

# Logophoricity and Locality: a View from French Anaphors

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## Introduction

In a wide range of languages, we observe that the very same elements display two distinct behaviors: sometimes, they are subject to Condition A of the Binding Theory (Chomsky 1986, i.a.), call them (as in Charneval & Sportiche 2016) *plain* anaphors; sometimes, they are exempt from the locality conditions imposed by Condition A of the Binding Theory, call them (as in Pollard & Sag 1992) *exempt* anaphors. This is for instance the case of English *himself* (Pollard & Sag 1992, i.a.), French *lui-même* and *son propre* (Charneval & Sportiche 2016, i.a.), Icelandic *sig* (Maling 1984, i.a.), Mandarin *ziji* (Huang & Liu 2001, i.a.), Japanese *zibun* (Kuroda 1973, i.a.), Turkish *kendi si* or Uyghur *öz* (Major & Özkan 2017), among many others. I will only be concerned with such elements in this article.

Why is it that in language after language, the same element exhibits two types of behavior, each with distinct associated properties?

To the (limited) extent that this question is addressed in the literature, the analysis proposed is one of lexical ambiguity or homophony, locating the source of these different behaviors in the anaphors themselves: *himself*, for example, has two (related) lexical entries, one for plain behavior, one for exempt behavior.

The main goal of this article is to argue instead that a plain anaphor and its exempt counterpart are one and the same object. The observed duality of behavior is not due to the anaphors themselves, but to the nature of their binder. While the binder of a plain anaphor simply needs to satisfy a structural requirement (local c-command), what properties the binder of an exempt anaphor must have is less clear: a second goal – subordinated to the first one – is to examine in detail what binders qualify by revisiting the notion of logophoricity, reaching different conclusions than Sells' (1987) seminal work. The primary basis of investigation will be the behavior of French anaphors *lui-même* and *son propre*.<sup>1</sup>

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<sup>1</sup> The French (reflexive) clitic *se* will not be investigated in this article as *se* is not itself an anaphor: *se* not only occurs in reflexive constructions in French, but also in other constructions such as middle or anticausative constructions (cf. Sportiche 2014, i.a.).

The unitary analysis of the plain/exempt dichotomy proposed in this paper takes all instances of anaphors to be plain: they must all obey Condition A. It thus argues that instances of anaphors that seem to be exempt are in fact locally bound via a silent logophoric operator, and all the differences between plain and exempt anaphors derive from the properties of their antecedents, an overt c-commander for plain anaphors, a covert c-commanding logophoric pronoun for exempt anaphors. That they can have the same form in a variety of languages is therefore not surprising.<sup>2</sup>

Beyond parsimony considerations, two crucial observations constitute the main motivation for this unitary analysis.

First, exempt anaphors must exhibit logophoric, i.e. perspectival, properties, as noted by many, at least in broad lines (Clements 1975, Sells 1987, i.a.): not only must they be anteceded by a DP denoting a perspective center, but crucially, they must also occur in a constituent whose content is expressed from the perspective of that center. The covert logophoric operator I postulate is the (necessary) syntactic reflex of encoding that this constituent represents the center's perspective in the domain of anaphors. As an exempt anaphor is bound via this covert operator, it is interpreted as perspectival. As we will see, this is akin to what happens in free indirect discourse.

The second observation is based on the surprising constraint holding of exempt anaphors co-occurring in the same local domain: they must exhaustively corefer. As we will see, this provides independent evidence for the presence of a silent element (a logophoric pronoun) that exhaustively and locally binds all exempt anaphors of the domain. This shows that exempt anaphors are in fact subject to the binding conditions imposed by Condition A.

The article is organized as follows. Section 1 presents the issues surrounding exempt anaphora and outlines the proposed solution. In spite of their morphological identity with plain anaphors, some instances of anaphors can be identified as being exempt from Condition A. These exempt anaphors can be distinguished from plain anaphors by five properties. The proposal, guided by parsimony considerations, is to unify plain and exempt anaphors by reducing the apparent differences between them to the nature of their binders (overt DP vs. covert logophoric pronoun introduced by a logophoric operator).

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<sup>2</sup> The variety of lexical forms exhibiting this dual behavior found in French (e.g. *lui-même*, *son propre*) and crosslinguistically makes it difficult to reduce this duality to the lexical make-up of anaphors, unfortunately (cf. Safir 1996 vs. Safir 2004, i.a.).

Section 2 describes the referential restrictions on exempt anaphors (the first crucial observation above) in order to precisely specify the lexico-semantic properties on these logophoric operators, from which exempt anaphors inherit their interpretive properties. Using independent tests, I examine in detail and motivate what counts as logophoric conditions. This leads me to distinguish between several types of logophoric centers like Sells (1987), albeit different ones from his (namely, attitude holder and empathy locus), and to restrict logophoricity to mental perspective unlike Sells (and others), thus excluding deictic perspective.

Section 3 further motivates the hypothesis that exempt anaphors are locally bound (via logophoric operators) as required by Condition A. In particular, exhaustive coreference constraints between exempt anaphors co-occurring in the same local domain (the second observation above) provide independent evidence for the presence of a unique local (logophoric) A-binder for them. The other properties apparently distinguishing exempt from plain anaphors derive from the presence of this (logophoric) binder, which crucially need not itself be bound by its own antecedent(s).

Section 4 concludes by presenting some crosslinguistic implications and remaining questions.

## 1. The issue of exempt anaphora

### 1.1. Identifying exempt anaphors

Anaphors such as English *himself* have been standardly defined as being subject to Condition A of the Binding Theory (Chomsky 1986, i.a.): they must be locally bound.

- (1) a. [The moon]<sub>i</sub> spins on itself<sub>i</sub>. *(Charnavel & Sportiche 2016)*  
b. \*[The moon]<sub>i</sub> influences [people sensitive to itself<sub>i</sub>].  
c. \*The satellites of [the earth]<sub>i</sub> revolve around itself<sub>i</sub>.

But in a wide variety of languages including English, French, Icelandic, Mandarin, Japanese, Turkish or Uyghur, i.a. (see references above, as well as earlier references like Kuroda 1965, Ross 1970, Postal 1971, Cantrall 1974, i.a.), it has been observed that some instances of anaphors do not obey the locality constraints imposed by Condition A.

- (2) a. John<sub>i</sub> said to Mary that nobody would doubt that physicists like himself<sub>i</sub> were a  
godsend. *(Kuno 1987)*  
b. The picture of herself<sub>i</sub> on the front page of the Times made Mary<sub>i</sub>'s claims seem  
somewhat ridiculous. *(Pollard & Sag 1992)*

All attempts to redefine Condition A so as to capture the behavior of both plain and exempt instances of anaphors failed (see Huang & Liu 2001: 4-8 for a review). It is therefore necessary to elaborate a theory of exemption from Condition A (cf. Pollard & Sag 1992, Reinhart & Reuland 1993, i.a.).

This raises a methodological issue: given that plain and exempt anaphors have the same form, how can we simultaneously determine the generalization capturing the distribution of plain anaphors (so as to define Condition A) and that capturing the distribution of exempt anaphors (so as to define a theory of exemption)?

I here adopt Charnavel & Sportiche's (2016) strategy to handle this two-variable problem, which consists of using a criterion independent of the definition of Condition A to distinguish between plain and exempt anaphors in a given sentence.<sup>3</sup> A property that meets these conditions for French is inanimacy: inanimate anaphors are always plain anaphors. The reasoning behind this idea goes as follows. Many crosslinguistic generalizations have been proposed, showing that the antecedents of exempt anaphors are logophoric centers (Clements 1975, Sells 1987, Pollard & Sag 1992, i.a.). But the definitions of logophoricity proposed in the literature are too vague or too diverse (cf. Clements 1975, Sells 1987, Kuno 1987, Culy 1994, Schlenker 2003, Anand 2006, i.a.) to reliably identify exempt anaphors. Nevertheless, all these generalizations (implicitly) agree on one fact: the referent of the antecedent of an exempt anaphor must be a live person (capable of holding a perspective). This crucially means that conversely, inanimates cannot antecede exempt anaphors, and suggests that logophoric centers cannot be inanimate.

Inanimacy (used in sentence (1)) thus allows us (at least in French) to draw a dividing line between plain and exempt anaphors. First, the syntactic distribution of inanimate anaphors can be used as the empirical basis for determining the generalization to be explained by Condition A. This is Charnavel & Sportiche's (2016) strategy: based on the behavior of inanimate anaphors in French, they determine the generalization describing the distribution of

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<sup>3</sup> The predicate-based theories mentioned above (Pollard & Sag 1992, Reinhart & Reuland 1993; cf. Safir 2004, Reuland 2011, i.a.) attempt to, but do not successfully use independent criteria to distinguish between plain and exempt anaphors (see Charnavel & Sportiche 2016). Moreover, these theories make incorrect predictions for French inanimate anaphors, as shown by Charnavel & Sportiche (2016). It is for these reasons that this type of theory must be abandoned (at least for French). However, the theory of exemption presented in this paper remains indebted to their proponents for the idea of investigating exemption itself.

plain anaphors, which leads them to propose to reduce the locality imposed by Condition A to Phase Theory.

- *Descriptive formulation of Condition A* (cf. Charnavel & Sportiche 2016:65)  
A plain anaphor must be bound within an XP containing it that is no larger than a tensed TP and where no subject intervenes between the anaphor and its binder.
- *Phase-based formulation of Condition A* (cf. Charnavel & Sportiche 2016:71)  
An anaphor must be bound within the smallest spellout domain containing it.

Conversely, (in)animacy can be used to identify exempt anaphors and determine the generalization to be explained by the theory of exemption. But animacy itself is not sufficient (under most definitions, a logophoric center requires further properties, as we will see in section 2): we can only be certain that an anaphor is exempt if it occurs in a configuration disallowing inanimate anaphors. Specifically, given Charnavel & Sportiche’s (2016) results, a French anaphor is necessarily exempt if it is not bound (i.e. if it is not c-commanded by its antecedent or if it does not have any antecedent in the sentence) or if its binder is outside its spellout domain (TP, vP or DP with subject).

- *Theory-neutral way to identify exempt anaphors*  
An anaphor is exempt if it is animate and appears in a configuration disallowing inanimate anaphors.
- *Distribution of exempt anaphors based on Charnavel & Sportiche’s 2016 results*  
An anaphor is exempt if it is not bound or if its binder is outside the smallest spellout domain containing it.

We thus have a reliable way to empirically identify (some<sup>4</sup>) exempt anaphors in French. This will be our basis of investigation for elaborating a theory of exemption.<sup>5</sup>

<sup>4</sup> At this point, nothing indicates that the sets of configurations for plain and exempt anaphors must be disjoint: it may well be the case that an exempt (logophoric) anaphor can also occur in a position allowing an inanimate anaphor.

<sup>5</sup> As mentioned in Charnavel & Sportiche (2016), there is one further caveat to take into consideration for the anaphor *lui-même*. We observe, as illustrated in (i) and (ii) below, that unless it is heavily stressed, *lui-même* is not acceptable when it can be replaced by a weaker form such as the clitic reflexive *se* (subject-oriented cliticizable argument) or the object clitics *le* and *lui*. This falls under a generalization discussed by Cardinaletti & Starke (1999): all else relevant equal, if a weaker form of the target element is available, it must be used, thus blocking the use of a stronger form. Importantly, this condition is independent of both Condition A and exemption from it. For our purposes, this means that to observe the behavior of exempt *lui-même*, we need to exclude cases where *lui-même* occurs in configurations licensing *se*, *le* or *lui*. This will be taken into consideration in the rest of the article.

(i) a. Luc<sub>i</sub> s<sub>i</sub>’examine. ‘Luc<sub>i</sub> is examining himself<sub>i</sub>.’  
 b. \*Luc<sub>i</sub> examine lui<sub>i</sub>-même. ‘\*Luc<sub>i</sub> is examining himself<sub>i</sub>.’  
 c. Luc<sub>i</sub> pense que Lise {l<sub>i</sub>’/\*s<sub>i</sub>’} examinera. ‘Luc<sub>i</sub> thinks that Lise will examine him<sub>i</sub>(\*self).’

## 1.2. Differences between plain and exempt anaphors

Plain and exempt anaphors are reported to superficially differ in five ways (cf. Bouchard 1984, Lebeaux 1984, i.a.). Below, these differences are illustrated in French using the strategy explained above: the plain anaphor cases use inanimate anaphors, the exempt cases animate ones.

First, by definition, plain anaphors are visibly subject to locality requirements, while exempt anaphors are not. For instance, the French inanimate anaphor *son propre* ‘its own’<sup>6</sup> must have an antecedent that c-commands it and appears in its local domain.

- (3) a. [Cette auberge]<sub>i</sub> fait de l'ombre à son<sub>i</sub> propre jardin et au jardin de la maison voisine.  
 ‘[This inn]<sub>i</sub> gives shade to its<sub>i</sub> own garden and to the garden of the neighboring house.’<sup>7</sup>  
 b. \*[Cette auberge]<sub>i</sub> bénéficie du fait que les touristes préfèrent son<sub>i</sub> propre jardin à ceux des auberges voisines.  
 ‘\*[This inn]<sub>i</sub> benefits from the fact that the tourists prefer its<sub>i</sub> own garden to that of the neighboring inns.’  
 c. \*Les gérants de [cette auberge]<sub>i</sub> s’occupent de son<sub>i</sub> propre jardin et de celui des auberges voisines.  
 ‘\*The managers of [this inn]<sub>i</sub> take care of its<sub>i</sub> own garden and that of the neighboring inns.’

By contrast, exempt anaphors can escape such locality conditions.

- (4) a. Marie<sub>i</sub> fait de l’ombre à sa<sub>i</sub> propre fille et à la fille de la voisine.  
 ‘Mary<sub>i</sub> is in the light of her<sub>i</sub> own daughter and the neighbor’s daughter.’  
 b. Marie<sub>i</sub> bénéficie du fait que les touristes préfèrent son<sub>i</sub> propre hôtel à ceux de ses concurrents.  
 ‘Mary<sub>i</sub> benefits from the fact that the tourists prefer her<sub>i</sub> own hotel to those of the competitors.’  
 c. Les parents de Marie<sub>i</sub> s’occupent de son<sub>i</sub> propre avenir et de celui de ses cousins.  
 ‘Mary<sub>i</sub>’s parents take care of her<sub>i</sub> own future and that of her cousins.’

