sets of PRPs, one set is used to respond to questions and the other set is used to respond to assertions; they both happen to be realized by the same string of phonemes in French.

Hypothesis 2 (unified approach): There is only one set of PRPs and it can be used to respond to both questions and assertions; asymmetries between the
two stem from the interaction of the semantics of PRPs and the semantics of their environment.

The homophony approach takes the descriptive generalizations at face value and posits that embedded PRPs in European French have two uses or semantic values which happen to be spelled out by the same phonological string. The unified approach on the contrary takes at face-value the morphological fact that there is just one *oui*, one *non*, and one *si* whether in response to a question or an assertion, and assumes that the different behaviors are derived from an interaction of the PRPs’ and their antecedent’s semantics. I will argue that we can maintain a unified analysis of embedded PRPs and that the contrastiveness asymmetry we saw above can be derived from an interaction of this unified treatment with the semantics of questions and assertions. The PPIhood asymmetry however remains a challenge for this approach since, as far as I know, strength and locality are lexically-specified properties of PPIs (e.g. *some*). If the unified approach is ultimately right, this means that the locality and strength of at least some PPIs are determined as a function of the properties of their environment, e.g. whether the sentence they are in responds to a question or an assertion in the case of French embedded PRPs. Note that an explanation of why locality and strength can vary hinges on our knowing what it is that makes embedded PRPs PPIs. And this is a

2. In fact, there is an observation in Beyssade 2012 that would be consistent with such a hypothesis. Beyssade looks at responses to assertions and at (a kind of) questions (she does not look at PRP responses however). She observes that while it is fine to respond *I don’t know* to a question, it is odd in response to an assertion.

(i) A: Marie est venue.
    Marie is come
    *Marie came.*
B: # Je sais pas.
    I know NEG
    *Int. I don’t know.*

(ii) A: Marie est venue, n’est-ce pas ?
    Marie is come NEG is it NEG
    *Marie came, didn’t she?*
B: Je sais pas.
    I know NEG
    *I don’t know.*

I share Beyssade’s intuition: responding *I don’t know* to a question is perfectly acceptable and unmarked but the same response to an assertion is at least much more marked and, unless the responder has greater authority over the information than the speaker who made the A assertion has, it is not very felicitous.
challenge to both hypotheses since, regrettably, I do not know at this point why embedded PRPs are PPIs.

The structure of the chapter is the following. In section 2, I present the two puzzles that this chapter is concerned with and show that they are amenable to two generalizations: A and B. In section 3, I try to derive generalization A from an analysis which states that embedded PRPs impose a constraint on the whole utterance they are in according to which this utterance cannot be given by the antecedent utterance. In section 4, I argue that generalization B emerges from the fact that embedded PRPs in response to assertions are PPIs that are global and stronger than in response to questions.

5.2 Two empirical puzzles and two generalizations

Broadly speaking, felicity conditions on embedded PRPs differ as a function of the illocutionary force of their antecedent. The first puzzle is that, in response to assertions, PRP responses must contrast with their antecedent, a restriction that is not seen in response to questions. The second puzzle is that in response to assertions, embedded PRPs are stronger PPIs than in response to questions.

5.2.1 Methodological note

The data I present in this section come from a "database" that I created by filling out cells for the full cross of the combination of parameters in (212).  

3. We will see that in fact the felicity of embedded PRPs depends on the semantics of a bigger constituent than just the PRP antecedent proper.

4. For independent reasons, matrix questions cannot be conjoined with the PRP response, this is why they are not discussed.

(i)*Est -ce que Tristan a l’ habitude de courir ? et Marie pense qu’il n’a pas l’habitude.

*Est-ce que Tristan a l’habitude de courir? et Marie pense qu’il n’a pas l’habitude.

habit

152
(212)  

a. $U_{Ant}$ type: question or assertion

b. Antecedent level: matrix or embedded

c. $U_{Ant}/U_{PRP}$ relation: dialogue or coordination

d. Response: no contrast or contrast

In my investigation, I did not find that the $U_{Ant}/U_{PRP}$ relation or the antecedent level had any incidence on the acceptability of an embedded PRP. For this reason as well as for uniformity and brevity, I illustrate my discussion in this chapter with coordinations of $U_{Ant}$ and $U_{PRP}$ and with embedded XP$_{Ant}$.

5.2.2 $U_{Ant} =$ question

In response to a positive question, it is possible to give both a positive response in (213a) or a negative one as in (213b).^5

(213)  

a. Tom se demande si Tristan a l’habitude de courir mais je suis sûr que oui.

Tom himself asks if Tristan has the habit to run but I am sure that yes

Tom wonders if Tristan is used to running but I am sure that he is.

b. Tom se demande si Tristan a l’habitude de courir mais je suis sûr que non.

Tom himself asks if Tristan has the habit to run but I am sure that no

Tom wonders if Tristan is used to running but I am sure that he is not.

---

5. In this case, $U_{Ant}$ is embedded. One might wonder at this point why the concept $U_{Ant}$ is at all necessary and why it is not enough to just look at the illocutionary force of XP$_{antecedent}$. As I discuss in detail below, this is because the licensing conditions on embedded PRPs are stated over constituents that can be larger than just XP$_{antecedent}$. It will be useful to have a name for this larger constituent.
Likewise, in response to a (low) negative question, both a positive response in (214a) and a negative one as in (214b) are possible.

\begin{align*}
(214) & \ a. \ \text{Tom se demande si Tristan n'a pas l'habitude de courir} \\
& \quad \text{Tom himself asks if Tristan has the habit to run} \\
& \quad \text{du tout mais je suis sûr que si.} \\
& \quad \text{at all but I am sure that si} \\
& \quad \text{Tom wonders if Tristan is not used to running at all but I am sure that he is.} \\

& \ b. \ \text{Tom se demande si Tristan n'a pas l'habitude de courir} \\
& \quad \text{Tom himself asks if Tristan has the habit to run} \\
& \quad \text{du tout mais je suis sûr que non.} \\
& \quad \text{at all but I am sure that no} \\
& \quad \text{Tom wonders if Tristan is not used to running at all but I am sure that he is not.} \\
\end{align*}

Whatever the form of the question, it is possible to give it both a positive and a negative PRP response. It is true that bare oui in response to a (low) negative question is not possible but this is not relevant here, what matters is that both a positive (si) and a negative (non) response are possible. We can keep track of the fact that any (except oui with low negative questions) embedded PRP can felicitously respond to a question by using the table in table 5.1.

\[
\begin{array}{c|c|c}
U_{Ant} = \text{question} & \text{acceptability of } U_{PRP} \\
\hline
\text{✓} & \text{✓} \\
\end{array}
\]

Table 5.1: Acceptability of $U_{PRP}$ - v1

For a baseline of the polarity conditions on embedded PRP responses to questions, see chapter 4. Now let’s look at embedded PRP responses to assertions. We will see that we need to make the summary table more complex.
5.2.3 $U_{Ant} = \text{assertion}$

In this section I discuss PRP responses to assertions as (215) illustrates: the non response asserts the negation of its antecedent: the embedded assertion in the first conjunct. In other words, the non $\textit{XP}_{prej}$ sequence denotes a proposition that is the negation of the asserted antecedent proposition.\(^6\)

(215) a. Au fait Tom est sûr que Benjamin est venu mais/et
by_the_way Tom is sure that Benjamin is come but/and

(moi) je suis sûr que non.  
me I am sure that no

By the way, Tom is sure that Benjamin came but/and I am sure that he did not come.

b. $[\textit{XP}_{Ant}] = \text{Benjamin came}$

c. $[\text{non } \textit{XP}_{prej}] = \text{Benjamin did not come}$

But now consider what happens in (216) when the denotation of embedded oui $\textit{XP}_{prej}$ is identical to the proposition denoted by its antecedent: the response is infelicitous.\(^7\)

(216) a. #Au fait, Tom est sûr que $[\text{Benjamin est venu}]_{\textit{XP}_{Ant}}$ et/mais
by_the_way Tom is sure that Benjamin is come and

je suis sûr que oui (aussi).
I am sure that yes too

Int. By the way, Tom is sure that Benjamin came and I’m sure of it too.

b. $[\textit{XP}_{Ant}] = \text{Benjamin came}$

---

6. As I discuss the data and present the generalization I have arrived at, the reader will probably wonder about a number of alternative generalizations. In order not to obscure and derail the discussion with a host of potential but ultimately wrong generalizations, I discuss them in section 5.3.3.

7. Note that the unacceptability of this response is independent of whether aussi ‘too’ is used or not (see section 5.3.3.2 for more detail). Note also that the possibility of having the conjunction mais ‘but’ does not predict the felicity of embedded PRPs in response to assertions (see section 5.3.3.3 for more detail).
As mentioned earlier, when considering PRP responses to assertions, a third parameter becomes crucial: contrast. One way for a PRP response to an assertion to be felicitous is for the contrast to hold of the relation between the proposition denoted by the PRP itself and its antecedent proposition. But the contrast may also hold of the relation between \( U_{\text{PRP}} \) — the utterance that contains the PRP — and the \( U_{\text{Ant}} \) — the utterance that contains the antecedent of the PRP (as opposed to the relation between the PRP itself and its antecedent). In (217), the denotation of the antecedent of the PRP and the PRP with its prejacent are the same as in the problematic baseline example in (216). What has changed though is the polarity of one of the embedding predicates which now have opposite polarities.\(^8\) So, as alluded to earlier, the licensing conditions on embedded PRPs must be stated over constituents that are bigger than just the antecedent, \( X_{\text{Ant}} \), and the PRP’s prejacent, \( X_{\text{prej}} \).

(217)  

\( \text{a. } \) Au fait Tom n’est pas sûr que Benjamin soit venu mais moi je suis sûr que oui.  

*By the way, Tom is not sure that Benjamin came but I’m sure that he came.*

\( \text{b. } \) \[ X_{\text{Ant}} \]= Benjamin came

\( \text{c. } \) \[ [\text{oui}, X_{\text{prej}}] \]= Benjamin came

---

8. One could imagine that bare PRPs are in competition with the sentential proforms *le, en,* and *y* following a hypothesis like (i).

(i) If a sentential proform is possible, then it must be used.

Note that (217) makes such a competition account untenable (see section 5.3.3.1 for more detail).
The upshot is that PRPs, when they are used to respond to assertions, seem to care about contrast. Quite telling is the fact that contrastive accent on matrix subjects, as realized by the strong subject pronoun *moi*, makes those sentences even more natural\(^9\).

We can summarize this pattern by adding another parameter to our table reflecting the importance of contrast.

\[
\begin{array}{|c|c|c|}
\hline
& \text{acceptability of } U_{PRP} & \\
\hline
& + \text{ contrast} & - \text{ contrast} \\
\hline
U_{Ant} = \text{question} & \checkmark & \checkmark \\
U_{Ant} = \text{assertion} & \checkmark & \times \\
\hline
\end{array}
\]

Table 5.2: Acceptability of embedded PRP - final

Responses to assertions, whether they are in a dialogue or in a conjunction do not behave differently (see 7). What the table shows is that the felicity of an embedded PRP response depends on whether it responds to a question or to an assertion, and, in the latter case, whether the response contrasts with the assertion it reacts to. Note that although I have only given examples of cases where the PRP prejacent is elided, the data hold up when the prejacent is not elided (see section 5.3.3.4 for more details). In order to get a better handle on contrast, I proceed to a closer examination of responses to assertions.

In the examples we have seen so far, it looks like two things matter for contrastive particles to be licensed: (i) the relation between the particle and its antecedent and (ii) the relation between two utterances: the PRP utterance and the antecedent utterance.

So there are several moving parts that need to be inspected systematically:

1. The polarity of the matrix predicate in the antecedent utterance

2. The polarity of the embedded predicate (antecedent)

\[^9\] Sentences are well-formed and perfectly acceptable without it but French speakers intuitively want to add it.
3. The polarity of the matrix predicate in the 2nd conjunct/response

4. The polarity of the clause that comes with bare *oui, non*, and *si* (i.e. its prejacent)\(^{10}\)

I illustrate this with example (216) repeated in (218) where each frame indicates the locus of what will vary.

\[\text{(218) } \#\text{Tom} \quad \text{[est]}_1 \text{ sûr que Benjamin [est]}_2 \text{ venu} \]

\[\text{Tom is sure that Benjamin is come} \quad \text{Profile 1} \]

\[\text{et} \]

\[\text{and} \quad \text{Conjunction} \]

\[\text{je [suis]}_3 \text{ sûr que oui il [est]}_4 \text{ venu (aussi).} \]

\[\text{I am sure that yes he is come too} \quad \text{Profile 2} \]

*Int. Tom is sure that Benjamin came and I’m sure that he did (too).*

The results of this examination are summarized in Table 5.3. In the first two columns I indicate the value of each polarity head (+ or −) in the antecedent utterance: the polarity head of the embedding predicate and that of the embedded predicate. Both values make up what I call a polarity profile. I do the same for the PRP utterance. This corresponds to profile 2. In column 5, I give the embedded PRPs that were tested for each construction/line. Note that the choice of a specific PRP and the value of Pol. 4 are not independent: coda-less *oui* and *si* are only possible iff the value of Pol. 4 is positive.\(^{11}\) The acceptability of each construction/line is given in the sixth column. Finally, the seventh column tells us whether the conjunction *mais* ‘but’ is possible\(^{12}\).

---

10. As I discuss later regardless of whether the clause is elided, embedded PRPs come with the same contrast requirement. See chapter 3 for evidence that bare embedded PRPs come with an elided clause.

11. This is one place where coda-less embedded PRPs and clause Peripheral PRPs differ as discussed in chapter 6.

12. In order to know which conjunction was possible, I tested the sentence with a full sentence instead of the PRP. For instance, see (i).
Table 5.3: Summary table for PRPs with embedded assertions as antecedents

<table>
<thead>
<tr>
<th></th>
<th>Profile 1</th>
<th>Profile 2</th>
<th>PRP</th>
<th>acceptability</th>
<th>conjunction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>oui</td>
<td>✓</td>
</tr>
<tr>
<td>2</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>non</td>
<td>✓</td>
</tr>
<tr>
<td>3</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>oui</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>4</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>non</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>5</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>oui/si</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>6</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>non</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>7</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>oui/si</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>8</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>non</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>9</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>oui/si</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>10</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>non</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>11</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>oui</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>12</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>non</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>13</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>oui/si</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>14</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>non</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>15</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>oui/si</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>16</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>non</td>
<td>✓ ✓</td>
</tr>
</tbody>
</table>

Table 5.3 shows that contrastive PRPs are subject to the generalizations in (219).

(219) Generalizations governing the distribution of PRPs

(i) a. Au fait Tom est sûr que Benjamin est venu et je suis sûr qu’il est venu aussi. By the way, Tom is sure that Benjamin is come and I am sure that he is come too.

b. #Au fait Tom est sûr que Benjamin est venu mais je suis sûr qu’il est venu. By the way, Tom is sure that Benjamin is come but I am sure that he is come too (aussi).

Int. By the way, Tom is sure that Benjamin came but I’m sure that he did too.

13. Generalizations concerning the *oui/si* alternations and its relation to the conjunction used are left for further research. In (acceptable) contrastive constructions, whenever *si* is possible, so is *oui* (with the same meaning as *si*) and conversely. This is somewhat surprising since we saw that in response to questions, *si* is only possible if its antecedent is negative whereas *oui* is possible only if its antecedent is positive. But in table 5.3 lines 5 and 13, the antecedent of *oui* is negative. This use of *oui* seems to be tied to the use of the conjunction *mais* (represented with the underlining in the table). The use of *si* is not tied to any specific conjunction however. Likewise notice on line 9 that the antecedent of *si* is positive which is surprising given that in a response to a positive question, it would not be good.
Generalization A: profile 1 ≠ profile 2

Generalization B: no ‘−’ in Pol. 3 / third column

Generalization A captures that when the profiles differ, PRPs can be used and the conjunction *mais* ‘but’ is licensed (although it is not necessary) while generalization B captures that whenever a PRP in response to an assertion is in a DE environment, it is not acceptable (see section 5.4 for more detail). In the next section, I explore generalization A. I start by discussing the nature of the contrast condition and dismissing potential explanations for the contrastivity of PRPs, then I propose an account of the felicity conditions on PRPs. In the process I show that it is necessary that we go further than merely looking at the syntactic polarity of each predicate.

5.3 **Embedded PRPs as contrastive particles (generalization A)**

5.3.1 **On the nature of the contrast condition**

An intuitive characterization of the data we have seen so far is that the proposition \( p \) that the sequence \([\text{PRP, } \text{XP}_{\text{prej}}]\) denotes is being discussed: when the antecedent of \( p \) is a question as in (220), the responder expresses an attitude towards \( p \) and the asker does not necessarily express an attitude towards it and if they do, it is not the same attitude (the asker’s attitude would have interrogative force which the responder’s does not have).

(220) A: Est *-ce qu’il va aimer* ? B: Je suis sûr que oui.

*is it that he goes like*  
*I am sure that yes*

*Will he like it?*  
*I am sure that he will like it.*

When the antecedent of \( p \) is an assertion as in (221), both Alexandra and the speaker of the response express a different attitude towards \( p \).
(221) Au fait, Alexandra n’est pas sûre qu’il va aimer mais
by_the_way Alexandra NEG is NEG sure that he goes like but
moi je suis sûr que oui.
me I am sure that yes

*By the way, Alexandra is not sure that he’ll like it but I am sure that he will like it.*

In both cases, the antecedent utterance leaves ‘open’ whether $p$ holds in the speaker/attitude holder’s belief worlds and the PRP utterance expresses an attitude about $p$. So perhaps we could characterize PRPs as being felicitous only if they respond to an ‘open’ proposition. But to the extent that the antecedent $p$ is open in a question or in an antecedent utterance as in (221), the antecedent utterance in (222) is not open since, according to Alexandra, $p$ holds.

(222) Au fait, Alexandra est sûre qu’il va aimer mais
by_the_way Alexandra is sure that he goes like but
moi je suis sûr que non.
me I am sure that no

*By the way, Alexandra is sure that he’ll like it but I’m sure that he will not.*

Of course, the proposition *Alexandra is sure that $p$* does not entail $p$ in the actual world and so one might propose that in that case too after all, whether $p$ holds is open. Such a characterization of ‘open-ness’ in terms of non-entailment in the actual world (rather than in the belief worlds of the speaker/attitude holder) also characterizes questions and example (222). However such a characterization of ‘open-ness’ empties the notion of its predictive power regarding the distribution of embedded PRPs since it fails to predict the unacceptability of (223).
Au fait, by_the_way Alexandra est sûre qu’il va aimer et moi je suis sûr que

By the way, Alexandra is sure that he’ll like it and I’m sure that

oui.

yes

So clearly identifying open-ness of p with non-entailment of p in the actual world is

the wrong way to go to capture the felicity conditions on embedded PRPs. Restricting the

non-entailment of p to the belief worlds of Alexandra does not help either since in both

the acceptable (222) and the unacceptable (223) cases, Alexandra is sure that p

entails p in all of Alexandra’s belief worlds, i.e. p is open in both those cases and yet, those examples
differ in their acceptability. Therefore it is clear that this notion of open-ness cannot be the

one principle regulating the distribution of embedded PRPs.

There is another intuitive generalization that all the felicitous examples we have seen

so far share to the exclusion of the unacceptable examples: the notion of ‘incompatibility’. Two attitudes w.r.t. a proposition p, Att₁ p and x Att₂ p, are incompatible if they cannot be held by the same individual, schematically ∃x¬(x Att₁ p and x Att₂ p). Thus, the example in (224) is odd because it is odd for the same individual, the speaker in this case, to express a question as to whether p holds and then express his strong belief that p holds.

Je me demande s’il va aimer et je suis sûr qu’il va aimer.

I wonder if he’ll like it and I’m sure that he will.

Likewise, if the same individual holds both the attitudes of not being sure and being

sure towards p the result is a contradiction (225).
Alexandra is not sure that he’ll like it but Alexandra is sure that he will like it.

The same goes for holding being sure that \( p \) and being sure that not \( p \) (226).

And our unacceptable example in (227) is the only one that is not contradictory.

So incompatibility, characterized as contradiction, seems to be a way of characterizing the felicity conditions of PRPs: a PRP utterance \( U_{PRP} \) is felicitous only if the antecedent utterance \( U_{Ant} \) and the PRP utterance \( U_{PRP} \) cannot be held by the same individual (i.e. the attitudes they convey cannot be held by the same individual). In fact, the notion of incompat-
compatibility I have in mind is very close (perhaps identical?) to the notion of ‘exclusivity’ proposed in Büring 2008 to characterize ‘true alternatives’.14

I see two issues with incompatibility being the only characterization of the felicity conditions on embedded PRPs. First, while it is odd for an individual to ask whether p and then respond to their own question, it is in fact far from being impossible and embedded PRPs are frequently used in such cases (228, 229).

(228) Au fait je ne sais pas si je viendrai demain mais je pense que oui.

By the way, I don’t know whether I’d have the same response but I think I would.

(229) Au fait, je ne sais pas si Tom va venir mais j’espère que oui.

By the way, I don’t know whether Tom will come but I hope he will.

Using incompatibility as the notion that embedded PRPs require in order to be licensed would thus not help us characterize those acceptable cases. Secondly, some acceptable responses to assertions do not abide by that condition. For instance (230) conjoins two compatible utterances, yet the whole construction is acceptable.

14. Büring 2008 gives the example in (i) from Wagner 2006 to illustrate what a true alternative is.

(i) A: Mary’s uncle, who produces high-end convertibles, is coming to her wedding. I wonder what he brought as a present.

B1: He brought a [CHEAP convertible].

B2: #He brought a [RED convertible]

B3: He brought a red convertible.

Notice that in the given context, a. and c. are good but not b. This is because, Wagner and Buring propose, in a sense cheap is a true alternative to high-end, whereas red is not. Büring 2008 proposes that what makes cheap a true alternative to high-end in this context, is that high-end and cheap are exclusive whereas red and high-end are not.
(230) Au fait, Alexandra n’est pas sûre qu’il va aimer mais
by_the_way Alexandra NEG is NEG sure that he goes like but
je suis sûr que non.
I am sure that no

By the way, Alexandra is not sure that he’ll like it but I am sure that he will not
like it.

To see this, notice that the antecedent utterance is true if in fact Alexandra is sure
that he will not like it, therefore, the two propositions, modulo subject identity, are not
contradictory. That the two conjuncts are compatible can be shown by the felicity of (231).

(231) Alexandra n’est pas sûre qu’il va aimer et en fait,
Alexandra NEG is NEG sure that he goes like and in fact
elle est sûre qu’il ne va pas aimer.
she is sure that he NEG goes NEG like

Alexandra is not sure that he will like it and in fact she is sure that he won’t.

For comparison (232) is contradictory.

(232) #Alexandra n’est pas sûre qu’il va aimer et en fait,
Alexandra NEG is NEG sure that he goes like and in fact
elle est sûre qu’il va aimer.
she is sure that he goes like

Alexandra is not sure that he will like it and in fact she is sure that he will.

