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# Contrast, Verum Focus and Anaphora: The Case of et pourtant si/non in French<sup>1</sup>

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This study examines the anaphoric status of the sequence et pourtant si/non in French. This sequence displays some properties not only of TP-Ellipsis but also of propositional anaphora. Consequently, the antecedent of this sequence can be recovered by means of either type of anaphoric process. I argue that the salient and relevant antecedent is constrained by the presence of a modalized environment. I claim that the discursive marker pourtant is assimilated to a modal operator (Jayez 1988, Martin 1987) expressing discourse contrast between two propositions anchored in two possible worlds that are not contradictory. Polarity Particles (POLPARTS) involved in this sequence are analyzed as emphasizing the truth of a proposition. As such, they are conveying semantic contrast between two polarities, that of a salient and accessible discourse antecedent and that of the missing part after et pourtant si/non. This is how POLPARTS upgrade the Common Ground. I develop a focus-based account for Verum Focus, building on alternatives along the lines of Hardt & Romero (2004). I suggest that the scope of an epistemic operator (Romero & Han 2004) and the conditions of use are relevant in order to reconstruct the adequate antecedent, which is not possible in an analysis based solely on lexical insertion and upgrading the Question Under Discussion (QUD) by conditions governing the felicitous use of et pourtant si/non.

KEYWORDS: alternative semantics, anaphora, Common Ground, discourse contrast, French, PolParts, semantic contrast, verum focus, VP-Ellipsis

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# 1. Introduction

This paper provides an exploration into the semantic and discourse properties of the contrast brought about by the sequence *et pourtant si/non* in French. Some relevant examples for the proposed analysis are (1)–(6):<sup>2</sup>

- (1) Marie croit que Pierre est parti du bureau. Et pourtant non Mary believes that Peter left the office. And yet not 'Mary believes that Peter left the office. And yet he did not'
- (2) A. LE CHASSEUR: Tu crois que je voulais te tuer? THE HUNTSMAN: You think that I wanted you to-kill? 'You think I wanted to kill you?'
  - B. BLANCHE NEIGE: Oui, et pourtant non SNOW WHITE: Yes, and yet not 'Yes, and yet you will not'
- (3) Un empereur aux États-Unis? Impossible Et pourtant si An emperor in-the US? Impossible. And yet yes 'An emperor in the US? Impossible. And yet it is possible'
- (4) Mes collègues pensent que je suis riche. Et pourtant non, My colleagues think that I am rich. And yet not, ce n'est pas le cas it isn't the case 'My colleagues think that I am rich. And yet this is not the case'

However, the presence of *et pourtant si/non* is constrained as indicated in (5) and (6):

- (5) \*Marie sait que Pierre est parti du bureau. Et pourtant non Mary knows that Peter left the office. And yet not 'Mary knows that Peter left the office. And yet he did not'
- (6) \*Pierre ne frappa pas Paul. Et pourtant si Peter not hit Paul. And yet yes 'Pieter didn't hit Paul. And yet he did'

These examples are akin to those with the sequences *pero no*, *però no*, *e invece no* and *si totusi* (*ba*)  $da^3$  found in other Romance languages such as Spanish, Catalan, Italian and Romanian in (7) to (10), respectively:<sup>4</sup>

<sup>[2]</sup> The discourse marker *pourtant* in English is usually translated as *but*, *however*, *Nevertheless*, *though*, *yet* or *still* depending on the context. A word for word correspondence between the French sequences analyzed here would be *(and) yet not/yes*, which is ungrammatical in English.

<sup>[3]</sup> Following Farkas (2010: p. 89), *ba* is 'used to mark assertions that contradict a previously made assertion'. This particle plays the same role as *si* in French.

<sup>[4]</sup> The four major sources of data used to build the corpus are the French database FRANTEXT, French newspapers, Google Books and the net.

- (7) Pedro creía que llegaría a tiempo, pero no Peter thought that would be in time but not 'Peter thought that he would be in time, but he did not'
- (8) En Pere va dir que vindria a sopar, però no The Peter said that he came to dinner but not 'Peter said that he came to dinner but he did not'
- (9) Dovrei essere soddisfatta e invece no I-should be satisfied and yet not 'I should be satisfied but I am not'
- (10) Un imparat al Statelor Unit? Imposibil. Si totusi (ba) da An Emperor in States United? Impossible. And yet yes 'An Emperor in United States? Impossible. And yet it is'

However, contrary to the above data, a different strategy to convey the contrast brought about by *et pourtant si/non* in (1)–(4) and its equivalent in (7)–(10), respectively, is used in German, as exhibited by (11) below:

(11) Marie denkt, dass Pierre das Büro verlassen hat. Das war aber Mary believes that Peter the office left has. That was but nicht der fall not the case 'Mary believes that Peter has left the office. That was not the case'

In (11), the negative contrast is expressed via an explicit sentence that can be glossed as 'but that was not the case'.

A noteworthy feature of the discourses in (1)–(4) above is that some lexical material is left unpronounced after *et pourtant si/non*. Subsequently, the hearer must rely on other parts of the discourse, on contextual information or intonation so as to recover the missing antecedent.

In (1), the antecedent of *et pourtant si/non* is a proposition embedded under the propositional attitude verb *croire* (believe), which is a predicate expressing epistemic modality. In this example, the speaker suggests that the proposition under the scope of the modal predicate can be true and then rejects it via *et pourtant non*. This anaphoric ingredient is a most common feature of the use of *et pourtant si/non*. The dialogue in (2) includes a polar question to which a modalized answer is given and then rejected by *et pourtant non*, which also negates the embedded proposition in the scope of *croire* (believe). In (3), the answer to the question is the adjective *impossible*. The sequence *et pourtant si* both asserts the contents of the question and rejects the judgment of plausibility conveyed by the adjective. The contrast established by *et pourtant si* involves both what the proposition and the adjective express. Examples (5) and (6) are ruled out as they contain a contradiction. At this point, two significant questions arise: that of the nature of the missing part in the discourse and that of the element that conveys the contrast.

First, what is the nature of the missing part in discourses like (1), (2) and (4)?

- (12) (a) Marie croit que Pierre frappa Paul. Et pourtant non Ø
  Mary believes that Peter hit Paul. And yet not
  'Mary believes that Peter hit Paul, but he did not'
  - (b) And yet not = Peter did not hit Paul
  - (c) And yet not = that is not true/that is not the case

Is the zero constituent in (12) a case of TP-Ellipsis, (12b), or a case of propositional anaphora (12c)?

Second, the presence of the Discursive Marker (from now on DM) *pourtant* is a clear indication of a contrast or direct opposition (Jayez 2003). Which are the contrasted elements? From the examples given in (1)–(4) above, there exists a contrast between two discursive segments with two different polarities, one of which is missing. Now, concerning the Polarity Particles (PolParts) *si/non*, the question that must be addressed is: Since they appear along with the DM *pourtant*, what is the element that conveys this contrast? Is it the DM *pourtant* or the PolPart? A related question is: How can the presence of *non* in (13a) and of its absence in (13b) be accounted for?

- (13) (a) Je devrais être satisfait. Et pourtant non I should be satisfied. And yet not 'I should be satisfied, but I am not'
  - (b) Je devrais être satisfait. Et pourtantI should be satisfied. And yet

Is the information conveyed in (13a) and (13b) the same? More specifically, are the antecedents of the sequences *et pourtant* and *et pourtant non* identical?

This paper is an attempt to answer these questions, and it will make the following claims:

- The missing constituent following the sequence *et pourtant si/non* can be recovered and interpreted either as a case of ellipsis or propositional anaphora.
- Although the DM *pourtant* is not itself a modal, it appears to express a contrast between two modal expressions whose modal forces are 'polar opposites' given that they operate on different modal bases.<sup>5</sup> In the sequence *et pourtant si/non* the semantic contents of two discourse segments,  $S_0$  and  $S_1$ , are given by the PolParts as they license this DM.
- Polparts are instances of *Verum Focus* (from now on VF), in so far as they emphatically express the polarity of a proposition. They also express a *semantic contrast* between two propositions with contrasted polarity.

<sup>[5]</sup> This observation was suggested to me by an anonymous referee.

• The relevant antecedents of *et pourtant si/non* are propositions in the scope of an intensional operator, or in some cases, propositions in a modal context.

Thus, the paper is organized as follows. Section 2 is a description of the relevant properties of the DM *pourtant*. It is also argued there that PolParts *si/non* are emphatic elements in contexts such as those in (1)–(4), and a discussion follows about the free variation between *si* and *oui*. I then highlight the main differences between two approaches to VF, the focus approach and the non-focus approach. Section 3 discusses the status of the recovered elements in constructions involving *et pourtant si/non* as an instance of TP-Ellipsis or propositional anaphora. In Section 4, I will then be in a position to formulate my proposal based on VF and alternatives. Section 5 concludes the paper.

# 2. POURTANT, POLPARTS AND VERUM FOCUS: AN OVERVIEW

This section presents a review of *pourtant* and PolParts clarifying their relevant properties. It also reviews the basic facts about *Verum Focus* that will be the plank of the treatment proposed in Section 4.

# 2.1 Pourtant as discourse marker

There is extensive literature<sup>6</sup> on the DM *pourtant*, and I will not attempt to provide a comprehensive analysis. My purpose here is primarily to bring to light the significant properties of this DM. Syntactically, *pourtant* establishes a link between two elements, which very often express propositions<sup>7</sup> and it may appear with connectives *et* (and) (cf. supra (1)–(4)) and *mais* (but) (Gettrup & Nølke 1984). Semantically, *pourtant* has been considered as a genuine concessive DM, for instance in Morel (1996: p. 52). In such contexts, DMs *cependant* (however) or *néanmoins* (nevertheless) can be substituted to *pourtant*. Anscombre (2002) analyzes *et* in the sequence *et pourtant* as an opposition marker between two parts

<sup>[6] (</sup>Anscombre 1983, Letoublon 1983, Gettrup & Nølke 1984, Martin 1983, Soutet 1992, Morel 1996, Salkie & Oates 1999, Anscombre 2002, Jayez 2003, Marchello-Nizia 2008, 2009, Lindschouw 2011, Ingham 2011) inter alia.

<sup>[7]</sup> As pointed out by a reviewer, the DM *pourtant* can conjoin categories that are not proposition denoting, for instance adjectives as in (i):

 <sup>(</sup>i) (a) Elle a abordé des sujets [peu connus] et pourtant [d'actualité]
 She touched on subjects which are little known and yet of current interest

<sup>(</sup>b) On a ici affaire à un phénomène [fréquent] et pourtant [ignoré] This phenomenon is frequent and yet little known

<sup>(</sup>c) Mon nouveau bâton de hockey est [si léger] et pourtant [si solide] My new hockey stick is (so) light and yet (so) strong

As noted in Morel (1996: pp. 62–65), *pourtant* allows the speaker to link constituents of the same syntactic status (not necessarily with the same syntactic type) within a sentence boundary. In such cases, *pourtant* is used in order to focalize a constituent. In this study, I concentrate on discourses in which *et pourtant* is followed by POLPARTS *si/oui/non*.

of an argumentation (Anscombre & Ducrot 1983, Anscombre 1983). Central to this approach is the fact that there are two types of counter-argumentation, *direct* and *indirect*. Let *p connec q* be a discursive sequence, where *p* is the antecedent and *q* the consequent, and *connec* the connective linking them. There is an indirect counter-argumentation between *p* and *q* when *q* is an argument for a conclusion *r* and *p* an argument for  $\neg r$ . In a direct counter-argumentation, *p* is an argument for  $\neg q$ . These types explain one of the differences between *mais* (but) and *pourtant* (yet): whereas *mais* is appropriate in both types of counter-argumentation (14a), *pourtant* (yet) is only licit in contexts of direct counter-argumentation (14b).