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- d. \*Luc<sub>i</sub> pense que Lise examinera lui<sub>i</sub>-même. ‘\*Luc<sub>i</sub> thinks that Lise will examine himself<sub>i</sub>.’  
 (ii) a. \*Luc<sub>i</sub> se<sub>i</sub> dépend. ‘\*Luc<sub>i</sub> depends on himself<sub>i</sub>.’  
 b. Luc<sub>i</sub> dépend de lui<sub>i</sub>-même. ‘Luc<sub>i</sub> depends on himself<sub>i</sub>.’  
 c. \*Luc<sub>i</sub> pense que Lise {se<sub>i</sub>/le<sub>i</sub>/lui<sub>i</sub>} dépend. ‘\*Luc<sub>i</sub> thinks that Lise depends on him<sub>i</sub>(self).’  
 d. Luc<sub>i</sub> pense que Lise dépend de lui<sub>i</sub>-même. ‘Luc<sub>i</sub> thinks that Lise depends on himself<sub>i</sub>.’

<sup>6</sup> In the case of *son propre*, explicit contrasts with another contextual possessor are made to guarantee that we deal with anaphoric possessor *son propre*: based on Charnavel (2012), Charnavel & Sportiche (2016) note that *son propre* exhibits different readings and only possessor *son propre*, i.e. *son propre* inducing a contrast with contextual possessors, behaves like an anaphor. Note that as explained in Charnavel (2012:chapter 1), the judgments of this kind of sentences were checked using a systematically controlled questionnaire administered to 86 native speakers of French. Also note that the presence vs. absence of stars indicates the existence of a significant contrast in acceptability, not necessarily of plain (un)acceptability.

<sup>7</sup> Throughout the paper, the English translations are simply meant as glosses of the French examples: the (absence of) stars indicated in the English translations reflect(s) the French judgments. No stand is taken here on the judgment of the corresponding English sentences.

Second, plain anaphors must be exhaustively bound, while exempt anaphors can have partial or split antecedents (see Helke 1970, Bouchard 1984, Lebeaux 1984, i.a.): the (im)possibility of inclusive reference distinguishes between plain and exempt anaphors, as shown by the contrast between (5) and (6).

- (5) a. \*[L'auberge]<sub>i</sub> qui jouxte [la crêperie]<sub>k</sub> fait de l'ombre à leur<sub>i+k</sub> propre jardin et au jardin de la maison voisine.  
 '\*[The inn]<sub>i</sub> that is next to [the creperie]<sub>k</sub> gives shade to their<sub>i+k</sub> own garden and to the garden of the neighboring house.'
- b. \*[L'auberge]<sub>i</sub> et la crêperie font de l'ombre à son<sub>i</sub> propre jardin et au jardin de la maison voisine.  
 '\*[The inn]<sub>i</sub> and the creperie give shade to its<sub>i</sub> own garden and to the garden of the neighboring house.'
- (6) a. Marie<sub>i</sub>, qui est à côté de Paul<sub>k</sub>, fait de l'ombre à leur<sub>i+k</sub> propre fille et à la fille de la voisine.  
 'Mary<sub>i</sub>, who stands next to Paul<sub>k</sub>, is in the light of their<sub>i+k</sub> own daughter and the neighbor's daughter.'
- b. Marie<sub>i</sub> et Paul font de l'ombre à sa<sub>i</sub> propre fille et à la fille de la voisine.  
 'Mary<sub>i</sub> and Paul are in the light of her<sub>i</sub> own daughter and the neighbor's daughter.'

Third, plain anaphors only give rise to sloppy readings in ellipsis and focus constructions, while exempt anaphors can also trigger strict readings (Lebeaux 1984, Reinhart & Reuland 1993, i.a.). This is illustrated using the French anaphor *elle-même* '≈herself' in (7) vs. (8). Apparent exceptions will be discussed in section 3.4.2.

- (7) a. [Ta page internet]<sub>i</sub> contient beaucoup de liens vers elle<sub>i</sub>-même, et la mienne aussi.  
 '[Your webpage]<sub>i</sub> contains many links towards itself<sub>i</sub> and mine does too (contain many links towards {itself/\*your webpage}).'
- b. Seule [ta page internet]<sub>i</sub> contient des liens vers elle<sub>i</sub>-même.  
 'Only [your webpage]<sub>i</sub> contains links towards itself<sub>i</sub> (the other webpages do not contain links towards {themselves/\*your webpage}).'
- (8) a. Simone<sub>i</sub> aime les photos d'elle<sub>i</sub>-même et Lucie aussi.  
 'Simone<sub>i</sub> likes pictures of herself<sub>i</sub> and Lucy does too (like pictures of {herself/Simone}).'
- b. Seule Simone<sub>i</sub> aime les photos d'elle<sub>i</sub>-même.  
 'Only Simone<sub>i</sub> likes pictures of herself<sub>i</sub> (the other people do not like pictures of {themselves/Simone}).'

Fourth, plain anaphors, unlike exempt anaphors, seem to be in complementary distribution with pronouns (Bouchard 1984, Lebeaux 1984, i.a.), based on examples such as (9) vs. (10).

(9) [La Terre]<sub>i</sub> tourne sur elle<sub>i</sub>-\*(même).  
'[The earth]<sub>i</sub> spins on it<sub>i</sub>\*(self).'

(10) Marie<sub>i</sub> subit l'influence des nombreux politiciens qui tournent autour d'elle<sub>i</sub>-(même).  
'Mary<sub>i</sub> is subject to the influence of the many politicians that revolve around her<sub>i</sub>(self).'

To these distributional properties distinguishing between plain and exempt anaphors, we can add – as noted in the previous section – an interpretive difference: unlike plain anaphors, exempt anaphors are characterized by their logophoric interpretation (Clements 1975, Sells 1987, Pollard & Sag 1992, i.a.). In the previous examples (i.e. (4)b-c, (6), (8) and (10)), exempt *son propre* and *lui-même* are subject to perspectival conditions: the phrase containing the exempt anaphor must be understood as expressing the perspective of its antecedent, as will be detailed in section 2.

### 1.3. Unifying plain and exempt anaphors: the logophoric operator hypothesis

Despite these differences, these French plain and exempt anaphors are morphologically identical. Furthermore, apart from the perspectival effects just mentioned, their meaning contributions are identical: their referential value is that of their antecedent(s). This is not an idiosyncrasy of French, as the same array of differences between two sets of instances of anaphors has been observed in many languages from diverse language families (e.g. English *himself*, Japanese *zibun*, Mandarin *ziji*, Icelandic *sig*, Turkish *kendi si*, Uyghur *öz*, i.a., see references above).

Given that this pattern is documented in many unrelated languages, we are faced with an issue of parsimony: how to minimally account for these similarities and differences simultaneously.

One possible type of account locates the plain/exempt differences in the anaphors themselves, e.g. by postulating that anaphors are optionally underspecified for *phi*-features (Hicks 2009, i.a.). When so underspecified, they must AGREE with an antecedent to become interpretable (the locality of AGREE guaranteeing the locality of binding). But this would say nothing as to why fully specified anaphors would have to be perspectival rather than, say, like

plain pronouns.<sup>8</sup> A variant of this idea is to assume anaphors to be optionally marked as logophoric, e.g. [+log], and further assume that only [-log] anaphors are subject to locality requirements. But this would amount to postulating massive homonymy (and of the same type in various unrelated languages) and would leave unexplained the correlation between locality and non-logophoricity. A combination of the two variants taking fully specified anaphors to be [+log] (cf. Sells 1987, Anand 2006, i.a.) would stipulate the correlation between non-locality and logophoricity.

The alternative defended here is to reduce all distributional and interpretive differences between plain and exempt anaphors to one – their binder. An anaphor is seen as plain if it has a local overt DP antecedent; it is seen as exempt if it is bound by a silent logophoric pronoun introduced by a syntactically represented logophoric operator. The correlation between logophoricity and non-locality follows: an exempt anaphor exhibits a logophoric interpretation because its binder is logophoric, and it superficially appears not to be locally bound because its local binder is silent. In other words, the illusion is created that an exempt anaphor need not be bound because the local binding dependency between the anaphor and its silent logophoric binder is misconstrued as a syntactically unconstrained relation between the anaphor and the antecedent of the logophoric binder (which need not be syntactically present, let alone be a c-commander).

From this point of view, there is a single anaphor which obeys Condition A in two different ways yielding the plain/exempt distinction. That plain and exempt anaphors are morphologically identical in so many languages is therefore unsurprising: they are one and the same element.

More specifically, given the formulation of Condition A provided in section 1.1, the present proposal consists in positing (the possibility of) a perspectival projection LogP in each spellout domain (TP, vP, DP with subject), which can host a silent logophoric operator. The intuition behind this is that each phase can be specified as being presented from some individual(s)'s perspective (and we will see in section 3.3 that this individual can indeed change from one phase to the next one). This logophoric operator is a syntactic head  $OP_{LOG}$  that selects a silent logophoric pronoun  $pro_{log}$  as subject and presupposes that its complement  $\alpha$  is presented

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<sup>8</sup> This option, or the next one in the text would also say nothing as to why exempt anaphors within the same local domain must be exhaustively coreferential (as will be explained in section 3.2). Furthermore, see Charnavel & Sportiche (2016: section 5.2) for reasons casting doubts on an AGREE-based solution for anaphor binding.



same vein, a covert attitude operator is postulated in Sharvit (2008) to deal with the properties of Free Indirect Discourse.

But to my knowledge, these two ideas have never been combined so as to simultaneously explain and correlate the logophoricity and the apparent non-locality of exempt anaphors (a partial exception being Huang & Liu 2001). Furthermore, all these accounts (including Huang & Liu 2001) fail, as they stand, to correctly derive the distribution of exempt anaphors (at least in French), as we will see in section 3.1.

The rest of the paper will provide more detail and motivation for this proposal. The next section (section 2) examines the interpretive constraints on the logophoric antecedent of exempt anaphors, and section 3 provides evidence for the local binding relation between them.

## 2. The logophoric properties of exempt anaphors

Under our hypothesis, exempt anaphors are in the scope of a logophoric operator and they are bound by the logophoric pronoun it introduces (which refers to a logophoric center). This predicts that exempt anaphors must be interpreted logophorically. The goal of this section is to show that the prediction is borne out by using several independent tests identifying the logophoric center of a domain. We will thereby specify the notion of logophoric center and determine the referential constraints on  $pro_{log}$ , the binder of exempt anaphors from which they inherit their semantic value. This will also allow us to determine diagnostics more specific than animacy to identify exempt anaphors and thus distinguish between non-logophoric and logophoric animate anaphors.

- *Logophoric interpretation of exempt anaphors*
  - Hypothesis: an exempt anaphor is bound by  $pro_{log}$  (which refers to a logophoric center).  
Prediction: An exempt anaphor must refer to this logophoric center.
  - Hypothesis: an exempt anaphor is in the scope of  $OP_{LOG}$ .  
Prediction: The domain containing an exempt anaphor has to express the first-personal perspective of the logophoric center it denotes (logophoric domain).

As mentioned above, the idea that exempt anaphors are similar to logophoric pronouns in having to refer to the logophoric center of their domain is by no means new. After the term *logophor* was coined by Hagege (1974) to name specific pronouns in West-African languages referring to the author of thoughts in an indirect discourse, Clements (1975) noticed the

resemblance of these pronouns with exempt anaphors:<sup>10</sup> both types of elements refer to “the individual whose speech, thoughts or feelings are reported or reflected in a given linguistic context” (Clements 1975:141). Since then (and even before), many have observed that the distribution of anaphors in various languages is constrained by discourse notions such as point of view or perspective (see Kuno 1972, Kuroda 1973, Cantrall 1974, Thráinsson 1976, Kuno 1987, Sells 1987, Zribi-Hertz 1989, Sigurðsson 1990, Iida 1992, Pollard & Sag 1992, Huang & Liu 2001, Anand 2006, Oshima 2006, Nishigauchi 2014, i.a.). But all these studies suffer from at least one of the two following issues.

First, the distinction between plain and exempt anaphors is left unclear: in some cases (e.g. Kuno 1987, Nishigauchi 2014), it is even suggested that all anaphors are subject to perspectival conditions; when it is assumed otherwise (e.g. Sells 1987, Zribi-Hertz 1989), no independent criterion is proposed to reliably identify exempt anaphors. Second, most (but not all, see in particular Sells 1987 and Anand 2006) of these studies rely on vague and intuitive notions of logophoricity.

As a result, we in fact do not know whether all exempt anaphors or just some of them have to be perspectival. Neither do we know precisely what it means to be perspectival. The main goal of this section is to show that this intuition about the exempt anaphors having to be perspectival is correct (in French) when all relevant factors are controlled, and to specify the relevant notion of perspective. As explained in the previous section, I have defined a strategy to identify exempt anaphors; in this section, I will combine it with a variety of syntactic tests to nail down the precise notion of logophoricity involved with exempt anaphors. As these tests will be performed on the understudied French anaphors *son propre* and *lui-même*,<sup>11</sup> this will furthermore extend our crosslinguistic knowledge of exempt anaphors.

Based on the result of these tests, the proposal will be to restrict logophoricity to mental perspective (contrary to the most detailed study on the topic, Sells 1987) – which can be naturally explained by the fact that only mental perspective has a content that can be linguistically expressed (in the logophoric domain) – and to divide logophoric centers into two

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<sup>10</sup> See Charnavel, Cole, Hermon & Huang (to appear:section 5), for a review about the relation between logophoric pronouns and exempt anaphors.

<sup>11</sup> To my knowledge, only Zribi-Hertz (1990,1995) explores the potential logophoricity of one of these anaphors, namely *lui-même*. But she neither proposes an independent way of identifying exempt *lui-même*, nor precise tests for identifying a logophoric center. Another French element that has been examined as an instance of exempt anaphor is the generic reflexive *soi* (Pica 1987, Zribi-Hertz 1990, i.a.), but it has not been related to logophoricity in these studies (see Charnavel:to appear-a, for a logophoric analysis of *soi*).

main subtypes: attitude holders (including the speaker) that hold an intellectual perspective and empathy loci that have a perceptual or emotional perspective. The idea of distinguishing between different subtypes of logophoricity is inspired from Sells (1987), but the specific subtypes proposed are distinct from his, which are inappropriate (at least for French), as we will see, in particular because they also include non-mental perspective.

- *Taxonomy of logophoricity*

<b>Logophoric center</b>	<b>Content of logophoric domain</b>
Attitude holder	<i>De se</i> attitude
Empathy locus	First-personal perception

Like many of my predecessors (see Sells 1987, Anand & Hsieh 2005, Sharvit 2008, i.a.), I here assume that the value of the logophoric center in each domain (that is, the antecedent of the logophoric pronoun  $pro_{log}$  introduced by  $OP_{LOG}$ ) is determined on the basis of various discourse and syntactico-semantic factors such as the presence of intensional predicates or contextual clues construing an individual as perspectival center. My goal is not to explain how exactly the value of the local logophoric center is computed, but to define tests independent of anaphoricity that can identify that value in a given domain. This will allow us to specify the content of the logophoric operator  $OP_{LOG}$  and the referential constraints on its subject, the logophoric pronoun  $pro_{log}$ , which references that value in the syntax, and imposes these referential constraints on the exempt anaphor it binds.