Since neither ‘openness’ nor ‘incompatibility’ is enough to characterize the felicity
conditions of embedded PRPs on their own, there are thus two ways forward: either the
felicity conditions on embedded PRPs are (inclusively) disjunctive (incompatibility or\textit{incl}}
openness) or another weaker, more general condition regulates the distribution of embedded PRPs. I pursue the latter option which will integrate the insights of the first approach.

What that the notion of incompatibility above is trying to get at is the intuition that the contraction in (233a) is unacceptable because its targeted meaning could have been expressed in a shorter way (233b) (Grice’s maxim of manner).

(233) a. #Au fait, Alexandra est sûre qu’il va aimer et
by_the Way Alexandra is sure that he goes like and
moi je suis sûr que oui.
me I am sure that yes

*Int. By the way, Alexandra is sure that he’ll like it and I’m sure that he will.*

b. Alexandra et moi sommes sûrs qu’il va aimer.
Alexandra and me are sure that he goes like

*Alexandra and I are sure that he’ll like it.*

Conversely, (234a) is acceptable and notice that reformulating it as (234b) or (234c) does not yield the targeted interpretation. Contrary to the unacceptable example (233a), there is no other, shorter way (234a) could be expressed.

(234) a. Au fait, Alexandra n’est pas sûre qu’il va aimer mais
by_the Way Alexandra NEG is NEG sure that he goes like but
moi je suis sûr que oui.
me I am sure that yes

*By the way, Alexandra is sure that he’ll like it but I’m sure that he will.*

b. Alexandra et moi ne sommes pas sûrs qu’il va aimer.
Alexandra and I NEG are NEG sure that he goes like

*Alexandra and I are not sure that he’ll like it.*
c. Alexandra et moi sommes sûrs qu’il va aimer.

Alexandra and I are sure that he goes like

Alexandra and I are sure that he’ll like it.

This intuition is one that has been had to explain other cases of unfelicity (Büring 2003). For instance, the construction in (235) is odd but that oddness is lifted once aussi ‘too’ has been added. One idea is that the first conjunct is by default interpreted exhaustively, it is therefore contradictory to add that someone else has the same property as the individual(s) in the first conjunct. Adding aussi ‘too’ cancels the exhaustivity implication.

(235) a. #Alexandra est sûre qu’il va aimer et je suis sûr qu’il va aimer.

Alexandra is sure that he goes like and I am sure that he goes like

Int. Alexandra is sure that he’ll like it and I’m sure that he will too.

b. Alexandra est sûre qu’il va aimer et

Alexandra is sure that he goes like and

je suis sûr qu’il va aimer aussi.

I am sure that he goes like too

Alexandra is sure that he’ll like it and I’m sure that he will too.

As we saw earlier, adding aussi ‘too’ to a PRP utterance does not make it better, which is what convinced us that whatever produces oddness in (235) is linked to the presence of the PRP and cannot be defeased by aussi ‘too’.

5.3.2 Analysis of the contrast condition

The basic intuition I would like to pursue is that an embedded PRP in an utterance $U_{PRP}$ establishes an anaphoric link with an utterance $U_{Ant}$ and marks $U_{PRP}$ as not given with respect to what is said in $U_{Ant}$. In order to understand what I mean by ‘given’, we need
a way to compare propositions that seem, at first sight, not to be amenable to comparison. Consider (235) repeated in (236).

(236) Alexandra est sûre qu’il va aimer et je suis sûr qu’il va aimer
Alexandra is sure that he goes like and I am sure that he goes like
aussi.
too

Alexandra is sure that he’ll like it and I’m sure that he will too.

This example contains two different propositions that are coordinated. Those propositions are different (they have different subjects) but this difference is very minimal: if we abstract away from the identity of the matrix subject, then those propositions become comparable in terms of their relative strength. It turns out that this is an issue that the literature on contrastive topics and aber ‘but’ deals with (Sæbø 2003; Oshima 2008).15

The account I propose is inspired by Sæbø (2003)’s account of aber ‘but’ and Oshima (2008)’s account of contrastive topics in Japanese.16 The main intuition it capitalizes on is that the antecedent utterance must not entail the PRP utterance whatever its subject/object/. . . . In order to abstract away from the specific arguments a PRP utterance may have, I posit that a set of alternatives, C, to the PRP utterance is derived by replacing the focused DPs, most often the subject, with each of the relevant individuals (excluding the speaker) in the context. Again this is motivated by cases like (237) where the identity of the matrix subject in the second conjunct does not matter: whatever it is it could have been conjoined with the subject of the first conjunct.

15. For instance Saebo identifies the felicity conditions on the semantic opposition use of aber ‘but’ as (i).
   (i) \( p \text{ aber } q \) is felicitous only if \( p \) contradicts the result of replacing the topic in \( q \) by an alternative in \( p \).

16. Oshima remarks that a CT-morpheme triggers a reversed polarity presupposition. Other authors have noticed similar effects: Büring (2003) calls it a conversational implicature and Lee (1999) calls it a reversed polarity implicature.
(237)  a. #Alexandra est sûre qu’il va aimer et je suis sûr que oui aussi.

Alexandra is sure that he goes like and I am sure that yes too

Int. Alexandra is sure that he’ll like it and I’m sure that he will too.

b. Alexandra et moi sommes sûrs qu’il va aimer.

Alexandra and me are sure that he goes like

Alexandra and I are sure that he’ll like it.

The hypothesis I propose to capture the distribution of embedded PRPs is (238).

(238) **Hypothesis 2A (non-givenness):** In an utterance \( U_{PRP} \), a sentence \( S \) containing the sequence ‘… que PRP, p … ’ in response to an utterance \( U_{Ant} \) is felicitous only if \( \llbracket U_{Ant} \rrbracket \not\models \bigcup C \), where:

- \( C \) is a set of alternative propositions of \( \llbracket S' \rrbracket \) obtained by replacing the focused NPs in \( S' \) by contextually-relevant individuals
- \( \llbracket S' \rrbracket = \llbracket S \rrbracket \) without PRP

In order to compute \( C \), the utterance \( S' \) is derived from \( U_{PRP} \) by removing the PRP and the set \( C \) is derived from \( S' \) by substituting its focused DPs by contextually relevant individuals. Example (239) is unacceptable because \( \llbracket U_{Ant} \rrbracket \) entails one of the propositions in \( C \), namely Alexandra is sure that he will like it and because Alexandra and Jean believe that he will like it to the same degree (i.e. they are both sure of it).\(^{17} \)

\(^{17}\) This second condition is redundant to explain the unacceptability of (239) but we will see that it is necessary to account for a contrast among embedded PRPs with factive verbs.
(239) a. #Au fait, Alexandra est sûre qu’il va aimer et Jean est sûr que
by_the_way Alexandra is sure that he goes like and Jean is sure that
oui.

Int. By the way, Alexandra is sure that he’ll like it and Jean is sure that he
will.

b. $[U_{Ant}] \not\supseteq \bigcup C$? No
- $[U_{Ant}]$: {w | Alexandra is sure in w that he will like it}
- $U_{PRP}$: Jean$_{CT}$ est sûr que oui.
- $S’$ = Jean$_{CT}$ est sûr qu’il va aimer.
- $C$ = {Jean is sure that he will like it, Alexandra is sure that he will like it}
- $\bigcup C$ = {w | Jean is sure in w that he will like it or Alexandra is sure in w that he will like it}

So I propose that embedded PRPs in European French require that the utterance they are in, $U_{PRP}$, be not entailed by the utterance that contains their antecedent, $U_{Ant}$, abstracting away from DPs. This requirement not only captures both openness and incompatibility above in a unified way but it makes a number of predictions which, we will see, would not be accounted for by either of those notions separately. I first illustrate how this treatment captures the behavior of embedded PRP responses to assertions before moving on to questions.

5.3.2.1 Responses to assertions

I start by showing that hypothesis 2A correctly predicts the acceptability of the cases amenable to Generalization A in Table 5.3. The results are summarized in Table 5.4. Line 1 is illustrated with example (240): as you can verify, $[U_{Ant}]$ does not entail the generalized union of C: if Alexandra is not sure that $p$, it does not follow that anyone is sure that $p$. 

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(240) a. Au fait Alexandra n’est pas sûre qu’il va aimer mais
by_the_way Alexandra NEG is NEG sure that he goes like but
Jean est sûr que oui.
Jean is sure that yes

By the way, Alexandra is not sure that he will like it but Jean is sure he will.

b. \[U_{Ant}] \not\supset \bigcup C? Yes
- \[U_{Ant}]: \{w \mid \text{Alexandra is not sure in w that he will like it}\}
- \bigcup C = \{w \mid \text{Jean is sure in w that he will like it or Alexandra is sure in w that he will like it}\}

Let’s now look at line 10 examplified in (241) which is repeated from (230) where we discussed this example as breaking our incompatibility generalization. Note that although both \[U_{Ant}] and \[U_{PRP}\] are compatible, its acceptability is captured by hypothesis 2A because \[U_{Ant}] does not entail \(\bigcup C\).

(241) a. Alexandra n’est pas sûre qu’il va aimer mais Jean est sûr que
Alexandra NEG is NEG sure that he goes like but Jean is sure that non.
no
Alexandra is not sure that he’ll like it but Jean is sure that he will not like it.

b. \[U_{Ant}] \not\supset \bigcup C? Yes.
- \[U_{Ant}]: \{w \mid \text{Alexandra is not sure in w that he will like it}\}
- \bigcup C = \{w \mid \text{Jean is sure that he will not like it or Alexandra is sure that he will not like it}\}

In Table 5.4, I only look at cases that are not eliminated by Generalization B. As you can see, there is a correlation between the acceptability of a given construction and its fulfilment of the non-entailment condition.
I now move on to other cases. I argued in chapter 3 that (some) embedded fragment-peripheral PRPs are in fact derived from bare PRPs, they should therefore be amenable to Generalization A (and Generalization B), and therefore fall within the purview of hypothesis 2A.\textsuperscript{18} In (242), $[U_{Ant}]$ does not entail any of the alternative in $C$, however in (243), $[U_{Ant}]$ entails one of the alternatives in $C$ and the construction is thus correctly predicted to be bad.

\textsuperscript{18} Since embedded fragment-peripheral PRPs are constituted of a bare PRP and a contrastive topic, they are subjects to conditions on embedded bare PRPs and to conditions on contrastive topics.
(242) a. Au fait Jean croit que Jeannot vit à Londres mais Marc lui croit que Marco non.

By the way, Jean thinks that Jeannot lives in London but Marc thinks that Marco does not.

b. \[U_{Ant} \not\models \bigcup C\]?
- \[U_{Ant}\] : \{w | Jean believes in w that Jeannot lives in London \}
- \[\bigcup C = \{w | Marc believes in w that Marco does not live in London or Jean believes in w that Jeannot does not live in London or Marc believes in w that Jeannot does not live in London or Jean believes in w that Marco does not live in London \}

(243) a. #Au fait Jean croit que Jeannot vit à Londres et Marc lui croit que Marco oui (aussi).

Int. By the way, Jean thinks that Jeannot lives in London and Marc thinks that Marco does too.

b. \[U_{Ant} \not\models \bigcup C\]?
- \[U_{Ant}\] : \{w | Jean believes in w that Jeannot lives in London \}
- \[\bigcup C = \{w | Marc believes in w that Marco lives in London or Jean believes in w that Jeannot lives in London or Marc believes in w that Jeannot lives in London or Jean believes in w that Marco lives in London \}

Our examination of embedded PRP responses to assertions summarized in table 5.3 and 5.4 may make one think that what embedded PRPs care about is the morpho-syntactic marking of polarity (Generalization A in 219 requires that ‘profile 1 ≠ profile 2’). But in fact, this generalization is a special case and stems from a more general requirement since
many acceptable examples of embedded PRP responses to assertions do not contain any morpho-syntactic marker of negation. First, let’s look at how neg-raising predicates interact with downward monotone quantifiers. Given Generalization A, the example in (244) should be unacceptable since its profile 1 and its profile 2 are identical (i.e. both are ‘+ +’). Importantly however, (244) is perfectly acceptable as predicted by hypothesis 2A since \([U_{Ant}]\) does not entail any of the alternatives in C.

(244) a. Au fait, peu de gens pensent que Marie va venir mais Jean pense que oui.
   By the way, few people think that Marie will come but Jean thinks that yes
   
   b. \([U_{Ant}] \not\subseteq \bigcup C\)? Yes
      - \([U_{Ant}] = \{w | \text{many people think in w that Marie will not come}\}
      - \bigcup C = \{w | \text{Jean thinks in w that Marie will come or the speaker thinks in w that Marie will come}\}

Furthermore, given Generalization A, the example in (245) should be acceptable since its profile 1 and its profile 2 are not identical (i.e. profile 1 is ‘+ +’ and profile 2 is ‘+ -’). But (245) is not acceptable and this is correctly predicted by hypothesis 2A since \([U_{Ant}]\) entails at least one of the alternatives in C (many entails existence).

(245) a. #Au fait, peu de gens pensent que Marie va venir et/mais Jean pense que non.
   Int. By the way, few people think that Marie will come and/but Jean thinks she will not.
b. $\llbracket U_{Ant} \rrbracket \not\subseteq \bigcup C$? No
- $\llbracket U_{Ant} \rrbracket = \{ w | \text{many people think in } w \text{ that Marie will not come} \}$
- $\bigcup C = \{ w | \text{Jean thinks in } w \text{ that Marie will not come or the speaker thinks in } w \text{ that Marie will not come} \}$

Now let’s look at non-neg-raising verbs, here again taking Generalization A at face-value would make incorrect predictions. With a non-neg-raising predicate, e.g. espérer ‘hope’ and the subject quantifier few, both embedded oui and non are possible (c.f. 246 and 247). This is predicted since the subject peu de gens ‘few people’ does not entail existence.19

(246) a. Au fait, peu de gens espèrent que Marie va venir mais Jean espère que oui.

By the way, few people hope that Mary will come but Jean hopes that yes.

(i) a. Au fait, personne ne m’a jamais dit que j’avais mauvaise haleine mais Jean est sûr que oui.

By the way, nobody has ever told me that I had bad breath but Jean is sure that yes.

b. Au fait, personne ne m’a jamais dit que j’avais mauvaise haleine et Jean est sûr que non.

By the way, nobody has ever told me that I had bad breath and Jean is sure that I do not.

19. The examples in (i) work similarly.
(247) a. 

Au fait, peu de gens espèrent que Marie va venir et Jean espère que non.

By the way, few people hope that Mary will come and Jean hopes she does not.

b. \[ \left[ U_{Ant} \right] \not\vDash \bigcup C \] ? Yes

- \[ \left[ U_{Ant} \right] = \{ w \mid \text{few people hope in } w \text{ that Marie will come} \} \]

- \[ \bigcup C = \{ w \mid \text{Jean hopes in } w \text{ that Marie will not come or the speaker hopes in } w \text{ that Marie will not come} \} \]

Another way to satisfy the contrast condition that embedded PRPs introduce is to oppose predicates that are on different positions in a Horn scale, e.g. <be sure, think> (Horn 1973). Example (248) is felicitous because \( U_{Ant} \) with penser ‘think’ does not entail any of the alternatives with être sûr ‘be sure’ in C.

(248) a. 

Tom pense qu’elle va venir mais Jean est sûr que oui.

Tom (only) thinks that she will come but Jean is sure that yes

Tom (only) thinks that she will come but Jean is sure that she will.

b. \[ \left[ U_{Ant} \right] \not\vDash \bigcup C \] ? Yes

- \[ \left[ U_{Ant} \right] = \{ w \mid \text{Tom thinks in } w \text{ that she will come} \} \]

- \[ \bigcup C = \{ w \mid \text{Jean is sure in } w \text{ that she will come or Tom is sure in } w \text{ that she will come} \} \]

But be sure entails think, so this predicts that reversing the order of the conjuncts will not be acceptable and this is a good prediction. As you can verify, if Tom is sure that she will come, it follows that Tom thinks/believes that she will come, which is an alternative in C, therefore (249) is unacceptable.
(249)  a. #Tom est sûr qu’ elle va venir et/mais Jean pense que oui.

Tom is sure that she goes come and/but Jean thinks that yes

Int. Tom is sure that she will come and/but Jean thinks that she will.

b. $\mathbb{[U_{Ant}]} \not\supset \bigcup C$? No

- $\mathbb{[U_{Ant}]} = \{w | Tom is sure in w that she will come \}$
- $\bigcup C = \{w | Jean thinks in w that she will come or Tom thinks in w that she will come \}$

The examples we have looked at some far involve an asymmetry between the strength of the attitude holders’ beliefs towards $p$ – the proposition denoted by $[XP_{prej}]$ – and this might suggest that this is a key feature of the felicity conditions that apply to embedded PRPs. But this is not the case. Example (250) is perfectly acceptable although no asymmetry in belief strength between Tom and Jean is conveyed: espérer que $p$ ‘hope that $p$’, whether negated or not, requires that the attitude holder be ignorant as to whether $p$ holds. But here again, hypothesis 2A correctly captures the acceptability of embedded oui in (i) since $\mathbb{[U_{Ant}]}$ does not entail $\bigcup C$.

20. The evidence that espérer ‘hope’ requires the attitude holder to be ignorant as to whether $p$ holds. As observed by Truckenbrodt (2006), hope that $p$ cannot be used if the attitude holder knows that $p$ (ia and ib) (c.f. with ic where the speaker is ignorant and id where the desire verb vouloir ‘want’ differ from hope in that it does not require the attitude holder to be ignorant).

(i) a.#Il pleut et j’espère qu’ il pleut.
    it rains and I hope that it rains
    Int. # It’s raining and I hope it’s raining.

b.#Il pleut mais je n’espère pas qu’ il pleut.
    it rains but I NEG hope NEG that it rains
    Int. # It’s raining but I don’t hope it’s raining.

c. Je ne sais pas s’ il pleut mais j’espère qu’ il pleut.
    I NEG know NEG if it rains but I hope that it rains
    I don’t know whether it’s raining but I hope it is.

d. Il pleut et je veux qu’ il pleuve.
    it rains and I want that it rain
    Int. It’s raining and I want it to be raining.

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(250) a. Au fait, Tom n’espère pas qu’elle va venir et/mais Jean espère que oui.
By the way, Tom does not hope that she will come and/but Jean hopes that she will.
b. \[[U_{Ant}] \not\supseteq \bigcup C\]? Yes
- \[[U_{Ant}] = \{w | \text{Tom does not hope in w that she will come}\}\n- \bigcup C = \{w | \text{Jean hopes in w that she will come or Tom hopes in w that she will come}\}\n
Also pairs of $U_{Ant}$ and $U_{PRP}$ where each contains at least one quantifier can be handled by hypothesis 2A since the NPs in the restrictor of each determiner quantifier are contrastive.

(251) a. #Beaucoup de femmes pensent que le sexisme existe et beaucoup d’hommes pensent que oui aussi.
Int. Many women think that sexism exists and many men think that yes too.
b. \[[U_{Ant}] \not\supseteq \bigcup C\]? No
- \[[U_{Ant}] = \{w | \text{many women think in w that sexism exists}\}\n- \bigcup C = \{w | \text{many women think in w that sexism exists or many men think in w that sexism exists}\}\n
(252) a. Beaucoup de femmes pensent que le sexisme existe et beaucoup d’hommes pensent que non.
Many women think that sexism exists and many men think that it does not.
b. \[ [U_{\text{Ant}}] \not\models \bigcup C? \text{ Yes} \]
- \[ [U_{\text{Ant}}] = \{ w \mid \text{many women think in } w \text{ that sexism exists} \} \]
- \[ \bigcup C = \{ w \mid \text{many women think in } w \text{ that sexism does not exist or many men think in } w \text{ that sexism does not exist} \} \]

5.3.2.2 **Response to questions**

I assume that the denotation of a polar question is the set of its answers (Hamblin 1973; Roelofsen & Farkas 2014). But since the generalized union of the set C is a set of worlds, the entailment condition can never be met, and therefore a PRP response in response to a question is always predicted to be felicitous.

(253) a. A: Est-ce que tu penses que Tom est venu?

is it that you think that Tom is come

*Do you think that Tom came?*

B1: Je pense que oui.

I think that yes

*I think that he did.*

b. \[ [U_{\text{Ant}}] \not\models \bigcup C? \text{ Yes} \]
- \[ [U_{\text{Ant}}] = \{ w \mid \text{Tom came in } w \}, \{ w \mid \text{Tom did not come in } w \} \} \]
- \[ \bigcup C = \{ w \mid \text{Tom came in } w \text{ or A came in } w \} \]

Hypothesis 2A accounts for a lot of data but it faces quite a few challenges which I turn to in the next section.

5.3.2.3 **Challenges for the proposed analysis**

The analysis of anti-givenness that I gave in terms of the non-entailment condition faces a number of challenges. In the following sections, I describe what three such challenges are.
A first challenge concerns factive predicates. Since hypothesis 2A is about entailment, it predicts factive verbs to interact with it since the use of a factive verb, e.g. *know that* *p*, entails that at least the speaker believes that *p*. For instance, example (254) is wrongly predicted to be unacceptable.

(254) a. Au fait, Jean ne sait pas encore que Marie est arrivée mais Jeanne sait que oui.

By the way, Jean does not yet know that Marie has arrived but Jeanne knows that she has.

b. \([U_{Ant}] \not\models \bigcup C\)? No

- \([U_{Ant}] = \{ w \mid \text{Jean does not know in } w \text{ that Marie has arrived} \}\)
- \(\bigcup C = \{ w \mid \text{Jeanne knows in } w \text{ that Marie arrived or Jean knows in } w \text{ that Marie arrived or the speaker knows in } w \text{ that Marie arrived} \}\)

If \([U_{Ant}]\) is true, it follows that, at least, the speaker knows that Marie has arrived, and since the speaker is a contextually-relevant individual, this is a plausible alternative in C. But this has the disastrous consequence of predicting that (254) is not acceptable. Even if we could justify not including the speaker alternative in C, this would then incorrectly predict that (255) is acceptable.²¹

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²¹ Note that it is not that *oui* cannot be embedded under *être content* ‘be happy’ at all since this sequence is perfectly good as a response to a question (i).