- (14) (a) [ $_p$  Max fume comme un pompier], mais/pourtant [ $_q$  il ne tousse absolument pas]
  - Max is a chain-smoker, but/yet he doesn't cough at all
  - (b) Je ne prendrai pas de dessert: [p] j'adore le sucré] mais/\*pourtant [q] ça fait grossir]
    - I shall not take dessert: I love sweetness but/yet is fattening

In (14a), p is an argument for  $\langle smoking, cough \rangle$ , which is directly opposed to q:  $\langle smoking, do not cough \rangle$ . In (14b), however, the argumentation is indirect since p is oriented toward a conclusion r:  $\langle I \text{ shall take dessert} \rangle$  whereas q is oriented toward  $\neg r$ :  $\langle I \text{ shall not take dessert} \rangle$ .

In the Gettrup & Nølke (1984) approach, p et pourtant q expresses that p is not well founded (p is true/correct but it should not be, because q). For these authors, pourtant denotes a strong opposition, in which the assertion of q is highly unexpected. They conclude then that the existing contradiction between p and q seems to convey the information that the main speaker's goal is to reject p (e.g. if someone asserts that q, and entails that it contradicts p, then the speaker believes that p is false).

These approaches however, raise two important theoretical issues. First, both approaches rely heavily on the type of argumentative relation between p and q (and in some cases in connection with a conclusion r) in a discourse of type p (et) pourtant q. Now, in examples such as those in (1)–(10), q is missing and must be recovered. Consequently, in order to know the argumentative orientation that is obtained between p and q the context of q must be accessible. In these examples, q is anaphorically dependent on p, more specifically on a part of p. Hence, all potential antecedents are not appropriate and the argumentative orientation can be established only after reconstruction.

<sup>[9]</sup> In Anscombre (1983: p. 67), this use of pourtant is called pourtant of refutation.

The second problem is that of denials. In Roulet et al. (1985: pp. 141–142) or Anscombre (1983: p. 70), it is argued that in factual readings, <sup>10</sup> *pourtant* is not compatible with the presence of the connective *et* (and). In support of their claim, Anscombre & Ducrot (1983: p. 89) give the following example:

- (15) A. Il paraît que Pierre a été recalé à l'examen They say that Peter failed the exam
  - B. Pourtant il a l'air tout content *Yet he looks quite happy*

Anscombre & Ducrot (1983: pp. 89–90) observe that this example is ambiguous between two readings. In one reading, speaker B means to point to a contradictory fact: even though Pierre failed the exam, he does not seem affected, giving rise to the conclusion that Pierre is psychologically strong or careless. In another reading, B's observation entails that A is wrong and that Pierre (probably) passed his exam. This reading corresponds to a factual refutation or denial in Anscombre (1983: pp. 70–71)<sup>11</sup> and in these contexts, *et pourtant* is infelicitous, whereas *mais pourtant* (but yet) is allowed, as exhibited by example (17) below:

- (16) A. Il paraît que Pierre a été recalé à l'examen They say that Peter failed the exam
  - B. \*Et/mais pourtant il a l'air tout content And/But yet he looks quite happy

Now, following Anscombre & Ducrot (1983) and Anscombre (1983), if in factual refutation or denial contexts *et pourtant* is infelicitous, the sequence *et pourtant si/non* should be infelicitous too, since this sequence rejects a proposition in a given context. However, this is not the case. The same discourse with *et pourtant non* is perfect and furthermore, the ambiguity disappears making it clear that Pierre did not fail his exam:

- (17) A. Il paraît que Pierre a été recalé à l'examen They say that Peter failed the exam
  - B. Et pourtant non *And yet not*.

<sup>[10]</sup> Or 'factual rejection' in Roulet et al. (1985: pp. 141-142).

<sup>[11]</sup> Anscombre notices that in these cases, *pourtant* corresponds in monologue to *Tu dis p: j'en doute, car* (you say p: I doubt it, since) or *Ce n'est pas possible* (It is not possible), *Tu es sûr?* (Are you sure?), *Tu dois te tromper* (You must be wrong).

This is evidence of the connection between *pourtant* and modality. <sup>12</sup> Although Jayez (1988, 2003) and Martin (1987) do not deal with *et pourtant si/non* explicitly, they introduce the tool of modalization that I deem relevant for the analysis of *et pourtant si/non* proposed now: *pourtant* as assimilated to a modal operator that brings a *discourse contrast*.

In this analysis, the discursive antecedents of *et pourtant si/non* are considered as sequences under the scope of a modalized predicate (a case of modal subordination for Roberts (1989, 1996)).<sup>13</sup> If the antecedent of *et pourtant* must be in a modal context, the question that arises is: Are (18a) and (18b) equivalent?

- (18) (a) Je devrais être satisfait. Et pourtant non
  - (b) Je devrais être satisfait. Et pourtant<sup>14</sup>

In the next section, I will argue that they are not equivalent. I will also show that PolParts are used emphatically and introduce VERUM (Höhle 1992), acting as common ground management.

# 2.2 Emphatic PolParts

In this section, I examine the contrasts between (19a,b) on the one hand and (20a,b) on the other.

- (19) (a) Je devrais être satisfait et pourtant non  $\emptyset$ I should be happy with this, et pourtant non
  - (b) Je devrais être satisfait et pourtant  $\emptyset$ I should be happy with this, et pourtant
- (20) (a) Je ne croyais pas qu'il viendrait. Et pourtant si, il est venu *I did not think he would turn up. Et pourtant si, he did (turn up)* 
  - (b) Je ne croyais pas qu'il viendrait. Et pourtant si  $\emptyset$  *I did not think he would turn up. Et pourtant si*

<sup>[12]</sup> Jayez (1988: p. 141) argues that in a relation (p, ¬q) established by pourtant, p and q are incompatible in all worlds of reference by means of a certain relation R<sub>p</sub>. That is, in X pourtant Y, X\* and Y\* (the interpretations of X and Y) must be such that if p is associated with X\* and q to Y\*, p implies ¬q. Jayez (2003) proposes an analysis for pourtant based on belief bases, that is, information states as sets of alternatives. In doing so, mutually inconsistent beliefs can be removed by updating the belief state. The account proposed by Martin (1987) is along the same line.

<sup>[13]</sup> As noted by a JoL referee, these sequences are reminiscent of cases in which an antecedent that expresses a modality p can be followed by a discourse continuation with 'the fact that  $\neg p$ '. According to Veltman (1996), the discourse sequence  $\Diamond \phi \land \neg \phi$  is more consistent and thus more likely than  $\neg \phi \land \Diamond \phi$ .

<sup>[14]</sup> A *JoL* reviewer argues that in cases like (18b), the truth value of the understood proposition following *et pourtant* (with obligatory rising intonation) appears to be [–positive] rather than straightforwardly [+negative] and thus should be glossed as 'I am not sure that I am happy' or 'I can't make up my mind as to whether I am'. This suggests that the propositional content of the right conjunct can be recovered in the absence of a clearly asserted polarity value. However, the recovered content is not identical in both cases as argued in this section.

In (19a,b) both occurrences of *et pourtant* and *et pourtant non* are possible and yet the missing part after *et pourtant* in (19a) and (19b) is not identical:

- [[19a]]: et pourtant non (je ne suis pas satisfait/ce n'est pas vrai) (I am not happy with this)
- [[19b]]: *et pourtant* (je ne suis pas si sûr, je ne saurais le dire,...) (I am not so sure, I could not say whether I am happy or not)

Even though the propositional content can be recovered without the presence of PolPart *non*, it differs in (19a) and (19b): in (19b) the context is intensional, whereas in (19a) the PolPart asserts the negation of the proposition embedded in the antecedent. Furthermore, as a contrast relation is a scalar relation, in (19b) the contrast is 'weaker' than in (19a). That is, the speaker in (19b) does not wish to commit himself to whether the antecedent is true or not, leaving its interpretation open. It can be observed that with *et pourtant* factual antecedents are licit, whereas *et pourtant si/non* requires an intensional environment, be it explicit or implicit:

- (21) (a) Elle est heureuse, et pourtant ∅

  [[∅]] = ⟨elle est malade, elle est inquiète...⟩

  She is happy, et pourtant (she is sick, she is worried...)
  - (b) \*Elle est heureuse et pourtant non Ø
     [[Ø]] = ⟨elle n'est pas heureuse⟩
     she is happy et pourtant non (she is not happy)

In examples (21a,b) *et pourtant* and *et pourtant non* are not interchangeable: *et pourtant* is appropriate in (21a) but *et pourtant non* in (21b) brings to light a logical contradiction.<sup>15</sup>

<sup>[15]</sup> The example in (i) below, suggested by a reviewer of *JoL* illustrates the difference between *et pourtant* and *et pourtant si/non*. In (i) and (ii) the antecedent is modalized, and both *et pourtant* and *et pourtant non* are possible. Contrary to this, in (iii) and (iv) *et pourtant non* is infelicitous as it expresses a contradiction with a previously asserted content.

 <sup>(</sup>i) Les ministres, des retraités comme les autres, et pourtant Ø
 Ministers, pensioners like others, and yet
 [Ø]] = ⟨ce n'est pas si sûr, je ne le crois pas...⟩ (This is not so sure, I don't thing so...)

 <sup>(</sup>ii) Les ministres, des retraités comme les autres, et pourtant non Ø Ministers, pensioners like others, and yet not
 [[∅]] = ⟨ils ne sont pas comme les autres⟩ (They are not like others)

 <sup>(</sup>iii) Les ministres sont des retraités comme les autres, et pourtant Ø
 Ministers are pensioners like others, and yet
 [Ø] = ⟨on dirait le contraire, j'en doute...⟩ (It looks like the opposite, I doubt...)

 <sup>(</sup>iv) \*Les ministres sont des retraités comme les autres, et pourtant non Ø Ministers are pensioners like others, and yet not
 [Ø] = (ils ne sont pas comme les autres) (They are not like others)

Some significant consequences follow readily from the examples above as regards the differences between *et pourtant* and *et pourtant si/non*. The reconstruction of *et pourtant* is achieved via the implicit content (hence the numerous interpretative options) whereas *et pourtant si/non* only allows either a positive interpretation or its negative counterpart. These sequences do not convey the same information and therefore do not carry the same degree of certainty. One may express this roughly as:

- A et pourtant ∅ (and yet)

 $[\![\emptyset]\!] = \langle p, \neg p, \text{ peut-être } (maybe) \ p, \text{ peut-être } (maybe) \ \neg p, \text{ pas } \hat{\text{sur}} (not \ sure) \ p, \text{ pas } \hat{\text{sur}} (not \ sure) \ \neg p \dots \rangle$ 

- A et pourtant si/non ∅ (and yet yes/not)

$$[\![\emptyset]\!] = \langle p, \neg p \rangle$$

We now turn to (20a,b). In (20b), there is first emphasis on the polarity of the assertion and second on the presence of a propositional content that conveys background information. The PolPart si can thus be appropriately regarded as the exponent of an emphatic assertion. <sup>16</sup> The following example illustrates this:

(22) Viendra-t-elle à la soirée?

Will she turn up at the party?

A. Je ne croyais pas qu'elle viendrait. [S ET POURTANT SI, elle viendra finalement à la soirée]

I did not think she would turn up. ET POURTANT SI she will eventually turn up

A'. Je ne croyais pas qu'elle viendrait. [ $_S$  ET POURTANT elle viendra finalement à la soirée]

I did not think she would turn up. [ET POURTANT *she will eventually turn up*]

In (22A), *S* conveys emphasis on the truth of the proposition 'elle viendra à la soirée' (*she will turn up at the party*) whereas in (22A'), *S* does not. Furthermore, contrary to (22), the sequence we study here needs some kind of information formerly introduced in the discourse whose polarity is denied. <sup>17</sup> All other alternative propositions in the discourse are then canceled.

<sup>[16]</sup> Roulet et al. (1985: p. 60) notice that PolParts sometimes have an emphatic value in monologues.