### **2.1. First subtype of logophoricity: *de se* attitude**

This section is devoted to establishing the following threefold generalization:

- *Attitudinal logophoricity*
  - An exempt anaphor can refer to an attitude holder.
  - There is no syntactic constraint of where this attitude holder is structurally located (e.g. it need not be the closest attitude holder).
  - The domain of that anaphor must express the perspective of that attitude holder in a *de se* attitude.

Note that the use of “can” in the first point is due to the fact that further types of logophoric antecedents will be defined in the next sections. Also, the notion of domain is left unspecified at this point: unless noted otherwise, it will be sufficient to use the smallest clause containing the anaphor as the relevant domain in this section, even if ultimately, that domain will be restricted

to the spellout domain of the anaphor; evidence for this restriction will be provided in section 3.<sup>12</sup> Finally, it will be straightforward to identify an anaphor as exempt in such cases, as attitude contexts are always explicitly or implicitly embedded in such a way that the attitude holder is not in the local binding domain of the anaphor.

### 2.1.1. Speaker

In the absence of any intensional predicate, sentences express the speaker's attitude. This most primitive type of attitude holder can serve as an antecedent for exempt anaphors (cf. Ross 1970, Cantrall 1974, Kuno 1987, i.a., for English *myself*; Huang & Liu 2001, Anand & Hsieh 2005, i.a., for Mandarin *ziji*; Nishigauchi 2014, i.a., for Japanese *zibun*, i.a.). In French, it is easy to identify these exempt anaphors: they are morphologically marked as first-person.

(12) Les enfants de ma nouvelle compagne ne pourront jamais remplacer mes propres enfants.

‘My new partner’s children will never be able to replace my own children.’

(13) Les gens comme moi-même vont être bien affligés de cette nouvelle.

‘People like myself will be deeply distressed by the news.’

- *First-person test*: an anaphor can be exempt if it is marked first-person.

### 2.1.2. Third-person attitude holder

Third-person attitude holders are introduced by intensional verbs such as ‘say’ or ‘think’ (as their subjects) or by any other type of intensional expression like ‘opinion’ or ‘according to’ (or by contextual information such as free indirect discourse contexts, as we will see). The propositional complement of these expressions – the attitude context – denotes the mental attitude of the attitude holder. Attitude contexts have been thoroughly investigated in the philosophical and semantic literature on independent grounds (for a review, see Pearson, to appear, i.a.). In particular, several specific properties have been shown to characterize attitude contexts. First, substitution of coreferring terms within attitude contexts might change the truth value of the attitude report (Frege 1892): this is because attitude expressions give rise to the *de/re/de dicto* distinction. Second, non-referring terms can give rise to truth when they are embedded in attitude contexts. Another property of these contexts is that evaluative expressions

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<sup>12</sup> We will see in section 3.3 that perspective shift within a clause is possible, but only if the discourse and syntactico-semantic conditions allow it. In this section, we will avoid these cases unless noted otherwise.

(e.g. epithets, expressives, appositives) contained in them can be evaluated either by the speaker or by the overt, third-person attitude holder (Sæbø 2011, i.a.).

All these properties can be used as tests to identify attitude contexts. For our purposes, this is insufficient: we must also show that (in the absence of other logophoric centers) an exempt anaphor must refer to the attitude holder of the attitude context containing it. We thus need a test that can diagnose attitude holders specifically. Such a test can be defined based on the observation that an epithet occurring in an attitude context cannot refer to the attitude holder of that context (cf. Ruwet 1990, Pica 1994, Dubinsky & Hamilton 1998,<sup>13</sup> Patel-Grosz 2012). This is illustrated in (14)-(15) (the corresponding English examples are from Dubinsky & Hamilton 1998:688): the epithet *cet idiot* ‘the idiot’ cannot refer to John in (14)a-(15)a where John is the relevant attitude holder (subject of *parlait* ‘told’; complement of *d’après* ‘according to’), but it can in (14)-(15)b where John is not an attitude holder (subject of *a renversé* ‘ran over’; complement of *à propos de* ‘speaking of’). This minimal contrast shows that epithets are not subject to Condition C, but to anti-attitudinality, at least.<sup>14</sup>

(14) a. \*Jean<sub>i</sub> nous parlait d’un homme qui essayait d’indiquer le chemin à [cet idiot]<sub>i</sub>.

‘\*John<sub>i</sub> told us of a man who was trying to give [the idiot]<sub>i</sub> directions.’

b. Jean<sub>i</sub> a renversé un homme qui essayait d’indiquer le chemin à [cet idiot]<sub>i</sub>.

‘John<sub>i</sub> ran over a man who was trying to give [the idiot]<sub>i</sub> directions.’

(15) a. \*D’après Jean<sub>i</sub>, [cet idiot]<sub>i</sub> est marié à un génie.

‘\*According to John<sub>i</sub>, [the idiot]<sub>i</sub> is married to a genius.’

b. A propos de Jean<sub>i</sub>, [cet idiot]<sub>i</sub> est marié à un génie.

‘Speaking of John<sub>i</sub>, [the idiot]<sub>i</sub> is married to a genius.’

- *Anti-attitudinality of epithets*: an epithet is unacceptable in an attitude context if it refers to the attitude holder of that context.

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<sup>13</sup> Dubinsky & Hamilton’s (1998:689) antilogophoricity constraint on epithets states that “an epithet must not be anteceded by an individual from whose perspective the attributive content of the epithet is evaluated”. But for most speakers, even if the attributive content of the epithet is intended to be evaluated from the speaker’s perspective, not from the third-person attitude holder’s, an epithet is still unacceptable when referring to that attitude holder: in (14)a and (15)a, *the idiot* is not acceptable whether it is intended to be evaluated by John or by the speaker. That’s why antilogophoricity must be strengthened into anti-attitudinality, namely, epithets occurring in an attitude context cannot refer to the attitude holder of that context. This is the basis for my epithet test, but note that for the few speakers who do accept epithets when evaluated from the speaker’s perspective, this needs to be controlled for when using the epithet test.

<sup>14</sup> Dubinsky & Hamilton (1998) claim that epithets are not only subject to antilogophoricity, but also to Condition B. This additional constraint on epithets must be taken into account to perform the epithet test.

The following examples further demonstrate that epithets are prohibited from referring to attitude holders only if they occur in the corresponding attitude context: *l'idiot* ‘the idiot’ is acceptable in (16)-(17) even if it refers to the attitude holder (subject of *penser* ‘think’), because it is outside the (bracketed) domain denoting his attitude.

(16) *L'idiot pense que [les voisins l'aideront].*  
 ‘The idiot thinks that [the neighbors will help him].’

(17) *Le fait que Jean<sub>i</sub> pensait que [les voisins l'aideraient] n'a pas sauvé l'idiot<sub>i</sub>.*  
 ‘The fact that John<sub>i</sub> thought that [the neighbors would help him] did not save the idiot<sub>i</sub>.’

The unacceptability of epithets can thus be used to detect third-person attitude holders in their attitude context and shows that they can antecede exempt anaphors there: this can be guaranteed by replacing an unacceptable epithet with the anaphor, or by inserting the anaphor in the same domain as the epithet, namely – in standard cases – in the smallest clause containing it (but see footnote 12).

- *Epithet test*
  - First variant: an exempt anaphor can be acceptable if replacing it with a coreferring epithet makes the sentence unacceptable.<sup>15</sup>
  - Second variant: an exempt anaphor can be acceptable if inserting a coreferring epithet in its domain makes the sentence unacceptable.

The two variants are respectively applied in (18)b and (18)c to test (18)a: the unacceptability of the epithet *cet idiot* ‘the idiot’ when it is intended to refer to Robert shows that the anaphor *son propre* in (18)a can be exempt (i.e. long distance bound here) because it is anteceded by the attitude holder of its domain.

- (18) a. *Robert<sub>i</sub> dit que son<sub>i/k</sub> rival a voté pour son<sub>i</sub> propre projet.*  
 ‘Robert<sub>i</sub> says that his<sub>i/k</sub> rival voted for his<sub>i</sub> own project.’  
 b. *Robert<sub>i</sub> dit que son<sub>i/k</sub> rival a voté pour le projet de [cet idiot]<sub>\*i/k</sub>.*  
 ‘Robert<sub>i</sub> says that his<sub>i/k</sub> rival voted for [the idiot]<sub>\*i/k</sub>’s project.’  
 c. *Robert<sub>i</sub> dit que le rival de [cet idiot]<sub>\*i/k</sub> a voté pour son<sub>i</sub> propre projet.*  
 ‘Robert<sub>i</sub> says that the rival of [the idiot]<sub>\*i/k</sub> voted for his<sub>i</sub> own project.’

The same tests are applied in (19)b and (19)c to test (19)a involving the exempt anaphor *lui-même*.

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<sup>15</sup> The fact that it is an exempt anaphor (i.e. an anaphor that is not overtly locally bound) that is replaced with the epithet ensures that any unacceptability that may arise is not due to a Condition B violation (see fn. 14). Furthermore, note that the use of “can” in the definition of the test is due to the fact that exempt anaphors referring to attitude holders must be read *de se* (see section 2.1.4).

- (19) a. Selon Eric<sub>i</sub>, ses<sub>i/k</sub> enfants ne dépendent que de lui<sub>i</sub>-même.  
 ‘According to Eric<sub>i</sub>, his<sub>i/k</sub> children only depend on himself<sub>i</sub>.’  
 b. Selon Eric<sub>i</sub>, ses<sub>i/k</sub> enfants ne dépendent que de [cet imbécile]<sub>\*i/k</sub>.  
 ‘According to Eric<sub>i</sub>, his<sub>i/k</sub> children only depend on [the fool]<sub>\*i/k</sub>.’  
 c. Selon Eric<sub>i</sub>, les enfants de [cet imbécile]<sub>\*i/k</sub> ne dépendent que de lui<sub>i</sub>-même.  
 ‘According to Eric<sub>i</sub>, [the fool]<sub>\*i/k</sub>’s children only depend on himself<sub>i</sub>.’

Ruwet (1990) shows that the French prepositional clitics *en* and *y* (‘≈ of him/her/it’) are subject to the same anti-attitudinal constraint as epithets:<sup>16</sup> in the sentences below, *en* and *y* can only refer to Emile when Emile is not the attitude holder of their clause, as in (20)b-(21)b vs. (20)a-(21)a (the difference between the attitude verb *penser* ‘think’ and the non-attitude verb *mériter* ‘deserve’ was noticed by Ruwet 1990).

- (20) a. Emile<sub>k</sub> pense que Sophie<sub>i</sub> en<sub>\*k/m</sub> est amoureuse.<sup>17</sup>  
 ‘Emile<sub>k</sub> thinks that Sophie<sub>i</sub> is in love with him<sub>\*k/m</sub>.’  
 b. Emile<sub>k</sub> mérite que Sophie<sub>i</sub> en<sub>k/m</sub> tombe amoureuse.  
 ‘Emile<sub>k</sub> deserves the fact that Sophie<sub>i</sub> falls in love with him<sub>k/m</sub>.’  
 (21) a. Emile<sub>k</sub> pense que Sophie<sub>i</sub> y<sub>\*k/m</sub> pense.  
 ‘Emile<sub>k</sub> thinks that Sophie<sub>i</sub> thinks about him<sub>\*k/m</sub>.’  
 b. Emile<sub>k</sub> mérite que Sophie<sub>i</sub> y<sub>k/m</sub> pense.  
 ‘Emile<sub>k</sub> deserves the fact that Sophie<sub>i</sub> thinks about him<sub>k/m</sub>.’

Another test specific to French can thus be devised on the basis of these clitics to check that exempt anaphors can be anteceded by attitude holders. Note that the restrictive distribution of these clitics makes it less widely applicable than the epithet test.

- *French prepositional clitic test*: an exempt anaphor can be acceptable if replacing it with a coreferring prepositional clitic *en* or *y* makes the sentence unacceptable.

- (22) a. Sonia<sub>i</sub> craint que Julien ne soit amoureux d’elle<sub>i</sub>-même.  
 ‘Sonia<sub>i</sub> is afraid that Julien is in love with herself<sub>i</sub>.’  
 b. Sonia<sub>i</sub> craint que Julien n’en<sub>\*i/k</sub> soit amoureux.  
 ‘Sonia<sub>i</sub> is afraid that Julien is in love with her<sub>\*i/k</sub>.’

These two tests thus show that the exempt anaphors *son propre* and *lui-même* can be anteceded by the attitude holders of their context. As we will identify other types of logophoric antecedents for exempt anaphors, these tests are not bi-directional: the acceptability of epithets or

<sup>16</sup> The demonstrative pronoun *ce* also seems to be subject to similar constraints (see Coppieters 1982).

<sup>17</sup> Not all native speakers of French can use *en* or *y* to refer to human beings. Since this dialect (which is the prescriptive norm) is irrelevant for anti-attitudinal *en* or *y*, I ignore it here.

*en/y* is not sufficient (but only necessary) to show that (co-occurring and coreferring) anaphors cannot be exempt. The following example, where the other types of logophoric centers have been excluded,<sup>18</sup> nevertheless illustrates that the failure of the epithet test (i.e. the epithet is acceptable) can yield ungrammaticality of co-referring exempt anaphors.

- (23) a. Luc a dit de Lise<sub>i</sub> que les professeurs étaient contents d'elle<sub>i</sub>-(\*même).  
 'Luc said about Lise<sub>i</sub> that the teachers were happy about her<sub>i</sub>(\*self).'
- b. Luc a dit de Lise<sub>i</sub> que les professeurs étaient contents de [cet ange]<sub>i</sub>.  
 'Luc said about Lise<sub>i</sub> that the teachers were happy about [that angel]<sub>i</sub>.'

The notion of attitude holder as potential antecedent for exempt anaphors (cf. bearer-of-attitude in Giorgi 2006) merges and replaces Sells' (1987:457) notions of Source ('one who is the intentional agent of the communication') and Self ('one whose mental state or attitude the content of the proposition describes'). It is more adequate because attitude holders independently form a natural class and because it makes better predictions about exemption: first, subjects of verbs of saying behave like subjects of verbs of mental attitude as antecedents of (French) exempt anaphors (cf. (18) and (22)) so it seems unnecessary to distinguish between Source and Self;<sup>19</sup> conversely, a Source, when it is not an attitude holder, does not behave as a logophoric center (at least in French), as shown in (24).