(i) a. Je me demandais si vous alliez aimer ... je suis content que oui !
   I asked if you went like ... I am happy that yes
   I was wondering whether you would like it ... I’m happy you did!

b. \([U_{Ant}] \not\models \bigcup C\)? Yes

- \([U_{Ant}] = \{ w \mid \text{you like it in } w \}, \{ w \mid \text{you don’t like it in } w \}\}\)
- \(\bigcup C = \{ w \mid \text{Jean is happy in } w \text{ that Marie arrived or the speaker is happy in } w \text{ that Marie arrived} \}\)
(255)  

a. #Au fait, Jean est mécontent que Marie soit arrivée mais

in fact Jean is unhappy that Marie has arrived but

moi je suis content que oui.

me I am happy that yes

Int. By the way, Jean is unhappy that Marie has arrived but I am happy that

she has.

b. \[ \llbracket U_{Ant} \rrbracket \not\supseteq \bigcup C? \] Yes

- \[ \llbracket U_{Ant} \rrbracket = \{ w \mid \text{Jean is unhappy that Marie has arrived} \} \]

- \[ \bigcup C = \{ w \mid \text{Jean is happy in } w \text{ that Marie arrived or the speaker is happy that Marie arrived} \} \]

The speaker’s assertion that \textit{Jean is unhappy that } p \textit{ entails that the speaker believes that } p \textit{ but it does not entail that the speaker is happy that } p. \textit{ Since } \llbracket U_{Ant} \rrbracket \not\supseteq \bigcup C, \textit{ example (255) should be acceptable but it is not.}

Note that example (254) and example (255) differ in one property that the non-entailment condition of hypothesis 2A is not sensitive to. Looking at the predicates in the first conjunct, one difference is that \textit{not know that } p \textit{ entails that the attitude holder does not believe } p, \textit{ whereas } be unhappy that \ p \textit{ entails that the attitude holder believes } p. \textit{ Example (254) opposes two different types of doxastic modal bases: Jean’s is ‘ignorant’ (i.e. Jean’s belief worlds are compatible with both } p \text{ and } ¬p \text{) whereas the speaker’s modal base contains only } p\text{-compatible worlds. In example (255), Jean’s doxastic alternatives are all worlds in which Marie has arrived and so are all of the speaker’s doxastic alternatives. If we take this difference at face value, we could think that what these factive examples are showing us is that (i) when deriving alternatives over contrastive DPs we should not include the speaker alternative, and (ii) an embedded PRP cannot be used if the attitude holder in the } U_{PRP} \text{ and the attitude holder in } U_{Ant} \text{ both believe the proposition that PRP } XP_{prej} \text{ denotes.}
But this idea is jeopardized by examples like (256) with *oublier* ‘forget’ which is not acceptable.22

(256) a. #Au fait, Jean a oublié que Marie est arrivée mais moi je me souviens que oui.

    *Int. By the way, Jean forgot that Marie has arrived but I remember that she has.*

b. $[[U_{Ant}]] \not \supseteq \bigcup C$? Yes

    - $[[U_{Ant}]] = \{w \mid \text{Jean forgot in } w \text{ that Marie arrived}\}$
    - $\bigcup C = \{w \mid \text{Jean remembers in } w \text{ that Marie arrived or Marie remembers in}\$

    w \text{ that Marie arrived}\}$

Even with these two rather difficult assumptions, example (256) is wrongly predicted to be acceptable since $[[U_{Ant}]]$ does not entail $\bigcup C$ and it is not the case that the attitude holders in $[[U_{Ant}]]$ and $[[U_{PRP}]]$ both believe that $p$ at the time of evaluation. In conclusion, making the two additional assumptions still does not permit us to capture the felicity pattern of PRPs embedded under factives in responses to assertions.

A second challenge is that non-entailment can be achieved through a difference in the tense of the embedding verbs in $U_{Ant}$ and $U_{PRP}$. In (257), clearly *Mary thought* $p$ does not entail *she thinks* $p$ now so hypothesis 2A incorrectly predicts that it is acceptable.

(257) a. #Elle pensait que Marie viendrait et/#mais elle pense toujours que oui.

    *Int. She thought that Marie would come and she still thinks she will.*

22. Example (256) is rated worse than the *not know* example (254), which is good, although (256) is also rated slightly higher than the *be happy* example (255), which is bad. I do not know whether this difference reflects a difference in grammatical status or whether it is due to other factors.
b. $\llbracket U_{\text{Ant}} \rrbracket \not\subseteq \bigcup C\text{? Yes}$
   - $\llbracket U_{\text{Ant}} \rrbracket = \{ w \mid x_i \text{ thought in w that Marie will come } \}$
   - $\bigcup C = \{ w \mid x_i \text{ thinks in w that Marie will come } \}$

So clearly, hypothesis 2A which requires mere non-entailment is too weak since the felicity condition that embedded PRPs impose on the utterance they are part of cares not only about the satisfaction of non-entailment but also about the way non-entailment is achieved.

Finally a third challenge is that non-entailment can be achieved through the use of different adverbs. According to hypothesis 2A, only NPs/DPs can be abstracted over for alternatives to be calculated. This has the unfortunate consequence of incorrectly predicting that the unacceptable example (258a) is acceptable.

(258) a. #Marie espère parfois que Tom échoue mais Jean espère à chaque fois que oui. 
   
   Int. Sometimes Marie hopes for Tom to fail but Jean hopes so every time.

b. $\llbracket U_{\text{Ant}} \rrbracket \not\subseteq \bigcup C\text{? Yes}$
   - $\llbracket U_{\text{Ant}} \rrbracket = \{ w \mid \text{Marie sometimes hopes in w that Tom fails} \}$
   - $\bigcup C = \{ w \mid \text{Jean always hopes in w that Tom fails or Marie always hopes in w that Tom fails} \}$

23. Note that (ia) and (ib), where non-entailment is satisfied through a change in the polarity of the PRP or of the embedding predicate, are good.

(i) a. Elle pensait que Marie viendrait et/mais maintenant elle pense que non. 
   
   She thought that Marie come.\text{COND} and\text{but now} she thinks that no

b. Elle ne pensait pas que Marie viendrait et/mais maintenant elle pense que oui. 
   
   She \text{NEG} thought \text{NEG} that Marie come.\text{COND} and\text{but now} she thinks that yes
This sentence becomes good once the polarity of the PRP has been changed (259).

(259) Marie espère parfois que Tom échoue mais Jean espère à chaque fois que non.

Sometimes Marie hopes for Tom to fail but Jean hopes for him to not fail every time.

This challenge is particularly mysterious as, from a certain angle, these examples are very similar to the examples with the verbs être sûr 'be sure' and penser 'think' (248 and 249): the adverbs, like the verbs, can be ordered on a Horn scale.

In conclusion, there is clearly something missing with hypothesis 2A as an analysis of the contrast condition regulating the distribution of embedded PRPs. On the other hand as I discuss below (and in the appendix), there are no obvious alternative analyses that would better capture the pattern of data we just went over.

5.3.3 Dismissing other potential explanations

In this section I argue that the contrast condition I have identified is indeed due to the felicity conditions on the use of embedded PRPs and not something else.

5.3.3.1 It is not about competition

One might think that the reason an embedded PRP is sometimes infelicitous is that it competes with another form. For instance in (260) oui is not possible but the proform en is.

(260) a. #Tom est sûr que Benjamin est venu et je suis sûr que oui aussi.

Tom is sure that Benjamin is come and I am sure that yes too

Tom is sure that Benjamin came and I’m sure of it too.
b. Tom est sûr que Benjamin est venu et j’en suis sûr aussi.

Tom is sure that Benjamin came and I of it am sure too

Tom is sure that Benjamin came and I’m sure of it too.

On the basis of the unacceptability of (260a) and the acceptability of (260b), one might therefore be tempted to posit the hypothesis in (263).

(261) Hypothesis 2B (competition): When a sentential proform may be used, it must be used.

This hypothesis predicts that if a sentential proform may be used, a PRP cannot. It is falsified by examples like (262) where both oui and the sentence-level proform en are possible.

(262) a. Tom n’est pas sûr que Benjamin soit venu mais moi je suis sûr

Tom NEG is NEG sure that Benjamin be.SUBJ come but me I am sure que oui.

that yes

Tom is not sure that Benjamin came but I’m sure of it.

b. Tom n’est pas sûr que Benjamin soit venu mais moi j’en suis sûr

Tom NEG is NEG sure that Benjamin be.SUBJ come but me I of it am sûr.

sure

Tom is not sure that Benjamin came but I’m sure of it.

Next, I show that the contrast condition I identified earlier cannot be blamed on an incompatibility of embedded PRPs and aussi ‘too’.

5.3.3.2 It is not that the sequence oui aussi is bad
Green (1973) observed that presupposition triggers like *too* and *either* are sometimes obligatory (see also Kaplan 1984, Zeevat 2006, Singh 2008 among others). All the infelicitous examples we have looked at were non-contrastive, that is cases where, depending on the polarity of the sentence, the French equivalent of *too* and *either*, *aussi* and *non plus* respectively, were obligatory. The distribution of *aussi* ‘too’ and *non plus* ‘either’ being subject to felicity conditions, one could imagine that the felicity conditions of PRPs are not compatible with those of *aussi* ‘too’ and *non plus* ‘either’. Since *aussi* ‘too’ and *non plus* ‘either’ must be used in constructions identified as non-contrastive, PRPs end up unacceptable in exactly the constructions that require *aussi* ‘too’ and *non plus* ‘either’, not because PRPs are ‘contrastive’ but because they are not compatible with *aussi* ‘too’ and *non plus* ‘either’. I name this hypothesis ‘hypothesis 2C’ or the *oui aussi* hypothesis for short.

(263) **Hypothesis 2C (*oui aussi*):** The adverbs *aussi* and *non plus* are not compatible with PRPs.

The issue with this hypothesis is that there is no problem with the sequences *oui aussi* in responses to questions whether in a coordinated construction (264) or a dialogue (265).

(264) A: Je me demande si Marie va tenir sa promesse.
   \[I \text{REFL ask if Marie goes hold her promise}\]
   \[I \text{wonder whether Marie will keep her promise.}\]

   B: Je pense que oui et Tom pense que oui aussi.
   \[I \text{think that yes and Tom thinks that yes too}\]
   \[I \text{think that she will and Tom thinks that she will too.}\]

(265) A: Je me demande si Marie va tenir sa promesse.
   \[I \text{REFL ask if Marie goes hold her promise}\]
   \[I \text{wonder whether Marie will keep her promise.}\]
B: Je pense que oui.
I think that yes
*I think that she will.*

C: Je pense que oui aussi.
I think that yes too
*I too think that she will.*

The same holds with *oui non plus* ‘yes no longer’ which requires the embedding predicate to be negated (266).

(266) A: Je me demande si Marie va tenir sa promesse.
I refl. ask if Marie goes hold her promise
*I wonder whether Marie will keep her promise.*

B: Je ne doute pas que oui.
I neg doubt neg that yes
*I don’t doubt that she will.*

C: Je ne doute pas que oui non plus.
I neg doubt neg that yes either
*I don’t doubt that she will either.*

Of course we could say that the felicity conditions on the use of *aussi/non plus* depend on whether they respond to questions or assertions but by doing this we would just situate the issue at another level.

5.3.3.3 **It is predicted by the acceptability of *mais* ‘but’**

In all the examples we have considered so far, whenever a PRP response to an assertion was felicitous, the conjunction *mais* ‘but’ was possible. One might wonder therefore whether the possibility to use *mais* ‘but’ predicts the possibility to use a response with an embedded PRP (267).

(267) **Hypothesis 2D (*mais* hypothesis):**

*mais* ‘but’ is possible → embedded PRP is possible
If such a hypothesis were right, we could reduce the felicity conditions on the use of embedded PRP to the felicity conditions on *mais* ‘but’ which have been well studied (see Umbach 2001; 2005, Sæbø 2003 among others).

There are however cases where *mais* ‘but’ is possible and embedded PRP responses are not: in (268) *mais* ‘but’ is perfectly acceptable but the corresponding sentence with embedded *oui* is not (269).

(268) Marie a dit à Jeanne qu’ Alex allait venir mais

Marie has told to Jeanne that Alex went come but

TOM$_F$ a dit à BILL$_F$ qu’il allait venir .

Tom has told to Bill that he was come

*Marie told Jeanne that Alex was going to come but TOM told Bill that he was.*

(269) a. #Marie a dit à Jeanne qu’ Alex allait venir mais

Marie has told to Jeanne that Alex went come but

TOM$_F$ a dit à BILL$_F$ que oui.

Tom has told to Bill that yes

*Int. Marie told Jeanne that Alex was going to come but TOM told Bill that he was.*

b. $\llbracket U_{Ant} \rrbracket \not\supset \bigcup C$? No

- $\llbracket U_{Ant} \rrbracket$: {w | Marie told Jeanne in w that Alex was coming }
- $\bigcup C = \{w |$ Tom told Bill in w that Alex was coming or Marie told Jeanne in w that Alex was coming or . . . }

Example (269) is correctly predicted to be infelicitous by hypothesis 2A since $\llbracket U_{Ant} \rrbracket$ entails $\bigcup C$. If however the polarity of $U_{PRP}$ were different, $\llbracket U_{Ant} \rrbracket$ would not entail any

24. Supposedly *mais* ‘but’ is licensed because the second conjunct negates the inference *Marie told Bill the secret/that Alex was coming* (Zeevat 2004 and Jasinskaja 2010 on opposition relations).
of the alternatives and we would predict the example to be acceptable. This is correct: the
polarity of the PRP can be changed as in (270), or the polarity of the embedding predicate
(271).

(270) a. Marie a dit à Jeanne qu’ Alex allait venir mais
   Marie has told to Jeanne that Alex went come but
   Tom a dit à Bill que non.
   Tom has told to Bill that no
   
   Marie told Jeanne that Alex was going to come but Tom told Bill that she was
   not.

   b. $\llbracket U_{Ant} \rrbracket \not\subseteq \bigcup C$? Yes
      - $\llbracket U_{Ant} \rrbracket$: \{ w | Marie told Jeanne in w that Alex was coming \}
      - $\bigcup C = \{ w | Tom told Bill in w that Alex was not coming or Marie told Jeanne
      in w that Alex was not coming or . . . \}

(271) a. Marie n’ a pas dit à Jeanne qu’ Alex allait venir mais
   Marie NEG has NEG told to Jeanne that Alex went come but
   
   TOM$_F$ a (bien) dit à BILL$_F$ que oui.
   Tom has well told to Bill that yes
   
   Marie didn’t tell Jeanne that Alex was going to come but TOM told Bill that
   he was.

   b. $\llbracket U_{Ant} \rrbracket \not\subseteq \bigcup C$? Yes
      - $\llbracket U_{Ant} \rrbracket$: \{ w | Marie did not tell Jeanne in w that Alex was coming \}
      - $\bigcup C = \{ w | Tom told Bill in w that Alex was coming or Marie told Jeanne in
      w that Alex was coming or . . . \}
The converse hypothesis (272), that the acceptability of an embedded PRP (in response to an assertion), predicts the acceptability of *mais* ‘but’ seems, in the absence of counterexamples, to be correct.

(272)  

*mais* is possible ← embedded PRP is possible

This could mean that *mais* and embedded PRPs are sensitive to the same kind of licensing conditions but the licensing conditions on embedded PRPs are more stringent than those on *mais* ‘but’.

5.3.3.4 It is not due to contrastive ellipsis

In the literature on ellipsis, the notion of contrast is mentioned very often. Since embedded bare PRPs involve ellipsis (see chapter 3), one could think that the contrast condition that I have shown PRPs to be sensitive to is just the contrast condition that applies to ellipsis and that there is nothing intrinsic to the PRPs that make them sensitive to contrast.

(273) Hypothesis 2E (contrastive ellipsis): There is nothing contrastive about PRPs. The constrative generalization (generalization A) is an effect of ellipsis.

a. Prediction 1: If the elided prejacent is spelled out, the PRP can be used in non-contrastive utterances.

b. Prediction 2: The notion of contrast that embedded PRPs are sensitive to is the same notion of contrast that VP and TP ellipsis are sensitive to.

Prediction 1 is incorrect because to the extent that a bare PRP is not acceptable (i.e. it is not responding to a question and it is not expressing a contrast with respect to the assertion it is responding to), the corresponding clause-peripheral PRP construction is not acceptable either (*c.f.* 274a and 274b). Moreover, this construction becomes perfectly natural once the PRP has been removed (274c).
(274) a. #Au fait [Tom est sûr que Benjamin est venu]$_{U_{Ant}}$ et [moi aussi je suis sûr que oui]$_{U_{PRP}}$.

Int. By the way, Tom is sure that Benjamin came and I too am sure that he did.

b. #Au fait [Tom est sûr que Benjamin est venu]$_{U_{Ant}}$ et [moi aussi je suis sûr que oui il est venu]$_{U_{PRP}}$.

Int. By the way, Tom is sure that Benjamin came and I too am sure that yes he did.

c. Au fait [Tom est sûr que Benjamin est venu]$_{U_{Ant}}$ et [moi aussi je suis sûr qu’il est venu]$_{U_{PRP}}$.

By the way, Tom is sure that Benjamin came and I too am sure that he did.

For completeness’ sake, note that in this instance, clause-peripheral PRPs are as acceptable as bare PRPs once the contrast condition is satisfied (cf 275a-275b and 275c-275d)\(^{25}\).

\(^{25}\) I think that there may be a prosodic difference between the bare and clause-peripheral cases; namely that clause-peripheral PRPs require to be accented in this case.
Prediction 1 is thus incorrect. I think that even more problematic is the second prediction since the contrast conditions on VP and TP ellipsis that have been identified in the literature are fundamentally different from what PRPs are sensitive to.

I have argued before that embedded bare PRPs, whether they respond to a question or to an assertion, come with an elided prejacent. We have also seen that embedded PRPs are
contrastive and in that, they differ from some cases of clausal ellipsis, like stripping (c.f. 276a and 276b) and modal ellipsis\textsuperscript{26} (c.f. 276b and 276c).

\begin{enumerate}
\item \textbf{Clausal ellipsis}
\begin{quote}
Je pense que Marie a lu Bonjour Tristesse et je pense que François aussi.
\end{quote}
\begin{quote}
\textit{I think that Marie has read Bonjour Tristesse and I think that François too.}
\end{quote}
\item \textbf{Embedded PRP}
\begin{quote}
*Je pense que Marie a lu Bonjour Tristesse et je pense que François oui (aussi).
\end{quote}
\begin{quote}
\textit{I think that Marie has read Bonjour Tristesse and I think that François has too.}
\end{quote}
\end{enumerate}

\begin{enumerate}
\item \textbf{Int.} I think that Marie has read Bonjour Tristesse and I think that François has too.
\end{enumerate}

\textsuperscript{26} See for Authier 2013 for more detail. It seems most of the examples of modal ellipsis given in this paper involve a contrast in polarity as in (i).

(i) Tom veut que Marie lise Bonjour Tristesse mais moi je veux pas.
Tom wants that Marie read.SUBJ Bonjour Tristesse but me I want not
\begin{quote}
\textit{Tom wants Marie to read Bonjour Tristesse but I don’t want her to.}
\end{quote}
This is not to say that examples that do not involve such a contrast are not acceptable since Authier does give a few examples without such a contrast. Besides, that preference disappears if there is no ellipsis (ii), which is quite different from what we find with embedded PRPs.

(ii) Tom veut que Marie lise Bonjour Tristesse et je veux qu’elle le lise aussi.
Tom wants that Marie read.SUBJ Bonjour Tristesse and I want that she it read.SUBJ too
\begin{quote}
\textit{Tom wants Marie to read Bonjour Tristesse and I want her to too.}
\end{quote}
Other kinds of ellipsis require contrast too like (pseudo)-gapping does require contrast.
c. Modal ellipsis

Tom veut que Marie lise Bonjour Tristesse et je veux aussi.

Tom wants that Marie read Bonjour Tristesse and I want too.

*Tom wants Marie to read Bonjour Tristesse and I want her to too.*

In fact, if we take the conditions on ellipsis as formulated in e.g. Johnson 2001, taken from Rooth (1992)’s conditions on ellipsis and copied in (277), example (276a) is good since the two embedded subjects contrast. Note that this contrast is not sufficient to make (276b) acceptable. The account in Johnson 2001 predicts that any kind of element (DPs, polarity, both, ...). can satisfy the contrast condition. Clearly this will not do for embedded PRPs.\(^\text{27}\)

(277) Contrast condition in Johnson 2001 (from Rooth’s theory of focus)

a. An elided VP must be contained in a constituent which contrasts with a constituent that contains its antecedent VP.

b. $\alpha$ contrasts with $\beta$ iff
   
   (i) Neither $\alpha$ nor $\beta$ contain the other, and
   
   (ii) For all assignments $g$, the semantic value of $\beta$ w.r.t. $g$ is an element of the focus value of $\alpha$ w.r.t. $g$.
   
   (iii) The focus value of $[\xi\ldots\gamma\ldots]$, where $\gamma$ is focused, is $\{[[\phi]]: [\phi\ldots x\ldots]\}$, where $x$ ranges over things of the same type as $\gamma$ and the ordinary semantic value of $\xi$ is identical to $[[\phi]]$ except that $x$ replaces $\gamma$.

As Johnson explains, the condition on ellipsis in (277) requires the constituent containing the elided VP to also include a focused element. The focused element causes that constituent to contrast with the constituent that contains the antecedent VP. For instance in (278), (a) is good because the focused item *she* contrasts with *Mag* (the focus value of the

\(^{27}\) In fact, Crowley 2016 also noticed this issue about a kind of constrative polarity phenomenon in English.
constituent \([\text{she}_{2,F} \text{ ate}]\) in (278a) contains \([\text{Mag}_1 \text{ ate}]\). In contrast, the focus value of \([\text{she}_2 \text{ could}_{F} \text{ eat}]\) in (278b) does not contain \([\text{Mag}_1 \text{ ate}]\).

(278) Examples and judgments from Johnson 2001

a. \(\text{Mag}_1 \text{ ate more than she}_{2,F} \text{ had.}\)

b. \(*\text{Mag}_1 \text{ ate more than she}_2 \text{ could}_{F}.*\)

While a contrast in DP identity is enough to license VP ellipsis, it is not enough to license the use of an embedded PRP. Relatedly, Romero 1998 discusses cases of clausal ellipsis (stripping) whose felicity conditions involve contrast. For instance, she wants to explain why (279a) is bad but (279b) is good.

(279) a. \(*\text{We know how many papers this reviewer has read, but they don’t know HOW MANY.}\)

b. \(\text{We know how many papers this reviewer has read, but THEY don’t know how many.}\)

The idea, also from Rooth 1992 and Schwarszchild 1999, is that a focused constituent must contrast with a preceding constituent, its antecedent, in the same syntactic position. In (279a), the focused constituent – \(\text{how many}\) – does not contrast with its antecedent in the same syntactic position so the sentence is unacceptable. In (279b) however, the focused constituent is the subject \(\text{they}\) and it does contrast since its antecedent is in the same syntactic position, the sentence is therefore good.\(^{28}\) Romero uses Rooth’s general theory of focus which correctly predicts for the sluicing examples she discusses that any contrast will do. For instance, as we saw above, it is acceptable for the two questions – the

\(^{28}\) One question that is not addressed is whether the following, which is predicted to be good, actually is possible.

(i) \(\text{We know how many papers this reviewer has read, and THEY know how many too.}\)

It is also not clear whether focus is always required but it seems that it is not. Focusing elements is a way to save a construction that would otherwise be bad.
sluiced one and the antecedent – to be identical, as long as something, e.g. the subject DP, is contrastive. As far as embedded PRPs are concerned we saw that if the embedded PRP and its antecedent are identical (i.e. same polarity, same subject), it is not enough to just change the embedding verb’s subject (280).