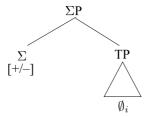
<sup>[17]</sup> A similar analysis is offered by Hernanz (2007), Rodríguez (2007) and Escandell (2009) for si in Spanish. According to Hernanz (2007: 144), si focalizes the positive polarity. Syntactically, it is generated in  $\Sigma P$  and then moves to FocusP, (i):

<sup>(</sup>i)  $[FORCEP[TOPICP[FOCUSPSI[\Sigma P SI[TP ...]]]]]$ 

Poletto (2010: p. 54) claims that *no* in Italian is a pro-sentence located in CP, in the same position as focal negation as in (ii), where GROUNDP is a peripheral topic projection.

<sup>(</sup>ii) [GROUNDP[CPFOCUS no[FINP[FIN0[IP]]]]]

The label *Verum Focus* (VF) or *polarity focus* (Höhle 1992) captures the informal intuition associated with emphasis: these terms refer to the fact that a sentence polarity is highlighted without changing its truth conditions. In (20b), the missing proposition has already been mentioned, but its content has not yet been asserted as it is in the scope of a modal operator (in an intensional context). In other words, the discourse fragment is presented as a possibility and subsequently is not considered as part of the background: *et pourtant si/non* is a way of emphasizing a proposition p that is discursively salient and strongly asserted, although they are not prosodically focalized expressions. Following Laka (1990), we consider that negative markers such as *non* license a zero constituent  $\emptyset$ . Laka analyzes these markers as polarity markers heading a *Polarity* category ( $\Sigma P$ ) as illustrated below, in which  $\emptyset_i$  is an accessible constituent in the discourse:



The analysis of the semantic contribution of PolParts is provided in Section 3. I must first discuss the free variation between *si* and *oui* and second, present a detailed analysis of VF.

# 2.3 Free variation between si and oui

The so-called *response particles oui*, si and  $non^{18}$  have traditionally been considered as markers of agreement or disagreement with a proposition previously expressed. *Oui* expresses agreement with a positive question, si shows that there is disagreement with a negative question and non is a way of expressing either agreement if uttered as an answer to a negative question or disagreement if it follows a positive question. However, this is inadequate. Plantin (1982: p. 263) points out that in negative contexts oui is sometimes possible. This is the case when it expresses agreement, contrary to si, which expresses the refutation of an assertion.

Here I do not go into details about the syntactic analysis as nothing hinges on this in my discussion

<sup>[18]</sup> For Tesnière (1988: p. 212), *oui* and *non* are anaphoric conventional words, that is 'des mots qui se remplissent automatiquement, soit au positif soit au négatif selon les cas, du contenu de l'interrogation à laquelle ils répondent' (empty words that are automatically filled (either positively or negatively) by the content of the interrogation they are an answer to). Grevisse (2011: Section 1106) considers that *oui/si/non* in contemporary French are 'mots phrases' (sentence words). For a different view, see Plantin (1982).

Examples of this are given in (23):

(23) x: - Ce mur n'est pas blanc

This wall is not white

- Y. Oui! (en effet) (il n'est pas blanc)
  Oui (indeed) (it is not white)
- Y'. Non! (en effet) (il n'est pas blanc)
  Non! (indeed) (it is not white)
- Y". (Mais) si! (il est blanc!) (But) Si! (it is white)

In (23Y,Y') both *oui* and *non* express agreement with x's negative assertion. However, they semantically differ in that *oui* asserts  $\neg p$ , whereas *non* refutes p. Only (23Y'') expresses disagreement with x's assertion in rejecting  $\neg p$ , p representing the proposition 'ce mur n'est pas blanc' (*this wall is not white*).

Roelofsen & Farkas (2015) propose a classification of the distribution of *response particles* based on binary features. Whatever the value of the assertion, be it positive or negative, *response particles* may express two types of polarity. First, they may express absolute polarity, that is the polarity (positive or negative) of the answer, in which case their representation contains the features [+] or [-], and second, relative polarity in a system based on agreement/disagreement (depending on whether the polarity of the answer is similar or not with the proposition asserted). In the latter case, the semantic representation of a *response particle* contains the features [AGREE] or [REVERSE]. These sets of features can combine to form the following combinations in (24):

- (24) (a) [+] < [-]
  - (b) [AGREE] < [REVERSE]

Then *oui* is a realization of [+], *non* a realization of [-] and *si* a realization of [REVERSE,+].