- (24) a. Irène tient de Paul<sub>i</sub> qu'hier, plusieurs journaux ont parlé [du vantard]<sub>i</sub>.  
 'Irene was informed by Paul<sub>i</sub> that yesterday, the newspapers talked about [the braggart]<sub>i</sub>.'
- b. Irène tient de Paul<sub>i</sub> qu'hier, plusieurs journaux ont parlé de lui<sub>i</sub>-(\*même).  
 'Irene was informed by Paul<sub>i</sub> that yesterday, the newspapers talked about him<sub>i</sub>(\*self).'

Finally, the notion of attitude holder also includes centers of Free Indirect Discourse (FID), which are introduced by specific discourse conditions (see Banfield 1982, Schlenker

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<sup>18</sup> Anticipating the next section, Lise is not an empathy locus in (23). Lise is not an attitude addressee either, as for some French speakers, attitude addressees can antecede exempt anaphors (cf. logophoric pronouns in Mapun (Frajzyngier 1985) or in Yoruba (Anand 2006:60), i.a.; exempt anaphors in English (Kuno 1987, i.a.) and marginally in Mandarin (Pan 1997, i.a.), Japanese (Nichigaushi 2014, i.a.) and Icelandic (Sigurðsson 1990, i.a.)). Due to the instability of judgments (cf. Ruwet 1990:64-65), I leave the full exploration of attitude addressees as logophoric centers for further research. But note that this only concerns second-person pronouns and objects of communicative verbs like *dire* 'say'. Objects of psychological verbs like *convaincre* 'convince', however, behave like attitude holders (cf. Stephenson 2007, Patel-Grosz 2012, Landau 2015, i.a.): they pass the epithet test and the French pronoun test as illustrated in (iii).

(iii) Joël a convaincu Carole<sub>i</sub> que tout le monde voterait pour {elle<sub>i</sub>-même/\*[cette idiote]<sub>i</sub>}.  
 'Joël convinced Carole<sub>i</sub> that everybody would vote for {herself/\*[the idiot]<sub>i</sub>}.'

<sup>19</sup> The distinction between Source and Self may however have empirical correlates for logophoric pronouns (Culy 1994, i.a.).

2004, Sharvit 2008, Eckardt 2014, i.a.). The epithet test shows that such centers can also serve as antecedents of exempt anaphors.

- (25) a. Mélanie<sub>i</sub> était très inquiète. Comment allait-elle faire? Les enfants de [la pauvre femme]<sub>#i/k</sub> et ceux du voisin refusaient de l<sub>i</sub>'écouter depuis hier.  
 'Mélanie<sub>i</sub> was very worried. How would she manage? [The poor woman]<sub>#i/k</sub>'s children and the neighbor's had been refusing to listen to her<sub>i</sub> since yesterday.'
- b. Mélanie<sub>i</sub> était très inquiète. Comment allait-elle faire? Ses<sub>i</sub> propres enfants et ceux du voisin refusaient de l'écouter depuis hier.  
 'Mélanie<sub>i</sub> was very worried. How would she manage? Her<sub>i</sub> own children and the neighbor's had been refusing to listen to her since yesterday.'

The discourses in (25)a-b are intended to be read as FID conveying Mélanie's thought. In particular, the indexical *hier* 'yesterday' can be shifted and refer to the day before the day in which Mélanie (vs. the speaker) had her thought (see Banfield 1982, Schlenker 2004, i.a., for the claim that the shifting of time and location indexicals is a property of FID). Under this interpretation, the epithet *la pauvre femme* 'the poor woman' is unacceptable when referring to Mélanie in (25)a, which shows that Mélanie behaves as the attitude holder of the discourse. As predicted by the epithet test, the anaphor *son propre* can therefore be exempt in (25)b.

### 2.1.3. Multiple embedding of attitude contexts

When an exempt anaphor is contained in an attitude context that is embedded within another one, the anaphor can refer to either of the attitude holders.

- (26) [La mère de Julie]<sub>i</sub> pense que {ma/sa<sub>i</sub>} propre mère devrait être élue.  
 '[Julie's mother]<sub>i</sub> thinks that {my/her<sub>i</sub>} own mother should be elected.'
- (27) Christel<sub>i</sub> pense qu'Agnès<sub>k</sub> a dit que l'avenir de Constant ne dépend que d'elle<sub>i/k</sub>-même.  
 'Christel<sub>i</sub> thinks that Agnès<sub>k</sub> said that Constant's future only depends on herself<sub>i/k</sub>.'

Sentences like (26) or (27) illustrate that French exempt anaphors need not refer to the closest attitude holder. This has also been observed, among others, for logophoric pronouns in Ewe (Clements 1975:173, Pearson 2015:96) and Yoruba (Anand 2006: 59-60), and for exempt anaphors in Mandarin (Pan 1997, Huang & Liu 2001, Anand 2006, i.a.), Icelandic (Sells 1987:451, i.a.) and English (Ross 1970:227, Cantrall 1974:95, Keenan 1988:223, i.a.). Thus, there is no syntactic constraint of where the attitude holder is structurally located. Under our hypothesis, this derives from the fact that the subject  $pro_{log}$  of our logophoric operator references the pragmatically determined logophoric center.

- *Referential constraints on logophoric centers: first generalization*

The logophoric pronoun  $pro_{log}$  selected by a logophoric operator  $OP_{LOG}$  can refer to the pragmatically determined attitude holder of its domain (on the basis of discourse and – syntactico-semantic constraints).

#### 2.1.4. *De se attitude*

When formulating the epithet and clitic tests, we have specified that exempt anaphors *can* be acceptable if they are anteceded by the thereby diagnosed attitude holders of their context. This is because these French exempt anaphors must furthermore be read *de se*. This *de se* requirement was also observed for other exempt anaphors (e.g. Mandarin *ziji*; see Huang & Liu 2001, Anand 2006, i.a.) and logophoric pronouns (e.g. Yoruba *oun*, see Anand 2006, i.a., vs. Ewe *yè*, see Pearson 2015). It is illustrated in (28) and (29), where the (a) sentences (in which the context imposes a non *de se* reading) contrast with the (b) sentences (where the anaphor is read *de se*).

(28) [*At the beginning of the Marriage of Figaro, Marceline thinks that Figaro was born from unknown parents; at the end, she learns that he is in fact her son.*]

- Au début, Marceline<sub>i</sub> dit que Suzanne va épouser son<sub>i-de re</sub> (#propre) fils.  
'At the beginning, Marceline<sub>i</sub> says that Suzanne will marry her<sub>i-de re</sub> (#own) son.'
- A la fin, Marceline<sub>i</sub> dit que Suzanne va épouser son<sub>i-de se</sub> (propre) fils.  
'At the end, Marceline<sub>i</sub> says that Suzanne will marry her<sub>i-de se</sub> (own) son.'

(29) a. [*Sabine and her father Michel are listening to songs that they recorded, and Sabine is in admiration of the male voice that they take to be her student's. Unbeknowst to them, the male voice is actually Michel's.*]

Michel<sub>i</sub> a dit que Sabine était fière de lui<sub>i-de re</sub>-(#même).  
'Michel<sub>i</sub> said that Sabine was proud of him<sub>i-de re</sub> (#self).'

b. [*Sabine and her father Michel are listening to songs that they recorded, and Sabine is in admiration of Michel's voice.*]

Michel<sub>i</sub> a dit que Sabine était fière de lui<sub>i-de se</sub>-(même).  
'Michel<sub>i</sub> said that Sabine was proud of him<sub>i-de se</sub> (self).'

Under our analysis, the *de se* reading requirement on attitudinal exempt anaphors comes from the logophoric operator  $OP_{LOG}$  (cf. Anand 2006<sup>20</sup>) that imposes the first-personal perspective of its subject on its complement (see (11)b): when the logophoric pronoun  $pro_{log}$  it introduces refers to an attitude holder, that perspective is a *de se* attitude. By *de se* attitude, I mean not only

<sup>20</sup> In Anand (2006:50), the logophoric operator is the immediate complement of a referential item CENTER, which denotes the *de se* center and gets its value from the index node which it takes as its complement. Our definition of logophoric operator is similar. The main difference is that our logophoric pronoun  $pro_{log}$  does not directly get its value from the index (i.e. the context), but is determined pragmatically, because, as we will see in the next sections, the logophoric center is not necessarily an attitude holder; also, the perspectival domain can be smaller than the domain of a given context, which is standardly a proposition (see section 3.3; see also fn. 37).

that pronouns and anaphors referring to the logophoric center in the domain of the operator must be read *de se*,<sup>21</sup> but also that other elements have to be evaluated from the perspective of that center. The logophoric operator is in that sense<sup>22</sup> similar to the FID operator (see Sharvit 2008), which forces all expressions in their scope to be interpreted from the point of view of the center of FID. In particular, pronouns referring to a FID center are read *de se*, and *de re non de dicto* readings of definite descriptions are prohibited (see Sharvit 2008, 2010). Similarly, perspectival elements must match with exempt anaphors in a given logophoric domain. For instance, if the subject of the embedded clause in (30)a is presented from the speaker’s perspective, thus licensing a first-person exempt anaphor, the adjective *affreuses* ‘horrible’ must be evaluated by the speaker and the noun *photos* must be read *de re*; if it is presented from the attitude holder Loïc’s perspective as in (30)b, the adjective *beaux* ‘beautiful’ must accordingly be evaluated by Loïc and the noun *portraits* must be read *de dicto*. Mixing perspective is not possible, as illustrated in (30)c-d. In other words, the domain of a logophoric operator (the subject constituent in (30)) can be logophorically ambiguous (because the logophoric center need not be the closest attitude holder as seen above in section 2.1.3), but cannot be logophorically heterogeneous.

- (30) [*Loïc mistakes photos of me (taken from behind) for portraits of himself and finds them beautiful while I think they are horrible*]
- a. Loïc espère que [ces affreuses photos de moi-même] vont se vendre.  
‘Loïc hopes that [these horrible photos of myself] will sell.’
- b. Loïc<sub>i</sub> espère que [ces beaux portraits de lui<sub>i</sub>-même] vont se vendre.  
‘Loïc<sub>i</sub> hopes that [these beautiful portraits of himself<sub>i</sub>] will sell.’

<sup>21</sup> This is reminiscent of *de re* blocking effects described by Anand (2006), according to which a *de se* logophor cannot be bound by a *de re* element (cf. Sharvit 2010 for *de re* blocking effects with reflexives). The predictions made by the present hypothesis are even stronger: a *de se* exempt anaphor cannot co-occur with a coreferring *de re* pronoun in its domain even if the pronoun does not c-command the anaphor, as in (ivb) (when the pronoun does c-command the anaphor, as in (iva), the anaphor may be plain and the presence of *de re* blocking effects depends on the definition of Condition A, cf. Sharvit 2010).

- (iv) [*Mary tells Paul that a certain man and his friends have a very bad influence on Paul’s son. Unbeknownst to Paul, this man is Paul himself.*]
- a. [*Paul tells Mary: “we must take this man away from my son”*]  
?Paul dit qu’il faut l<sub>i-de re</sub> éloigner t<sub>i-de re</sub> de son<sub>i-de se</sub> propre fils.  
‘?Paul<sub>i</sub> says that one must take him<sub>i-de re</sub> away from his<sub>i-de se</sub> own son.’
- b. [*Paul tells Mary: “we must take this man’s friends away from my son”*]  
?Paul<sub>i</sub> dit qu’il faut éloigner ses<sub>i-de re</sub> amis de son<sub>i-de se</sub> propre fils.  
‘?Paul<sub>i</sub> says that one must take his<sub>i-de re</sub> friends away from his<sub>i-de se</sub> own son.’

The judgments are subtle, but the fact that (ivb) is no better than (iva) seems to confirm the prediction. This suggests that exempt anaphors behave differently from Anand’s 2006 logophoric pronouns, including pronouns in dream reports (as already suggested by Sharvit 2010).

<sup>22</sup> But there are some (irrelevant) differences with FID: in particular, FID shifts time and location indexicals (Schlenker 2004, Sharvit 2008, i.a., see example (25)), while logophoric domains do not have to (cf. (56)-(57)). Also, FID has full sentences as domain (Banfield 1982, i.a., see section 3.3: fn. 43).

- c. \*Loïc espère que [ces beaux portraits de moi-même] vont se vendre.  
‘\*Loïc hopes that [these beautiful portraits of myself] will sell.’
- d. \*Loïc<sub>i</sub> espère que [ces affreuses photos de lui<sub>i</sub>-même] vont se vendre.  
‘\*Loïc<sub>i</sub> hopes that [these horrible photos of himself<sub>i</sub>] will sell.’

- *Interpretive constraints on logophoric domains: first generalization*  
The logophoric domain of an attitude holder expresses her *de se* attitude.

The same point can be made using appositives, the orientation of which is also sensitive to the identity of the logophoric center (cf. Harris & Potts 2009, i.a.). In (31), the epithet *cette idiote* ‘that idiot’ can in principle be evaluated either by the speaker or by the third-person attitude holders *mes amis* ‘my friends’. Which one it is determines what is the logophoric center of the appositive and forces the exempt anaphor to *de se* refer to the same logophoric center. For example, if the epithet expresses the speaker’s opinion alone, the exempt anaphor in the appositive can only refer to the speaker, not to the attitude holder *mes amis* ‘my friend’ (and *mutatis mutandis* if the epithet expresses the attitude holder’s opinion alone):

- (31) a. \*[Mes amis]<sub>i</sub> pensent que Lucie – cette idiote<sub>(according to speaker)</sub> amoureuse de leur<sub>i</sub> propre fils plutôt que du mien – est une fille remarquable.  
‘\*[My friends]<sub>i</sub> think that Lucy – that idiot<sub>(according to speaker)</sub> in love with their<sub>i</sub> own son rather than mine – is a remarkable woman.’
- b. Mes amis pensent que Lucie – cette idiote<sub>(according to speaker)</sub> amoureuse de leur fils plutôt que de mon propre fils – est une fille remarquable.  
‘My friends think that Lucy – that idiot<sub>(according to speaker)</sub> in love with their<sub>i</sub> son rather than my own – is a remarkable woman.’

In sum, these examples show that there is only one logophoric center in a given logophoric domain (which is smaller than the clause here, see section 3.3 for further discussion about this) and that the logophoric operator antecedent exempt anaphors tracks it. This is one reason why several exempt anaphors in the same domain must co-refer (cf. Pollard & Sag 1992, Huang & Liu 2001, i.a.) as illustrated below. The other reason will be discussed in section 3.2.