(280) #Au fait [Tom est sûr que Benjamin est venu]_{U_Ant} et [moi aussi je suis sûr que oui]_{U_{PRP}}.

Int. By the way, Tom is sure that Benjamin came and I too am sure that he did.

5.3.4 Conclusion

The analysis I proposed accounts for a lot of data:

1. all the data amenable to generalization A in table 5.4

2. cases where the conjunction mais is licensed but PRPs are not

3. neg raising / non-neg raising asymmetry

4. the asymmetry between examples that contain quantifiers that presuppose existence vs quantifiers that do not (e.g. many vs. few)

5. scalar predicates like être sûr ‘be sure’ and penser ‘think’

6. the fact that in response to questions, embedded PRPs are always felicitous (provided the conditions on their embedding are all there)

But it does so at the cost of positing unheard of alternatives that abstract over focused DPs only (as opposed to any focused item as in Rooth 1992’s theory of focus interpretation). Moreover, the analysis as it is formulated in hypothesis 2A faces a couple of serious empirical challenges.
The intuition I have tried to make more precise as hypothesis 2A should be clear though: embedded PRPs are rather paradoxical elements. On the one hand, PRPs mark the clause in their scope as being given (this is necessarily so with embedded bare PRPs since in that case the elided clause must be recoverable, hence given in the context). On the other hand, embedded PRPs require that the utterance they are in be not given. Using embedded PRPs thus requires satisfying these two somewhat paradoxical requirements. It is perhaps not surprising that the adjusting variable should be polarity in response to antecedent assertions whose polarity is given. In questions, the situation is different: the polarity is not given (its choice is the topic of the question), and the non-givenness requirement is thus always met.

5.4 PRP responses to assertions as strong global PPIs (generalization B)

Remember that generalization B in (219) is the generalization that oui/non cannot appear under a negative (DE) embedding predicate when it responds to an assertion although this is possible in response to a question as shown in chapter 4. Compare (281) and (282).

(281) Response to question

Carine lui a demandé si Virginie est arrivée mais

Carine has him asked if Virginie is arrived but

il a dit qu’il n’est pas sûr que oui. 30

he has said that he NEG is NEG sure that yes

Carine asked him whether Virginie has arrived but he is not sure that she has.

30. One might well wonder why such an assertion should be felicitous at all. After all, its informativity is minimal: all it says is that the attitude holder’s doxastic set contains at least one world where Virginie has not arrived. On a related topic, see Crone 2016 on uninformative assertions and Bledin & Rawlins 2016 on ‘resistance moves’.
Response to assertion

#Carine est sûre que Virginie est arrivée mais
Carine is sure that Virginie is arrived but
il a dit qu’il n’est pas sûr que oui.
he has said that he NEG is NEG sure that yes

*Int. Carine is sure that Virginie has arrived but he is not sure that she has.*

This generalization follows from the stronger PPIhood / response to assertion correlation (283).

(283) Stronger PPIhood / response to assertion correlation:
When embedded *oui/non* respond to an assertion, they are global PPIs anti-licensed by DE operators.

In response to assertions, embedded *si* retains the exact same properties as when it is used to respond to questions. Things are different for embedded *oui* and *non*: in response to questions, they are anti-licensed by at least AA operators and their (anti-)licensing is evaluated locally. Interestingly, in response to assertions, their polarity sensitivity aligns with that of *si*: they are evaluated globally and are anti-licensed by AA operators (283).

Table 5.5 compares conditions on embedded PRPs used in responses to questions and in responses to assertions (*si* retains the same properties whether it is used in response to questions or assertions).

<table>
<thead>
<tr>
<th></th>
<th>Q-response oui, non</th>
<th></th>
<th>A-response oui, non</th>
</tr>
</thead>
<tbody>
<tr>
<td>local AA element</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>non-local AA element</td>
<td>✓</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>exactly 1 (local or not) at least DE element</td>
<td>✓</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>even number of entailment-reversing elements</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

Table 5.5: Strength of PPIhood of embedded PRPs in response to questions and assertions
First I show that, like embedded *si*, embedded *oui/non* in response to assertions (i) are anti-licensed by DE operators, (ii) can be flip-flopped and (iii) shielded (since then they are not in a DE environment). Second I show that, like embedded *si* again, they cannot be under (an odd number of) super-ordinate negation(s) since their (anti-)licensing is evaluated globally (as opposed to locally when they respond to questions).

### 5.4.1 Embedded PRPs in response to assertions are anti-licensed by DE operators

Embedded *oui/non* in response to assertions can be rescued just like embedded *si* can. Examples of flip-flop in responses to assertions are necessarily convoluted since the PRP utterance must contrast with its antecedent while containing two entailment-reversing operators. Consider (284). Again the example is convoluted, but I think that in a specified context, it is felicitous. For instance, imagine that you were watching a race and saw Tom fall after Marie overtook him. Mary says it was an accident but Tom does not believe it.

(284) *Au fait, Tom nie avec force que Marie n’est pas coupable mais, by_the_way Tom denies with strength that Marie NEG is NEG guilty but la connaissant, il n’est pas possible de ne pas (au moins) envisager her knowing it NEG is NEG possible to NEG NEG at least consider que non.*

that no

*By the way, Tom strongly denies that Marie is not guilty but, knowing her, it’s not possible not to at least consider that she is not.*

It might perhaps seem surprising to find that contrastive PRP responses to assertions under negated cognitive factives are acceptable (285 and 286) but in fact it is predicted since we saw that negated cognitive factives do not create DE environment since the factive presupposition ‘intervenes’ and destroys the DEness of the constituent.
5.4.2 Embedded PRPs in response to assertions are global PPIs

When oui/non (and si) are embedded in a response to an assertion, they cannot be in the scope of super-ordinate negation. This is surprising since this does not cause anti-licensing in responses to questions: in response to a question, embedded oui/non (like other PPIs e.g. something) are not anti-licensed by non-local negation. In (287), the negation negates pouvoir ‘can’ which embeds an infinitival clause and que oui is not anti-licensed in response to the question of whether Marie is pregnant.
(287) Au fait, Tom se demande si Marie est enceinte mais je ne peux pas
by_the_way Tom REFL ask if Marie is pregnant but I NEG can NEG
croire que oui.
believe that yes

By the way, Tom is wondering whether Marie is pregnant but I cannot believe
that she is.

But in (288), embedded oui, where it is embedded in a response to an assertion, is not
felicitous.

(288) #Au fait, Tom est persuadé que Marie est enceinte mais je ne peux pas
by_the_way Tom is persuaded that Marie is pregnant but I NEG can NEG
croire que oui.
believe that yes

Int. By the way, Tom is convinced that Marie is pregnant but I cannot believe that
she is.

This is similar to what we observed when si is embedded under super-ordinate negation
in a response to a question (see chapter 4).31

31. Another example is (i); in (a.) the PRP oui is anti-licensed by the super-ordinate entailment-reversing
attitude verb refuser ‘refuse’, but once that element is removed, the PRP non is not anti-licensed and the
construction is acceptable.
(i) a.#Marie a éraflé ma voiture mais elle refuse de dire que oui.
Marie has scratched my car but she refuses to say that yes

Int. Marie scratched my car but refuses to say so.

b. Marie a éraflé ma voiture mais elle dit que non.
Marie has scratched my car but she says that no

Marie scratched my car but says she didn’t.

When oui is embedded in a response to a question, the PRP oui can be embedded under refuser ‘refuse’
(ii).
5.5 Conclusion

The discussions in this chapter contribute to our knowledge of at least two broad areas of linguistics. First, it is quite clear that embedded PRPs in French are devices used to signal polarity focus or contrastive polarity (Breitbarth, De Clercq, & Haegeman 2013). The literature on these topics is, to my knowledge, quite varied in that it has identified several phenomena as marking polarity focus or contrastive polarity (e.g. verum focus in English (Gutzmann, Hartmann, & Matthewson 2017), emphatic polarity in Spanish and Catalan (Batllori & Hernanz 2013) or emphatic assertions in Nupe (Kandybowicz 2013) among others), but it is not clear whether there are any constants in the expression of polarity focus or contrastive polarity. It is also not clear what the parameters of variation are. In short, what is lacking is a typology of the expression of polarity focus or contrastive polarity. Moreover, the examples I have looked at are more complicated than any that are generally discussed in the discussions of polarity focus. They show that the properties of other elements in the sentence determine what constitutes polarity contrast. Secondly, this chapter contributes to the growing literature on differences between responses to questions and assertions (Sailor 2014 on ‘retorts’, Holmberg 2001; 2007, Lipták 2013, Westera 2017). Of particular interest are the polarity facts. It remains to be determined why embedded PRPs become stronger PPIs in response to assertions.

(ii) A: Est-ce que Marie a éraflé ta voiture ?
     is it that Marie has scratched your car
     Did Marie scratch your car?
B: En tout cas, elle refuse de dire que oui.
     in any case she refuses to say that yes
     Well, she refuses to say so.
CHAPTER 6
ON THE INTERPRETATION OF EMBEDDED NON

6.1 Introduction

Although we saw that oui/non on the one hand, and si on the other, have different sensitivities to their polar environment, for the most part I have treated the three PRPs oui, non, si as merely different exponents of the head Pol following Roelofsen & Farkas 2014. In this chapter, I look at the semantics of non.

This chapter expands on various remarks made in several places in the literature (Thoms 2012; Holmberg 2013; Brasoveanu et al. 2013) concerning the possibility to do negative neutralization. I show and provide an explanation for the generalization (established below) that non’s denotation depends not only on the polarity of its antecedent, but also on the scope of negation w.r.t other scope-bearing operators in the antecedent.

6.2 The interpretation of non preserves the scope-relations in its antecedent

6.2.1 Introduction: the puzzle

In answer to a negative question $\neg p?$ containing no scope-bearing operator other than negation, a sentence with embedded non asserts the questioned proposition $\neg p$ without negating it (keeping pronunciation and the position of negation constant (Holmberg 2013; Goodhue & Wagner submitted)).

1. The specific example that Thoms reports and that we are concerned with here is actually from Holmberg 2013.
(289) A: Est-ce que Tom n’a pas été au travail à l’heure cette année ?

is it that John NEG has NEG been at work on time this year

Has John not shown up for work on time this year?

B: Je crois que non.

I believe that no

I believe that he has not shown up for work on time this year.

As schematized in (290), the proposition that [non XP_{prej}] asserts is the same as the proposition in the scope of the question operator. In Roelofsen & Farkas (2014)’s terms, the response in (289B) contains agree non.

(290) Meaning of no/non as a function of polarity of the question (B responses)

<table>
<thead>
<tr>
<th>Subject = Tom</th>
<th>−p?</th>
</tr>
</thead>
<tbody>
<tr>
<td>−p</td>
<td>(289)</td>
</tr>
</tbody>
</table>

The next question is exactly the same as (289) except that the quantifier souvent ‘frequently’ has been added: notice that now answering with non asserts the negation of the questioned proposition −p².

(291) A: Est-ce que Tom n’a souvent pas été au travail à l’heure cette année

is it that John NEG has frequently NEG been at work on time this year?

Has John frequently not shown up for work on time this year?

2. As far as I know, this data point was first noticed in English in Holmberg 2013. Similar patterns were reported in Brasoveanu et al. 2013.
B1. Je crois que oui.

I believe that yes

I believe that he has frequently not shown up for work on time this year.

B2. #Je crois que non.

I believe that no

Int. I believe that he has frequently not shown up for work on time this year

B3. Je crois que non.

I believe that no

I believe that he has not frequently not shown up for work on time this year.

As summarized in (292), embedded non seems not to contribute negation when its negative antecedent does not contain other scope-bearing operator than clausal negation but it does when its negative antecedent contains the quantifier souvent ‘often’ in the scope of negation. In Roelofsen & Farkas (2014)’s terms, in (289) agree non is used whereas in (291) reversal non is used. I take both ways of talking about what non does (i.e. non contributes negation or does reversal) as being equivalent.

(292) Meaning of no/non as a function the scope-bearing operators it contains (B responses)

\[
\begin{array}{c|c}
\neg p? \\
\hline
\text{No-scope bearing operator in } p & \neg p \ (289) \\
\text{Scope-bearing operator in } p = \text{souvent} & \neg \text{svt} \ (291)
\end{array}
\]

In this chapter, I explain the seemingly different behavior of non by answering the question in (293).

(293) Why does non negate the questioned proposition in example (291) but not in (289)?
First I show that the descriptive generalization in (294) holds.

(294) Generalizations about the interpretation of *non*

In the LF representation of a sentence containing embedded *non*:

a. if negation is the outermost scope-bearing operator in the prejacent, *non* does not contribute negation

b. if negation is NOT the outermost scope-bearing operator in the prejacent, *non* contributes negation

After presenting the data motivating the generalization in (294), I look at sentences containing neg-raising predicates and show that the generalization must be stated at LF (and not over denotations). I then propose two potential analyses of the data presented in this chapter.

### 6.2.2 Establishing the descriptive generalization

#### 6.2.2.1 Negative answers to positive questions

In answer to a positive/non-negative question $p\text{?}$, answering with *nolnon* asserts the negation of the questioned proposition $\neg p$ whether $p$ contains a scope-bearing operator or not

(295) A: Est-ce que Tom a fini son assiette ?

is it that Tom has finished his plate

*Did Tom finish his plate?*

B: Je crois que non.

I believe that no

*I believe that he didn’t.*
A: Est-ce que John a souvent été au travail à l’heure cette année ?

is it that John has frequently been at work on time this year

Has John frequently shown up for work on time this year?

B: Je crois que non.

I believe that no

I believe that he has not frequently shown up for work on time this year.

We therefore have the following more complete picture (297).

(297) Meaning of non as a function of the polarity of the question and the scope-bearing operators it contains (B(2) responses)

<table>
<thead>
<tr>
<th></th>
<th>p?</th>
<th>¬p?</th>
</tr>
</thead>
<tbody>
<tr>
<td>No scope-bearing op. (S=Tom)</td>
<td>[¬p] (295)</td>
<td>[¬p] (299)</td>
</tr>
<tr>
<td>Scope-bearing op. = souvent ‘often’</td>
<td>[¬souvent] (296)</td>
<td>[¬souvent] (291)</td>
</tr>
</tbody>
</table>

6.2.2.2 [non XP prej] as a function of the scopal relation in Q

I have looked at three kinds of responses containing non: bare non, clause-peripheral non, and bare emphasized NON with descending-rising tones. In the next example I look at a negative question containing the ∀ quantifier in the DP tout le monde ‘everyone’.

(298) Context: There has been a terrorist attack but a rumor says that by chance no one has died. I ask a policeman:

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3. As will become clear below, my intuitions and that of my informants accord in that emphasized NON behaves differently from non-emphasized non, whether bare or clause-peripheral. Although I give basic observations on this difference, I mostly focus on non-emphasized non. More research on emphasized NON is needed, especially in the light of the role of intonation for PRPs evinced in Goodhue & Wagner submitted.
A: Est-ce que tout le monde n’est pas mort ? (∀¬)

is it that every the world NEG is NEG dead

Has everybody not died?

B: Je crois que non (¬∀¬)

I believe that no

I think that some people died.

Compare with a minimally different example in which the non-referential subject tout le monde ‘everyone’ has been replaced with a referential one Marc: non does not contribute negation.

(299) Context: There has been a terrorist attack, a rumor says that everyone has died except for one security guard possibly called Marc. My brother Marc happened to be working there as a security guard. I ask a policeman:

A: Est-ce que Marc n’est pas mort ? (¬p)

is it that every the world NEG is NEG dead

Has Marc not died?

B: Je crois que non. (¬p)

I believe that no

I think that he is not dead.

With the same question involving tout le monde ‘everyone’, another easier scope relation, ¬∀, yields a different response pattern with non: ¬ is higher and agrees with non, thereby providing only one semantic negation.
Context: I know there are people who died, but last time there were many survivors, so I wonder if this time too, everybody did not die.

A: Est-ce que tout le monde n’est pas mort ? (¬∀)

Are there people who did not die? (lit. Has everybody not died?)

B1. Je crois que non. (¬∀)

I believe that no

I think that not everybody is dead.

B2. ?Je crois que NON. (¬¬∀)

I believe that no.

I believe that everybody is dead

If the generalization is accurate, we expect that a non answer to a negative question with PPI quelqu’un ‘someone’ will be different from a non answer to a negative question with N-word personne ‘nobody’ (where N-words are existential quantifiers obligatorily in the scope of negation). This is what we find: a negative question with subject quelqu’un ‘someone’ necessarily has the scope ∃¬ and as per the generalization, a non answer asserts ¬∃¬ (301).

(301) Est-ce que quelqu’un n’a pas fini son assiette ? (∃¬, *¬∃)

Has someone not finished their plate?

B1. Je crois que oui. (∃¬)

I think that yes

I think that someone has not finished their plate.
B2. Je crois que non. ($\neg \exists$)

I think that no

I think that everybody has finished.

A negative question with subject personne ‘nobody’ necessarily has the scope $\neg \exists$ and as per generalization 2, a non answer asserts $\neg \exists$ (302).

(302) Est -ce que personne n’ a fini son assiette ? (*$\exists \neg$, $\neg \exists$)

is it that nobody NEG has finished his plate

Has nobody finished their plate?

B1. ?Je crois que oui.$^5$($\neg \exists$)

I believe that yes

B2. Je crois que non.

I believe that no

I believe that no one finished. ($\neg \exists$)

*I believe that someone finished. ($\neg \neg \exists$)

B3. Je crois que NON. ($\neg \neg \exists$)

I believe that no

I believe that no, someone has finished.

I have tested several scope-bearing operators (in subject, object, oblique positions where applicable), here is the summary.

5. Note that the clause-peripheral version (i) is perfectly acceptable and appropriate here.

(i) Je crois que oui, personne n’ a fini son assiette. ($\neg \exists$)

I believe that yes nobody NEG has finished his plate

I think that, yes, nobody has finished their plate.

It is not entirely clear to me whether bare oui is completely acceptable (with this reading).
Moreover, note that whatever the number of operators in the antecedent, all that matters is the height of clausal negation relative to these operators.\(^6\) Thus in (303), a response with *non* negates its antecedent containing the sequence \(\exists \gg \neg \gg \exists\). However in (304) where both quantifiers are in the scope of negation and negation is thus the highest operator in the sequence \(\neg \gg \exists \gg \exists\) and the *non* response does not contribute another negation.

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\(^6\) I thank Donka Farkaš for suggesting that I look at these configurations.
(303) Op \neg Op

A. Est -ce que quelqu’un n’a rien fait ? (\exists \neg \exists, \neg \exists \exists, \exists \exists \neg)  
is it that someone \text{NEG} has nothing done

Has someone not done anything?

B. Il me semble que non. (\neg \exists \exists \neg, \exists \exists)  
it to me seems that no

It seems to me that no one did nothing/everyone did something

(304) \neg Op Op

A. Est -ce que personne n’a rien fait ? (\exists \exists, \neg \exists \exists, \exists \exists \neg)  
is it that nobody \text{NEG} has nothing done

Has nobody done anything?

B. Il me semble que non. (\neg \exists \exists \neg, \neg \exists \exists)  
it to me seems that no

It seems to me that no one did anything.

From the examples above and the generalization repeated in (305), we know that the scope relation that matters is not the one that holds semantically in the denotation of the question since after all \( \forall \neg = \neg \exists \) and yet those scope relations yield different response patterns with \textit{non}. Neg-raising predicates are a case where we see clearly again that the relevant scope relations are calculated at LF.

(305) Generalization about the interpretation of \textit{non}

In the LF representation of a sentence containing embedded \textit{non}:

a. if negation is the outermost scope-bearing operator in the prejacent, \textit{non} does not contribute negation
b. if negation is NOT the outermost scope-bearing operator in the prejacent, *non* contributes negation

### 6.2.3 The descriptive generalization is to be stated at LF

If we assume the excluded-middle analysis of neg-raising (Bartsch 1973), a sentence with the neg-raiser *vouloir* ‘want’ and the strong NPI *du tout* ‘at all’ like (306) is such that the neg-raiser *vouloir* ‘want’ achieves wide scope over (semantic) negation while being in its syntactic scope all along (i.e. semantically only the lower predicate is negated).

(306) Est *-ce qu’elle ne veut pas terminer son assiette du tout?*

*Does she not want to finish her plate at all?*

a. LF

```
CP
  Q
    NEG
      elle
        veut
          VP
            terminer son assiette du tout
```

b. \[[CP]=\{\forall w'\in\text{BOUL}_{w,x} \neg x \text{ finishes } x\text{'s plate in } w', \forall w'\in\text{BOUL}_{w,x} x \text{ finishes } x\text{'s plate in } w'\}\]

Let’s entertain for the sake of argument that the generalization in (294) could be stated in terms of semantic scope relations. Since, according to the excluded-middle analysis of neg-raising (Bartsch 1973), neg-raising predicates constitute a case where semantic and syntactic scope come apart, a response containing embedded *non* to (306) like (307) is...
predicted to have different interpretations depending on whether the generalization is stated at LF or at the semantic level.\(^7\)

If negation at LF matters, we expect an embedded *non* response like (307) to the question in (306) to mean *she wants not to finish her plate at all* (after the excluded-middle presupposition has been taken into account). If, however, semantic negation matters, we expect the embedded *non* response to mean *it is not the case that she wants not to finish her plate at all.*

(307) Je crois que non.

    I believe that no

7. Focussing (i) or clefting (ii) are another case where semantic scope and syntactic scope might come apart. In the case of constructions containing a neg-raising predicate and negation (and a strong NPI to enforce neg-raised reading), we saw that negation has syntactic scope over the neg-raiser – *vouloir* ‘want’ in (306) – while semantically being in the scope of the neg-raiser. Arguably, it seems that in focussed (i) or cleft (ii) constructions, a similar ‘misalignment’ is at play: a referring subject has syntactic scope over negation while being semantically in the scope of negation. Notice that if this characterization is somewhat on the right track, then it explains why in these constructions, *non* is interpreted as contributing negation.

(i) Context: Everybody’s gone from the table. All the plates are empty except one.

A: Est-ce que MARIE n’a pas fini son assiette? (Marie-?) subject focus

    Has MARIE not finished her plate?

B1. Je crois que oui. (Marie-)

    I believe that yes

    *I think that Marie didn’t finish her plate.*

B2. Je crois que non. (Marie-)

    I believe that no

    *I think that it’s not Marie who didn’t finish her plate.*

(ii) Context: Everybody’s gone from the table. All the plates are empty except one.

A: Est-ce que c’est Marie qui n’a pas fini son assiette? (Marie-?) cleft

    Is it Marie who has not finished her plate?