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Realization potential for French particles [+] is realized by oui
[-] is realized by non
[REVERSE, +] is realized by si
```

In Authier (2013: p. 348), the following possibilities for polarity particles *oui/si/non* in French are illustrated as follows:

(25) Oui realizes [+]

[AGREE, +]

A. Est-ce qu'il a téléphoné? 'Did he call?'

B. Oui/\*Non (il a téléphoné) 'Yes/\*No (he called)'

(26) Non realizes [–]

[AGREE, -]

- A. Est-ce qu'il n'a pas téléphoné? 'Did he not call?'
- B. Non/\*Oui (il n'a pas téléphoné) 'Non/\*Yes (he didn't call)' [REVERSE, –]
- A. Est-ce qu'il a téléphoné? 'Did he call?'
  B. Non/\*Si (il n'a pas téléphoné) 'No, he DIDN'T'
- (27) Si realizes [REVERSE, +]
  - A. Est-ce qu'il n'a pas téléphoné? 'Did he not call?'
  - B. Si/\*Oui (il a téléphoné) 'Yes, he DID'

However, one can observe that *et pourtant* oui is licit in contexts where *si* would be expected, that is when the antecedent is syntactically negative. This is exemplified in (28) below:

(28) Je croyais que je ne vous reverrais plus. Et pourtant si/oui *I thought that I would never see you again. And yet yes* 

Several studies on contemporary French noticed that French native speakers move toward *oui* rather than *si* for syntactically negative preceding utterances (Wilmet 1976, Plantin 1982, Kerbrat-Orecchioni 2001, Hansen 2018). <sup>19</sup>

Recently, Pasquereau (2017) pointed out that the same thing goes with embedded PolParts. These PolParts require agreement or disagreement (in case of disagreement, the polarities of the two discursive segments are different, which triggers the occurrence of an adversative marker such as *mais* (but)). Furthermore, Pasquereau argues that *oui* can become a strong Positive Polarity Item (from now on PPI) equivalent to *si* under particular discursive conditions. For instance, in (29), following Roelofsen & Farkas (2015), *si* is expected and *oui* should be ruled out as the antecedent is negative:

(29) Tom n'est pas sûr que Benjamin soit venu mais moi je suis sûr Tom not-is NEG sure that Benjamin be come but me I am sure que oui that yes

<sup>[19]</sup> Hansen (2018: p. 11) rightly remarks that:

<sup>[...]</sup> oui is the 'unmarked' item, it is because this morpheme is in principle capable of expressing (i) a positively polar response to both positively and negatively polar preceding utterances, and (ii) interpersonal agreement with a positively orientated preceding utterance, even in cases where that utterance has negative polarity at the semantic level. Si, on the other hand, is the most 'marked' item because it can respond only to a fairly restricted subset of previous utterance types, namely those that are syntactically negative and, for the most part, also negatively oriented, as well as – more rarely – utterances that carry a negative implicature.

The representation proposed by Roelofsen & Farkas (2015) does not integrate the fact that the negative orientation of the antecedent can be either explicit or implicit. Furthermore, even if the antecedent is not negative oriented, there may be free variation between *si* and *oui* as exemplified in (30):

(30) Certains disent qu'il ne faut pas avancer dans Several-people say that-one not can NEG proceed in cette voie, mais moi, je suis sûr que si/oui this way but me, I am sure that yes

These examples are problematic for Roelofsen & Farkas (2015) as assigning the features [AGREE,+] to *oui* is tantamount to saying that *oui* and its antecedent share the same polarity. Among his conclusions, Pasquereau (2017) argues that:

[...] embedded Polar Response Particles in French can be analyzed as always requiring that the utterance they are in contrast with the utterance that their antecedent is in

What is highly relevant here is the contrast condition on PolParts. This phenomenon was clearly formalized by Authier (2013) for ellipsis in non-embedded contexts:

(31) Il ne parle pas à son fils, mais à sa fille, si/oui *He doesn't speak to his son, but to his daughter si/oui* 

Authier concludes that in ellipsis contexts, the polarity marker *si* does not instantiate the feature [REVERSE] but rather is used:

'to express the contrastive (rather than contradictory) nature of the polarity of the conjunct that hosts it relative to that expressed by the first conjunct' (Authier 2013: p. 365)

In order to capture this fact, Authier establishes two conditions for contrastive polarity ellipsis as that in (32): (i) access to a *quaestio*, which provides the positive expected alternative as antecedent for the ellipsis conjunct, and (ii) *mais* (but) licenses contrastive polarity in conjunctions. Thus, (31) is analyzed as in (32)<sup>20</sup>

- (32) (a) *Quaestio*: Parle-t-il à son fils et à sa fille? Is he on speaking terms with his son and his daughter?
  - (b) EXPECTED ALTERNATIVE: Il parle à sa fille ('he speaks to his daughter')

<sup>[20]</sup> Authier (2013: p. 367) also notices that the ellipsis cannot be licensed if et (and) is used:

 <sup>(</sup>i) \*II ne parle pas à son fils, et à sa fille, oui he speaks not to his son and to his daughter yes 'He doesn't speak to his son, and he does to his daughter' (Authier 2013, p. 366)

(c) Il ne parle pas à son fils, mais [à sa fille], oui [TP il parle [Pos] (à sa fille)]

'He desen't speek to bis son but he does to bis devictor'

'He doesn't speak to his son, but he does to his daughter' (Authier 2013: p. 366)

The same goes for example (33) below:

- (33) (a) On ne l'aurait jamais imaginé. et pourtant *si/oui*, il pleure We would never have imagined, and yet yes, he is crying
  - (b) En m'analysant je trouve ceci, qui est étrange : je ne crois pas à leur présence. Et pourtant si/oui, j'ai peur d'eux In analyzing myself, I find this, which is strange: I do not believe that they were present. And yet yes, I am afraid of them

In accordance with Authier (2013) for ellipsis contexts and Pasquereau (2017) for embedded PolPArts, constructions with *et pourtant si/non* provide additional evidence that PolParts have a contrastive function in assertive contexts. What is relevant in these sequences is a *semantic contrast* and not a reaction to assertions. Put differently, the disagreement about two propositions is expressed by polarity opposition, and it is this disagreement that licenses *pourtant*.

# 2.4 Verum Focus

The facts presented above (Section 2.2) provide support for the view that PolParts emphasize the polarity of a sentence. Thus, a PolPart can be considered as an exponent of VF. From this point of view, *si/non* is akin to the process of *do*-support in English (Wilder 2013). The first author who identified VF was Höhle (1992). Lohnstein (2016) notes that Höhle considers VF as a predicate rather than as an illocutionary operator. Putting to rest the hypothesis that VF could be an illocutionary operator, Höhle analyzes VF as a truth predicate (i.e. 'it is true that')<sup>21</sup> that has scope over a proposition. In declarative sentences, VF asserts the truth value of a proposition, and as noted in Gutzmann & Castroviejo (2011), the position VERUM can be instantiated by various types of lexical material depending on languages as exemplified in (34) below, with English, Spanish or French (34B2,B3,B4) respectively:

(34) A. I wonder whether Carl has finished his book

B1. Karl HAT sein Buch beender
B2. Carl DID finish the book
B3. Carlos Sí acabó su libro
B4. Charles a BIEN fini son livre

GERMAN  $\Rightarrow$  verum focus in C
ENGLISH do insertion

SPANISH  $\Rightarrow$  si insertion

FRENCH  $\Rightarrow$  bien insertion

<sup>[21]</sup> Hölhe locates the operator VERUM in German in the C position:  $[_{CP}[S_{pec}CP]_{C'}[_{C^0}C-Verum/F-Verum][F_{in}P. . .]]]]$ 

According to Höhle, filling the position VERUM is a way of stressing that the content expressed in a proposition p is true: consequently, Gutzmann & Castroviejo (2011: p. 151) propose the following semantics for VERUM:

$$[[VERUM(p)]] \approx 'It is/the case/true that p'^{22}$$

Several approaches are taken in order to account for VF. In a review of the literature, Gutzmann, Hartmann & Matthewson (submitted) consider two of these approaches, VF as an instance of FOCUS (this is the *focus accent thesis* (FAT)) (Wilder 2013, Samko 2016, McCloskey 2017, Goodhue 2018) and VF as a lexical operator introduced at LF (this is the *lexical operator thesis* (LOT)) (Romero & Han 2004, Gutzmann & Castroviejo 2011, Gutzmann et al. submitted). Gutzmann et al. (submitted) summarize the FAT and the LOT in (35) and (36), respectively:

- [FAT thesis] (Gutzmann et al. submitted: pp. 5–6)
- (35) (a)  $[\![VERUM(p)]\!] = \lambda p \lambda w. p(w) : \langle \langle s, t \rangle, \langle s, t \rangle \rangle$ 
  - (b) Context condition<sup>23</sup>
    An utterance of sentence S is felicitous in a context c if  $[[S]]^f = QUD(c)$ .
  - [LOT thesis] (Gutzmann et al. submitted: p. 41)
- (36)  $[[VERUM]]^{u,c}(p) = 1$ , if the speaker  $c_S$  wants to prevent that QUD(c) is downdated with  $\neg p$

I discuss these two approaches below and briefly assess them.

# 2.4.1 Focus account

Theoretical accounts in which VF is analyzed in terms of focus claim that the syntactic head of a sentence is marked by a Polarity Focus (PF) (Laka (1990), cf. Section 2.1). Wilder (2013) argues that PF requires the presence of a salient polarity antecedent in the alternative proposition to the proposition containing PF. However, PF cannot be used 'out of the blue', and other discursive factors constrain its distribution, among which, the fact that p must be given.<sup>24</sup> As stated in Wilder (2013: p. 154) in connection with emphatic do:

<sup>[22]</sup> Höhle (1992: p. 118) also noted that there is no crucial difference between asserting *p* and asserting *it is true that p*. Following this observation, Gutzmann & Castroviejo (2011: p. 151) suggest that asserting *it is true that p* will be felicitous in roughly the same contexts as those in which *p* is asserted.

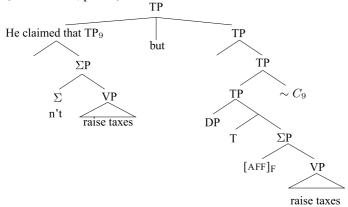
<sup>[23]</sup> Adapted from Büring (1997: p. 43), where QUD 'is the most recent issue that the interlocutors are trying to address [...] by contributing its propositional context to the common ground' (Gutzmann et al. submitted: p. 7).

<sup>[24]</sup> This is formalized along the lines of Schwarzchild (1999) and his theory of 'givenness'.

The proposition expressed by the antecedent utterance is not (necessarily) a focus alternative of the do-clause. Rather, the antecedent utterance, together with the rest of the discourse context, evokes a set of alternative propositions  $[p, \neg p]$ , one of which is the proposition expressed by the do-clause. This alternative set can be conceived of as corresponding to the meaning of a yes—no question, which the affirmative emphatic do assertion answers, eliminating its negative alternative.

Samko (2016) provides a formal account of PF using Rooth's alternative semantics (Rooth 1992a, b)<sup>25</sup> that adds a presuppositional operator  $\sim$  at LF.<sup>26</sup> Samko (2016: pp. 119–120) claims that 'the discourse conditions for sentences with focused S and a propositional-level  $\sim$  are met only if there is an accessible antecedent for that sentence that has the same propositional content with the exception of polarity'. Samko's example is given in (37):

(37) He claimed that he didn't raise taxes, but, in fact, he DID raise taxes [...] (Samko 2016, p. 120)



The embedded clause *he did not raise taxes* is an appropriate antecedent as it is a member of the focus value of DID ( $\neg p$  and p each represent an alternative value for the other).

<sup>[25]</sup> Within Rooth's alternative semantics, every expression  $\alpha$  has two denotations:  $[\![\alpha]\!]^o$  (the ordinary semantic value or usual denotation of  $\alpha$ ) and  $[\![\alpha]\!]^f$  (focus semantic value), which corresponds to 'the set of alternatives from which the ordinary value is drawn' (Rooth 1992b: p. 81). Thus,  $[\![\alpha]\!]^o = \alpha$  and  $[\![\alpha]\!]^f = ALT(\alpha) = \{\alpha_1, \alpha_2, \alpha_3, \ldots\}$ . That is, the alternatives are the maximal set C of ordinary semantic values.

<sup>[26]</sup> In Rooth (1992b: p. 93), presupposition for  $\sim$  is given as follows:

<sup>(1)</sup>  $\phi \sim \Gamma$  presupposes that a contextually given  $\Gamma$  is a subset of the focus semantic value of  $\phi$  ( $\Gamma \subseteq \llbracket \phi \rrbracket^f$ ), and that  $\Gamma$  contains both the ordinary semantic value of  $\phi$  and an element distinct from it.

<sup>(2)</sup>  $\phi \sim \gamma$  presupposes that a contextually given  $\gamma$  is a member of the focus semantic value of  $\phi$  ( $\gamma \in [\![\phi]\!]^f$ ), and that  $\gamma$  is distinct from the ordinary semantic value of  $\phi$ .

This example illustrates the fact emphasized by Samko (2016: p. 133) that the antecedents for VF are often non-finite (e.g. complements of intensional verbs) or modals. However, VF does not necessarily require that it matches the form of its antecedent (as in (37)) as it is rather identified as a polar question in the discursive context.

The approach taken by Goodhue (2018) is in the line of focus-based approaches proposed by Wilder (2013) and Samko (2016), where the polarity of a sentence  $(+,-)^{27}$  heads the PolP. Goodhue proposes the condition below:

*PF licensing condition*: (Goodhue 2018: p. 57)

Polarity focus is licensed by contrast between the PF utterance and a focus alternative with opposite polarity salient in the context.