- (32) \*Julie<sub>i</sub> pense que ma propre mère et sa<sub>i</sub> propre mère devraient se parler.  
‘\*Julie<sub>i</sub> thinks that my own mother and her<sub>i</sub> own mother should talk.’
- (33) \*Christel<sub>i</sub> pense qu’Agnès<sub>k</sub> a dit que l’avenir de son<sub>i</sub> fils dépend à la fois d’elle<sub>i</sub>-même et de son<sub>k</sub> propre fils.  
‘\*Christel<sub>i</sub> thinks that Agnès<sub>k</sub> said that her<sub>i</sub> son’s future depends both on herself<sub>i</sub> and her<sub>k</sub> own son.’

## 2.2. Second subtype of logophoricity: empathy

Since exempt anaphors in French (and in many other languages) can also occur in non-attitude contexts, they do not have to refer to attitude holders. This is illustrated in (34) and (35), where the epithet test applied in (b)-(c) shows that the anaphors in (a) are not contained in an attitude context even if they are exempt.<sup>23</sup>

- (34) a. Le courage de Paul<sub>i</sub> a sauvé des flammes à la fois sa<sub>i</sub> propre maison et celle de ses voisins.  
'Paul<sub>i</sub>'s courage saved from the fire both his<sub>i</sub> own house and his neighbors'.'  
b. Le courage de Paul<sub>i</sub> a sauvé des flammes à la fois sa<sub>i</sub> propre maison ainsi et celle des voisins de [ce héros]<sub>i</sub>.  
'Paul<sub>i</sub>'s courage saved from the fire both his<sub>i</sub> own house and [the hero]<sub>i</sub>'s neighbors'.'  
c. Le courage de Paul<sub>i</sub> a sauvé des flammes à la fois la maison de [ce héros]<sub>i</sub> et celle de ses voisins.  
'Paul<sub>i</sub>'s courage saved from the fire both [the hero]<sub>i</sub>'s house and his neighbors'.'
- (35) a. Emile<sub>k</sub> mérite que Sophie pense à lui<sub>k</sub>-même et à sa famille.  
'Emile<sub>k</sub> deserves the fact that Sophie<sub>i</sub> thinks about himself<sub>k</sub> and his family.'  
b. Emile<sub>k</sub> mérite que Sophie pense à [cette crème]<sub>k</sub> et à sa famille.  
'Emile<sub>k</sub> deserves the fact that Sophie<sub>i</sub> thinks about [that sweetheart]<sub>k</sub> and his family.'  
c. Emile<sub>k</sub> mérite que Sophie pense à lui<sub>k</sub>-même et à la famille de [cette crème]<sub>k</sub>.  
'Emile<sub>k</sub> deserves the fact that Sophie<sub>i</sub> thinks about himself<sub>k</sub> and [that sweetheart]<sub>k</sub>'s family.'

Logophoricity is therefore not necessarily related to attitude: there exists another type of logophoric center, the *empathy locus*, which is not created by attitude contexts. The linguistic notion of empathy was first discussed in the literature on Japanese (see Kuno & Kaburaki 1977, Kuno 1987, Kuno 2004, Oshima 2006, i.a.), where some items are lexically marked for point of view outside attitude contexts: for instance, the verbs of giving *yaru* and *kureru* share the same core meaning ('give') and case frame (nominative – dative), but *yaru* is used when the action is looked at from the point of view of the referent of the subject or the neutral point of view, whereas *kureru* is used when the event is described from the point of view of the referent of the dative object. Empathy has also been shown to be relevant in other languages (e.g. in Mandarin, see Anand & Hsieh 2005, Wang & Pan 2015, i.a.). Following this literature, I define the empathy locus as the event participant that the speaker empathizes with, i.e. identifies with from a sensory

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<sup>23</sup> Plain anaphors cannot be bound by possessors, as shown by (3)c, i.a.

perspective.<sup>24</sup> Empathy loci are thus perceptual centers of perspective: as opposed to attitude holders (intellectual centers of perspective), they are not triggered by intensional expressions, but can occur in non-attitude contexts when the speaker adopts another individual's emotional or perceptual point of view. They partially overlap with Sells' (1987) notions of Self and Pivot.<sup>25</sup>

- *Empathy logophoricity*
  - An exempt anaphor can refer to an empathy locus.
  - The domain of that anaphor must express the first-personal perceptual perspective of that empathy locus.

Under logophoric conditions of empathy, the speaker puts herself in the empathy locus' shoes and reports his first-personal perception, namely, what he could say if he had to formulate his experience at the first-person. This is especially relevant for qualia, which are individual instances of subjective, conscious and direct experience (as opposed to propositional attitudes, which are beliefs about them). For instance, Kuroda (1973) argues that Japanese predicates of internal state in the adjectival form (e.g. *atui* 'be hot') can only be used in the first-person, unless they are (embedded under evidential markers or) used in the non-reportative style, in which the speaker adopts her character's point of view to report what this character feels spontaneously, not reflectively; in that case, the anaphor *zibun* can be exempt if it refers to that character. This is the empathy counterpart of FID: while FID is used to report the thoughts of a character (intellectual, reflective perspective), empathy perspective is used to report the first-personal direct experience of a character (perceptual, immediate perspective).

In French, the expression *son cher* 'his/her dear' (cf. English *beloved* in Kuno 1987, Sells 1987) can be used as a diagnostic for identifying empathy loci: whether someone or something is dear to someone is subject to evaluation, and such an evaluation can only be directly made by the person experiencing the feeling (only I know whether someone is dear to me or not, nobody else

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<sup>24</sup> The notion of empathy is a technical term that is not to be confused with informal notions such as 'have sympathy for' or 'pity'; in particular, even an event participant towards whom the speaker has a negative attitude can be an empathy locus.

<sup>25</sup> Sells (1987:455, fn.14) explicitly relates his notion of Pivot ('one with respect to whose (space-time) location the content of the proposition is evaluated') to the notion of empathy. His notion of Self should also be partially equated to empathy as some of his Self examples involve psych-verbs, which do not create attitude contexts, as shown below in French by the epithet test:

- (v) a. Les méchants commentaires des internautes sur lui<sub>i</sub>-même ont atteint le moral de Marc<sub>i</sub>.  
'The net surfers' mean comments about himself<sub>i</sub> have affected Marc<sub>i</sub>'s morale'.
- b. Les méchants commentaires des internautes sur lui<sub>i</sub>-même ont atteint le moral [du pauvre homme]<sub>i</sub>.  
'The net surfers' mean comments about himself<sub>i</sub> have affected [the poor man]<sub>i</sub>'s morale'.

really can although they may have grounds to believe it if I tell them or show some signs of it<sup>26</sup>); in that sense, *cher* is both evaluative and first-personal.<sup>27</sup> The use of third-person *son cher* ‘his/her dear’ therefore requires empathy: the speaker has to empathize with the referent of *son cher* (i.e. to adopt her emotional perspective), which therefore has to be human (or humanized) and alive.<sup>28</sup>

- *Son cher test*
  - First variant: an exempt anaphor can be acceptable if replacing it with coreferring *son cher* makes the sentence acceptable.
  - Second variant: an exempt anaphor can be acceptable if inserting coreferring *son cher* in its domain makes the sentence acceptable.

This test is applied to (34) and (35) below and confirms that the anaphors *son propre* and *lui-même* can be exempt because they are anteceded by an empathy locus.

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<sup>26</sup> In other words, it is to some extent possible to deduce that someone/something is dear to someone using indirect evidence, and in fact, predicative *cher* ‘dear’ can be used in combination with markers of evidentiality like *apparemment* ‘apparently’ (just like predicates of internal states in Japanese, as mentioned in the text above).

(vi) *Apparemment, Cécile est chère à Christophe.* ‘Apparently, Cécile is dear to Christophe.’

But this evidential use is impossible for attributive *cher* in possessive DPs: *son cher* ‘his dear’ can only express an internal (cf. logophoricity) vs. external (cf. evidentiality) perspective.

<sup>27</sup> *Son cher* is frequently used ironically, as illustrated in (vii) below. This indirectly supports the hypothesis that *son cher* expresses the internal, emotional point of view of its referent as irony arises when two points of view are confronted. In the case of *son cher*, the irony effect comes from the discrepancy between its referent’s perspective and the speaker’s: in (vii), the speaker contrasts her perspective with Jérôme’s by suggesting that his perspective is ill-advised (as made explicit by the content of the parenthesis). Note that this is different from evaluative expressions like *cet idiot de Jérôme* ‘that idiot Jérôme’: Jérôme can be evaluated as an idiot by the speaker or any other attitude holder irrespective of Jérôme’s judgment; in (vii) however, the speaker has to take Jérôme’s emotional perspective to evaluate his cousin as dear to Jérôme since it is Jérôme’s internal feeling; but the speaker builds on it to add another layer of judgment, i.e. that Jérôme’s feeling is unjustified, thus creating an irony effect.

(vii) *Jérôme<sub>i</sub> va aller rendre visite à sa<sub>i</sub> chère cousine (qui profite de lui).*

‘Jérôme<sub>i</sub> will visit his<sub>i</sub> dear cousin (who takes advantage of him).’

<sup>28</sup> It is not necessary for the empathy locus to be alive at the time of utterance, as long as he is alive at the time of the event for which the speaker empathizes with him (as in viii) or at the time of evaluation (as in ixa vs. ixb). A more precise examination of the interaction between tense and perspective is beyond the scope of this paper (cf. Bianchi 2003, Sharvit 2008, i.a.).

(viii) *Le courage de Franklin Roosevelt<sub>i</sub> a sauvé sa<sub>i</sub> propre vie et celle de millions d’Américains.*

‘Franklin Roosevelt<sub>i</sub>’s courage saved his<sub>i</sub> own life and that of millions of Americans.’

(ix) a. *Comme [le pharaon]<sub>i</sub> le demande, les embaumeurs prendront soin de son<sub>i</sub> propre corps et du corps de son épouse une fois qu’ils seront morts.*

‘As asked by [the Pharaoh]<sub>i</sub>, the embalmers will take care of his<sub>i</sub> own body and that of his wife when they die.’

b. *Comme l’avait demandé [le pharaon]<sub>i</sub> de son vivant, les embaumeurs prennent soin de son<sub>i</sub> (\*propre) corps et du corps de son épouse.*

‘As was asked by [the Pharaoh]<sub>i</sub> when he was alive, the embalmers are taking care of his<sub>i</sub> (\*own) body and that of his wife.’

- (36) a. Le courage de Paul<sub>i</sub> a sauvé des flammes à la fois sa<sub>i</sub> propre maison et celle de ses<sub>i</sub> chers voisins.  
 ‘Paul<sub>i</sub>’s courage saved from the fire both his<sub>i</sub> own house and his<sub>i</sub> dear neighbors’.’  
 b. Le courage de Paul<sub>i</sub> a sauvé des flammes à la fois sa<sub>i</sub> chère maison et celle des voisins.  
 ‘Paul<sub>i</sub>’s courage saved from the fire both his<sub>i</sub> dear house and the neighbors’.’
- (37) Emile<sub>k</sub> mérite que Sophie pense à lui<sub>k</sub>-même et à sa<sub>k</sub> chère famille.  
 ‘Emile<sub>k</sub> deserves the fact that Sophie<sub>i</sub> thinks about himself<sub>k</sub> and his<sub>k</sub> dear family.’

The acceptability of a coreferring epithet in (38) furthermore corroborates that the perspective relevant for *son cher* is not attitude.

- (38) Le courage de Paul<sub>i</sub> a sauvé des flammes à la fois sa<sub>i</sub> propre maison, celle de ses<sub>i</sub> chers enfants, et celle des voisins de [ce héros]<sub>i</sub>.  
 ‘Paul<sub>i</sub>’s courage saved from the fire his<sub>i</sub> own house, his<sub>i</sub> dear children’s house and [the hero]<sub>i</sub>’s neighbors’ house.’

As in the case of attitude holders, exempt anaphors need not refer to the closest potential empathy locus. The logophoric center referenced by the logophoric pronoun anteceding *ses propres* can either be Christel or Ninon in (39).

- (39) Christel<sub>i</sub> mérite que le futur métier de Ninon<sub>k</sub> corresponde à la fois à ses<sub>i/k</sub> propres aspirations et à celles de sa famille.  
 ‘Christel<sub>i</sub> deserves the fact that Ninon<sub>k</sub>’s future job corresponds to both her<sub>i/k</sub> own aspirations and that of her family.’

- *Referential constraints on logophoric centers: second generalization*  
 The logophoric pronoun  $pro_{LOG}$  selected by a logophoric operator  $OP_{LOG}$  can refer to the pragmatically determined empathy locus of its domain (on the basis of discourse and syntactico-semantic constraints).

But like attitudinal domains, empathy domains must be logophorically homogeneous; that’s why coreference between *ses propres* and *sa chère* in (40) and between *lui-même* and *son propre* in (41) is obligatory.

- (40) Christel<sub>i</sub> mérite que le futur métier de Ninon<sub>k</sub> corresponde à la fois à ses<sub>k</sub> propres aspirations et à celles de sa<sub>\*i/k</sub> chère famille.  
 ‘Christel<sub>i</sub> deserves the fact that Ninon<sub>k</sub>’s future job corresponds to both her<sub>k</sub> own aspirations and that of her<sub>\*i/k</sub> dear family.’
- (41) Emile<sub>k</sub> ne mérite pas que les proches de Sophie<sub>i</sub> comparent ce portrait de lui<sub>k</sub>-même à celui de son<sub>\*i/k</sub> propre fils.  
 ‘Emile<sub>k</sub> does not deserve the fact that Sophie<sub>i</sub>’s relatives compare this portrait of himself<sub>k</sub> to that of {his<sub>k</sub>/\*her<sub>i</sub>} own son.’

- *Interpretive constraints on logophoric domains: second generalization*  
The logophoric domain of an empathy locus expresses her first-personal perceptual perspective.

Putting together our two generalizations about the referential constraints on logophoric centers, we can conclude that a logophoric center must be an attitude holder or an empathy locus. This implies that an anaphor with a different type of antecedent cannot be exempt. This is indeed the case of inanimate anaphors, as we have already seen, but also of animate anaphors such as *son propre* in (42): in this sentence, the attitude holder is the speaker and the empathy locus is Joël's son, the antecedent of *son cher*; consequently, third-person exempt *son propre* can only refer to Joël's son and cannot be anteceded by Joël or Joël's son's brother.

- (42) La générosité [du fils de Joël<sub>m</sub>]<sub>i</sub> s'adresse à [son<sub>i</sub> cher frère]<sub>k</sub> ainsi qu'à son<sub>i/\*k/\*m</sub> propre fils.  
'[Joël<sub>m</sub>'s son]<sub>i</sub>'s generosity is aimed at [his<sub>i</sub> dear brother]<sub>k</sub> as well as his<sub>i/\*k/\*m</sub> own son.'