B1. Je crois que oui. (Marie-)

    I believe that yes

    *I think that Marie didn’t finish her plate.*

B2. Je crois que non. (Marie-)

    I believe that no

    *I think that it’s not Marie who didn’t finish her plate.*

More research is needed on these kinds of construction.
a. Interpretation as predicted by LF generalization:
   I think that she wants not to finish her plate at all.

b. Interpretation as predicted by semantic negation generalization:
   * I think that it is not the case that she wants not to finish her plate at all.

The meaning of (307) is ‘I think that she wants not to finish her plate at all’. The meaning of the embedded *non* response is predicted if the descriptive generalization repeated in (308) is stated over its LF representation.

(308) Generalization about the interpretation of *non*

In the LF representation of a sentence containing embedded *non*:

a. if negation is the outermost scope-bearing operator in \( XP_{prej} \), *non* does not contribute negation

b. if negation is NOT the outermost scope-bearing operator in \( XP_{prej} \), *non* contributes negation

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8. If we assume that in *ne que* constructions (i), what we see what we get and negation is the highest operator at LF (as signalled by *ne*), then these constructions contradict the generalization I arrived at. This is because, a response to such a question containing embedded *non* negates/reverses the polarity of its negative antecedent, which, under my characterization of all the examples seen so far, is predicted not to be possible.

(i) A: Est-ce qu’il ne connaîtt que l’anglais ?
   Does he know English only?
   is it that he NEG knows that the english
   
   B1: Je crois que oui.
   I believe that yes
   I think that he knows English only.

   B2: Je crois que non.
   I believe that no
   I think that it is not the case that he knows English only.

On the other hand, perhaps my characterization is right and the interpretation of embedded *non* responses to questions containing *ne que* provides us with a hint of what the underlying syntax of *ne que* constructions really is. More research is needed on these constructions.
6.2.4 Analysis

As discussed in chapter 1, I follow Holmberg 2013 in assuming that the prejacent of *non* has an antecedent \(XP_{ant}\), i.e. there is a syntactic structure (LF) in the context that is identical to the elided clause, \(XP_{prej}\). I follow Holmberg 2013’s theory of PRP antecedent retrieval via copying. I keep the basic intuition of Holmberg and Thoms that *non* establishes a dependency with the polarity head of its prejacent or coda (if it is the answer). However, both come short of predicting the pattern of data I have shown to hold in French as can be seen with how they explain that, in English, when a negative question contains *sometimes* (309), a *no* response has double-negation.

(309) A: Is John sometimes not coming?
    B: No. (=He is not sometimes not coming)

As I explain in detail in the next section, indeed both their explanations rely on their analysis of negation in the prejacent of *no* as being a case of ‘low’ negation (thus leaving the polarity head unvalued). But in the cases we have examined in French, there is no reason to assume that the negation changes position when a scope-bearing operator scopes over negation. I believe there are two ways one could go about deriving the descriptive generalization stated in (308). I call one type of analysis the intervention analysis and the other type, the scope-relation preservation analysis.

The intervention analysis capitalizes on an idea already expressed in Thoms 2012 that the reason a *no* response to the question in an example like (309) is interpreted as doubly-negated is that the concord dependency that *no* creates with the closest clausal negation in its scope is broken by an intervening element.\(^9\) Following the descriptive generalization in (308), I propose that scope-bearing elements are the elements that intervene and break the

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\(^9\) For Thoms, what intervenes in the English response in (309) is a polarity head with a positive value. I discuss Thoms’ proposal below and show that it is inadequate to handle the French data because, among other reasons, there is no reason to assume that the French equivalent to the question in (309) involves a positive polarity head.
concord dependency between embedded *non* and clausal negation. We can thus formulate the intervention analysis as in (310).10

(310) The intervention analysis

a. If *non*'s $XP_{\text{prej}}$ has clausal negation, *non* agrees with it, unless a scope-bearing operator intervenes between *non* and clausal-negation

b. If *non*'s $XP_{\text{prej}}$ does not contain negation, *non* is interpreted

Following Holmberg 2013, I assumed that *non* always wants to establish an agreement dependency with the closest Pol head in its scope (this agreement dependency can result in valuation of the Pol head or concord if the Pol head is already valued). However, sometimes the agreement dependency cannot be established and in that case, *non* is interpreted on its own. When intervention occurs, *non* and $\text{Pol}_{\text{val}:--}$ are interpreted separately. In answer to a positive question, *non* shares its value with the Pol head thus valuing it negatively.

(311) Concord

(312) No-concord

At this stage, this proposal is unfortunately only a half analysis since it does not account for why any scope-bearing operator can disrupt negative concord. Perhaps, looking at similar configurations (where a scope-bearing element intervenes in a concord dependency)

10. The concord dependency between *non* and clausal negation I hypothesize is reminiscent of negative concord dependencies (Zeijlstra 2004) where two negative elements, that can each be interpreted independently, can, under certain conditions, both be interpreted together as just one negation. It would be interesting to see if, in languages that have negative concord, it is possible for a scope-bearing element to intervene and whether in that case, both negations are still interpreted together or each independently (double-negation). To my knowledge, such configurations have not been reported.
will bring answers and strengthen this analysis. For now, I would like to explore another analysis which does not rely on the concept of intervention, the scope-relation preservation analysis.\footnote{This analysis uses a similar idea already expressed in Krifka 2013, with different data, where no has access to discourse referents (antecedents) of different sizes.}

In the scope-relation preservation analysis (313), once $XP_{ant}$ has been copied to the right of $non$, $non$ establishes a concord dependency with the closest Pol head in its scope by (i) assigning it the value \textit{negative} and (ii) making its feature uninterpretable (correlate of concord). Following this, uninterpretable Pol heads, if there are any, are erased from the LF. Identity between a PolP in the LF of $[non \; XP_{prej}]$ and the LF of $XP_{ant}$ must still hold. If identity does not hold anymore, then concord does not take place and both Pol heads remains interpretable.

\begin{itemize}
\item \textbf{(313) The scope-relation preservation analysis}
\item The LF of a structure containing embedded $non$ is subject to the following two conditions:
\item \textbf{a. A constituent in the LF of $[non \; XP_{prej}]$ must be identical to $XP_{ant}$} \hfill \text{\footnote{Remember that $non$ is the lexicalization of a Pol head with the valued interpretable feature $[iPol:neg]$.}}
\item A constituent is identical to another constituent at LF if:
\item \hspace{1em} (i) both constituents are of the same category
\item \hspace{1em} (ii) both constituents are interchangeable up to feature values and heads with uninterpretable features (i.e. heads with uninterpretable features do not count for evaluating the (non-)identity of two LF constituents nor do feature values)
\item \textbf{b. If $non$ can establish concord with a negative polarity head in its scope, it must} \hfill \text{\footnote{If establishing concord prevents the satisfaction of the identity condition (313a), then concord cannot be established.}}
\item In concord, only the highest negative head in the LF of $[non \; XP_{prej}]$ is interpreted:
\end{itemize}
(i) *non* is always interpretable

(ii) when n negative polarity heads are in a concord dependency, only one is interpretable

This analysis correctly predicts that in response to a negative question that does not contain scope-bearing operators other than clausal negation, *non* does not contribute another (semantic) negation. Consider the dialogue in (314). The antecedent of *non* is retrieved by copying XP$_{ant}$ next to it (314a), then *non* establishes concord with the closest Pol head thereby valuing it and making it uninterpretable (314b). Since uninterpretable heads do not count for identity, there is a constituent in the LF of [non XP$_{prej}$] that is identical to XP$_{ant}$: the PolP constituent (314c).

(314) A: Est-ce que Tom n’a pas fini son assiette?
   
   is it that Tom NEG has NEG finished his plate

   Did Tom not finish his plate?

   \[
   [CP Q \{PolP Pol[[Pol:neg]] [TP Tom a fini son assiette ] ] ]
   \]

   B: Je crois que non.
   
   I believe that no

   I believe that he didn’t.

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14. Clause-peripheral NON can be used instead of *si* in examples like (i). But it seems to me that for NON to be fully acceptable there, the coda must be there. Perhaps we could thus state that ellipsis of the coda is possible only if (non-emphasized) *non* has done concord with the Pol head of the prejacent/coda. This way it follows that (non-emphasized) *non* cannot reverse the polarity of the negative antecedent.

(i) A: Est-ce que Tom n’a pas fini son assiette?
   
   is it that Tom NEG has NEG finished his plate

   Did Tom not finish his plate?

   B: Je pense que NON/si il l’a finie.
   
   I think that no/si he it has finished

   I think that he did finish it.
(315) A: Est-ce que quelqu’un n’a pas fini son assiette ?

Did someone not finish his plate?

B: Je crois que non.

I believe that no

I believe that everybody has finished their plate.

To see this let’s consider first the case in which concord occurs (316), then the case in which concord does not occur (317). Given the question with the scope relation ∃¬ in (315A), (the LF of) XPa is copied next to non (316a), then non establishes concord (316b) thereby making the feature on the Pol head in its scope uninterpretable and assigning it the
value [neg]. But since this feature is uninterpretable it is not visible to the identity checking process and, as a result, condition a. of the scope-relation preservation analysis is not met: there is not constituent in the LF of [non XP_{prej}] such that it is identical to XP_{ant}. To see this, bear in mind that XP_{ant} in (315A) contains quelqu’un ‘someone’ but of the two potential PolPs available in the LF of (316c), none is identical to (the LF of) XP_{ant}. The smaller PolP containing quelqu’un ‘someone’ is not identical to XP_{ant} because XP_{ant} has an interpretable Pol head in the scope of quelqu’un ‘someone’. The bigger PolP in (316c) is not identical to XP_{ant} either because it contains an interpretable Pol head that has scope over quelqu’un ‘someone’ unlike the LF of XP_{ant}.

(316) Concord is established: \( \chi \)(identity condition not met)

a. XP_{ant} is copied next to non

\[
\begin{array}{c}
[\text{CP que} [\text{PolP non[iPol:neg]} [\text{PolP quelqu’un} [\text{PolP Pol[iPol:neg]} [\text{TP t_i a fini son assiette }]]]]
\end{array}
\]

b. non establishes concord with Pol head

\[
\begin{array}{c}
[\text{CP que} [\text{PolP non[iPol:neg]} [\text{PolP quelqu’un} [\text{PolP Pol[iPol:neg]} [\text{TP t_i a fini son assiette}]]]]
\end{array}
\]

c. constituent in LF of [non XP_{prej}] = LF of XP_{ant}? \( \chi \)

\[
\begin{array}{c}
[\text{CP que} [\text{PolP non[iPol:neg]} [\text{PolP quelqu’un} [\text{PolP Pol[iPol:neg]} [\text{TP t_i a fini son assiette}]]]]
\end{array}
\]

The only way to satisfy the identity condition of the scope-relation preservation analysis is for concord not to occur. In other words, concord cannot be established because doing so would prevent the identity condition from being satisfied. This is illustrated in (317). As
in (316a), \(XP_{ant}\) is copied next to \(non\) (317a) but now concord is not established (317b), therefore the Pol head in the copied \(XP_{prej}\) remains interpretable and keeps its negative value. Because of this there is now one PoIP in \([non \ XP_{prej}]\) – the smallest one that contains \(quelqu’un\) ‘someone’ – which is identical to \(XP_{ant}\) (317c).

(317) Concord is not established: ✓ (identity condition is met)

a. \(XP_{ant}\) is copied next to \(non\)

\[
[CP que [PoIP non [iPol:neg] [PoIP quelqu’uni [PoIP Pol [iPol:neg] [TP ti a fini son assiette ] ] ] ]]

b. \(non\) does not establish concord with Pol head

\[

c. constituent in LF of [non \(XP_{prej}\)] = LF of \(XP_{ant}\)? ✓

\[
[CP que [PoIP non [iPol:neg] [PoIP quelqu’uni [PoIP Pol [iPol:neg] [TP ti a fini son assiette ] ] ] ]]

Let’s now turn to another type of examples where \(non\) contributes negation/does reversal. These are examples where the \(non\) response responds to a non-negative question as in (314). I follow Holmberg (2013) in assuming that non-negative questions are not positive, but just unspecified for polarity.\(^{15}\) In (314a), \(XP_{ant}\) is copied next to \(non\), then \(non\) establishes a dependency with the Pol head in its scope thereby rendering it uninter-

\(^{15}\) He formalizes this proposal by positing that the Pol head of non-negative questions is specified with the value [open]. Regardless of the particular implementation, I believe Holmberg is right that non-negative questions are not positive the way assertions are for instance. For instance, in languages that have negative reversal particles (e.g. \(de nem\) in Hungarian and \(ba nu\) in Romanian), they cannot be used in response to non-negative questions whereas they can in response to non-negative assertions. This contrasts with positive reversal particles which can be used in response to negative questions and assertions (Farkas 2009; 2011). Note that this is not crucial for my proposal since, upon establishing the dependency with the other Pol head, the featural value gets overridden.
pretable (314b). Since uninterpretable feature bearing heads do not count for the identity calculation, the constituent in \([\text{non \ XP}_{\text{prej}}]\) that is identical to \(\text{XP}_{\text{ant}}\) is (the bigger) PolP.

(318) A: Est-ce que Tom a fini son assiette?

Did Tom finish his plate?

LF: \([\text{CP} \ [\text{PolP Pol}[\text{iPol]} \ [\text{TP} \ \text{Tom a fini son assiette}]]] \]

B: Je crois que non.

I believe that he didn’t.

a. \(\text{XP}_{\text{ant}}\) is copied next to non

\([\text{CP} \ \text{que} \ [\text{PolP Pol}[\text{iPol}] \ [\text{TP} \ \text{Tom a fini son assiette}]]] \]

b. non establishes concord with Pol head

\([\text{CP} \ \text{que} \ [\text{PolP Pol}[\text{iPol}] \ [\text{TP} \ \text{Tom a fini son assiette}]]] \]

In conclusion, I have proposed an analysis according to which non is always interpreted and always establishes concord with a lower Pol head if it can. The only case where non cannot establish concord with the Pol head of its prejacent is if this would yield a structure in which no constituent would be identical to \(\text{XP}_{\text{ant}}\). When concord occurs, the lower Pol head gets an uninterpretable feature.
6.2.5 Problems with extending previous analyses to French embedded *non*

6.2.5.1 Holmberg 2013

For Holmberg, PRPs are in \([\text{Spec, FocP}]\) and involve ellipsis of a clause (IP) to their right (1). This elidable IP is identical at LF to the IP of the question which contains a polarity variable. In the answer, the polarity variable in IP is assigned a value by focussed yes/no.

(319) Structure of PRPs as answers to questions

```
FocP
  \_____ FocP
    yes/no_value
      \_____ Foc
        PolP
          Pol
```

The Pol variable can have one of three values: [affirmative], [negative], or [open]. The value [open] is the value that non-negative polar questions (320) have. Importantly, the value [open] can be overwritten in answers.

(320) Is John coming?

The main goal of Holmberg’s paper is to account for variation in the judgments of yes/no answers to a negative question as (321) and (322).

(321) Isn’t John coming?

B1. % Yes (= John is coming).

B2. No (= John is not coming).

(322) Is John not coming?

B1. Yes (= John is not coming).

B2. No (= John is not coming).
Holmberg argues that there are 3 kinds of negation in English: low negation, middle negation, and high negation, and that yes and no take on different values depending on the kind of negation that is used in the antecedent. In (323), I summarize the realization rules given in Holmberg 2013. As can be seen, both n’t and not are ambiguous (although it seems that for some people n’t can only be high negation).

(323) Three negations in English

\[
\begin{array}{c}
\text{neg}_{\text{high}} \text{n’t} \\
\text{neg}_{\text{mid}} \text{n’t or } \% \text{not} \\
\text{neg}_{\text{low}} \text{not} \quad \text{vP} \\
\end{array}
\]

In order to know which negation we’re dealing with, Holmberg uses several adverbs. The insertion of the PPI too forces high negation whereas the insertion of the NPI either forces middle negation.

(324) High negation does not antilicense too

A1. Isn’t John coming too?
A2. * Is John not coming too?

(325) Middle and low negations license either

A1. % Isn’t John coming either?
A2. Is John not coming either?

If the adverb sometimes is added before the negation as in (326), Holmberg reports that negative neutralization disappears: answering yes unambiguously confirms the negation while answering no produces a double-negation, reversing the polarity of the question.16

16. Holmberg notes that the acceptability of the no reply is diminished compared to the yes answer, and attributes it to the difficulty of processing two negations.
Low negation

A: Does John sometimes not show up for work?

B1. Yes. (=he sometimes does not show up for work)

B2. ?No. (=he does not sometimes not show up for work)

The fact that negation in English is interpreted at different heights has an effect on whether yes or no can be used to agree in reply to a negative question. In particular, Holmberg argues that what Kramer and Rawlins have dubbed ‘negative neutralization’ is an effect of the structural ambiguity of not (as middle or low negation).

Let’s start with high negation (327). (In the following examples, I spell out the structure of IP in more detail.) In the question (a), at PF, the polarity feature in PolP is probed and attracted by Foc. At LF $[\text{Neg}]$ is interpreted in its moved position outside PolP. The prejacent of the PRP must have a salient identical antecedent at LF. Because PolP in the question does not contain negation (at LF), it is copied into the answer (b) and Pol gets valued by yes or by no since Pol is not valued (in the question)\(^{17}\).

High negation

---

17. In fact, Holmberg’s assumption are a bit more complicated than that: he assumes that a Pol head can have one of 3 values: Aff, Neg, or Open. Since negation is not interpreted in Pol (in the question), Pol gets the value $[\text{Open}]$ which is compatible with both negative and positive polarity, which can then be overwritten by $[\text{Aff}]$ or $[\text{Neg}]$. 

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Middle negation is interpreted in Pol. If the whole PolP is copied into the answer with yes, yes does not have a variable to bind since Pol is already valued by negative\(^\text{18}\). The only way to have a grammatical answer to this question with yes is to copy a smaller constituent: TP. This way Pol can be valued/bound by yes. With no, the entire PolP can be copied. Holmberg is not explicit about why that is the case. Because Pol contains [Neg] it seems that no can bind it.

---

18. Here Holmberg is not very explicit but it seems like there is an asymmetry: the [open] value in Pol can be overridden by [Neg] or [Pos], however if Pol is valued negative, then it cannot be overridden. In other words, [Neg] in Pol is more marked than [open] in Pol.
Middle negation

A. Isn’t John coming either?

B1. #Yes.

B2. Yes, he is. (=John is coming.)

B3. No. (=John is not coming.)

Low negation is inside TP. The low adverb sometimes forces the low interpretation of negation so Pol has the value [open]. The whole PolP can be copied into the answer. If the answer contains yes, then it will assign [aff] to Pol, but if it contains no, then no binds the variable in Pol, assigning it the value [neg]. Thus when a low negative question is answered with no, the meaning of this answer is a double negative. This, Holmberg notes, is difficult to interpret and may explain why some people have difficulty interpreting such answers.
(329) Low negation

A. Is John (sometimes) not coming?
   \[
   \begin{array}{c}
   \text{PF} \\
   \text{FocP} \\
   \text{FocP} \\
   \text{FocP} \\
   \text{PolP} \\
   \text{John} \\
   \text{PolP} \\
   \text{Pol} \\
   \text{TP} \\
   \text{sometimes not coming}
   \end{array}
   \]

B1. Yes. (=John is sometimes not coming.)
   \[
   \begin{array}{c}
   \text{LF} \\
   \text{FocP} \\
   \text{Foc} \\
   \text{PolP} \\
   \text{TP} \\
   \text{sometimes John is not coming}
   \end{array}
   \]

B2. No. (=John is not sometimes not coming.)
   \[
   \begin{array}{c}
   \text{FocP} \\
   \text{no} \\
   \text{Neg} \\
   \text{PolP} \\
   \text{Aff} \\
   \text{Pol} \\
   \text{Aff} \\
   \text{TP} \\
   \text{sometimes [vP John is not coming ] ]]
   \end{array}
   \]

Note that Holmberg derives the right interpretation of the no response in (326) repeated in (39) by analyzing the negation as being low, at least lower than sometimes. Regardless of whether this is the right analysis for English (and data from Brasoveanu et al. 2013 suggest that it may not be), it is implausible that this is the right analysis for the French data presented in this chapter: in order to import this analysis for French, we would need to assume that everytime an operator outscopes negation, negation is lower than v.

6.2.5.2 Thoms 2012

Thom’s proposal basically follows Holmberg’s idea – that yes/no create dependencies with lower polarity variables – but integrate Kramer and Rawlins account of negative neutralization as well as solves an issue that both accounts have with accounting for polarity
reversal. In addition, he assumes that, in a question, the verb moves to a focus position through the Σ head which bears polarity.

**About yes** In responses, *yes* is base-generated in Σ and moves to FocP. Clausal ellipsis is subject to Parallelism (330).

\[(330) \quad \text{Parallelism}\]

Operator-variable binding relations in the antecedent are present in the response.

The dialogue in (331) is felicitous: clausal ellipsis after *yes* is allowed since it respects the parallelism condition.

\[(331) \quad \text{A: Is Rab coming? B: Yes.}\]

Thoms takes up a data point given in Holmberg 2011 that a bare PRP is not felicitous in response to a declarative. But notice that all the examples that he considers (332, 333) are cases where the particles are intended to reverse the polarity of the antecedent assertions. What happens when there is no reversal, just agreement?
A: He doesn’t drink coffee.

B1: #Yes.

B2: Yes, he does.

A: He drinks coffee.

B1: #No.

B2: No, he doesn’t.

In his system, Thoms capture the infelicity of bare response particles to assertions because such dialogues do not respect the parallelism condition: in (332), the issue is that the assertion in A does not contain a binding dependency (there’s no V, hence no Σ movement to Foc) whereas the response in B does.

A: Rab isn’t coming. B: # Yes.

A: Rab isn’t coming.

B: Yes λx (Rab Σx coming)

What about agreeing with A by saying no meaning Rab isn’t coming?

A: Is Rab not coming?

B1: Yes, he’s just doing his hair. (=he’s coming)

B2: Yes, he’s too tired. (he’s not coming)

About no The particle no is base-generated in the left periphery and does not move, however negative concord dependencies between it and lower negation still affect Parallelism. In the following example, the particle no establishes a dependency with the negation in its prejacent. This dependency is parallel to the one in the question in A.
Unlike *yes*, *no* cannot deny a negative antecedent. In Thoms’ analysis, this is because the particle’s prejacent does not contain a negation for the particle to establish a dependency with. The absence of dependency in B thus violates the parallelism condition.

If there is not clausal ellipsis, the parallelism condition is inactive and so, *no* does not need to establish a dependency.

Finally, Thoms gives an example where negative neutralization does not occur.

He explains that B2 is not available under the targeted interpretation because in it, affirmative Σ intervenes. We are not told why it intervenes except that it is another case of defective intervention.
Thoms’ account crucially relies on the PRPs’ being responses to questions. But in French, the same pattern also occurs in responses to assertions (340).

(340) Au fait, Tom pense que parfois Marie n’est pas à l’heure à son travail mais moi je suis sûr que non.