In other words, PF is felicitous only if a discursive antecedent is salient. The emphatic effect on the truth value of a proposition p is the result of the pragmatic implication that  $\neg p$  (the alternative with opposite polarity) is false, thereby creating a contrast between the two propositions: one is asserted and the other is rejected. This analysis is akin to that of Gutzmann et al. (submitted) (cf. 2.4.2). However, in Goodhue's analysis, the emphatic effect of the PF is the truth of a proposition. Two other points are worth noticing: first the focus introduces the presupposition (in the sense of Rooth (1992b)) that a salient antecedent is necessary, and second the emphatic effect results from both the marked focus and the implication that alternative proposition is false, hence the contrast.<sup>28</sup>

# 2.4.2 Non-focus account

Romero & Han (2004) analyze VERUM in polar questions as an epistemic conversational operator 'used not to assert that the speaker is entirely certain about the truth of p, but to assert that the speaker is certain that p should be added to the Common Ground (CG)<sup>29</sup>, (Romero & Han 2004: p. 627). The semantics of VERUM is then as in (38) below:<sup>30</sup>

(38) 
$$[\![VERUM_i]\!]^{gx/i} = \lambda p_{\langle s,t\rangle} \lambda w. \forall w' \in Epi_x(w) [\![\forall w'' \in Conv_x(x')[p \in CG_w'']\!]]$$

$$= FOR-SURE-CG_x$$

 $\rightsquigarrow$  'I am sure that we should add the proposition p to the common ground'.

<sup>[27]</sup> The polarity negation and affirmation are interpreted as their standard denotation:  $[POL_{1+1}] = \lambda p \cdot p$ 

 $<sup>[</sup>POL_{[-]}] = \lambda p. \neg p$ 

<sup>[28]</sup> The approach taken in the rest of the paper is similar to Goodhue's in several respects. However, it was necessary to introduce Goodhue's approach before non-focus accounts, as the latter requires beforehand the presentation of the focus-account approach.

<sup>[29]</sup> Along the lines of Stalnaker (1978, 2002).

<sup>[30]</sup> Where  $\operatorname{Epi}_X(w)$  is the set of worlds that conform to x's knowledge in w,  $\operatorname{Conv}_X(w')$  is the set of worlds where the whole of the conversational goals of x is in w' and  $\operatorname{CG}_w''$  is the Common Ground or set of propositions that the speaker assumes in w'' to be true.

This semantics expresses that there is a partition between [VERUM p,  $\neg$  VERUM p] when the speaker holds a belief prior to expressing the truth or falseness of p and that this belief is contradicted. Otherwise, there would be no point in emphasizing the certainty of this belief. For instance,

- (39) (a) Peter DIDN'T come
  - (b) LF: [FOR-SURE-CG-NOT [p]]
  - (c) 'it is for sure that we should add to CG that it is not the case that Peter come'

Gutzmann & Castroviejo (2011) analyze VF as a 'use-conditional operator' the nature of which is not semantic (the truth conditions of the proposition are not changed) but conversational as it updates ?p of the QUD. In doing so, the speaker emphasizes the truth of p, that is, the pragmatic effect resulting from the speaker's wish to update ?p using an operator added to the assertion of p:

(40) [[VERUM(p)]]  $\approx$  the speaker c<sub>S</sub> wants to downdate ?p from QUD

Gutzmann & Castroviejo (2011) agree that (40) has the same effects as a focusbased approach (i.e. a VERUM-marked utterance is an answer to a question it is an antecedent of (cf. Section 2.4.1)). In order to restrict the semantics of VERUM, Gutzmann et al. (submitted: p. 42) increase the attitudinal role of the speaker in the form of *a wish to downdate* the QUD<sup>31</sup> (following Gutzmann & Castroviejo (2011)), yielding the semantics expressed in (36).

I address now the theoretical issue of whether *et pourtant si/non* is a case of TP-Ellipsis or propositional anaphora.

# 3. TP-ELLIPSIS OR PROPOSITIONAL ANAPHORA?

# 3.1 English vs German

Before providing a detailed theoretical consideration of the anaphoric nature of *et pourtant si/non*, a brief analysis of the German data is in order.<sup>32</sup> German (11), repeated here in (41) for the sake of commodity, is a case of propositional anaphora:

(41) Marie denkt, dass Pierre das Büro verlassen hat. Das war aber Mary believes that Peter the office left has. That was but nicht der Fall not the case

<sup>[31]</sup> Downdate the QUD is defined in Engdahl (2006: p. 95) as follows: 'when an answer *a* is uttered, remove all questions resolved by *a* from QUD'.

<sup>[32]</sup> Arguably, these considerations about German do not seem to move the argumentation forward, as suggested by an anonymous referee. However, they show that in German an analysis of the phenomenon in terms of TP-Ellipsis is ruled out.

In (41), the semantic content of the sequence *Das war aber nicht der Fall* (that was not the case) is the proposition under the scope of the propositional attitude verb *denkt* (believe) and (41) is then a case of propositional anaphora. This phenomenon is also illustrated by (42) and (43) below:

- (42) Ich müsste zufrieden sein, bin es aber nicht I should satisfied be, am that but not
- (43) DER JÄGER: Glaubst du, dass ich dich töten wollte?

  THE HUNTER: Think you that I you kill wanted?

  SCHNEEWITTCHEN: Ja, aber nicht wirklich

  SNOW WHITE: Yes, but not really

Krifka (2013) claims, contra Kramer & Rawlins (2011),<sup>33</sup> that PolParts *yes/no* are propositional anaphors that pick up propositional discourse referents, thus behaving like *that* or *so*. He also notices that there are other ways of reacting to an assertion, such as *maybe*, *sometimes*, *right*, *wrong* etc. He concludes that *yes/no* are anaphors that pick up propositional discourse referents connected to speech acts.<sup>34</sup> PolParts are then assigned to the syntactic category ActP and indicate the speaker's commitment to the proposition asserted. The semantics suggested by Krifka accounts for the difference between English and German in the following way:

- English: [[ActP yes]] = ASSERT(d)
- German:  $[[T_P \text{ ja}]] = ASSERT([T_P \text{ ja}]) = ASSERT(d)$

<sup>[33]</sup> Kramer & Rawlins (2011) analyze response particles as remnant ellipsis. Polarity particles yes/no are analyzed as adverbials adjoined to ellipsis clauses of category  $\Sigma P$  (Laka 1990), which in turn correspond to contextually relevant propositions. The syntactic structure of a polar question as (iA) is given in (iB) or (iC) below, where the feature E (Merchant 2001) enforces semantic identity via the notion of E-givenness (Schwarzchild 1999). That is, a  $\nabla P \alpha$  can be deleted only if  $\alpha$  is contained or is in a constituent that is GIVEN (a contextually recoverable part that can be deleted):

<sup>(</sup>i) A. Is he coming to the party?

B.  $[\Sigma_P \text{ Yes } [\Sigma_P \Sigma \text{ [E] } [TP \text{ he is coming to the party}]]]$ 

C.  $[\Sigma_P \text{No}_{[u\text{NEG}]}] [\Sigma_P \Sigma_{[u\text{NEG}]}] [T_P \text{ he is not}_{[i\text{NEG}]}] [t_{he} \text{ is coming to the party}]]]$ 

In this example, the answer *not* is anaphoric with the content proposition, and not with the negated content proposition. Kramer & Rawlins (2011) refer to this phenomenon as *negative neutralization*. The answer in (iC) is uninterpretable negative [u NEG] in agreement with  $\Sigma$  of the elliptical clause, which is interpretable [i NEG]. The feature [E] corresponds to what is deleted (Merchant 2001). The question is negated, so is the elided TP of the answer.

<sup>[34]</sup> Krifka analyzes *yes/no* as a type of ActP defined as follows (where Prop DR is a *propositional discourse referent*):

<sup>-</sup>yes picks up a salient propDR d and asserts it: ASSERT(d)

*<sup>-</sup>no* picks up a salient propDR d and asserts its negation: ASSERT( $\neg d$ )

In German, Ja (yes) picks up a propositional discourse referent that will be asserted, whereas in English yes/no the assertion is part and parcel of their meaning. German doch (French si) requires the presence of a negated propositional referent in the discursive context. This presupposes the presence of two salient propositional discourse referents, one being the negation of the other, and doch taking up the non-negated referent and asserting it. Gutzmann (2017: p. 167) analyzes ja as 'a typical example of a propositional particle. It combines with a proposition and yields an independent use-conditional comment to it without changing the rest of the propositional content',  $^{35}$  as illustrated by (44).

(44) Luigi hat Zelda ja schon immer geliebt Luigi has Zelda MP already always loved 'Luigi always loved Zelda (and you may already have known that)'

I now turn to the study of the anaphoric status of *et pourtant si/non* using relevant diagnostics to decide whether *et pourtant si/non* is a case of TP-ellipsis or propositional anaphora.

# 3.2 Diagnostics

Since Hankamer & Sag (1976), it has generally been admitted that TP-ellipsis and propositional anaphora differ in that the former allows *extraction* out of the ellipsis site, whereas the latter does not. Another well-known test for distinguishing them is the so-called *Missing Antecedent Test* (Hankamer & Sag 1976, Grinder & Postal 1971, Bresnan 1971). We will consider here two other diagnostics: *cataphoric anaphora* and *quantifier inversion* (Cecchetto & Percus 2006).<sup>36</sup>

EXTRACTION

Extraction out of ellipsis site is licit for TP-Ellipsis, and it is impossible for propositional anaphora:

- (45) (a) Pierre n'aime pas le tennis, mais le golf si *Pierre does not like tennis, but golf yes* 
  - (b) \*Je croyais que Pierre n'aimait pas le tennis. Et pourtant le golf si *I thought that Pierre did not like tennis. And yet golf yes*
  - (c) \*Je croyais que Pierre n'aimait pas le tennis. Et pourtant le golf, c'est le cas

I thought that Pierre did not like tennis. And yet golf, it is the case

<sup>[35]</sup> More specifically, *ja* is a function from a set of contexts in which the speaker believes that his interlocutor might well already know *p* (Gutzmann 2017: p. 127). Gutzmann then assumes that *ja* is part of mutual knowledge, or that is checked in context, depending on extra-linguistic information.

<sup>[36]</sup> Thanks are due to a reviewer of *JoL* for very helpful discussion that eventually put me on what I think is the right track.

From (45b,c), it can be concluded that *et pourtant si* is neither a case of TP-Ellipsis nor propositional anaphora.<sup>37</sup>

MISSING ANTECEDENT PHENOMENON (MAP)

Consider (46) in which he picks up its antecedent from the ellipsis site:

(46) My uncle doesn't [have a spouse]<sub>i</sub> but your aunt does  $\Delta_i$  and he is lying on the floor

In (46), *he* introduces a new entity, which cannot be identified from the antecedent but it has to be recovered from the target clause. This criterion, first presented in Grinder & Postal (1971: p. 278), was discussed by Bresnan (1971), who argues that some antecedents in null-complement contexts can be analyzed as the conjunction of three factors: lexical semantics, discourse and intensional (modal) contexts. Modality is thus relevant in that a modal context can license VPE-like effects, such as missing antecedent, which can occur even in constructions that behave like null-complement anaphora otherwise. The example in (47) illustrates this phenomenon:

- (47) (a) Anne n'a pas [acheté de robe<sub>i</sub>]<sub>j</sub>, mais Marine si  $\Delta_j$ . Elle  $la_i$  portera au mariage de Paul

  Anne did not buy a dress but Marine yes. She will wear it on Paul's wedding day
  - (b) ?Je pensais que Marine n'avait pas [acheté de robe<sub>i</sub>]<sub>j</sub>. Et pourtant si  $\Delta_j$ . Elle  $la_i$  portera au mariage de Paul I thought that Marine had not bought a dress. And yet yes. Sue will wear it on Paul's wedding day
  - (c) Je pensais que Marine n'avait pas [acheté de  $robe_i$ ]<sub>j</sub>. Et pourtant si  $\Delta_j$ , c'est le cas. Elle  $la_i$  portera au mariage de Paul I thought that Marine had not bought a dress. And yet yes. She will wear it on Paul's wedding day

We have observed that even in modal contexts, there is no agreement among our informants about the acceptance of (47), but all our informants readily accepted sentences in (48):

According to the reviewer, this tilts the balance in favor of the PF-Deletion approach. I agree with the reviewer on this issue. Notice however that in order to test extraction, there is a lexical insertion inside *et pourtant si/non*, and consequently they are used in a different way with respect to the construction I am interested in this paper.

<sup>[37]</sup> A reviewer of this journal agrees in that (45b) is ill-formed. Nevertheless, replacing *le tennis* with, for instance, *les activités en plein air* (outdoor activities) makes the sentence fully grammatical, as illustrated in (i) below:

<sup>(</sup>i) Je croyais que Pierre n'aimait pas les activités en plein air. Et pourtant le golf si I thought that Pierre did not like outdoor activities. And yet golf yes

- (48) (a) Je pensais que Marine n'avait pas [acheté de robe<sub>i</sub>]<sub>j</sub>. Et pourtant si Δ<sub>j</sub>. D'ailleurs, elle la<sub>i</sub> porte en ce moment
   I thought that Marine had not bought a dress. And yet yes. As it happens, she wears it now
  - (b) Je croyais que Michel<sub>i</sub> [n'était pas marié]<sub>j</sub>. Et pourtant si  $\Delta_j$ , j'ai rencontré sa femme<sub>i</sub> aujourd'hui I thought that Michel was not married. And yet yes. I met his wife today