In the reverse case where a sentence contains both a third-person attitude holder and a potential empathy locus, the situation is more complex:

- (43) [Le fils d'Antonin]<sub>i</sub> a dit que le courage de Paul<sub>k</sub> avait sauvé des flammes la maison de son propre fils<sub>i/?k</sub>.  
'[Antonin's son]<sub>i</sub> said that Paul<sub>k</sub>'s courage saved from the fire his<sub>i/?k</sub> own son's house.'

In (43), the exempt anaphor *son propre* can be anteceded either by the attitude holder Antonin's son or by the empathy locus Paul (with whom either the speaker or the attitude holder Antonin's son can identify). But it preferably refers to the former, which argues for the following referential hierarchy.

- *Referential constraints on logophoric centers: preference hierarchy*  
attitude holder > empathy locus

This suggests that a given domain is preferably presented from its attitude holder's own perspective if possible, but if discourse and syntactico-semantic factors (including the features of the anaphor) forbid this option, from the perspective of another individual the attitude holder can identify with (cf. Kuno's 1987 Empathy Hierarchy).

Logophoric domains thus either express the *de se* attitude or the subjective perceptual perspective of a logophoric center. What unifies these two generalizations is the notion of first-personal perspective: in both cases, the content of the logophoric domain corresponds to what the

logophoric center could express in a direct discourse at the first person, reporting his thoughts or formulating his experience. It is from that first-personal perspective that the logophoric operator presupposes its complement to be presented.

### 2.3. A prediction about the non-logophoricity of deictic centers

So far, we have shown on the basis of the behavior of French exempt anaphors that the logophoric center (to which  $pro_{log}$  refers) is an individual that can hold a mental perspective (*de se* attitude or first-personal perception) and that the logophoric domain (complement of  $OP_{LOG}$ ) is the linguistic domain that expresses that center’s perspective. This restriction of logophoricity to mental perspective can be explained by the fact that only mental perspective is linguistically expressible so as to create a logophoric domain.

This makes a prediction: non-mental perspective centers cannot license exempt anaphors. This section presents a confirmation of this prediction in French: spatial perspective centers – call them, as in Oshima 2006, *deictic centers*<sup>29</sup> – cannot antecede exempt *son propre* and *lui-même*. Unlike attitude holders and empathy loci, deictic centers are indeed not mental in nature (they can be inanimate): they only need to be located in space and oriented. There is thus no intrinsic reason why a given domain would express the deictic center’s perspective, so that no logophoric domain is created.

Sells’ (1987) notion of Pivot should therefore be split into two categories: empathy loci, which are indeed logophoric, and deictic centers,<sup>30</sup> which are not.

- *Sells’ 1987 vs. the present taxonomy of logophoric centers*

Sells’ hypothesis	Source	Self	Pivot
the present hypothesis		Attitude holder	Empathy locus
			Deictic center

#### 2.3.1. Types of deictic centers

Based on Oshima’s 2006 observations about Japanese, I assume that there are two main types of deictic centers: those created by motion verbs like *come*, and those created by spatial prepositional expressions like *to the right of* or *behind*.

<sup>29</sup> Oshima (2006) also distinguishes deictic centers from empathy loci, and observes – against Iida 1992 – that deictic centers, unlike empathy loci, cannot systematically antecede long distance *zibun*. This suggests that the prediction is also borne out in Japanese.

<sup>30</sup> Sells (1987) explicitly includes spatial centers of perspective into the Pivot category: “if someone makes a report with Mary as the pivot, that person is understood as (literally) standing in Mary’s shoes” (Sells 1987:455).

As has long been observed in several languages (cf. Talmy 1975, Fillmore 1997, Oshima 2006, i.a.), motion verbs like French *venir* ‘come’ or *apporter* ‘bring’ require that the speaker or the addressee be located at (or associated with) the goal of the motion. This inference has been analyzed as a presupposition (Oshima 2007, Sudo 2016, i.a.).

- (44) Luc va venir à Lyon.  
‘Luc will come to Lyon.’  
Inference: the {speaker/addressee} is {located at/associated with} Lyon.

Let’s call the individual located at the goal of the motion (i.e. the speaker or addressee in (44)) the deictic center. In attitude contexts, the deictic center can shift to the attitude holder (cf. Oshima 2007, Sudo 2016).

- (45) Luc espère que sa mère va venir à Lyon.  
‘Luc hopes that his mother will come to Lyon.’  
Inference: the {speaker/addressee} or Luc is {located in/associated with} Lyon.

Furthermore, it has been observed (but not explained: Sudo 2016, i.a.) that the deictic center need not be a discourse participant or an attitude holder in certain cases like (46). An explication will be provided in section 2.3.2.

- (46) Comme Luc vivait seul, son fils s’efforçait de venir à Lyon chaque semaine.  
‘As Luc lived alone, his son tried hard to come to Lyon every week.’  
Inference: Luc lived in Lyon.

Spatial prepositional expressions (cf. deictic angular expressions in Oshima 2006) like *derrière* ‘behind’ encode a spatial relation between two objects, and require a deictic center for their interpretation, as illustrated in (47) based on Figure 1 below.



Figure 1. Johannes Vermeer - Lady at the Virginal with a Gentleman, 'The Music Lesson'<sup>31</sup>

<sup>31</sup> From Google Art Project. Retrieved Nov. 7<sup>th</sup> 2016 from:

- (47) a. L'épinette est derrière la jeune femme.  
 'The virginal is behind the young woman.' (from the speaker's perspective)  
 b. L'épinette est devant la jeune femme.  
 'The virginal is in front of the young woman.' (from the woman's perspective)

These spatial expressions give rise to two types of interpretation depending on the identity of the deictic center. Under the intrinsic interpretation, the deictic center is the referent of the complement of the preposition (e.g. the woman in (47)b) and has to be intrinsically oriented (human beings have a back). Under the relative interpretation (cf. Levinson 2003, Rooryck & Vanden Wyngaerd 2011, i.a., for the intrinsic vs. relative distinction), the deictic center is a reference point (e.g. the speaker in (47)a) distinct from the two objects spatially located (the musical instrument and the woman), and in that case, the complement of the preposition does not have to be intrinsically oriented (for instance, it could be a ball).

These two types of interpretation are lexically distinguished in French in the case of spatial expressions involving the notions of right and left: *à la gauche/droite de* 'to the left/right of' (with a definite article) triggers the intrinsic interpretation as in (48)a, and *à gauche/droite de* 'on the left/right of' (without definite article) the relative interpretation as in (48)b.

- (48) a. La jeune femme est à #(la) droite du professeur de musique.  
 'The young woman is to the right of the music teacher.' (from the teacher's perspective)  
 b. La jeune femme est à (#la) gauche du professeur de musique.  
 'The young woman is on the left of the music teacher.' (from the speaker's perspective)

### 2.3.2. Testing exempt anaphors in the presence of deictic centers

To test the prediction that a deictic center does not by nature count as a logophoric center, we need to guarantee that the antecedent of a given exempt anaphor is the deictic center but that it is neither an attitude holder nor an empathy locus. This is the case in (49)-(50) using the motion verb *venir* 'come': the neighbor is construed as the deictic center (he is located at the goal of the motion, i.e. at the hospital), but not as the empathy locus (the expression *ma chère* 'my dear' requires the speaker to be the empathy locus). The exempt anaphors *son propre* and *lui-même* referring to the neighbor are not acceptable,<sup>32</sup> which confirms the prediction.

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[https://commons.wikimedia.org/wiki/File%3AJohannes\\_Vermeer\\_-\\_Lady\\_at\\_the\\_Virginal\\_with\\_a\\_Gentleman%2C\\_'The\\_Music\\_Lesson'\\_-Google\\_Art\\_Project.jpg](https://commons.wikimedia.org/wiki/File%3AJohannes_Vermeer_-_Lady_at_the_Virginal_with_a_Gentleman%2C_'The_Music_Lesson'_-Google_Art_Project.jpg)

<sup>32</sup> These sentences are acceptable in the absence of *propre* and *même* (i.e. with pronouns instead of anaphors) given that the speaker is located at the goal of motion (i.e. at the hospital).

(49) Pendant la maladie [du voisin]<sub>i</sub>, ma chère mère et sa<sub>i</sub> (\*propre) mère sont souvent venues à l'hôpital où je le soignais.

'During [the neighbor]<sub>i</sub>'s disease, my dear mother and his<sub>i</sub> (\*own) mother often came to the hospital where I was treating him.'

(50) Pendant la maladie [du voisin]<sub>i</sub>, ma chère fille amoureuse de lui<sub>i</sub>-(\*même) est souvent venue à l'hôpital où je le soignais.

'During [the neighbor]<sub>i</sub>'s disease, my dear daughter in love with him<sub>i</sub>(\*self) often came to the hospital where I was treating him.'

The same holds with spatial prepositional expressions: exempt *son propre* and *lui-même* are not licensed even when we guarantee that the antecedent is the deictic center by forcing the intrinsic interpretation. This is shown in (51)-(52) based on Figure 1, which are intended to be interpreted as neutral descriptions of the painting to prevent construing the antecedent as an empathy locus.<sup>33</sup>

(51) a. A la droite du professeur<sub>i</sub>, sa<sub>i</sub> (\*propre) élève semble jouer de l'épinette.

'To the right of the teacher<sub>i</sub>, his<sub>i</sub> (\*own) student seems to play the virginal.'

b. A la droite du professeur<sub>i</sub>, un portrait de lui<sub>i</sub> (\*-même) est accroché au-dessus de l'épinette.

'To the right of the teacher<sub>i</sub> a portrait of him<sub>i</sub>(\*self) hangs above the virginal.'

(52) a. Devant [la jeune femme]<sub>i</sub> est accroché un miroir où apparaît son<sub>i</sub> (\*propre) reflet.

'In front of [the young woman]<sub>i</sub> hangs a mirror where her<sub>i</sub> (\*own) reflection appears.'

b. [La jeune femme]<sub>i</sub> est à l'arrière-plan, avec une viole de gambe derrière elle<sub>i</sub> (\*-même).  
'[The young woman]<sub>i</sub> is in the background, with a viola da gamba behind her<sub>i</sub>(\*self).'

The same holds with inanimates, which can in principle be deictic centers, since they can be located in space and oriented: examples like (53) show that even when they are deictic centers, inanimates cannot antecede exempt anaphors. Importantly, this further supports the generalization discussed in section 1.1, according to which inanimates can never be logophoric antecedents of exempt anaphors. The restriction of logophoricity to mental perspective (*pace* Sells 1987, i.a.) is thereby confirmed.

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<sup>33</sup> Cantrall (1974:146-147) notices the contrast between (xa), which is acceptable under the intrinsic interpretation (i.e. from the adults' perspective), and (xb), where the antecedent of the anaphor is inanimate.

(x) a. The adults<sub>i</sub> in the picture are facing away from us with the children placed behind themselves<sub>i</sub>.

b. The house<sub>i</sub> in the picture is facing away from us with an elm tree behind it<sub>i</sub>(\*self).

This suggests that deictic conditions alone are not sufficient in English either to exempt *himself* from locality conditions (cf. Zribi-Hertz 1989, Rooryck & Vanden Wyngaerd 2011, Charnavel & Zlogar 2016, i.a., for discussion about the distribution of English *himself* in deictic conditions). The reason why (xa) is acceptable is due to the construal of the adults as empathy loci, which may be favored by the passive *placed* suggesting that the adults took responsibility for the placement; in fact, *the children* can be replaced with *their*; *dear children*.

- (53) [L'épinette]<sub>i</sub> est à l'arrière-plan, avec le mur derrière (\*elle<sub>i</sub>-même).  
 'The virginal]<sub>i</sub> is in the background, with the wall behind it<sub>i</sub>(\*self).'

All these examples thus show that making the antecedent of *son propre* and *lui-même* a deictic center cannot exempt these anaphors: deixis does not create sufficient conditions for logophoricity.

- *Non-logophoricity of deictic centers*  
 Deictic centers are not logophoric centers by nature.

But there is a complication that distinguishes between the two kinds of deictic expressions: unlike spatial prepositional expressions, motion verbs do interact with logophoric exemption. In the presence of motion verbs, the deictic center must corefer with the antecedent of exempt anaphors: the attitude holders or empathy loci antecedent exempt anaphors in (54)a and (55)a respectively must be deictic centers.

- (54) a. [Le fils de Claire]<sub>i</sub> craint que le mauvais temps n'empêche {son<sub>i</sub> propre fils/un ami de lui<sub>i</sub>-même et de sa femme} de venir à Lyon.  
 'Claire's son]<sub>i</sub> is afraid that bad weather prevents {his<sub>i</sub> own son/a friend of his<sub>i</sub> and his wife} from coming to Lyon.'  
 Inference: Claire's son is located in (or associated with) Lyon.

- b. [Le fils de Claire]<sub>i</sub> craint que le mauvais temps n'empêche {son<sub>i</sub> fils/un ami à lui<sub>i</sub> et à sa femme} de venir à Lyon.  
 'Claire's son]<sub>i</sub> is afraid that bad weather prevents {his<sub>i</sub> son/a friend of his<sub>i</sub> and his wife} from coming to Lyon.'  
 Inference: Claire's son or the speaker/addressee is located in (or associated with) Lyon.

- (55) a. [Le fils de Claire]<sub>i</sub> mérite que les conditions climatiques permettent {à son<sub>i</sub> propre fils/aux amis de lui<sub>i</sub>-même et de sa femme} de venir à Lyon.  
 'Claire's son]<sub>i</sub> deserves the fact that weather conditions allow {his<sub>i</sub> own son/friends of his<sub>i</sub> and his wife} to come to Lyon.'  
 Inference: Claire's son is located in (or associated with) Lyon.

- b. [Le fils de Claire]<sub>i</sub> mérite que les conditions climatiques permettent {à son<sub>i</sub> fils/aux amis à lui<sub>i</sub> et à sa femme} de venir à Lyon.  
 'Claire's son]<sub>i</sub> deserves the fact that weather conditions allow {his<sub>i</sub> son/friends of his<sub>i</sub> and his wife} to come to Lyon.'  
 Inference: Claire's son or the speaker/addressee is located in (or associated with) Lyon.

This does not hold in the case of spatial prepositional expressions: *son propre* and *lui-même* anteceded by *le fils de Claire* 'Claire's son' – the attitude holder in (56) and the empathy locus in (57) – are exempt even if the use of *à droite de* (without definite article) forces a relative interpretation, i.e. the speaker, not the antecedent, is the deictic center.