By the way, Tom thinks that sometimes Marie is not on time at her work but I am sure that no

In (340), there is no op-var dependency in the antecedent so non should be able to mean something like "I’m sure that she is sometimes not on time for work" but it obligatorily reverse the polarity of its antecedent as in "I’m sure that it is not the case that she is sometimes not on time for work”.

6.2.6 Conclusion

The PRP non lexicalizes a negative head which wants to form a concord dependency with the closest polarity head in its scope. This explains why in a structure with non and a negative prejacent or coda, there is no double negation. However, sometimes that concord dependency cannot be obtained and in that case non is interpreted thus giving rise to double negation structures. A challenge is understanding why any occurrence of ∀ or ∃ intervenes. I explored an analysis in which I treated embedded non as an operator that ensures that the scope-relations in its scope are identical as those in its antecedent (in the antecedent of its prejacent to be more specific).

6.3 Effect of the position of clause-peripheral non on its felicity

In this section I explain the interaction in (341) and (342) by arguing that non can appear at the right edge of its coda only if (i) the coda is the spell-out of an answer, and (ii) non
establishes a concord dependency with negation in the coda. In (341), it can appear at the left edge or right edge of the response but in (342), it can only appear at the left edge.

(341) A: Est-ce que Marie est allemande?
   Is it that Marie is German

   B1: Je crois que non, elle n’est pas allemande.
   I think that no she NEG is NEG German

   I think that no, she’s not German.

   B2: Je crois qu’elle n’est pas allemande, non.
   I think that she NEG is NEG German no

   I think that she’s not German, no.

(342) A: Est-ce que Marie est allemande?
   Is it that Marie is German

   B1: Je crois que non, elle n’est pas européenne.
   I think that no she NEG is NEG European

   I think that no, she’s not European.

   B2: Je crois qu’elle n’est pas européenne, non.
   I think that she NEG is NEG European no

   I think that she’s not European, no.

   It would seem that what matters for non to be able to be at the right edge of its coda is that the coda spells out an answer to the question that non responds to. And this follows from the structure we have been assuming in (343).
But even if the coda to the right of *non* spells out an answer to A, if the answer does not have negation, *non* cannot be to its right (344).

(344) A: Est-ce que Marie ne veut pas de café du tout ?

   is it that Marie NEG wants NEG some coffee at all

*Does Marie not want coffee at all?*

B1: Je crois que NON, elle en veut.

   I think that no she of.it wants

*I think that she does want some.*

B2: # Je crois qu’elle en veut, non.

   I think that she of.it wants no

*Int. I think that she does want some.*

So why must the clause-Peripheral PRP ‘agree’ with the polarity of the clause when it is to its right? One way to describe the pattern of data we have seen is as in (345).^{19}

---

19. The phenomenon seems to be parallel to what happens with postposed parentheticals in English (a.k.a slifting).

(i) Is Mary German?
   B1 I don’t think she is.
   B2 She is, I don’t think.
   B3 She isn’t, I don’t think / I think.
Generalization

a. non + POS/NEG clause
b. *POS clause + non
c. NEG clause + non

I propose that concord between non and Pol licenses optional movement to [Spec, PolP]. Note that we have seen that there is good reason to think that concord operates on the LF representation of the prejacent or coda, but overt movement occurs at PF; this is why I speak of movement licensing.

(ii) Generalization

a. I don’t think + POS clause
b. *POS clause + I don’t think
c. NEG clause + I don’t think/I think

Maybe this pattern could also be related to what we see in Italian (and Spanish) with N-words (iii). In a, the N-word nessuno ‘nobody’ can be used in a non-negated sentence. However, if the N-word follows the verb, the sentence must be negated to license the N-word (c.f. b and c).

(iii) a. Nessuno [l’ ha visto],

nobody him has seen

Nobody saw him.
b. *[l’ ha visto] nessuno.
him has seen nobody

Int. Nobody saw him.
c. [Non l’ ha visto] nessuno.

NEG him has seen nobody

Nobody saw him.

(iv) Generalization

a. nessuno + POS clause
b. *POS clause + nessuno
c. NEG clause + nessuno
(346) Optional movement of PolP to Spec, PolP as a result of agreement of *non* and Pol

a. Agree - no-movement

```
  PolP
     \   /
      \ /
        PolP
           \   /
            \ /
             Pol_{uPol:neg}
               \   /
                \ /
                 Marie est allemande
```

b. Agree - movement

```
  PolP
     \   /
      \ /
        PolP
           \   /
            \ /
             Pol_{uPol:neg}
               \   /
                \ /
                 Marie est allemande
```

6.4 Conclusion

Assuming that embedded *non* is always interpreted as negative and does concord derives a number of facts: the fact that descriptively *non* marks both agreement with a negative antecedent and reversal with a positive antecedent, as well as the fact that if the outermost scope-bearing operator in the antecedent is not negation, then *non* does not do concord because doing so would modify the scopal relations in the prejacent copied from the antecedent. Moreover assuming that concord is what permits PolP movement to the left of *non* derives a number of restrictions on the order coda-*non*. 
CHAPTER 7
CONCLUSION

7.1 Main results of the dissertation

In this dissertation, I have shown that, at a descriptive level, there is good reason to
consider embedded PRPs separately from matrix PRPs in French. Whether matrix and em-
bedded PRPs can be given a unified analysis remains to be seen. In chapter 3 I argued that
embedded coda-less PRPs are the spell-out of a Pol head which takes as its a complement
a clause (denoting the answer to a question when \(\text{U}_{\text{ant}}\) is a question) which can optionally
be elided. In chapter 4, we saw that embedded PRPs are subject to two systematic distribu-
tional limitations: they can only occur under attitude verbs that do not restrict the temporal
orientation of their complement and their distribution is regulated in a way that resembles
the limitations on the distribution of PPIs. In chapter 5, we saw that PRP responses to
questions and PRP responses to assertions differ in two ways: embedded PRPs in response
to assertions impose that \(U_{PRP}\) contrast with \(U_{ant}\), and are more sensitive to the polarity
of their environment than embedded PRPs in response to questions. Finally, in chapter 6
I showed that seemingly opposite interpretations of \(\text{non}\) follow from assuming that \(\text{non}\) is
always interpreted negatively and takes part in negative concord as well as wants identity
of \(XP_{ant}\) with a constituent in the LF of \([\text{non } XP_{prej}]\).

More generally, this dissertation documents a number of so far unobserved patterns and
introduces novel diagnostics and generalizations that can be applied to similar construc-
tions across a variety of languages. It also reveals a perhaps unexpected amount of subtle
complexity underlying a structure that might initially strike someone as being relatively
trivial and uninteresting.
7.2 Directions for further work

Chapter 2 made the point that from a descriptive point of view matrix and embedded PRPs in European French have quite different uses. Future work should explore the possibility of deriving these differences from a unified analysis of PRPs in European French. A successful unified analysis should also explain the observations made in chapter 5 and 6 that the distribution of embedded PRPs is limited by factors that are semantically motivated. In particular, this research should answer the question of whether whatever contributes these limitations is intrinsic to the PRPs (and is just unobservable when PRPs are not embedded) or whether these limitations are contributed by silent operators in the C field above PRPs. In this respect, such an analysis could explain why it is the sequence *que PRP* that is a PPI as opposed to just *PRP*.

Further work should also explain why embedded PRPs cannot be embedded under predicates that limit the temporal interpretation of their complement to a non-past time, if this generalization turns out to hold on. In this respect, it would be informative to see whether, among the languages that allow PRP embedding, this generalization is at work too. Further work should also explain why *que PRP* is a PPI. While there are explanations as to why scalar items like *someone* are PPIs (Chierchia 2013), it is not at all clear why *que PRP* sequences are PPIs. Here again, it would be informative to see whether embedded PRPs are PPIs in other languages.

In my work on embedded PRPs, I noticed differences between on the one hand coda-less PRPs and, on the other hand, clause-peripheral PRPs. Further work should take a closer look at these differences. In particular, there are cases where clause-peripheral PRPs seem to contribute more semantically and pragmatically than the corresponding bare PRP. The intuition is that they are interpreted parenthetically (see for instance Laka 1990). This could explain why the clause-peripheral PRP example in (347B1) is more acceptable than the corresponding bare PRP example in (347B1).
(347)  Context: B is Tom’s mother. Tom is 5 years old.

A: Est-ce que Tom va venir ?

is it that Tom goes come

Will Tom come?

B1. Je veux que oui, il vienne.

I want that yes he come.SBJ

I want him to.

B2. *Je veux que oui.

I want that yes

Int. I want him to.

Chapter 5 brought to the fore that embedded PRPs mark contrastive polarity. Many items in languages have been argued to encode contrastive polarity or polarity focus (contrastive accent on the auxiliary in English for verum focus). It would be informative to see whether they are all acceptable in the set of configurations that I considered. This could lead us to establish a typology of (contrastive) polarity focus which might in turn lead us to a better understanding of this phenomenon. Chapter 5 also showed that responses to questions and assertions can differ in a number of respect. In particular, it showed that embedded PRPs become stronger PPIs and are evaluated globally in response to assertions whereas they are weaker and evaluated more locally in response to questions. That the strength and locality of the domain of evaluation of a PPI can be modulated by context is, as far as I am aware, a new empirical discovery. Further work should try to see whether this phenomenon is found elsewhere and try to explain it.

As documented in Holmberg 2015, a number of languages do not use PRPs to respond to questions, but a form of the main predicate called ‘verb-echo answers’ in Holmberg’s terminology. As far as I am aware, it is not known whether such forms can be embedded. If they can, it would be interesting to see whether the limitations that hold of embedded
PRPs in European French (and perhaps in other languages that allow PRP embedding) also hold of embedded responsive predicates. If this were the case, it could be an indication that the limitations on embedded PRPs we identified in European French are perhaps actually limitations on answer embedding (as opposed to PRP embedding).

Finally, while French uses the complementizer *que* which is the complementizer that is used to embed finite declarative clauses in general, other languages that allow PRP embedding use other kinds of complementizers (see section D in appendix). Further cross-linguistic work could establish a typology of the strategies used by languages for embedding PRPs and try to explain why a language uses a given strategy and not another.
APPENDIX A

ASSERTIVITY AS THE RELEVANT FEATURE FOR PRP EMBEDDING?

Hooper 1975 introduced a semantic factor orthogonal to factivity to explain the distinction between true factives and semi-factives.

‘Assertive predicates are all affirmative in nature; they imply in one manner or another that the speaker or subject of the sentence has an affirmative opinion regarding the truth value of the complement proposition’. (Hooper 1975, p. 95)

According to Hooper, assertive predicates do not entail or presuppose the truth of their complements; rather, they affirm, or assert it. It is possible to assert a proposition, without its truth having become established fact. Conversely, it is possible for a proposition to be entailed, without it being asserted. In English, the major syntactic criterion distinguishing between assertive and non-assertive predicates is that assertive verbs can be parenthetically postposed after their complements. According to this criterion, as (348) shows, think, admit are assertive but likely, doubt, and regret are not.

(348)  a. He’s coming to the party, I think.

        b. He’s coming to the party, I admit.

        c. He’s coming to the party, I notice.

        d. *He’s coming to the party, it’s likely.

        e. *He’s coming to the party, I doubt.

        f. *He’s coming to the party, I regret.
In table A.1, the French verbs that cannot embed PRPs are verbs, which in English, cannot be postposed according to the pattern shown in (348). One generalization can be drawn: if the English verb allows extraposition, then the corresponding French verb allows PRP embedding.

<table>
<thead>
<tr>
<th>Can the (English) verb be extraposed?</th>
<th>Does the (French) verb allow PRP embedding?</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>spéculer</td>
<td>compte</td>
</tr>
<tr>
<td>supposer</td>
<td>réaliser</td>
</tr>
<tr>
<td>penser</td>
<td>savoir</td>
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<tr>
<td>croire</td>
<td>promettre</td>
</tr>
<tr>
<td>admettre</td>
<td>donner</td>
</tr>
<tr>
<td>dire</td>
<td>sa parole</td>
</tr>
<tr>
<td>répondre</td>
<td>bledouiller</td>
</tr>
<tr>
<td>assurer</td>
<td>avouer</td>
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<tr>
<td>prétendre</td>
<td>concéder</td>
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<tr>
<td>espérer</td>
<td>il est</td>
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<tr>
<td>être certain</td>
<td>clair</td>
</tr>
<tr>
<td>jurer</td>
<td>confirmer</td>
</tr>
<tr>
<td>affirmer</td>
<td>il paraît</td>
</tr>
<tr>
<td>certifier</td>
<td>craindre</td>
</tr>
<tr>
<td>apprendre</td>
<td>avoir</td>
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<tr>
<td>se rendre</td>
<td>peur</td>
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<td></td>
<td></td>
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<tr>
<td>×</td>
<td></td>
</tr>
<tr>
<td>douter</td>
<td>nier</td>
</tr>
<tr>
<td>il est probable</td>
<td>vouloir</td>
</tr>
<tr>
<td>il est vraisemblable</td>
<td>ordonner</td>
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<tr>
<td>souhaiter</td>
<td>exiger</td>
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<tr>
<td>préférer</td>
<td>recommander</td>
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<tr>
<td>regretter</td>
<td>interdire</td>
</tr>
<tr>
<td></td>
<td>refuser</td>
</tr>
<tr>
<td></td>
<td>contester</td>
</tr>
</tbody>
</table>

Table A.1: Verbs allowing PRPs embedding / Verbs able to be extraposed

While the notion of assertivity may very well be useful in characterizing what it is that conditions whether a PRP can be embedded under a given verb, it is not clear to me at this point how to characterize and diagnose assertive verbs in French.
APPENDIX B

ON ITALIAN EMBEDDED PRPS

It is interesting to look at Italian because obviation facts suggest that Italian can use two strategies to embed PRPs: ellipsis and no-ellipsis, and this further seems to be correlated with the choice of embedding complementizer. Italian has two polar response particles sì ‘yes’ and no ‘no’. It also has two complementizers: che with finite clauses and di with non-finite clauses (349).

(349) Verrai alla festa stasera?

come.fut.2sg to.the party tonight

Will you come to the party tonight?

B1: Credo che verrò.

think.1sg that come.fut.1sg

I think I’ll come.

B2: Credo di venire.

think.1sg that come.inf

I think so.

Polar response particles can only be embedded using $di^1$.

1. One hypothesis is that infinitival-introducing $di$ and PRP-introducing $di$ are one and the same. This would predict the following implications:

- Entailment 1: if a verb can embed a PRP in Italian, this verb can take a $di+$infinitival complement
- Entailment 2: if a verb can take a a $di+$infinitival complement, this verb can embed a PRP (Servidio 2014)

Entailment 1 does not hold: some verbs can embed PRPs while they cannot take a $di+$INF complement e.g. preferire ‘prefer’

(i) A: Verrai alla festa stasera?

come.2sg to.the party tonight

Will you come to the party tonight?
Bernini 1995; Servidio 2014 mention that while *di sì/no* is the only way to embed a bare particle under verbs, the complementizer *che* may yet be used in three situations:

1. under the verb *dire* ‘say’ (with the coda obligatory there) (Servidio 2014)

2. under adverbs: compare *sicuro che sì* and *sono sicuro di sì*

---

B1: Luca preferisce che Lorenzo rimanga a casa.
Luca prefers that Lorenzo stay.subj.3sg at home

*Luca prefers for Lorenzo to stay at home.*

B2: Luca preferisce di sì / no.
Luca prefers *D1 yes / no*

*Luca prefers to come / not to come.*

B3: *Luca preferisce di rimanere a casa.*
Luca prefers *D1 stay at home*

B4: Luca preferisce rimanere a casa.
Luca prefers stay at home

*Luca prefers to stay at home.*

Entailment 2 does not hold either (Servidio 2014):

(ii) A: Verrai alla festa stasera?
Will you come to the party tonight?

B1: Cerco di venire.
try.I to come

*I’ll try to come.*

B2: *Cerco che verrò.
try.1sg that come.1sg

*Int. I’ll try to come.*

B3: *Cerco di sì.
try.1sg D1 yes

*Int. I’ll try to come.*

The fact that *preferire* does not take *di* when it is followed by an infinitival clause but takes it when it embeds *si* is an indication that

1. the *di* that introduces the infinitival clause and the *di* that introduces PRPs are not the same

2. *sì* (or one of the possible sub-components that *sì* spells out) selects for *di*
3. under any verb if (i) the particle appears in a fragment-peripheral PRPs and (ii) the fragment-peripheral PRP appears in a coordination

In this section, I focus on the third environment. As described by Servidio 2014 and Bernini 1995, che is acceptable only if two fragment-peripheral PRPs are coordinated in its complement.

(351) A: Hai chiesto a Cornelia e a Renato se verranno alla festa?

Have you asked Cornelia and Renato whether they’ll come to the party?

B1: Cornelia mi ha risposto che lei sì, ma lui no.

Cornelia told me that she will, but he won’t.

B2:?? Cornelia mi ha risposto che lui no.

Int. Cornelia told me that he won’t. (Bernini 1995, p. 198)

This is a pattern that is reminiscent of gapping (352) in that for the sequence ‘che+PRP’ to be acceptable (under a predicate), there has to be coordination.

2. In Italian certain adjectives can be used in predicates or on their own as adverbs. In both cases they can embed PRPs. However depending on whether they are used as part of a predicate or as part of an adverb the complementizer they use changes.

(i) A: Verrà alla festa stasera?

Will he come to the party tonight?

B1: Sono sicuro di sì.

I’m sure he will.

B2: Sicuro che sì.

Of course he will

This is again a further indication that whatever embedded PRPs are, they interact with the C layer.
(352) A: Who ate what?

B1: *? John the beans.

B2: John the beans and Mary the mushrooms.

We could posit the following hypothesis (353).

(353) Parasitic sì/no

Bare sì/no can adjoin to a (silent) proform in which case they are embedded using the nominal complementizer di, conjoined fragment-peripheral PRPs are syntactically TPs, they license che

The idea is that sì/no do not license ellipsis themselves but are parasitic on it. Therefore sì/no can be used in two situations: when there is no ellipsis and when there is ellipsis. This hypothesis predicts that there should be no obviation in case a bare PRP is embedded under di since in that case there is no ellipsis, just a proform; conversely, it predicts that we should see obviation under che, i.e. when two fragment-peripheral PRPs are conjoined.

I tested this and those predictions seem correct according to the judgments I received: (354) shows that augurare ‘wish, souhaiter’ gives rise to obviation (B1), while credere ‘think’ does not (B2). However, this contrast disappears if the embedded clause is replaced with a polar response particle (cf. B3 and B4) under di. Notice that this is different from what I reported for French.

(354) A: Verrai alla festa?

   come.2sg to.the party

   *Will you come to the party?
The examples in (355) show that when the conjunction of two fragment-peripheral PRPs is embedded, the complementizer *che* is allowed as shown in Bernini 1995; Servidio 2014, and crucially obviation effects arise there. The contrast between B1 and B2 follows from the parasitic *si/no* hypothesis.

(355) A: *Verrete alla festa?*

\[\text{come.2pl to.the party}\]

*Will you (all) come to the party?*

B1: *Mi auguro che io sì ma lui no.*

\[\text{REFL wish.1sg that I yes but him no}\]

*Int. I wish/hope that I’ll go but he won’t.*

B2: Credo che io sì ma lui no.

\[\text{think.1sg that I yes but him no}\]

*I think that I’ll go but he won’t.*

Also consistent with the parasitic *si/no* hypothesis is example (356) which is like (355B1) except that the fragment pronoun is not co-referent with the matrix subject thus not giving rise to obviation.
(356) A: Verranno alla festa?
   come.3pl to.the party
   Will they come to the party?

B: Mi auguro che lui sì ma lei no.
   refl wish.1sg that he yes but her no
   I wish/hope that he’ll go but she won’t.

We saw in French that if a bare polar response particle can be embedded in a given environment, then this is an environment where a finite clause can be embedded too. This is predicted if French embedded bare polar response particles always come with an (elided) TP. As far as Italian is concerned, if embedded bare polar response particles do not involve ellipsis in this language as the obviation facts seem to indicate, we might expect that the finiteness generalization (74) holding in French does not hold in Italian. In other words, we might find verbs in Italian that only embed infinitival clauses but that can still embed *di sì/no*. So far I have not found any.
APPENDIX C

DISCUSSION OF MORE ALTERNATIVE HYPOTHESES TO EXPLAIN THE CONTRASTIVE REQUIREMENT OF EMBEDDED PRPS IN RESPONSE TO ASSERTIONS

I show that various notions of contrast that have been proposed in the literature cannot be directly extended to French embedded PRPs.

C.1 Comparing polar opposites $p$ and $\neg p$

Sailor 2014 discusses retorts in English. He defines ‘retorts’ as ‘a speech act rejecting a prior assertion’ (p. 7) or polarity-reversing assertions (p. 77) and recognizes two sub-kinds of retorts: polarity-insensitive reversing assertions and morphosyntactically-dependent reversing assertions. Polarity-insensitive reversing assertions are exemplified in (357): whether they respond to A1 or A2, they stay the same.

(357)  

A1: John hasn’t left.  
A2: John has left.  
B1: You’re wrong!  
B2: That’s not true!  
B3: I don’t believe you!

Morphosyntactically-dependent reversing assertions are exemplified in (358): clearly, depending on the polarity of the antecedent assertion, the polarity of the retort changes. Sailor notes ‘By their nature, morphosyntactically-dependent reversing assertions involve contrastive polarity’.

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Sailor goes on to discuss other types of morphosyntactically-dependent reversing assertions that involve polarity particles (PRPs and others) and shows that those do not behave like utterances that do not contain polarity particles. Here I want to discuss the kind of contrast shown by the cases in (358). Starting with Höhle 1992, the German equivalent of the sentence in (359) has been taken to exemplify ‘verum focus’, i.e. focus on the truth of the sentence.

(359) He actually HAS (left).

Two kinds of analysis have been given: a focus analysis and a non-focus analysis. Samko 2016 gives a Rooth-styled alternative semantics analysis of verum focus but, as she recognises, it faces the issue that Rooth’s alternative semantics does not restrict what can be focused whereas verum focus in English focuses just verbs. On the other hand Matthewson 2016 looks at how other languages express what English and German realize as (verum) focus and argues that in fact, *verum focus* is a misnomer: there is semantic operator *VERUM* which is realized in some languages as focus on a verb and in others as a lexical item.

Verum focus has been called polarity focus, and, given the examples that have been used in the literature to illustrate it, it really seems to care about identity of propositions. According to Matthewson, *VERUM*, in an utterance with LF $\text{VERUM}(p)$, is licensed because there is a QUD $\text{?}p$ and B wants to prevent $\neg p$ from entering the common ground. For instance, speaker B in (360) asserts the proposition $\text{VERUM}(p)$ which is licensed because speaker’s A’s assertion of $\neg p$ has put the question $\text{?}p$ on the discourse table.
(360)  A: Tom didn’t go to the store.  = \neg p 
        B: He DID go to the store.  = \text{VERUM}(p)

Crucially the account relies on propositional identity so such an account correctly predicts that (361) is not a felicitous dialogue since there is no \(q\) being discussed.