As *et pourtant si* passes the missing antecedent test only partially, it can be concluded that it is either a case of TP-Ellipsis or propositional anaphora.<sup>38</sup>

### CATAPHORIC REFERENCE

Cataphoric reference is allowed when PolParts are involved in TP-ellipsis (49a), but is impossible with *et pourtant si/non* constructions (49b):

- (49) (a) Elle pense que non, mais je suis sûr que Pierre viendra ce soir She does not think so, but I am sure that Pierre will turn up to night
  - (b) \*Et pourtant non, Elle pense que Pierre viendra ce soir And yet not. She thinks that Pierre will turn up to night
  - (c) \*Et pourtant non, ce n'est pas vrai. Elle pense que Pierre viendra ce soir *And yet not. It is not true. She thinks that Pierre will turn up to night*

Examples in (49) suggest then that *et pourtant si/non* is neither a case of TP-Ellipsis nor propositional anaphora.

# QUANTIFIER ORDER

Cecchetto & Percus (2006) observe that in a sentence like (50), the elliptical part (50a) and its non-elliptical counterpart (50b) both can receive two readings, depending on the order of quantifiers:

- (50) (a) A security agent inspected every plane and a technician did too  $(\exists \forall / \forall \exists)$ 
  - (b) A security agent inspected every plane and a technician inspected every plane too  $(\exists \forall / \forall \exists)$

They also observe that in propositional anaphora, there is only one possible reading as illustrated in (51):

(51) A security agent inspected every plane and a technician did it too (∃∀/\*∀∃)

<sup>[38]</sup> An anonymous referee suggests that given the minimal difference between (47b) and (48a), and given that (47b) is at worst slightly awkward, TP-Ellipsis seems to be vindicated in this case. This is not quite right since (47c) shows that if reconstruction is made by means of a propositional anaphora, the example becomes fully grammatical.

In (51), the reading in which all planes have been inspected by technicians is ruled out. The same goes for the French counterparts of (50) and (51) illustrated in (52):

- (52) (a) Un agent de sécurité avait révisé chaque avion et un technicien aussi (∃∀/∀∃)
  - (b) Un agent de sécurité avait révisé chaque avion et un technicien l'a fait aussi (∃∀/\*∀∃)

Interestingly, et pourtant si/non allows both readings. This is illustrated in (53a,b) below:<sup>39</sup>

- (53) (a) Les journaux disent qu'une femme a gagné tous les prix. Et pourtant non (¬∃∀/¬∀∃)
  - The papers say that a woman won all the prices. And yet not
  - (b) Les surveillants de l'amphi ne savaient pas qu'il y avait un sujet pour chaque étudiant. Et pourtant si (∃∀/∀∃)

    The exam invigilators in the room did not know that there was one question paper for each student. And yet yes

This is not unexpected as in (50) or (51), the antecedent is the VP, which excludes the subject constituent from possible antecedent candidates, whereas in (53) *et pourtant si* relates to the whole proposition. What is common in both cases is that whatever the interpretation chosen, it must be picked up by the anaphoric element, satisfying a *parallelism* requirement (Darlrymple, Shieber & Pereira 1991, Fox 2000, Asher et al. 2001, Merchant 2001).<sup>40</sup> Although two interpretations are possible in the examples in (54),<sup>41</sup> a continuation of the sentence can disambiguate between the two readings as illustrated in (54) below:

- (54) (a) Les journaux disent qu'une femme a gagné tous les prix. Et pourtant non, car j'ai vu plusieurs hommes remporter quelques prix (¬∃∀)

  The papers say that a woman won all the prices. And yet not, as I saw several men winning a few prices
  - (b) Les surveillants de l'amphi ne savaient pas qu'il y avait un sujet pour chaque étudiant. Et pourtant si, c'était celui de logique (∃∀)

<sup>[39]</sup> Both readings are possible too for examples (53a,b) if they are understood as cases of propositional anaphora (i.e. *et pourtant si/non*, *c'est (ce n'est pas) le cas*, (and yet yes/not, it is (not) the case), *c'est vrai/faux*, (it is true/false).

<sup>[40]</sup> Thanks to Nicolas Guilliot for an insightful discussions on this issue.

<sup>[41]</sup> The presence of *et pourtant si/non* also restrains the set of potential antecedents:

<sup>(</sup>i) On entend dire que les adolescents sont inconscients. Et pourtant, certains, non *It is said that teenagers behave recklessly. And yet, some not*  $[non] = \exists x[Ax \land \neg Ix]$ 

In (i), et pourtant non picks up the proposition inside the scope of dire (say) and creates a subset of the set denoted by the antecedent.

The exam invigilators in the room did not know that there was one question paper for each student. And yet yes, it was the logic question paper

Regarding quantifier inversion, *et pourtant si/non* can be either a case of TP-Ellipsis or propositional anaphora.

All this can be summed up in Table 1:

	AS TP-ELLIPSIS	AS PROPOSITIONAL ANAPHORA
Extraction	?/√	#
Missing Antecedents	?/✓	✓
Cataphora	#	#
Inversion ∀/∃	$\checkmark$	✓

Table 1
Tests for 'et pourtant si/non'.

The result of the discussion of this section is that it appears that *et pourtant si/non* can make use of either TP-Ellipsis or propositional anaphora<sup>42</sup> strategy. There is an interesting parallelism with the arguments presented too in Authier (2011) regarding modal ellipsis in French, also allowing both processes.<sup>43</sup>

- (i) (a) Je ne suis pas tombé, mais j'ai failli [] NULL PRO-FORM

  I have not fallen but I-have well come-close
  - (b) ??Alain n'a pas acheté de voiture mais il a bien failli []. Elle était trop chère Alain neg-has not bought any car but he has well come-close [] it was way too expensive
  - (c) Je ne suis pas tombé, mais j'aurais pu [] PF-DELETION

    I am not fallen but I would-have able to
  - (d) Georges n'a pas pu s'acheter une nouvelle voiture, mais Véronique a pu []. Elle l'a même choisie jaune canari
     Georges neg-has not been-able self-to-buy a new car but Véronique has been-able [].

It-has even picked yellow canary

<sup>[42]</sup> Although this is not a compelling argument in determining the anaphoric status of *et pourtant si/non*, a historical note is in order here. Until the XVIth century, *pourtant* was an anaphora carrying a causal meaning (because of, for this reason) and not as an adversative marker as in contemporary French (Marchello-Nizia 2009, Ingham 2011). *Nonpourtant* inside negative phrases was another connective whose role was to negate a causal inference: *ce n'est pas pour cela que...* (that is no reason for), *malgré cela* (in spite of this). At the beginning of the 15th century, *nonpourtant* was used in non-negative sentences conveying a concession discourse relation and not a cause (Marchello-Nizia 2009). In *Dictionnaire du moyen français* (1330–1500) (http://atilf.fr/dmf), the meaning of the sequence *non pourtant que* was 'ce n'est pas pour autant le cas que' (This does not necessarily mean that...). *Non pourtant* (not for this reason) bears a contrastive meaning compatible with resultative and adversative relations. That is, *non pourtant* denies the expected causal inference of the first proposition (Ramat & Mauri 2012).

<sup>[43] &#</sup>x27;Modal ellipsis' is a coinage found first in Busquets & Denis (2001), then in Dagnac (2010), French modal ellipsis is TP-ellipsis and finally, Authier (2011) convincingly argues that this phenomenon allows both strategies: PF-deletion and Null pro-form in Authier's terms. The examples in (i) illustrate the differences between both strategies with respect to MAP (adapted from Authier (2011: pp. 181–184)):

Interestingly, in Serbo-Croatian there is no equivalent for *et pourtant si/non*. Two strategies are used there: either ellipsis (55) or the equivalent for anaphoric so (56):<sup>44</sup>

- (55) Trebalo bi da sam zadovoljan, ali ne, nisam Should that I'm satisfied, but no, i'm not
- (56) A. LOVAC: Misliš da sam hteo da te ubijem? THE HUNTSMAN: think you that I wanted that you kill?
  - B. SNEŽNA: Da, ali ipak i ne SNOW WHITE: Yes, but still so not

This array of facts suggests that *et pourtant si/non* can make use of either strategy: TP-Ellipsis or propositional anaphora. My proposal can now be worked out through in some detail.

# 4. THE PROPOSAL

# 4.1 Assumptions

Wilder (2013), Samko (2016) and Goodhue (2018) argue that a polar question ?p is the explicit or implicit antecedent of PF. In the same line of thought, Gutzmann et al. (submitted: p. 42) argue that: 'If a speaker uses verum to explicitly mark that she wants to prevent that the QUD is settled toward  $\neg p$ , then  $\neg p$  should already have been proposed (by an utterance of  $\neg p$ , for instance) or, at least, this possibility should have been raised in the discourse context (by a biased question, for instance)'. This makes a correct prediction in a dialogue like that in (57) but does not account for (58):

- (57) Q. N'es-tu pas satisfait?  $(\rightsquigarrow p)$ Aren't you satisfied?
  - A. (Oui, en effet) je devrais être satisfait. [s Et pourtant non] (yes, that's right) I should be satisfied. And yet not
- (58) Q. Es-tu satisfait?  $(\not \rightarrow p)$ Are you satisfied?
  - A. (eh bien), je devrais être satisfait. [s Et pourtant non] (Well...) I should be satisfied. And yet not

Thus, it is not the QUD or even its orientation that is relevant in the occurrence of *et pourtant si/non* but what is relevant is the fact that the antecedent is intensional, hence the possibility of the positive or negative orientation of the question. In (57), the speaker of Q carries an epistemic bias toward p (*is satisfied*).<sup>45</sup>

<sup>[44]</sup> I thank Ana Stulic for these examples and their English translation.

<sup>[45]</sup> According to Krifka (2017: p. 361), this type of question is used in order to ask the addressee if he would refrain from being committed to the truth of *p* (i.e. a speech act of denegation).

The sequence *et pourtant si/non* updates the QUD with  $\neg p$ . This inference is missing in (58), where the question evokes a couple of alternatives  $[p, \neg p]$  (i.e. *you are satisfied*, *you are not satisfied*). The Romero & Han (2004) proposal suggests that the representation for (58) is as follows:

- (59) (a)  $LF = [CP \ Q \ [you \ are \ satisfied]]$ 
  - (b) [[you are satisfied]] =  $\lambda w$ . you are satisfied in w
  - (c)  $[Q \text{ you are satisfied}](w_0) = \lambda q \cdot [q = \lambda w \text{. you are satisfied in } w \lor q = \lambda w \cdot \neg (\text{you are satisfied in } w)] = \{\text{you are satisfied, you are not satisfied}\}$

Consider the following dialogue in (60):

- (60) Q. N'est-il pas interdit de conduire pieds-nus?  $(\rightsquigarrow p)$ Isn't it forbidden to drive barefoot?
  - A. 〈A priori oui/en principe oui/dans un sens oui/à première vue oui/je dirais que oui〉 car c'est risqué. [s Et pourtant non] aucun texte législatif l'interdit expressément 〈In a way/I should say that it is/it seems to me that it is/I suppose it is〉 as it is dangerous. And yet not, there is no law against that

I thus claim that the function of *et pourtant si/non* is not so much to evoke the QUD as to update the CG via two states of belief that are not contradictory.

As already noticed (Section 2.2), the main difference between *et pourtant* and *et pourtant si/non* is that the former simply expresses what is possible, whereas the latter emphasizes the truth of a propositional content. Now the sequence *et pourtant si/non* instantiates some missing material in which only PolParts represent the new information. Consequently, a linguistic antecedent explicitly realized in the discourse is necessary so as to give the *given*<sup>46</sup> status to a propositional content. This is the way in which *si/non* updates the background (Stalnaker 2002) and this is the reason why *et pourtant si/non* is infelicitous 'out of the blue':

- (61) A. Tu sais quoi? #Et pourtant non You know what? And yet not
  - B1. Tu sais quoi? Il semblerait que Pierre viendra You know what? It seems that Pierre will turn up
  - B2. Et pourtant non (Pierre ne viendra pas)

    And yet not. (Pierre will not turn up)

Only antecedents under the scope of a modal verb or in an intensional environment license *et pourtant si/non* (cf. Section 2.4.2). Consider (62):

<sup>[46]</sup> Here 'given' is understood in the sense of Schwarzchild (1999).

- (62) Marie, ne croyait-elle pas qu'il viendrait? Didn't Marie believe that he would turn up?
  - B<sub>1</sub>. Si/Oui 〈Elle le croyait〉 *Yes (she believed so)*
  - B<sub>2</sub>. Non ⟨elle ne le croyait pas⟩ *No (she didn't believe so)*
  - B<sub>3</sub>. Et pourtant non (il ne viendra pas/\*Elle ne le croyait pas) And yet not (he will not turn up/she didn't believe so)
  - B<sub>4</sub>. \*Et pourtant si ⟨elle le croyait/il viendra⟩

    And yet yes (she believed so/ he will turn up)

In accordance with Wilder (2013), I argue that the proposition expressed by the antecedent of et pourtant si/non, together with the discursive context, evokes a set of alternative propositions. Contrary to most approaches, I contend that resorting solely to an answer to the QUD fails to countenance the requirements of the environment of this type of construction. A finer-grained approach of anaphoric contexts, including PolParts, as introduced by Hardt & Romero (2004) seems more relevant, both empirically and conceptually. More specifically, Hardt & Romero (2004) distinguish between the contrast brought about by a polarity focus and that brought about by a modal-like operator VERUM, whose meaning is 'it is true that' or 'it is for sure that'. 47 The difference lies in the emphasized element and in the set of alternatives. Additionally, Hardt & Romero (2004) also point out that among the two sets of alternatives generated by the focalized auxiliary (DID, DIDN'T), the polarity set is more economical (i.e. its interpretation is the default interpretation) as the VERUM operator requires a more complex environment. More specifically, the operator VERUM is chosen in contexts in which there is an epistemic bias, and typically, in the constructions analyzed in this paper, a modalized element is present in one of two discursive segments biased by the pourtant marker defined as follows:

pourtant AND MODALIZATION

[POURTANT  $(S_0, S_1)$ ] = DISCOURSE CONTRAST between  $S_0$  et  $S_1$  such that a proposition p is associated to  $S_0$ , anchored in a possible world (or state or belief) w, and a proposition q associated to  $S_1$ , anchored in a possible world (or state of belief) w', and q non-monotonically entails  $\neg p$   $(q \mid \neg \neg p)$ .

<sup>[47]</sup> More precisely (Hardt & Romero 2004: p. 404), (i) corresponds to polarity-focus contrast, whereas (ii) is a contrast established between the predicate or operator VERUM and the attitude expressed in the preceding clause:

<sup>(</sup>i)  $F(DID_{Pol} p)=F(DIDn't_{Pol} p)=\{p, \neg p\}$ 

<sup>(</sup>ii) F(DID<sub>VERUM</sub> p)=F(DIDn't<sub>VERUM</sub> p)={it is for sure that  $p/\neg p$ , it is possible that  $p/\neg p$ , it is expected that  $p/\neg p$ ,...}

<sup>[48]</sup> Along the lines of Asher & Lascarides (2003: 465).

I thus assume that PolParts si/non in the sequence et pourtant si/non introduce a discursive segment  $S_1$  in which a missing content  $\phi$  has to be anaphorically recovered from an adequate antecedent in the same discourse. This is in keeping with Authier thesis according to which in anaphoric contexts, PolParts are not used to contradict a proposition but to mark the polarity contrast between two propositions. In the case of et pourtant si/non, the contrast is between a discursive segment in an intensional modal environment and an assertion that triggers a set of alternatives. As was seen previously (Section 2.3), the connector mais (but) licenses the contrast between two conjoined elements. The same goes for the DM pourtant.

CONTRAST CONDITION:49

et pourtant si/non (i) introduces a proposition  $\phi$ , which is contrasted with a preceding proposition A.  $\phi$  is felicitously contrasted with A iff  $[\![A]\!]^o$  implies or falls within the focus semantic value of  $[\![\phi]\!]^f$ . (ii) The speaker is certain that  $\phi$  should be added to the CG. <sup>50</sup>

Thus, contra Anscombre (2002) (cf. Section 2.1), I assume that 'et' (and) in *et pourtant* is not the marker of an opposition between two terms in an argumentation. A cogent argument against Anscombre's claim is that *pourtant* cannot be omitted<sup>51</sup> as illustrated in (63):

- (63) (a) Je crois que je ne saurais jamais conduire, ‡Et si, c'est une question de pratique

  I think that I will never be able to drive. And yes, it is just a matter of
  - I think that I will never be able to drive. And yes, it is just a matter of practice
  - (b) Elle était dépressive? –Dans un sens oui, ♯et non, elle était toujours souriante
    - Was she depressed? In a way yes. And no, she always was smiling
  - (c) Donald Trump fâché avec le New York Times? Impossible. ‡et si, c'est vrai

Donald Trump at odds with the New York Times? Impossible. And yes, it is true

I thus argue that the function of *et* in these sentences is to specify the way in which the two discursive segments are linked together, so as to maintain topic continuity.<sup>52</sup> Additionally, since the antecedent proposition does not assert

<sup>[49]</sup> This definition is similar to that of *Direct Parallelism* defined in Fox (2000: p. 73), to *Matching Condition on Ellipsis Resolution* formulated in Hardt & Romero (2004: p. 390), *Constrain on Felicitous Contrast* in Kertz (2013: p. 400) or *focus matching* in Büring (2005: p. 133), inter alia.

<sup>[50]</sup> As defined in Romero & Han (2004: p. 627).

<sup>[51]</sup> As Authier (2013) points out, ellipsis is not licensed if et (and) is present (see note 19 supra).

<sup>[52]</sup> In maximizing coherence and keeping the same topic: as noticed in Txurruca (2003: p. 268), et (and) 'tries to connect the different pieces of information to each other and relate them to other areas as much as they can'.

a content p, the use of *et portant si/non* is semantically motivated by the wish of the speaker to add a content  $\phi$  to the CG.

We will now proceed to examine some relevant examples.

# 4.2 Analysis of relevant examples

In most cases, the antecedents of *et pourtant si/non* are propositions in the scope of an epistemic or modal operator (e.g. *devoir*, (should), *pouvoir* (might), *sembler* (seem) or a propositional attitude predicate *penser* (think), *croire* (believe), *dire* (say)). In an example like (64), what is relevant is the set of alternatives built from the epistemic operator VERUM.

(64) [Le ministre X aurait dû [demissionner de ses fonctions]]. Et pourtant [non  $\lceil \phi \rceil$ ]

[[[X aurait dû demissionner de ses fonctions]]]  $\in$  F([non<sub>VERUM</sub> [ $\phi$ ]])= {il est possible que le ministre démissionne, il est possible que le ministre ne démissionne pas, il est sûrement vrai que X démissionne, il est sûrement vrai que X ne démissionnera pas,...}<sup>53</sup>

Contrary to this, the examples in (65) illustrate a contrast between two polarities. In these examples, the negation is expressed lexically by the morphologically complex adjectives *impossible*, *improbable*, *incroyable* (unbelievable)..., in which the negative affix *in*— or one of its allomorphs is attached to an adjective base. In all the examples of our corpus, adjectives are epistemic adjectives.

- (65) (a) Un empereur aux Etats-Unis? [Impossible]. Et pourtant si<sup>54</sup>

  An emperor in the US? Impossible. And yet yes
  - (b) Un café pas testé à la Confluence. [Incroyable]. Et pourtant si<sup>55</sup> A coffee not tested at the Confluence. Unbelievable. And yet yes
  - (c) Kate Moss en mannequin ou égérie, c'est logique, mais Kate Moss en journaliste, [improbable]. Et pourtant si. 56

    Kate Moss model or muse, it's logical, but Kate Moss as a journalist, improbable. And yet yes

These epistemic adjectives take propositional arguments, and consequently they do not predicate over individuals (of type  $(\langle s, \langle e, t \rangle))$ ) but propositions

<sup>[53]</sup> Le ministre X aurait dû demissionner de ses fonctions. Et pourtant non Minister X should have resigned from office. And yet not {il est possible que le ministre démissionne, il est possible que le ministre ne démissionne pas, il est sûrement vrai que X démissionne, il est sûrement vrai que X ne démissionnera pas,...} {The minister might resign, he might not resign, it is true that he will resign, it is true that will not resign...}.

<sup>[54]</sup> http://blog.francetvinfo.fr/deja-vu/category/actu/page/4 14 novembre 2013.

<sup>[55]</sup> www.yelp.fr/list/my-little-confluence-lyon. 2012.

<sup>[56]</sup> Gala, 20.06.2014.

(of type  $(\langle \langle s, t \rangle, t \rangle)$ ). In (65), the set of alternatives is  $\{p, \neg p\}$  and this is a case of polarity focus represented below:<sup>57</sup>

- $[[Improbable_{POL[-]}]]] \in F([si_{POL[+]} \phi])$
- $[[Probable_{POL[+]}]] \in F([non_{POL[-]} \phi])$
- $[[Improbable_{POL[-]}]] \notin F([non_{POL[-]} \phi])$
- $[[Probable_{POL[+]}]] \notin F([si_{POL[+]} \phi])$

This provides an explanatory account of the infelicitous examples in (66):

- (66) (a) Un empéreur aux Etats-Unis? Possible. #Et pourant si An emperor in the USA? Possible. And yet yes
  - (b) Une année sans un film de Woody Allen? Probable. ‡Et pourtant si A whole year without a film by Woody Allen? Probable. And yet yes
  - (c) Donald Trump refuse de serrer la main à Angela Merkel. Incroyable. 
    #Et pourtant non

    Donal Trump refuses to shake hands with Angela Merkel. Unbelievable. And yet not

Another type of example where the use of *et pourtant si/non* is accounted for by polarity focus is illustrated in (67):

(67) Moi, partout où j'ai passé, au collège, à la faculté, à l'hôpital, partout, je me suis senti un Thibault, un être à part, je n'ose pas dire, supérieur, et pourtant si, pourquoi pas?<sup>58</sup>
As for me, wherever I went, in college, faculty, hospital, anywhere, I felt like a Thibault, a separate being, I dare not say, superior, and yet yes, why not?

I will represent the relevant part of this example as in (68):

(68) Je [ $_{POL[-]}$  n'ose pas dire supérieur]. Et pourtant [ $si_{POL[+]} \phi$ ] *I dare not say superior. And yet yes* 

As was seen in example (60), *et pourtant si/non* can be used as a reaction to a modalized answer to a polar question. Consider (69):

- (69) Q. Elle était dépressive? Was she depressed?
  - A. Dans un sens, oui. Et pourtant non, car quand elle dansait, elle était fantastique<sup>59</sup>

In a sense, yes. And yet not, because when she danced, she was wonderful

<sup>[57]</sup> In Israel (2004), this type of modality would be what he calls 'reversal', which entails an opposition between a set of polar propositions or predicates ordered on a scale.

<sup>[58]</sup> Martin du Gard, R. Les Thibault: Le Pénitencier, 1922:763 [FRANTEXT].

In this example, the answer is modalized: *dans un sens* (in a way, a priori, as far as I can see, etc. are all compatible both with *il semble que* (it seems that)<sup>60</sup> and with the opposition marker *pourtant*). The modalized answer expresses that 'it is possible that p, it is possible that  $\neg p$ '. Following Krifka (2001), a polar question like (69) would be represented as follows:

- (70) (a) elle était dépressive?  $\langle \lambda f[f(\text{dépressive}(x))]\{\lambda p[p], \lambda p[\neg p]\} \rangle$  Was she depressed?
  - (b) Dans un sens oui  $\lambda p. \diamondsuit [p/\neg p]$ In a way yes
  - (c) Et pourtant non  $[\neg p]$ And yet not

These biased answers license *et pourtant si/non*, and a non-modalized answer with *et pourtant si/non* would be infelicitous. This is illustrated in (71):

- (71) Q: Elle était dépressive? / Pierre, ne croyait-il pas qu'elle était dépressive?
  - Was she depressed? Didn't Pierre believe that she was depressed?
  - A: # Et pourtant non / Et pourtant non <elle n'était pas dépressive, ce n'est pas vrai...>
    - And yet not (And yet she was not depressed/this is not true)

The discourse in (72) is ambiguous as there are three candidate antecedents for *et pourtant si* depending on the accessible proposition: (i) the object argument of the verb *soutenir* (argue, claim), which expresses the speaker's attitude (he could not have thrown himself under the car); (ii) the complement of the modal *pouvoir* (could): 'have throw himself under the car'; or (iii) the second term of the relation triggered by *puisque* (since): 'he had not been on the street':

(72) Les siens soutenaient qu'il n'avait pu se jeter sous la voiture, puisqu'il n'avait pas été dans la rue. Et pourtant si<sup>61</sup>
His family and friends argued that he couldn't have thrown himself under

the car, since he had not been on the street. And yet yes

<sup>[59]</sup> A.J. Zazinski, Le sommeil et la mort, JCLattès, 2013.

<sup>[60]</sup> As observed in Nølke (1994: p. 87), il semble que (it seems that) expresses a doubt or uncertainty inherently linked to the act of assertion.

<sup>[61] [</sup>Baillon, André, Délires, 1927, p. 72, FRANTEXT].

Two sets of alternatives are possible:

# (73) (a) Polarity-focus alternative set:

- [[POL[-]]] il n'avait pas été dans la rue]]  $\in$   $F([si_{POL[+]}])$
- $[[v_{\text{ERUM}} \text{ il n'avait pas pu se jeter sous la voiture}]]$  $\notin F([si_{\text{POL}[+]} \phi])^{62}$

# (b) Verum-operator alternative set:

- [[POL[-]] il n'avait pas été dans la rue]]  $\notin$  F([si<sub>VERUM</sub>  $\phi$ ])
- [[[verumil n'avait pas pu se jeter sous la voiture]]] ∈ F([siverum φ])
   ={il est possible qu'il s'est jeté sous la voiture, il est possible qu'il ne s'est pas jeté sous la voiture, il est sûrement vrai qu'il s'est jeté sous la voiture, il est sûrement vrai qu'il ne s'est pas jeté sous la voiture...}

The problem is to find the most appropriate of the two sets of alternatives for (72). Under the present approach, contextual inferences (Rooth 1992a, Hardt & Romero 2004) can be used. For instance, in (72) this inference is: 'x is not in the street'  $\Rightarrow$  'x cannot throw himself under the car'. In this case, the inference is primarily based on the polarity-focus contrast and the contrastive interpretation based on VERUM is derived (i.e. he may or he may not throw himself under the car).  $^{64}$ 

# 4.3 Complex cases

Under the present approach, the analysis of alternatives should account for examples such as (74), in which the sequence *et pourtant si/non* is incompatible with the modal verb *faillir* (almost, nearly).<sup>65</sup> Note, however, that it is not possible to suggest that as the action denoted by the infinitive form of the verb *tomber* (fall)

<sup>[62]</sup> Il n'avait pas été dans la rue (He had not been on the street)
Il n'avait pas pu se jeter sous la voiture (he couldn't have thrown himself under the car).

<sup>[63]</sup> Il n'avait pas été dans la rue (He had not been on the street)
Il n'avait pas pu se jeter sous la voiture (he couldn't have thrown himself under the car)