(56) [Le fils de Claire]<sub>i</sub> craint que son ennemi ne soit placé à droite de {son<sub>i</sub> propre fils/lui<sub>i</sub>-même} sur la photo.  
'[Claire's son]<sub>i</sub> is afraid that his enemy may be placed to the right of {his<sub>i</sub> own son/himself<sub>i</sub>} on the picture.'

(57) [Le fils de Claire]<sub>i</sub> mérite qu'on place son ami à droite de {son<sub>i</sub> propre fils/lui<sub>i</sub>-même} sur la photo.  
'[Claire's son]<sub>i</sub> deserves the fact that one places his friend to the right of {his<sub>i</sub> own son/himself<sub>i</sub>} on the picture.'

This difference can be explained by hypothesizing that motion verbs like *come* lexically require their deictic center to be a logophor, which must be bound by a logophoric operator, while spatial prepositional expressions do not have such a lexical restriction. In other words, the previously proposed presuppositional restriction of *come* can be recast as the presence of an obligatory implicit logophoric argument of *come*: *come* roughly means 'move to a location associated with the logophoric center'. Given that a given logophoric domain, as we have seen, cannot represent a mixed perspective, this explains why an exempt anaphor appearing in the same domain as *come* must corefer with the deictic center of *come* (cf. Charnavel: to appear-b, for an extension of this result to Mandarin): both must refer to the logophoric center of their domain.

- *Logophoric sensitivity of motion verbs*  
Motion verbs like *come* take a silent logophor as implicit argument.

To wrap up section 2, we have seen that French exempt anaphors are tightly constrained in reference: they must refer to the attitude holder of their domain, or to the individual he empathizes with in that domain. This supports the hypothesis that they are logophoric and that the logophoric center of a domain, which is determined on the basis of various pragmatic, semantic and syntactic factors, must be the attitude holder or the empathy locus of that domain. Our logophoric operator analysis thus makes the correct predictions: exempt anaphors get their semantic value from their binder (the logophoric pronoun introduced by the logophoric operator, which refers to the logophoric center) and the domain containing them (the complement of the logophoric operator) must express the first-personal perspective of that logophoric center.

### 3. Further motivating the logophoric operator hypothesis

In the previous section, we have motivated the logophoric operator hypothesis on the basis of the semantic constraints on exempt anaphors, which directly follow from their binding via the operator. This required hypothesizing that the logophoric center can be syntactically represented via a logophoric operator in the logophoric domain of anaphors. The second advantage of this hypothesis, as explained in section 1, is that it reduces exempt anaphors to plain anaphors as long as we assume that the logophoric domain corresponds to the binding domain of anaphors (i.e. their spellout domain, according to Charnavel & Sportiche's 2016 hypothesis).

This section provides further independent arguments for the presence of such a logophoric binder in the binding domain of apparently exempt anaphors. Before presenting this additional evidence, I will examine previous alternative hypotheses: explaining how they fail will clarify the merits of our logophoric operator hypothesis.

#### 3.1. Problems with alternative hypotheses

Instead of assuming that exempt anaphors inherit their semantic constraints from a silent logophoric binder, we could assume that they are lexically marked as logophoric by a feature [+log]. Under this hypothesis, exempt anaphors are pronouns intrinsically specified as referring to a logophoric center.

A first version of this hypothesis, defended by Kuno (1987) or Sells (1987), i.a., assumes that the feature [+log] is specified on some DPs such as the subjects of predicates of communication or consciousness, and exempt anaphors must be anteceded by such DPs due to their lexical marking. In other words, they are directly anteceded by an overt logophoric center, instead of being bound by a silent element ( $pro_{log}$ ) referring to that center. A first issue with this hypothesis is that it is not sufficient to derive the logophoric interpretation of exempt anaphors: it must be additionally specified that the anaphor must be in the corresponding logophoric clause (cf. Kuno 1987:120), whose content must express the first-personal perspective of the [+log] antecedent. This property is what the presence of our logophoric operator derives, which imposes the first-personal perspective of its subject  $pro_{log}$  on its complement.

The presence of a logophoric operator is inspired by the second version of the [+log] hypothesis, which is to suppose that exempt anaphors, like any element specified as [+log], must be bound via a logophoric operator (see Koopman & Sportiche 1989, Speas 2004, Anand 2006, i.a.). Specifically, most of these previous analyses suppose that the logophoric operator occurs in

a dedicated left-peripheral projection, which is traditionally the locus of the syntax-pragmatics interface (cf. Rizzi 1997, Cinque 1999, i.a.), and that it specifies the CP in its scope as its logophoric domain. This guarantees that the exempt anaphor occurs in the relevant logophoric domain.

This second version of the [+log] hypothesis also faces several issues.

First, some of its implementations constrain the logophoric center represented by the operator to be the closest attitude holder (Speas & Tenny 2003, Speas 2004, i.a.). As we have seen in section 2, this undergenerates, as exempt anaphors in French (and in at least some other languages) neither need be anteceded by the closest attitude holder, nor in fact by an attitude holder. Instead, we must allow the operator to represent the perspective of a structurally unconstrained attitude holder or empathy locus: the operator is not lexically introduced by some attitude verbs, but references the pragmatically determined logophoric center.

Second, the standard version of this [+log] hypothesis constrains the logophoric domain to be a CP. The aim is to derive the unavailability of mixed perspective in the same clause in examples like (32)-(33), given that there is only one position per CP for logophoric operators.

As we will see in sections 3.2 and 3.3, this is both too weak and too strong. This is too weak because the [+log] hypothesis, which in effect equates exempt anaphors to pronouns, predicts that they can be non-exhaustively bound. At first glance, this appears to be a good prediction, given that exempt anaphors can have partial or split antecedents, as mentioned in section 1.2. But in fact, this means that the hypothesis is not sufficient to derive exhaustive coreference of logophors in the same domain (see section 3.2). This is furthermore too strong because logophoric domains can be smaller than CPs (see section 3.3). These issues do not arise under our hypothesis, according to which there can be one logophoric operator per spellout domain that exhaustively binds logophors.

Third, this type of hypothesis cannot directly deal with plain anaphors, given that exempt anaphors are intrinsically hypothesized to be marked [+log]. Under the strong parsimonious assumption that all instances of anaphors are lexically identical, inanimate anaphors of the same form as exempt anaphors are predicted not to exist. This is clearly too strong for French, among other languages. Under the weak parsimonious assumption that [+log] is limited to animate anaphors, all animate anaphors are predicted to be logophoric. This is what Sundaresan (2012) and Nishigauchi (2014) argue is the case for Tamil *taan* and Japanese *zibun*, respectively. But

this makes an incorrect prediction for French: locally bound animate anaphors and non-locally bound animate anaphors do behave differently. Indeed, the former can behave like inanimate anaphors in not having to be anteceded by a logophoric center. The results of section 2 provide the diagnostics for this.<sup>34</sup> First, locally bound animate anaphors need not be anteceded by an attitude holder or an empathy locus (unlike non-locally bound anaphors, see examples (23) and (42)). This is illustrated in (58), where the context (description of a painting) and the use of *ma chère* preclude the antecedent of *sa propre* (the music teacher) from being an empathy locus.

- (58) Sur ce tableau peint par ma chère tante, [le professeur de musique]<sub>i</sub> est placé à droite de sa<sub>i</sub> propre élève.  
 ‘On this painting by my dear aunt, [the music teacher]<sub>i</sub> is placed on the right of his<sub>i</sub> own student.’

Second, locally bound animate anaphors need not be read *de se* even when they are coreferential with an attitude holder, unlike non-locally bound anaphors (see examples (28)-(29)).<sup>35</sup> in (59), the anaphor *lui-même* referring to the attitude holder Michel and locally bound by the (*de re*) pronoun *il* ‘he’ is acceptable even if it is not read *de se*.<sup>36 37</sup>

- (59) a. [*Michel is listening to songs that he and his students recorded, as well as the reactions of the singers afterwards. Michel claims that one of the singers seems to be very proud of himself. Unbeknownst to him, that singer is actually Michel himself.*]  
 Michel<sub>i</sub> a dit qu’il<sub>i-de re</sub> était fier de lui<sub>i-de re</sub>-même.  
 ‘Michel<sub>i</sub> said that he<sub>i-de re</sub> was proud of himself<sub>i-de re</sub>.’

<sup>34</sup> To test Nishigauchi’s (2014) and Sundaresan’s (2012) hypotheses, such diagnostics should be applied to Japanese *zibun* and Tamil *taan*. In particular, controlling for (the absence of) empathy and *de se* readings may reveal that some instances of *zibun* and *taan* are not logophoric after all.

<sup>35</sup> Similarly, Pan (1997) and Huang & Liu (2001) propose (non-)obligatory *de se* readings as a diagnostic for distinguishing between plain and exempt *ziji*.

<sup>36</sup> In fact, plain *lui-même* has to be read *de re* non *de se* here because its binding by a *de re* pronoun would otherwise trigger a *de re* blocking effect (see Sharvit 2010, cf. fn. 21). However, plain anaphors can conversely be read *de re* when they are bound by a *de se* element (see Sharvit 2010): this pertains to the definition of Condition A (cf. Sharvit’s 2010 Type-II covaluation).

<sup>37</sup> The same point can be made using intensional transitive verbs (like *adore* and *hate*) that take non-propositional complements behaving like attitude contexts (cf. Grodzinsky 2007, Schwarz, to appear, i.a.). This is the case of the predicate *être fier de* ‘be proud of’ (i.e. it is characterized by the properties described at the beginning of section 2.1.2). Example (xi) below shows that the plain anaphor *elle-même* contained in its complement (i.e. in an attitude context) need not be read *de se*.

- (xi) [*Liliane Martin and her daughter Lise have entered a poetry competition. Liliane has not done so seriously, but simply to encourage her daughter to do it with her. When looking at the results, Liliane thus does not imagine one second that she could have won a prize: when she sees ‘L. Martin’ in the list, she immediately thinks that her daughter has won and she is very proud of her. In fact, it is Liliane, not Lise, who has won a prize.*]  
 Liliane<sub>i</sub> est très fière d’elle<sub>i-de re</sub>-même. ‘Liliane<sub>i</sub> is very proud of herself<sub>i-de re</sub>.’

This means that under this type of hypothesis, the same form of anaphor (e.g. *lui-même*) must have two lexical entries, one of which is marked [+log] and the other [-log]. Given that the ambiguity between plain and exempt anaphors is present in many unrelated languages, this problematically supposes a stipulated massive homonymy of the same kind. It should be clear that our hypothesis does not make such a claim: the apparent ambiguity of anaphors derives solely from the nature of their binder, not of the anaphors themselves.

Yet another type of hypothesis is found in the literature which also aims to reduce exempt anaphors to plain anaphors: instead of positing a silent binder for exempt anaphors,<sup>38</sup> they argue that exempt anaphors move to a position where they can be locally bound by their overt antecedent. The first version of this hypothesis (Pica 1987, Battistella 1989, Cole et al. 1990, i.a.) reduces long distance binding to local binding by LF successive head movement. It is clearly unapplicable to French anaphors and the like, which are morphologically complex (they are not heads). The second version instead assumes XP-movement of the anaphor and XP-adjunction to the IP below its antecedent (Huang & Tang 1991) or to perspectival projections (SourceP, SelfP, PivotP based on Sells' 1987 proposal) in the left periphery of the CP just below the antecedent (Huang & Liu 2001). All these versions of the movement hypothesis face important issues. First, it is unclear how this kind of hypothesis can derive the fact that exempt anaphors need not be c-commanded by their antecedent. Second, they predict that an exempt anaphor cannot have its antecedent outside an island containing it, which is incorrect, as illustrated below for French and discussed in Charnavel et al. (to appear). Under our hypothesis, the anaphor is instead bound by the logophoric operator<sup>39</sup> contained in its spellout domain, within the island.

- (60) Claire<sub>i</sub> espère que les voisins seront là [quand des lettres adressées à elle<sub>i</sub>-même ou à son mari arriveront].  
 'Claire<sub>i</sub> hopes that the neighbors will be present [when letters addressed to herself<sub>i</sub> or her husband arrive].'

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<sup>38</sup> The hypothesis that the presence of a silent binder can affect the binding of anaphors has also been made independently of the issue of Condition A. For instance, Anand & Hsieh (2005) derive the constraints on the long distance binding of *ziji* out of purpose clauses from the presence of a covert variable introduced by the purpose clause marker and denoting the affectee. Sundaresan (2012) and Nishigauchi (2014) assume the presence of a silent binder of anaphors mainly for perspectival reasons (cf. fn. 42).

<sup>39</sup> This abbreviation will be used in the rest of section 3 (both in the text and the representation of examples) for ease of presentation, but recall that the anaphor is in fact bound by the logophoric pronoun subject of the logophoric operator (cf. fn. 9).

Third, in this family of proposals, the perspectival interpretation of exempt anaphors can only be explained under Huang & Liu's (2001) version. But several points remain unclear: how to force exempt anaphors, but not plain anaphors, to move to such projections; how to allow several coreferring exempt anaphors to move to the same projection; how to guarantee, in the case of multiple embedding, that the anaphor moves to the semantically adequate perspectival projection and is still in a position local to its antecedent. Under our hypothesis, the operator local to the anaphor instead simply references the relevant logophoric center in the local syntactic domain.

Thus, our hypothesis incorporates several ingredients from previous hypotheses, but recombines them in a new way that avoids their issues. The crucial new ingredients are the absence of logophoric marking on the anaphors themselves, and the presence of the logophoric operator in their spellout domain. The next sections provide further independent arguments for these points.

### 3.2. Independent evidence for local A-binding from local exhaustive coreference

Recall that superficially, exempt anaphors allow partial or split antecedents (see section 1.2), or possibly even no syntactically represented antecedent at all (see section 2.1). As we have explained however, assuming that exempt anaphors are not lexically marked as logophoric and are bound via a logophoric operator in their binding domain reduces them to a subcase of plain anaphors. Given that plain anaphors cannot have partial or split antecedents (see section 1.2), this predicts that exempt anaphors must be exhaustively bound via this logophoric operator (but crucially not by their apparent overt antecedent, see section 3.4.1). This prediction is correct, as illustrated by (61).

- (61) \*Christel<sub>i</sub> pense qu' Agnès<sub>k</sub> a dit que l'avenir de son<sub>i</sub> fils dépend d'elles<sub>i+k</sub>-mêmes et de son<sub>k</sub> propre fils.  
 '\*Christel<sub>i</sub> thinks that Agnès<sub>k</sub> said that her<sub>i</sub> son's future depends on themselves<sub>i+k</sub> and her<sub>k</sub> own son.'