(361)  A: Tom didn’t tell him that Marie was going to come.  = \neg p 
        B: # I DID tell him that Marie was.  = \text{VERUM}(q)

In (361) we cannot say that \(q= p\) since \(p\) and \(q\) have different subjects, they are different propositions. Notice that embedded \emph{oui} is licensed in French (362) where \text{VERUM} is not in English.

(362)  A: Tom ne lui a pas dit que Marie allait venir.  = \neg p 
          Tom \text{ NEG} him has \text{NEG} said that Marie \text{went} come

          \textbf{Tom didn’t tell him that Mary will come.}

        B: Moi je lui ai dit que oui/si.  = q 
          me I him have told that yes/si

          \textbf{I told him that she will.}

So \text{VERUM} really cares about propositional identity as opposed to say just property identity and in that verum-marked propositions and propositions containing contrastive PRPs differ\(^1\).

C.2 It is not about disagreement

Given the examples I have been considering so far, one idea might be that what we identified as a difference between profiles or contrast is actually disagreement (363).

\[^1\] You might think that (i) is predicted to be infelicitous but \(\neg p \rightarrow \neg q\), so \text{VERUM}(q) is felicitous.

(i) A: They (i.e. Tom and Sarah) didn’t go to the store. not \(p\) 
    B: Sarah DID go to the store. \text{VERUM}(q)
Hypothesis 2F (disagreement): A [PRP XP_{proj}] structure denoting a proposition p is felicitous only if the first attitude holder, A, and the second attitude holder, B, disagree on the necessary truth of p.

We could define disagreement as the requirement that $R_1 \neq R_2$, where R is a relation between sets such that $\exists p. (\text{Dox}(A, w) R_1 \{w: p(w)\} \text{ and } \text{Dox}(B, w) R_2 \{w: p(w)\})$. According to this hypothesis, (364a) is thus infelicitous because $U_{Ant}$ and $U_{PRP}$ express the same opinion, i.e. for $p = \text{Benjamin came}$, $(\text{Dox}(\text{Tom}, w) \subseteq \{w: p(w)\}) \text{ and } \text{Dox}(\text{speaker}, w) \subseteq \{w: p(w)\}$, so the requirement that $R_1 \neq R_2$ is not met).

(364) a. [#\text{Tom est sûr que Benjamin est venu}]_{U_{Ant}} \text{ et } [\text{je suis sûr que oui}]_{U_{PRP}}.
   
   Tom is sure that Benjamin is come and I am sure that yes
   
   (aussi)]_{U_{PRP}}.
   
   too

   Tom is sure that Benjamin came and I’m sure that he did (too).

b. [#\text{Tom n’ est pas sûr que Benjamin soit venu}]_{U_{Ant}} \text{ mais } [\text{moi je suis sûr que oui}]_{U_{PRP}}.
   
   Tom NEG is NEG sure that Benjamin be.SUBJ come but me I am sure that yes

   Tom is not sure that Benjamin came but I’m sure that he did.

c. [#\text{Tom est sûr que Benjamin est venu}]_{U_{Ant}} \text{ et } [\text{je suis sûr que non}]_{U_{PRP}}.
   
   Tom is sure that Benjamin is come and I am sure that yes

   Tom is sure that Benjamin came and I’m sure that he did not.

In (364b) however, $U_{Ant}$ and $U_{PRP}$ express a different opinion: $U_{Ant}$ expresses that according to Tom, the proposition that Benjamin came is not necessarily true whereas $U_{PRP}$ expresses that according to the speaker, the proposition that Benjamin came is necessarily true, i.e. for $p = \text{Benjamin came}$, $\text{Dox}(\text{Tom}, w) \not\subseteq \{w: p(w)\}$ and $\text{Dox}(\text{speaker}, w) \subseteq \{w: p(w)\}$. 

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p(w)}, so the requirement that $R_1 \neq R_2$ is met. Finally in (364c), according to Tom, the proposition that Benjamin came is necessarily true whereas according to the speaker, it is necessarily false, i.e. for $p = \text{Benjamin came}$, $\text{Dox}(\text{Tom}, w) \subseteq \{w: p(w)\}$ and $\text{Dox}(\text{speaker}, w) \setminus \{w: p(w)\}$, so the requirement that $R_1 \neq R_2$ is met.

Now consider the felicitous example in (365). Strictly speaking, the disagreement hypothesis predicts that a PRP should be infelicitous since the attitude holders express an opinion, albeit different, about distinct propositions: $p = \text{Pierre will come help you}$, and $q = \text{Marie will come help you}$. This is made obvious since both attitude holders refer to the same individual, the speaker, and both opinions can be held consistently.

(365) Au fait [je crois que Pierre va venir t’ aider]$_{U_{\text{Ant}}}$ mais [je crois que Marie, non]$_{U_{\text{PRP}}}$.  

By the way I think that Pierre will come help you but I think that Marie will not.

What this example tells us therefore is that it is not disagreement that PRPs are sensitive to. In fact, the previous example becomes unacceptable if $oui$ is used (366), yet we are still comparing two different propositions so this is really not what embedded PRPs are sensitive to.

(366) #Au fait [je crois que Pierre va venir t’ aider]$_{U_{\text{Ant}}}$ et [je crois que Marie, oui (aussi)]$_{U_{\text{PRP}}}$.  

Int. By the way I think that Pierre will come help you and I think that Marie will (too).
The difference between the acceptable example (365) and the unacceptable (366) is therefore not one of disagreement versus agreement since in both cases there is no sense in which the opinions expressed can be said to be incompatible. Intuitively though, (365) conveys a contrast which (366) does not and this seems to be paramount for PRPs.

C.3 It is not (always) due to inferences

In (367), in the first conjunct, Tom is not sure that $p$ entails according to Tom, maybe not $p$, and it may be that what the PRP oui or si is anaphoric to is this inference.

\begin{align*}
(367) \quad & \text{Au fait } [\text{Tom n’est pas sûr que Benjamin soit venu}]_{U_{Ant}} \text{ mais } [\text{moi je suis sûr que oui/si}]_{U_{PRP}}. \\
& \quad \text{I am sure that yes} \\
& \quad \text{By the way, Tom is not sure that Benjamin came but I’m sure that he did.} \\
& \quad \text{[}U_{U_{Ant}}]\rightarrow \text{maybe Benjamin did not come, according to Tom}
\end{align*}

If that is the case, then in fact, contrast holds of the relation between PRP and its antecedent, and not of the relation between the antecedent utterance and the PRP utterance. In other words, if oui/si is anaphoric to this inference, then it’s not the case that the contrast condition of the PRP is satisfied by the matrix predicates not be sure/be sure.

\begin{align*}
(368) \quad & \text{Hypothesis 2G (inferences): A sentence S containing an embedded } [\text{PRP } XP_{prej}] \\
& \quad \text{structure, such that } [\text{PRP } XP_{prej}]=r, \text{ is felicitous only if } [S] \text{ implies } \neg r.
\end{align*}

The goal of this section is to show that at least in some cases, we cannot rely on such inferences and that, indeed, there is reason to believe that matrix predicates can satisfy the contrast condition. In (369), because negative sentences are a bit odd out of the blue, I add the phrase contrario à ce que j’avais dit ‘contrary to what I had said’ to anchor the sentence in a context, and au fait ‘by the way’ makes sure that it is not answering a
question. In (369), ne pas espérer que p ‘not hope that p’ does not imply p or ¬p (let alone entail it).

(369) Non-implication

a. Au fait, [Marie n’ espère pas qu’ Aurélien va revenir]_{\text{\textsc{Ant}}},

in fact Marie NEG hopes NEG that Aurélien goes come_back
contrairement à ce que j’ avais dit, mais moi par contre [j’ espère
contrary to this that I had said but me on the contrary I hope
que oui]_{\text{\textsc{PRP}}}.

that yes

By the way, Marie does not hope that Aurélien will come back, contrary to what I had told you, but I, on the other hand, sure hope that he does.

b. \[\text{\textsc{Ant}} \not\Rightarrow\] maybe Aurélien will not come back, according to Marie

Another example with ne pas savoir ‘not know’ is in (370).

(370) a. En sortant de la projection, soit on adore soit on ne comprend

in exiting from the showing either one loves either one NEG understands
pas. [Les hommes ne savent pas que ce couple -là peut exister…]_{\text{\textsc{Ant}}}
NEG the men NEG know NEG that this couple this can exist
Alors que [nous les femmes on sait que oui]_{\text{\textsc{PRP}}}!

while that we the women one knows that yes

After the showing, either you love it or you don’t understand it. Men do not know that such a couple can exist … Whereas we women know that it can.

b. \[\text{\textsc{Ant}} \not\Rightarrow\] such a couple cannot exist

I conclude that examples such as (369) and (370) show us that we cannot rely on inferences to explain all cases of contrastive uses of PRPs.
C.4 It is not about a contrast in veridicality

Finally, I would like to consider one last possibility: the possibility that the contrast that PRPs are sensitive to is a contrast in veridicality (371).

(371) Hypothesis 2H (veridicality): Given an utterance $U_{PRP}$ containing a PRP and an utterance $U_{Ant}$ containing the antecedent of PRP, an embedded PRP is felicitous only if $U_{PRP}$ and $U_{Ant}$ differ in their veridicality.

I give the necessary definitions from Giannakidou 2014 below.

(372) Epistemic model of an individual $x$: A model $M_E(x) \in M$ is a set of worlds associated with an individual $x$ (the speaker or attitude holder) representing worlds compatible with what $x$ believes and knows.

(373) Truth in a model: A proposition $p$ is true in an epistemic model $M_E(x)$ iff $M_E(x) \subseteq p$: $\forall w [w \in M(x) \rightarrow w \in \lambda w'. p(w')]$.

(374) Grades of veridicality

a. Veridicality: A propositional operator $F$ is veridical iff $Fp$ entails or presupposes that $p$ is true in some individual’s model $M(x)$; $p$ is true in $M(x)$ if $M(x) \subseteq p$

b. Non-veridicality: If $F$ is not veridical, it is non-veridical.

c. Anti-veridicality: $F$ is anti-veridical iff $Fp$ entails not $p$ in some individual’s model: $M(x) \cap p = \emptyset$

According to those definitions, être sûr ‘be sure’ is veridical: it entails the truth of its complement in the attitude holder’s epistemic model. In both conjuncts in (375), the embedding predicate is veridical and the example is acceptable.
(375) Tom est sûr que [Benjamin est venu]C mais (moi) je suis sûr que [non]α.

Tom is sure that Benjamin is come but me I am sure that no

Tom is sure that Benjamin came but I am sure that he did not come.

C.5 Conclusion

My point in this section was to show that there is no obvious simpler explanation that can capture the contrast requirement that embedded PRPs impose on the utterance they are part of. Of course further research may end up showing that certain observations currently being described as constituting two separate empirical domains are in fact derived from the same notion of contrast.
APPENDIX D

CROSS-LINGUISTIC QUESTIONNAIRE

D.1 Introduction

If we just look at European French and Italian, two neighboring languages which are furthermore closely related, it is striking that while one uses the same complementizer as it would otherwise use to embed finite declarative clauses *que*, the other does not *di*. Furthermore, as we saw in section B, there is good reason not to analyze the *di* complementizer used to embed PRPs as the *di* complementizer used to embed infinitival clauses. If this is correct, European French and Italian, though very close, exemplify to different strategies to embed PRPs. In order to see how widespread these two strategies were, I created a small questionnaire given below.

The questionnaire is clearly designed to be filled out by linguists, hence the rather straight-forward questions. Some languages have more data and details than others depending on how many additional observations the linguist reported or depending on whether I administered the questionnaire in person.

Finally, two caveats are in order. First the reader will notice that there is no systematic system of transcription. I adopted, without modification, the transcription that the linguists who generously responded to my questionnaire used. This being said, I assume all responsibilities should any mistake have occurred while I wrote up the data in this file. Secondly, it may be objected that the verb I used *say* to elicit reported speech and embedded PRPs is a poor choice since it is compatible with quoted speech. I agree that this is a poor choice and only realized my mistake once the questionnaire had been sent out.
D.2 The questionnaire

In this questionnaire, the first question is designed to elicit PRPs in the target language. The second question is designed to elicit a structure with an embedded finite declarative clause. The third question is designed to see whether PRPs can be embedded at all. Finally the fourth question is a place for the linguist to point out any other relevant information.
Questionnaire about YES/NO polarity particles

Your name: _____________________
Your email address: ____________________
Name of the language: _________________
Do you wish to remain anonymous (i.e. not be thanked by name in published material)? Yes/no.

About me

My name is Jérémy Pasquereau (http://jeremy-pasquereau.jimdo.com/). I am a graduate student in linguistics at the university of Massachusetts Amherst. For my dissertation (on the embedding of polarity particles), I would like to ask you THREE short questions about your language(s).

I have provided examples in English and French. Please translate those examples into your language to the extent that it is possible. Feel free to add comments at each point and/or to write to me at the address below.

Please return the questionnaire to me at: jpasquer@linguist.umass.edu.

Thank you.

1. Does your language have polarity particles used to answer polar questions like `yes/no’?

English
Speaker A: Is Tom coming to the party?
Speaker B:  - Yes
- No.

French
Locuteur A : Est-ce que Tom va venir à la fête ?
Locuteur B :  - Oui
- Non.

How you say it in your language:

Speaker A: _____________________
Speaker B:  - _____________________
- _____________________
2. How does your language embed sentences?

English
Speaker A: Is Tom coming to the party?
Speaker B: - His brother told me that he will come.
- His brother told me that he will not come.

French
Locuteur A: Est-ce que Tom va venir à la fête ?
Locuteur B: - Son frère m’a dit qu’il va venir.
- Son frère m’a dit qu’il ne va pas venir.

How you say it in your language:

<table>
<thead>
<tr>
<th>Speaker A</th>
<th>Speaker B</th>
</tr>
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<tbody>
<tr>
<td></td>
<td></td>
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</tbody>
</table>

3. If your language has polarity particles, can they be embedded (whatever the complementizer)?

English
Speaker A: Is Tom coming to the party?
Speaker B: -*His brother told me that yes.
- *His brother told me that no.

French
Locuteur A: Est-ce que Tom va venir à la fête ?
Locuteur B: - Son frère m’a dit que oui.
- Son frère m’a dit que non.

How you would say it in your language:

*Indicate the acceptability of the construction in your language (good, ?, or *)

<table>
<thead>
<tr>
<th>Speaker A</th>
<th>Speaker B</th>
</tr>
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<tbody>
<tr>
<td></td>
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</table>
If there is no direct translation, is there something similar that you may use in your language?

Speaker A: 
Speaker B: 

4. Any comments you would like to provide? (for instance (if applicable), what else is the complementizer used in 3 used for in your language?)

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D.3 Results of the questionnaire

The results of the questionnaire are reported below according to the following classification:

- category 1: languages in which PRP embedding is possible with the same complementizer as is used to embed finite declarative clauses

- category 2: languages in which PRP embedding is possible but the complementizer is clearly distinct from the complementizer used to embed the finite declarative clause

- category 3: languages in which PRP embedding is possible and the complementizer used is not clearly similar nor different from what is allowed with finite declarative clauses

- category 4: languages which cannot embed PRPs.

D.3.1 Category 1: PRP embedding is possible

D.3.1.1 Armenian - Suzanna Melkonian
(376) Tomáš galisá?

Tom coming.PRST

*Is Tom coming?*

a. Ayo/Ha = yes

b. Voch/Che = no

(377) a. Ira axpære inz aselǝ vor galu.

his brother me told C coming.FUT

*His brother told me that he is coming.*

b. Ira axpære inz aselǝ vor chi galu.

his brother me told C neg coming.FUT

*His brother told me that he is not coming.*

(378) a. Ira axpære inz aselǝ vor ayo/ha.

his brother me told C yes

*His brother told me that he is coming.*

b. Ira axpære inz aselǝ vor voch/che.

his brother me told C no

*His brother told me that he is not coming.*

D.3.1.2 Czech - Hana Gruet-Skrabalova, Mojmír Dočekal

(379) Přijde Tom na ten večírek.

come.FUT Tom P Demonstrative party

*Will Tom come to the party*
(380) a. Jeho bratr mi řekl, že přijde.
   his brother me told that come.3sg

   *His brother told me that he would come.*

b. Jeho bratr mi řekl, že nepřijde.
   his brother me told that NEG.come.3sg

   *His brother told me that he would not come.*

(381) a. Jeho bratr mi řekl, že ano.
   his brother me told that yes

   *His brother told me that he would come.*

b. Jeho bratr mi řekl, že ne.
   his brother me told that no

   *His brother told me that he would not come.*

D.3.1.3 Polish – Jan Wiślicki

(382) Czy Tom przyjdzie na imprezę?
   whether Tom.NOM come.FUTURE.3SG to/on party.ACC

   *Will Tom come to the party?*

   a. Tak / Przyjdzie. / Tak, przyjdzie

   Yes / come.FUTURE.3SG / Yes, come.FUTURE.3SG

   Yes. / He will. / Yes, he will
b. Nie / Nie przyjdzie / Nie, nie przyjdzie.
No / NEG come.FUTURE.3SG / No, NEG come.FUTURE.3SG
No / He won’t / No, he won’t

(383) a. Jego brat powiedział mi że przyjdzie
his brother.NOM told.PST.3SG me.DAT that come.FUTURE.3SG
His brother told me that he would come.
b. Jego brat powiedział mi że nie przyjdzie
his brother.NOM told.PST.3SG me.DAT that NEG come.FUTURE.3SG
His brother told me that he would not come.

(384) a. Jego brat powiedział mi że tak.
his brother.NOM told.PST.3SG me.DAT that yes
His brother told me that he would come.
b. Jego brat powiedział mi że nie.
his brother.NOM told.PST.3SG me.DAT that no
His brother told me that he would not come.

D.3.1.4 Russian - Petr Kusliy, Katya Vostrikova, David Ersheler, ....

(385) Pridet Katya na vecherenky?
come.FUT Katya to party
Will Katya come to the party?
a. Da = yes
b. Net = no
(386) a. Ego brat skazal mne, shto ona pridet.
   her brother told me that she come.FUT
   *Her brother told me that she will come.*

   b. Ego brat skazal mne, shto ona ne pridet.
   her brother told me that she NEG come.FUT
   *Her brother told me that she will not come.*

(387) a. Ego brat skazal mne, shto da.
   her brother told me that yes
   *Her brother told me that she will come.*

   b. Ego brat skazal mne, shto net.
   her brother told me that no
   *Her brother told me that she will not come.*

D.3.1.5 Bulgarian - Vesela Simeonova

(388) Ivan shte dojde li na kupona?
   Ivan FUT come Q at party.DEF
   *Will Ivan come to the party?*

   a. Da = yes

   b. Ne = no

(389) a. Brat mu mi kaza, che shte dojde.
   Brother 3sg.gen 1sg.dat told that future come.3sg.pres
   *Her brother told me that she will come.*
b. Brat mu mi kaza, che njama (da dojde).

Her brother told me that she will not come.

(390) a. Brat mu mi kaza, che da.

Her brother told me that she will come.

b. Brat mu mi kaza, che ne.

Her brother told me that she will not come.

D.3.1.6 Latvian - Artis Taurins

(391) Vai Toms nāks uz ballīti?

Will Tom go to the party?

a. Jā= yes

b. Nē= no

(392) a. Viņa brālis man teica, ka viņš nāks.

His brother told me that he will come.

b. Viņa brālis man teica, ka viņš nenāks.

His brother told me that he will not come.
(393) a. ٞی‌نا برالیس مان تیقا، کا یا.
his brother me told that yes
His brother told me that he will come.

b. ٞی‌نا برالیس مان تیقا، کا نی.
his brother me told that no
His brother told me that he will not come.

D.3.1.7 Farsi - Zahra Mirrazi

(394) (aya) توم بیمهمونی میاد؟
tom will to.party come
Will Tom come to the party?

a. Are/Bale = yes
b. Na = no

(395) a. برادرش بهم گفت (که) میاد.
b. برادرش بهم گفت (که) نمیاد.
brother.his to.me said (that) he.is.coming
His brother told me that he was coming.

b. برادرش بهم گفت (که) نمیاد.
brother.his to.me said (that) neg.he.is.coming
His brother told me that he was not coming.

(396) a. برادرش بهم گفت (که)‌یه.
brother.his to.me said (that) yes
His brother told me that he was coming.
b. baradareş behem goft (ke) na.
brother.his to.me said (that) no

*His brother told me that he was not coming.*

D.3.1.8 Azeri - Ayten Babaliyeva, Murad Suleymanov

(397) Tom qonaqlı-ga ələcək(mi)?
Tom party.to come.FUT.Q

*Is Tom coming to the party?*

a. Hə= yes

b. Yox = no

(398) a. Qardaşi mənə dedi ki, ələcək.
brother.his me told that come.FUT

*His brother told me that he will come.*

b. Qardaşi mənə dedi ki, əlməyəcək.
brother.his me told that neg.come.FUT

*His brother told me that he will not come.*

(399) a. Qardaşi mənə dedi ki, hə.
brother.his me told that yes

*His brother told me that he will come.*

b. Qardaşi mənə dedi ki, yox.
brother.his me told that no

*His brother told me that he will not come.*
D.3.1.9 Lezgi (Yargun, Azerbaijan) - Ayten Babaliyeva

(400) Ttom suvarik qverval yen?
Tom to.party come Q

Will Tom come to the party?

a. Uⁿ= yes

b. Va?= no

(401) a. Hada(n) stxad(i) lahana ki zaz, qverval ya.
his brother tell to me come ?

His brother told me he would come.

b. Hada(n) stxad(i) lahana ki zaz, qverval ttuş.
his brother tell to me come ?

His brother told me he would not come.

(402) a. Hada(n) stxad(i) lahana ki zaz, un (qverval ya).
his brother tell to me yes come ?

His brother told me yes he would come.

b. Hada(n) stxad(i) lahana ki zaz, va?(qverval ttuş).
his brother tell to me no come

His brother told me no he would not come.

D.3.1.10 Hebrew - David Erschler / Craig Sailor

(403) (haim) tom ba l-a-mesiba?
Q Tom comes to-DEF-party

Has Tom come?
a. Ken = yes
b. Lo = no

(404) (ha-)ax šelo/ ax-iv amar=li še=hu javo.
(DEF-)brother his brother-M.3SG told=to.me C=he will.come

His brother told me that he will come.

(405) a. (ha-)ax šelo/ ax-iv amar=li še=ken.
(DEF-)brother his brother-M.3SG told=to.me C=yes

His brother told me that he will come.

b. (ha-)ax šelo/ ax-iv amar=li še=lo.
(DEF-)brother his brother-M.3SG told=to.me C=no

His brother told me that he will not come.

D.3.1.11 Vietnamese - Thuy Bui

(406) Tom (co) den bue tiec lehong?
Tom particle come classifier party neg.Q

Is Tom coming to the party?

a. Co = yes
b. Khong = no

(407) a. Anh toi bao toi la no se den.
brother me tell me that 3sg fut come

My brother told me that he will come.
b. Anh toi bao toi la no se khong den.
   brother me tell me that 3sg fut neg come
   My brother told me that he will not come.