{il est possible qu'il s'est jeté sous la voiture, il est possible qu'il ne s'est pas jeté sous la voiture, il est sûrement vrai qu'il s'est jeté sous la voiture, il est sûrement vrai qu'il ne s'est pas jeté sous la voiture...}({it is possible/it is not possible/it is surely true...that he had thrown himself under the car}.

<sup>[64]</sup> Discourse relations with constraints could also be used. The discursive structure of (72) is  $S_1$  PUISQUE  $S_2$ . Hence, the relation between  $S_1$  and  $S_2$  is EXPLANATION: EXPL $(S_1, S_2)$ . This subordinating relation adds a temporal restriction: EXPL $(\alpha, \beta) \Rightarrow (\neg e_{\alpha} < e_{\beta})$  (Asher & Lascarides 2003: p. 130). As regards intentions,  $\beta$  contributes to the satisfaction of the discourse constituent that dominates node  $\alpha$  (Grosz & Sidner 1986). In (72), the EXPLANATION relation encodes a preference for a contrast based on polarity. The addition of a set of discourse relations and their interaction with the approach suggested in this study, deserves a deeper exploration and is left for future research.

<sup>[65]</sup> The English translation of the verb *faillir* is either *almost* ('j'ai failli perdre ma place'  $\approx$  'I almost lost my seat/job') or *nearly* ('j'ai failli rater le train'  $\approx$  'I nearly missed the train')

did not take place, *et pourtant non* would be redundant and *et pourtant si* would be contradictory. The reason is that in some cases (cf. 74b), the action may have started, and yet *et pourtant si* is disallowed:

- (74) (a) J'ai failli tomber de l'escalier. ‡Et pourtant non *I almost fell in the stairs. And yet not* 
  - (b) Pierre a failli ne pas finir ses études à cause de l'argent. ♯Et pourtant si

Pierre almost did not complete his studies for want of money. And yet yes

Since *faillir* is a modal verb, in our approach, there is a set of alternatives built on the operator VERUM:  $[si_{VERUM} [\phi]]$  and  $[non_{VERUM} [\phi]]$  that upgrade the CG. My hypothesis is that the very semantics of *faillir* (which presupposes that its complement is false) forces a reading in which the truth of  $\neg p$  is added to the CG. 66 If this is followed by *et pourtant non*, the truth of this assertion is emphasized, which is odd or slightly paradoxical as illustrated by (75) below:

(75) J'ai failli tomber de l'escalier. #Et pourtant non <je ne suis pas tombé/ce n'est pas vrai>

[non<sub>VERUM</sub> [je suis tombé]]. [non<sub>VERUM</sub> [je suis tombé]]

Note however that a continuation of the discourse with *et pourtant* coherent with the discursive segment containing *faillir* is felicitous:<sup>67</sup>

- (76) (a) J'ai failli tomber. (et) Pourtant j'ai réussi à me rattraper I almost fell. And yet I managed to steady myself
  - (b) Pierre a failli ne pas finir ses études à cause de l'argent. (et) Pourtant, il s'est débrouillé pour trouver une solution Pierre almost did not finish his studies for want of money. And yet he managed to find a solution

I turn now to the contrast between *et pourtant si/non* and antecedents that have the form of counterfactual conditionals (Lewis 1973), such as that in (77). Counterfactuals can be generically expressed as 'if  $\phi$  had taken place, it would have been the case that  $\psi$ ', which presupposes that  $\phi$  did not take place in the actual world. Notice the contrast between (77a,b):

<sup>(</sup>see Vuillaume (2009), Martin (2005)). *Almost* is ambiguous and can be interpreted as a counterfactual (the event denoted by the predicate did not happen (Rapp & von Stechow 1999)). It can also receive a scalar reading if what is expressed is that the inchoative phase of an action has started but the action has not been completed. I will not go into details about this here since it is not relevant to the discussion.

<sup>[66]</sup> This idea is expressed differently in Martin (2005).

<sup>[67]</sup> As seen above (Section 2.2), these examples illustrate different discourse conditions between *et pourtant* and *et pourtant si/non*.

- (77) (a) Si tu organises une soirée, je viendrai. #Et pourtant non *If you throw a party, I will come. And yet not* [non]=je viendrai (I will come)
  - (b) Si tu organises une soirée, je viendrai mais mon frère non *If you throw a party, I will come, but my brother not* [non]=mon frère ne viendra pas (My brother won't come)

In (77a) the constraints are in the epistemic state of the speaker, and the speaker contradicts himself. In (77b) the contrast condition is respected (i.e. [[I will come to the party]]]  $\in$  F([My brother won't (come to the party)]).<sup>68</sup>

How is it possible to account for the choice of the relevant antecedent in (78)?

- (78) (a) Si Pierre avait voulu te téléphoner, il me l'aurait dit. Et pourtant non If Pierre had wanted to call you up, he would have said so. And yet not

  [non]]=Pierre ne me l'a pas dit (Pierre did not say anything to me)

  /\*Pierre n'avait pas voulu te téléphoner (Pierre had not meant to call
  - you up)

    (b) Si Marie m'appelait, je serais bien content. Et pourtant non 
    If Marie called me I would be all too pleased. And yet not

    [[non]]=Marie ne m'a pas appelé (Marie did not call me)/ \*je ne suis 
    pas content (I am not pleased)

The choice of the relevant antecedent in counterfactuals is driven by the focalized constituent and the packaging of the information in the conditional sentence. In (79a) the *apodosis* is focalized whereas in (79b) it is the *protasis* that is focalized:

- (79) (a) Si Pierre avait voulu te téléphoner, [il me l'aurait  $\operatorname{dit}$ ]  $^f$ . Et pourtant non If Pierre had wanted to phone me up, he would have told me. And yet not
  - (b) [Si Marie m'appelait]<sup>f</sup>, je serais bien content. Et pourtant non *If Marie called me I would be all too pleased. And yet not*

In the analysis of counterfactuals, the consequent must be assessed in connection with the possible worlds (or situations) in which Pierre called (79a) and in which Marie called (79b). It is in these situations that it can be said that the content of the counterfactual is true. In example (79a) the contrast is in accordance with

<sup>[68]</sup> More specifically:

 $<sup>\</sup>llbracket [\text{I will come to the party}] \rrbracket^f = \{ p \mid \exists x. x \in D_e \land p : \text{come}(x, s) | x \in D_e \}$ 

C= the set of propositions of the form 'x will come to the party'.

 $<sup>\{\</sup>text{venir}(x, s), \neg \text{venir}(x, s), \text{venir}(y, s), \neg \text{venir}(y, s), \ldots \}.$ 

what is expected as it is based on polarity focus:  $[[POL[+]]] \in F([[non_{POL[-]}]])$ .

Conversely, in (79b) if the consequent was the alternative to *et pourtant non*, there would be a contradiction (Marie calls me up  $\square \rightarrow$  I am glad).<sup>69</sup> The same problem arises in dialogues as that exemplified in (80):

(80) A. Un membre de l'opposition dit que [p si le Président avait été moins long, il aurait été plus convaincant]

A member of the opposition said that if the President's statement had not been so long it would have been more convincing

B. Et pourtant non <ce n'est pas vrai>And yet not <it is not true>

Following the approach taken here, the antecedent of *et pourtant non* is the embedded proposition that is under the scope of the propositional attitude predicate, here the whole counterfactual proposition p, and this leads to the definition of the set of alternatives:

(81) Set of alternatives based on VERUM: [[Un membre de l'opposition dit que p]]]  $\in$  F([non<sub>VERUM</sub>  $\phi$ ])= {il est possible que p, il est sûrement vrai que p, il est sûrement vrai que p, il est sûrement vrai que p...}

As was seen before in examples (29) and (30), repeated here in (82a,b) for the sake of simplicity, PolParts can appear in embedded clauses:<sup>71</sup>

- (82) (a) Tom n'est pas sûr que Benjamin soit venu mais moi je suis sûr que oui *Tom not-is* NEG *sure that Benjamin be come but me I am sure that yes* 
  - (b) Certains disent qu'il ne faut pas avancer dans cette voie, mais moi, je suis sûr que si/oui

Several-people say that-one not can NEG proceed in this way but me, I am sure that yes

As argued in Authier (2013: p. 371), French polarity particles *oui/non* mark the left edge of a TP elision site. Following Authier (2013), in the example in (83) the PP *to his son* represents a clitic left dislocation and thus must be linked to a silent copy lower than Top P in the structure.

<sup>[69]</sup> Following Lewis and his notation, (79b) can be read as: 'S'il avait été le cas que Marie m'appelle, alors il aurait été le cas que je suis content' (if it had been the case that Mary calls me up, then it would have been the case that I am happy).

<sup>[70]</sup> A member of the opposition said that if the President's statement had not been so long it would have been more convincing

<sup>{</sup>It is possible that p, it is possible that  $\neg p$ , it is for sure that p, it is for sure true that  $\neg p$ ...}.

<sup>[71]</sup> More specifically: [CP] que  $[\Sigma_P]$   $[\Sigma]$  [Si/oui/non] [TP] ...]]]].

- (83) Est-ce qu'il a téléphoné à quelqu'un? Did he call anyone?
  - A. Je pense qu'à son fils, oui I think that-to his son yes
  - B. Il n'a pas téléphoné à sa fille, mais à son fils, oui he has not called to his daughter but to his son yes

From this point of view, similar sentences with et pourtant si/non are given below:

- (84) Pierre a dit que sa femme n'a pas téléphoné à ses enfants Peter said that his wife did not call up his children
  - A. Et pourtant à sa fille si And yet to his daughter yes
  - B. \*Et pourtant à sa fille si, c'est le cas/c'est vrai And yet to his daughter yes/it is true

My feeling is that the present approach, which targets the properties of the sequence *et pourtant si/non*, could be extended to cover these cases and provide the adequate tools for an analysis of this distribution of PolParts.<sup>72</sup>

# 5. Conclusions

The results of the present study can be summarized as follows.

In the line of thought of Jayez (1988) and Martin (1987), I have shown that although the DM *pourtant* is not itself a modal, it appears to express a contrast between two modal expressions whose modal forces are 'polar opposites' given that they operate on different modal bases that are not contradictory.

The evidence is mixed as to the anaphoric status of *et pourtant si/non*: it displays some properties not only of TP-Ellipsis but also of propositional anaphora, and consequently the antecedent of *et pourtant si/non* can be recovered by means of either type of anaphoric process. The occurrence of the sequence *et pourtant si/non* is constrained by the presence of a modalized environment. This suggests an interesting parallelism with the results found in Authier (2011) regarding modal ellipsis in French.

<sup>[72]</sup> As we have already seen in footnote (37), the similarity of these examples with those analyzed by Authier (2013), cases in (82a,b), are very likely to be cases of TP-Ellipsis. As a reviewer rightly points out, the ungrammaticality of (84B) arises from the lack of intensionality inherent to the first conjunct. If intensionality is restored, the example seems fine:

<sup>(</sup>i) Je croyais que tu n'avais pas téléphoné à tes enfants, et pourtant, à ta fille, si I thought that you did not call up your children, and yet, to your daughter, yes

This is a complex issue, which merits further empirical research. I hope to investigate this in the future.

The free variation between *oui* and *si* in *et pourtant si* shows that the feature [REVERSE] is not a relevant factor. This result contradicts the prediction made by the classification proposed by Roelofsen & Farkas (2015), but it is in accordance with the Authier analysis of TP-ellipsis, where *contrast* is the relevant feature. I consequently argue that in some contexts, *oui* is a strong PPI. However, this is not equivalent to saying that there are two sets of PolParts, one for answers to polar questions and the other for assertions. This rather supports the view that different types of constraints apply to the same item, depending on its use.

The sequences *et pourtant si/non*, *oui* and *si/non* are instances of VF that emphatically mark the polarity of a proposition by opposing it to another proposition, which is both salient and accessible in the discourse. This is how PolParts upgrade the CG.

In Hardt & Romero (2004), it is suggested that the construction of sets of alternatives based on polarity focus is preferred to that based on VERUM, unless there is an epistemic bias. Interestingly, our results provide support for the second option: that in which the antecedent is under the scope of a modal operator. Furthermore, the polarity contrast allowed us to account for some examples in which this factor is more salient, and this consequently led us to offer a new contribution to the debate about the nature and status of VF.

I provided support for an analysis of VF in the framework of alternative semantics. This analysis showed too that the scope of an epistemic operator (Romero & Han 2004) and the conditions of use were relevant factors in anaphoric contexts. In these contexts, the adequate antecedent can be recovered by the construction of alternatives based on focus, which is not possible in an analysis based solely on lexical insertion and upgrading of the QUD by conditions governing the felicitous use of a form in discourse.

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