(408) a. Anh toi bao toi la co.
   brother me tell me that yes
   My brother told me that yes.

b. Anh toi bao toi la khong.
   brother me tell me that no
   My brother told me that no.

D.3.1.12  Georgian - Mariam Khvistiashvili, David Erschler

(409) vpikrob rom k’i/ ara
   I.think that yes/ no
   I think that yes/ no.

D.3.1.13  Catalan – Anna Pineda

(410) En Tom vindrà a la festa ?
   the Tom come.FUT to the party
   Will Tom come to the party?
   a. Si = yes
   b. No = no
(411) a. El seu germà m’ ha dit que vindrà.
   the his brother me has said that come.FUT
   His brother told me that he will come.

b. El seu germà m’ ha dit que no vindrà.
   the his brother me has said that NEG come.FUT
   His brother told me that he will not come.

(412) a. El seu germà m’ ha dit que sí.
   the his brother me has said that yes
   His brother told me that he will come.

b. El seu germà m’ ha dit que no.
   the his brother me has said that no
   His brother told me that he will not come.

D.3.1.14 Créole réunionais - Johanna M’Bae

(413) Eske Tom i sa ni la fete?
   Q Tom he ? come the party
   Will Tom come to the party?
   a. Oui = yes

b. Non= no

(414) a. Mi kroi ke li sa nir.
   I think that he ? come
   I think that he will come.
b. Mi kroi ke li sa pa nir.
   I think that he will not come.

   *I think that he will not come.*

(415) a. Mi kroi ke oui.
   I think that yes

   *I think that he will come.*

b. Mi kroi ke non.
   I think that no

   *I think that he will not come.*

D.3.1.15 Spanish

(416) ¿Va a venir Juan a la fiesta?
   goes to come John to the party

   *Will Juan go to the party?*

a. Sí = yes

b. No = no

(417) a. Creo que va a venir.
   think.1sg that goes to come

   *I think that he’ll come.*

b. Creo que no va a venir.
   think.1sg that NEG goes to come

   *I think that he’ll not come.*
a. Creo que sí.

think.1sg that yes

*I think that he’ll come.*

b. Creo que no.

think.1sg that no

*I think that he’ll not come.*

D.3.1.16 **Hungarian - Donka Farkas**

- Hungarian has the following polarity particles
  
  - *igen* ‘yes’
  
  - *nem* ‘no’
  
  - *de* which is added to the former two to reverse the polarity of the antecedent

(419) Samu elment?

Sam PART.left

*‘Did Sam leave?’*

a. Igen, elment.

yes, PART.left

*‘Yes, (he) left.*

b. Nem, nem ment el.

no, not left PART

*‘No, (he) didn’t leave.*
(420) Samu nem ment el?
Sam not left PART

‘Did Samu not leave?’
De igen, (elment).
dé yes, PART.left

‘But yes, he left.

- nem and de have other uses
  - nem is also the clausal negation morpheme

(421) Anna nem felelt.
Anna not answered

‘Anna didn’t answer.’

- de is also the adversative conjunction

(422) Anna elment de Mari nem tudta.
Anna PART.left but Mari not knew

‘Anna left but Mari didn’t know it.’

- igen and nem can be embedded

(423) a. Anna azt hiszi, hogy nem fog esni de én azt hiszem, hogy igen.
Anna that believes that not will rain but I that believe that yes

‘Anna believes that it will not rain but I believe that it will.’
b. Anna azt hiszi, hogy esni fog, de én azt hiszem, hogy nem.

Anna that believes that rain will but I that believe that not

‘Anna believes that it will rain but I believe that it will not.’

- but de igen or de nem cannot be embedded

(424) a. *Anna azt hiszi, hogy nem fog esni de én azt hiszem, hogy de igen.

Anna that believes that not will rain but I that believe that de yes

Intended: ‘Anna believes that it will not rain but I believe that it will.’

b. *Anna azt hiszi, hogy esni fog, de én azt hiszem, hogy de nem.

Anna that believes that rain will but I that believe that de not

Intended: ‘Anna believes that it will rain but I believe that it will not.’

- can they be embedded if the full clause is not elided?

- echo reversing assertions reacting to rhetorical negative questions that presuppose a positive answer have the form we expect if what matters is the form of the question rather than the bias indicated by the speaker, which in this case is positive

(425) Hát nem a legszebb gyerek a világon?

so not the most.beautiful child the world.on

‘Isn’t she the most beautiful child in the world?’

De igen./Dehogy nem.

de yes dehogy

‘Yes, she is. / Of course she is’
in French, it is the bias that matters

(426) Marie n’est-elle pas la plus belle petite fille du monde?
Marie neg is she neg the most beautiful little girl in the world

Isn’t Marie the most beautiful girl in the world?
Oui. #Si.

D.3.1.17 Moore – Alassane Kiemtoré

(427) a. Yes = nge
b. No = ayo

(428) a. Madu yelè me ti ma wa.
Madu say past C he FUT

Madu said that he was coming.

b. Madu yelè me ti nge.
Madu say past C yes

Madu said that he was coming.

D.3.1.18 Turkish – Deniz Ozyildiz, Murat Ozgen
diye

• diye is possible with scream and remark, not with think

Ali yes/no C think

Ali thinks that yes.
Ali yes/no C scream

*Ali screamed that yes.*

c. Ali evet/hayır diye belirtti.
Ali yes/no C remark

*Ali remarked that yes.*

- With *diye*, polarity fragments are allowed

(430) Pitır evet de Mari hayır diye bagırdım/ belirttim/ ?düşünuyorum.
Peter yes but Mari no C I.scream/ I.indicate/ I.think

*I scream/indicate/think that Peter yes but Mari no.*

- My informant prefers (429) to (430) with *think*

- But *diye* may introduce direct reported speech (*think* and *remark* are not good with an onomatopeia, most probably for lexical semantic reasons)

(431) a. *Ali buuu diye düşünüyo.*
Ali boo C think

*Int. Ali thinks ‘Boo’.*

b. Ali buuu diye bağırdı.
Ali boo C scream

*Ali screamed ‘Boo’.*
    Ali boo C remark

    Int. Ali remarked ‘Boo’.

- *diye can also introduce indirect speech where the embedded 1st person subject may be interpreted as referring to the speaker in the context

(432) a. Ali hastayım diye düşünüyo.
    Ali 1sg.be_sick C think

    Ali thoughts that I/he is sick.

b. Ali hastayım diye bagırdı .
    Ali 1sg.be_sick C scream

    Ali screamed that I/he is sick.

c. Ali hastayım diye belırttı .
    Ali 1sg.be_sick C remark

    Ali remarked that I/he is sick.

- *diye is obligatory in a polar question with an embedded complement

(433) a. Tom mi gelecek diye biliyosun?
    Tom Q come C you.know

    Do you know whether Tom will come?

b. Tom gelecek diye mi biliyosun?
    Tom come C Q you.know

    Do you know whether Tom will come?
c. *Tom gelecek mi diye biliyosun?
   Tom come C Q you.know

   *Int: Do you know whether Tom will come?

d. *Tom mi gelecek biliyosun?
   Tom Q come you.know

   *Int: Do you know whether Tom will come?

- If the question is indirect, *diye* must not be used

(434) a. Tom mi gelecek biliyosun.
   Tom Q come you.know

   You know whether Tom will come.

b. *Tom mi gelecek diye biliyosun.
   Tom Q come C you.know

   Do you know whether Tom will come.

c. Tom gelecek mi biliyosun.
   Tom come Q you.know

   Do you know whether Tom will come.

**ki**

(435) Tom partiye gelecek mi?
   Tom party-dat come-fut.3s Q

   Is Tom coming to the party?
a. Kardesi bana dedi ki gelecek.
   his.brother to.me said ki come.fut.3s
   *His brother told me that he was coming.*

b. Kardesi bana dedi ki gelmeyecek.
   his.brother to.me said ki come(neg)fut.3s
   *His brother told me that he was not coming.*

(436) Tom partiyeye gelecek mi?
   Tom party-dat come-fut.3s Q
   *Is Tom coming to the party?*

a. Kardesi bana dedi ki evet.
   his.brother to.me said ki yes
   *His brother told me that he was coming.*

b. Kardesi bana dedi ki hayir.
   his.brother to.me said ki no
   *His brother told me that he was not coming.*

(437) Kardesi saniyo ki evet/hayır
   his.brother believe that yes/no
   *His brother believes that yes/no.*

(438) Sanıyorum ki Pitür evet de Mari hayır.
   I.think that Peter yes but Mari no
   *I think that Peter yes but Mari no.*
• *ki (unlike *diye*) cannot introduce direct speech

(439)  a. *Can bağırdı ki buuu!
        Can screamed that boo
        
        *Int. Jean screamed ‘boo’!

b. *Can bağırdı ki salak!
        Can screamed that idiot
        
        *Int. Jean screamed ‘idiot’!

c. *Can dedi ki buuu!
        Can said that boo
        
        *Int. Jean said ‘boo’!

d. *Can dedi ki salak!
        Can said that idiot
        
        *Int. Jean said ‘idiot’!

• it can only introduce indirect speech: in the following examples, only the non-shifted interpretation of the deictic person agreement is available

(440)  a. Can bağırdı ki hastayim.
        Can screamed ki sick.1sg
        
        Jean, screamed that I<sub>s1</sub> ’m sick.

b. Can dedi ki hastayim.
        Can said ki sick.1sg
        
        Jean, said that I<sub>s1</sub> ’m sick.
(441) Kas Tom tuleb peole ?
Q Tom come.prst3sg party.ALL

*Will Tom come to the party?*

a. Jah.

b. Ei.

(442) Kas Tom tuleb peole ?
Q Tom come.prst3sg party.ALL

*Will Tom come to the party?*

a. Tema vend ütles mulle, et ta tuleb.
   poss brother tell.prst3sg me.ALL C 3sg come.prst3sg

   *His brother told me that he will come.*

b. Tema vend ütles mulle, et ta ei tule.
   poss brother tell.prst3sg me.ALL C 3sg neg come.prst3sg

   *His brother told me that he will not come.*

(443) Kas Tom tuleb peole ?
Q Tom come.prst3sg party.ALL

*Will Tom come to the party?*

a. Tema vend ütles mulle, et jah.
   poss brother tell.prst3sg me.ALL C yes

   *His brother told me that he will come.*
b. Tema vend ütles mulle, et ei.
poss brother tell.prst3sg me.ALL C no

His brother told me that he will not come.

(444) Kas Tom tuleb peole ?
Q Tom come.prst3sg party.ALL

Will Tom come to the party?

Tema vend ütles mulle, et ta tuleb jah/küll.
poss brother tell.prst3sg me.ALL C 3sg come.prst3sg

His brother told me that he will indeed come.

D.3.1.20 Brazilian Portuguese - Luiz Amaral

(445) O Tom vai à festa?
the Tom goes to party

Will Tom go to the party?
a. Vai. *Sim. = he will
b. Não. = no

(446) a. O irmão dele me disse que ele vai.
the brother his me told that he goes

His brother told me that he will.

b. O irmão dele me disse que ele não vai.
the brother his me told that he NEG goes

His brother told me that he will not.
(447) a. O irmão dele disse que sim.
the brother his me told that

*His brother told me that he will.*

b. O irmão dele disse que não.
the brother his me told that

*His brother told me that he will not.*

**D.3.2 Category 2: PRP embedding is possible but C is different**

**D.3.2.1 Italian**

(448) Verrà Luca alla festa?
come.FUT Luca to.the party

*Will Luca come to the party?*

a. Sì = yes

b. No = no

(449) a. Credo che verrà.
think.1sg that come.FUT

*I think that he will come.*

b. Credo che non verrà.
think.1sg that NEG come.FUT

*I think that he will not come.*

(450) a. Credo di sì.
think.1sg C yes

*I think that he will come.*

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b. Credo di no.

think.1sg C no

*I think that he will not come.*

**D.3.2.2 Basque – Jon Ander Mendia**

(451) a. Yes: Bai

b. No: Ez

(452) Ospakizunera etorriko al zara?

party come.fut Q pres.intr.2sg

*Will you come to the party*

a. Bai.

b. *Baietz.*

c. (Nik) bai-etz uste dut.

I yes-part think AUX.1sg.3sgabs

*I think that yes.*

d. (Nik) ezetz uste dut.

(453) Ez dakit Jon etorriko d-en-entz.

not know.1sg Jon.ABS.sg come.FUT aux.pres.3sg-C-part

*I don’t know whether Jon will come.*

**D.3.3 Category 3: Maybe same, maybe different?**

**D.3.3.1 Greek - Marika Lekakou**
(454) Tha erthi o Thomas sto party?
    mod come.3sg the Tom to.the party
    ‘Is Tom coming to the party?’
    a. Nai = yes
    b. Oxi = no

(455) a. O aderfos tu mu ipe pos tha erthi
    the brother his me-gen said-3sg that mod come-3sg
    ‘His brother told that he will.’
    b. O aderfos tu mu ipe pos de tha erthi.
    the brother his me-gen said-3sg that neg mod come-3sg
    ‘His brother told that he will not come.’

(456) a. O aderfos tu mu ipe pos nai.
    the brother his me-gen said-3sg that yes
    ‘His brother told that he will come’.
    b. O aderfos tu mu ipe pos oxi.
    the brother his me-gen said-3sg that no
    ‘His brother told that he will not come.

There are two declarative complementizers in Greek, *oti* and *pos*. Grammatical descriptions of the language claim that the two are in free variation, with only register differences at play (*pos* is claimed by some grammars to be more formal, but I do not have that intuition and I doubt if you will find anyone who does, nowadays). The interesting thing, which I never noticed, is that *oti* in the elliptical versions is very strongly dispreferred, for me.
(457) Tha erthi o Thomas sto party?

mod come.3sg the Tom to.the party

‘Is Tom coming to the party?’

(a) ??O aderfos tu mu ipe oti naii.

the brother his me.gen said-3sg that yes

Int. His brother told that he will come.

(b) ??O aderfos tu mu ipe oti oxi.

the brother his me.gen said-3sg that yes

Int. His brother told that he will not come.

D.3.3.2 English - Seth Cable

(458) Can you blend blackberry?

(a) I feel like yes.

(b) I feel like no.

(c) John said yes.

(d) John thought yes.

D.3.3.3 Lapscheure West Flemish - Liliane Haegeman, Andrew Weir

The data for this language come entirely from Haegeman & Weir 2016. Non-embedded PRPs obligatorily show overt agreement.

(459) Goa Marie morgent kommen?

goes Marie tomorrow come

Is Marie coming tomorrow?
a. Ja-s.
   yes-3sg.f
   Yes.
b. *Ja.
c. Nee-s.
   no-3sg.f
   No.d. *No.

A sentence can follow the polarity particles but in this case, even though the polarity particles bears subject agreement, a subject must still be specified (as a pronoun or full DP). Even though the subject is specified, the PRP must bear agreement.

(460) Goa Marie morgent kommen?
goes Marie tomorrow come

_Is Marie coming tomorrow?_

a. Ja-s ze/Marie goat morgent kommen.
yes-3sg.f she/Marie goes tomorrow come

Yes, she/Marie will come tomorrow.
b. *Jas goat morgent kommen.
c. *Ja ze/Marie goat morgent kommen.

Agreeing ja/nee and bare ja/nee cannot be embedded under complementizers like _dat_ that introduce finite clauses.

(461) Is Valère geweest?
is V. been

_Has Valère been?_
a. *Kpeinzen dat ja.
   \[\text{I think that yes} \]
   \textit{intended: I think so.}

b. *Kpeinzen dat ja-j.
   \[\text{I think that yes-3sg.m} \]
   \textit{intended: I think so.}

They can ‘somewhat marginally’ (I’m quoting) be embedded under \textit{van}, which can introduce a non-finite clause. In this case they do not alternate with the agreeing forms of the particles.

(462) a. Kveronderstellen van ja/neen
   \[\text{I suppose of yes/no} \]

b. *Kveronderstellen van ja-s/nee-s.
   \[\text{I suppose of yes-3sg.f} \]

c. Boer, ga je der weer uitvallen, de?
   \[\text{Farmer, go you there again out drop,} \]
   \[\text{k zeggen: “Kgeloven van ja.”} \]
   \[\text{I say: “I believe of yes”} \]

(463) Ik peinzen van morgent te goan.
   \[\text{I think of tomorrow to go} \]
   \[\text{I intend to go tomorrow.} \]

Finally, bare ja/neen can appear under van in construction with the verbs \textit{knikken} ‘nod’ and \textit{schudden} ‘shake’ (and some other verbs of ‘motion of the body’ like \textit{gebaren} ‘gesture’). In such contexts they again do not alternate with the agreeing particles.
(464) a. Ze knikte van ja/ *ja-s.
    she nodded of yes/ yes-3sg.f

    She nodded her head yes.

b. Ze schudde van neen/ *nee-s.
    she shook of no/ *no-3sg.f

    She shook her head no.

c. Ze gebaarde van ja/ neen/ *ja-s/ *nee-s.
    she gestured of yes/ no/ yes-3sg.f/ no-3sg.f

D.3.4 Category 4: PRP embedding is not possible

D.3.4.1 Scots - Andrew Weir

(465) Is Tam comin tae the pairty?
    is Tom coming to the party

    Is Tom coming to the party?
    a. Aye = yes
    b. Naw = no

(466) a. His brother telt me (that) he’ll be comin.
    b. His brother telt me (that) he’ll no be comin.

(467) a. *His brother telt me that aye.
    b. *His brother telt me that naw.
    c. His brother telt me aye.
    d. His brother telt me naw.
D.3.4.2 Japanese - Chisato Kawahara, Yasutada Sudo

(468) Tom-wa party-ni ki-mas-u ka?
Tom-Topic party-at come-POLITE-Present Q

Is Tom coming to the party?

a. Hai (or - Ee.) = yes
b. Iie = no

(469) Tom-wa party-ni ki-mas-u ka?
Tom-Topic party-Dat come-POLITE-Present Q

Is Tom coming to the party?

Kare no oniisan-wa [ku-ru] to it-te i-masi-ta yo.
he ’s elder.brother-Top [come-Pres] Comp say-ing be-POLITE-Past I-say

(470) a. *Kare no oniisan-wa hai to it-te i-masi-ta yo.
he ’s elder.brother-Top [come-Pres] Comp say-ing be-POLITE-Past I-say
b. *Kare no oniisan-wa ee to it-te i-masi-ta yo.
he ’s elder.brother-Top [come-Pres] Comp say-ing be-POLITE-Past I-say

D.3.4.3 Korean – Yangsook Park

(471) Tom-i phathi-ey o-ni?
Tom-Nom party-to come-INT

Is Tom coming to the party?

a. Ung./ Ney (honorific expression)
b. Ani./ Ani-yo (honorific)
(472) a. ku-uy hyeng-i na-eykey ku-ka ol ke-lako malhayssta
    He-Gen brother-Nom I-to he-Nom come will-C said

    b. ku-uy hyeng-i na-eykey ku-ka oci-anh-ul ke-lako malhayssta
    He-Gen brother-Nom I-to he-Nom come-not will-C said

(473) a. *ku-uy hyeng-i na-eykey ung-ilako malhayssta
    He-Gen brother-Nom I-to yes-C said

    b. *ku-uy hyeng-i na-eykey ani-lako malhayssta
    He-Gen brother-Nom I-to no-C said

D.3.4.4 Kalmyk - Andrey Boskhomdzhiyev

(474) Tom nart@ irɡena isirɡena ?
    Tom to.party come not.come

    Is Tom coming to the party?
    a. e ‘yes’ / irxɔ ‘he will come’
    b. uga ‘no’ / irʃko ‘he won’t come’

(475) a. axɔŋ nandɔ irxɔ giðɔ kɛlла
    his.older.brother to.me will.come C told

    His older brother told me that he will come.

    b. axɔŋ nandɔ irʃko giðɔ kɛlла
    his.older.brother to.me will.not.come C told

    His older brother told me that he will not come.
a. *əxəŋ ənəndò ə giəɫə kəlla
    his.older.brother to.me yes C told

    Intended: His older brother told me that yes.

b. *əxəŋ ənəndò uga giəɫə kəlla
    his.older.brother to.me no C told

    Intended: His older brother told me that no.

D.3.4.5 Zazaki – Faruk Akkus

(477) şıma nen wenê?
    will you eat

    Will you eat?
    a. yes = heya
    b. no = nê

(478) a. *mì va kə heya/nê
    I said that yes/no

    Intended: I said that I will (not).

    b. mì va kə ez nan (nê-)wenan
    I said that I will (not)-eat

    I said that I will (not) eat.

D.3.4.6 Sason Arabic – Faruk Akkus

(479) tayel?
    eat.2m

    Will you eat?
(480) a. *qiltu le he/ la
    said.1sg that yes /
    Int. I said that I will (not).

b. qiltu le ayel/ mo-yel
    said.1sg that eat.1sg neg-eat.1sg
    I said that I will (not) eat.

d. lla
   no, neg go 2m-come
   No, he is not coming.
(482)  a.  xu-fi  gal lija bɔlli ɣadi j-zi.
    brother-his said to.me that  go  2m-come
    His brother told me that he was coming.

    b.  xu-fi  gal lija bɔlli ma ɣadi j-zi.
    brother-his said to.me that  neg  go  2m-come
    His brother told me that he was not coming.

(483)  a.  *xu-fi  gal lija bɔlli aʃi.
    brother-his said to.me that  yes
    Int. His brother told me that yes.

    b.  *xu-fi  gal lija bɔlli ɭla.
    brother-his said to.me that  no
    Int. His brother told me that no.

D.3.4.8 Norwegian - Anne Dahl

(484)  Kommer Tom på festen?
    come  Tom to  party
    Will Tom come to the party?
    a.  Ja = yes

    b.  Nei = no

(485)  a.  Broren hans sier at han kommer.
    brother.the his  says that he  come
    His brother says that he is coming.
b. Broren hans sier at han ikke kommer.
brother:the his says that he NEG come

*His brother says that he is not coming.*

(486) a. *Broren hans sier at ja.
brother:the his says that yes

*His brother says that he is coming.*

b. *Broren hans sier at nei.
brother:the his says that no

*His brother says that he is not coming.*

(487) a. ?Broren hans sier ja.
brother:the his says yes

*His brother says he is coming.*

b. ?Broren hans sier nei.
brother:the his says no

*His brother says he is not coming.*

**D.4 Conclusion**

Perhaps the main result of this questionnaire is the confirmation that the strategy we discovered in Italian is used in at least one other non-related language (Basque). Note that there may very well be other languages that use this strategy: for one, this questionnaire study is far from being exhaustive and is rather Euro-centric, but even in the results that I gathered, it remains to be determined what strategy the languages in category 3 use. As in Italian, further work on these constructions in these languages needs to be done to be able to answer this question.
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