We have seen in section 2.1.4 that the perspective of a local domain must be homogeneous, so that only one logophoric center can be represented in the domain of *elles-mêmes* and *son propre*. But this ban on perspective conflicts should not exclude example (61) from being represented as (62), where the logophoric pronoun partially binds *themselves* and exhaustively binds *her own*: this corresponds to a direct discourse involving *we* and *I*.

- (62) \*Christel<sub>i</sub> thinks that Agnès<sub>k</sub> said that her<sub>i</sub> son's future [<sub>VP</sub> OP<sub>LOG-k</sub> depends on themselves<sub>i+k</sub> and her<sub>k</sub> own son].

Indeed, the availability of a plural pronoun including a singular *de se* center is attested independently, in the case of logophoric pronouns (Hyman & Comrie 1981:32, Frajzyngier 1985: 26, Sells 1987:149, i.a.), partial control constructions (see Landau 2015, Pearson 2016, i.a.) and in free indirect discourse (Eckardt 2014, i.a.).

- (63) John<sub>i</sub> wanted PRO<sub>i+k</sub> to assemble in the hall. (Pearson 2016: 692)

- (64) kofi kpo be yewo-do go [Ewe]  
 Kofi see Comp Log-pl.-come out  
 'Kofi<sub>i</sub> saw that they<sub>i+k</sub> had come out.'  
(Sells 1987:149)

- (65) (...) We simply must pay Cargill something! she<sub>i</sub> thought. And tomorrow was the day of the Mothers' Union tea, and they<sub>i+k</sub> had finished the novel that Miss Foote had been reading to them<sub>i+k</sub>. The question was, what to get for them next?  
Orwell, *A Clergyman's Daughter*, p. 269 (Eckardt 2014:2)

Exempt anaphors, however, cannot similarly partially refer to the logophoric center: (61) shows that two exempt anaphors in the same domain cannot be partially coreferent, which argues against representation (62), where *themselves* is partially bound by the logophoric pronoun. In other words, allowing exempt anaphors to be non-exhaustively bound (which previous hypotheses using logophoric operators in effect do, since they equate exempt anaphors to logophoric pronouns and pronouns can be non-exhaustively bound) overgenerates in giving rise to the possibility of partial coreference of exempt anaphors in the same domain. On the contrary, hypothesizing that exempt anaphors, just like plain anaphors, must be exhaustively bound correctly derives the contrast between (61) and (63)-(65).

This hypothesis also correctly rules out representation (66), where the logophoric pronoun is plural and partially binds *her own*.

- (66) \*Christel<sub>i</sub> thinks that Agnès<sub>k</sub> said that her<sub>i</sub> son's future [<sub>VP</sub> OP<sub>LOG-i+k</sub> depends on themselves<sub>i+k</sub> and her<sub>k</sub> own son].

Just like (62), (66) would be overgenerated in the absence of this hypothesis, as plural logophoric centers are in principle available and are compatible with singular *de se* pronouns. The availability of plural logophoric centers is shown by (67), which contains a plural exempt anaphor, and is corroborated by the existence of plural logophoric pronouns (Hyman & Comrie

1981, Frajzyngier 1985, i.a.), authors of free indirect discourse (Banfield 1982:96), shifted indexicals (Laterza 2014, i.a.) and PRO (Laterza 2014, i.a.; cf. split control in Landau 2015, i.a.).

- (67) Christel<sub>i</sub> pense qu’Agnès<sub>k</sub> a dit que l’avenir de son fils dépend d’elles<sub>i+k</sub>-mêmes et de leurs parents.  
 ‘Christel<sub>i</sub> thinks that Agnès<sub>k</sub> said that her son’s future depends on themselves<sub>i+k</sub> and their parents.’

The compatibility of singular *de se* pronouns with plural logophoric centers is shown by the following FID example.

- (68) A l’issue de leur entretien avec le magazine, [Jeanne<sub>i</sub> et son frère]<sub>k</sub> eurent un regain d’espoir. Demain, la photo d’elle<sub>i</sub> si controversée allait enfin se vendre, et ils<sub>k</sub> pourraient de nouveau manger à leur faim!  
 ‘After their interview with the magazine, [Jeanne<sub>i</sub> and her brother]<sub>k</sub> had some renewed hope. Tomorrow, the controversial photo of herself<sub>i</sub> would finally sell, and they<sub>k</sub> could again eat their fill!’

The FID in (68) has a plural author (Jeanne and her brother, cf. Banfield 1982:96), but contains a singular pronoun referring to one of its members (*elle* referring to Jeanne). Given that pronouns referring to the author of FID must be read *de se* (cf. Sharvit 2008, 2010), this illustrates the availability of partial *de se* reference.

The hypothesis that exempt anaphors must be exhaustively bound by their logophoric binders also directly derives the unacceptability of disjoint exempt anaphors in the same domain illustrated in (33) repeated below (cf. (41) too).

- (69) \*Christel<sub>i</sub> pense qu’Agnès<sub>k</sub> a dit que l’avenir de son<sub>i</sub> fils dépend à la fois d’elle<sub>i</sub>-même et de son<sub>k</sub> propre fils.  
 ‘\*Christel<sub>i</sub> thinks that Agnès<sub>k</sub> said that her<sub>i</sub> son’s future depends both on herself<sub>i</sub> and her<sub>k</sub> own son.’

- (70) \*Christel<sub>i</sub> thinks that Agnès<sub>k</sub> said that her son’s future [<sub>VP</sub> OP<sub>LOG-i+k</sub> depends both on herself<sub>i</sub> and her<sub>k</sub> own son]

If (70) were available, *elle-même* and *son propre* would each be partially bound by (or coreferential with) the plural logophoric pronoun and (69) should be acceptable, contrary to fact. Note however that in that case, the ban on perspective conflicts is sufficient to rule out (69) (as noted in section 2.1.4): unlike (61), (69) has no viable direct discourse counterpart, as two first-person pronouns in the same clause cannot be disjoint.

In sum, exempt anaphors in the same domain have to be referentially identical, but the pragmatic constraints on perspective can only exclude cases of disjointness, not those of partial coreference. This demonstrates that exempt anaphors are in fact plain anaphors that must be exhaustively bound, and therefore provides independent evidence for the presence of a silent local A-binder (given that their apparent overt antecedents can be split or partial).

Finally, it also follows from this analysis that anaphors co-occurring in the same domain can however be disjoint if one of them has an overt local antecedent. (71) shows that this is borne out: *sa propre* can be bound by Cyril and *elle-même* by the logophoric operator (given that anaphors are not subject to intervention effects in their local domain).

- (71) Solange<sub>i</sub> pense que Cyril<sub>k</sub> est [<sub>VP</sub> t<sub>k</sub> OP<sub>LOG-i</sub> fier d'elle<sub>i</sub>-même et de sa<sub>k</sub> propre fille].<sup>40</sup>  
 ‘Solange<sub>i</sub> thinks that Cyril<sub>k</sub> is [<sub>VP</sub> t<sub>k</sub> OP<sub>LOG-i</sub> proud of herself<sub>i</sub> and his<sub>k</sub> own daughter].’

### 3.3. Evidence for non-clausal logophoric domains

We have observed that in many cases, there is only one perspective per clause due to discourse and syntactico-semantic conditions. This is the intuition motivating proposals hypothesizing the presence of at most one logophoric operator per CP (Koopman & Sportiche 1989, Speas 2004, Anand 2006, i.a.).

Unlike these proposals, our hypothesis allows,<sup>41</sup> but does not require a given CP to have a single perspective: perspective switch between phases is permitted (cf. Sundaesan 2012<sup>42</sup>) if the

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<sup>40</sup> The logophoric operator is here inserted lower than the trace of the subject so that its logophoric pronoun cannot count as an intervener for A-movement of the subject (but note that intervention effects for A-movement probably depend on the type of probe, which would suggest that this precaution may be unnecessary).

<sup>41</sup> Given that in each spellout domain, the logophoric operator references the pragmatically determined logophoric center, all logophoric operators of a CP are harmonized if the discourse and syntactico-semantic conditions determine a single value of logophoric center in the CP, as shown in (xii).

(xii) [Le fils de Cyril]<sub>k</sub> espère que [<sub>TP</sub> OP<sub>LOG-k</sub> son<sub>k</sub> propre fils [<sub>VP</sub> OP<sub>LOG-k</sub> se confiera à lui<sub>k</sub>-même ou à sa femme en cas de problème]].  
 ‘[Cyril’s son]<sub>k</sub> hopes that [<sub>TP</sub> OP<sub>LOG-k</sub> his<sub>k</sub> own son will [<sub>VP</sub> OP<sub>LOG-k</sub> confide in himself<sub>k</sub> or his wife in case of a problem]].’

<sup>42</sup> Sundaesan (2012) similarly proposes that there is one perspectival projection per phase. Her motivations are different from ours. First, her syntactic motivation for the locality of the silent perspectival center is that *phi*-feature agreement (of the anaphor) must be local. This strikes us as unconvincing as long as long distance *phi*-feature agreement is not analyzed, e.g. in the case of long distance bound pronouns. Second, her conceptual motivation for the anti-locality of the overt antecedent is that an “individual may not hold a perspective toward a predication that it is wholly embedded within” (Sundaesan 2012:171). As formulated, it is not clear what follows from it as individuals can in principle hold perspective towards themselves. It may perhaps be interpreted as requiring the phrase defining the logophoric center to be external to the predication, which does indeed seem to hold, but the question remains as to why a linguistic representation of that center could not appear in this predication. Furthermore, given that Sundaesan’s perspectival projection does not have to be within the spellout domain, but within the phase, containing the anaphor, this proposal cannot reduce exempt to plain anaphors (this reduction is not

discourse and syntactico-semantic conditions allow it.<sup>43</sup> As we now show, this is a desirable consequence and one that has analytical consequences.

First, recall from examples (30)-(31) that DPs or appositives within embedded attitude contexts can be presented from the speaker’s perspective, while the rest of the attitude context is from the closest attitude holder’s perspective; under our hypothesis, the logophoric operator(s) within such DPs or appositives can accordingly reference a logophoric center different from that referenced by the operator(s) in the rest of the attitude context.

- (72) [Mes<sub>k</sub> amis]<sub>i</sub> pensent que Lucie – [DP OP<sub>LOG-k</sub> cette idiote amoureuse de leur fils plutôt que de mon<sub>k</sub> propre fils] – [VP OP<sub>LOG-i</sub> ferait tout pour eux<sub>i</sub>-mêmes ou leur proches].  
 ‘[My<sub>k</sub> friends]<sub>i</sub> think that Lucy – [DP OP<sub>LOG-k</sub> that idiot in love with their son rather than my<sub>k</sub> own] – [VP OP<sub>LOG-i</sub> would do anything for themselves<sub>i</sub> or their relatives].’

Second, new logophoric centers can be introduced within clauses. This is for instance the case when nouns with potential mental content like ‘dream’ or ‘journal’ in (73)-(74) occur within attitude contexts.

- (73) [Le fils de Marie]<sub>i</sub> explique que [TP OP<sub>LOG-i</sub> le rêve de [son<sub>i</sub> propre fils]<sub>k</sub> [VP OP<sub>LOG-k</sub> dit quelque chose sur lui<sub>k</sub>-même]].  
 ‘[Mary’s son]<sub>i</sub> explains that [TP OP<sub>LOG-i</sub> the dream of [his<sub>i</sub> own son]<sub>k</sub> [VP OP<sub>LOG-k</sub> says something about himself<sub>k</sub>]].’
- (74) [La fille de Paul]<sub>i</sub> explique que [TP OP<sub>LOG-i</sub> le journal de [sa<sub>i</sub> propre fille]<sub>k</sub> rapporte [DP OP<sub>LOG-k</sub> les ignobles remarques des médias sur elle<sub>k</sub>-même]].  
 ‘[Paul’s daughter]<sub>i</sub> explains that [TP OP<sub>LOG-i</sub> [her<sub>i</sub> own daughter]<sub>k</sub>’s journal relates [DP OP<sub>LOG-k</sub> the media’s horrible remarks about herself<sub>k</sub>]].’

This shows that a perspectival domain is not necessarily a clause, but can be a smaller constituent. This reflects the intuition that one cannot only hold a perspective about a tensed clause, but also about an event or an entity, which can be perceived in different ways (cf.

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her goal for Tamil however, given that according to her (as noted in section 3.1), the Tamil anaphor *taan* is always perspectival - but see fn. 34). Finally, Sundaresan motivates the restriction of perspectival domains to phases on the basis of non-mental, deictic perspective, which we showed is a different phenomenon (see fn. 34 about ways of further testing this in Tamil).

<sup>43</sup> The same holds for switch of perspective between clauses: it is also determined by discourse and syntactico-semantic factors. For instance, a perspective shift within a sentence seems impossible in FID (Banfield 1982, i.a.). Otherwise, a perspective shift between clauses is licensed by the introduction of a new logophoric center, as is the case below where the second attitude verb *affirment* ‘claim’ introduces a second attitude holder.

(xiii) Anne<sub>i</sub> a dit que [TP<sub>1</sub> [les journalistes]<sub>k</sub> en colère contre elle<sub>i</sub>-même et son mari affirment que [TP<sub>2</sub> le gouvernement ne prendra en compte que leurs<sub>k</sub> propres affirmations]].  
 ‘Anne<sub>i</sub> said that [TP<sub>1</sub> [the journalists]<sub>k</sub> angry at herself<sub>i</sub> and her husband claim that [TP<sub>2</sub> the government will only take into account their<sub>k</sub> own assertions]].’

Cantrall 1974 about viewpoints within DPs).<sup>44</sup> Moreover, given that DPs can be argued to form phases when they have a subject (see Svenonius 2004, Charnavel & Sportiche 2016, i.a.), all spellout domains containing operators (TP, vP, DP) denote predication, which are subject to point of view (cf. Zribi-Hertz's 1989 domain-of-point-of-view).

The hypothesis that logophoric operators can occur in each spellout domain has another consequence: it derives why Condition C need not be violated when the logophoric center of a clause is represented as a full DP in the clause containing the exempt anaphor. For example, (34) repeated below would be predicted to violate Condition C if the logophoric operator had to occur in the left periphery of the clause. Instead, our hypothesis implies that it can be lower, within the spellout domain of the vP phase containing *son propre*. This correctly avoids a Condition C violation given that A-movement (of the subject, here) can bleed such violations (see Sportiche, to appear, i.a.). Note also that we do not need to posit a coreferring operator in the TP phase: operators are required only when a logophor needs to be (locally) licensed; moreover, the subject here is presented from the speaker's perspective rather than from Paul's, which means that, even if  $OP_{LOG}$  was present at TP, it would not take Paul as subject, but the speaker.

- (75) [Le courage de Paul<sub>i</sub>]<sub>k</sub> [<sub>VP</sub> t<sub>k</sub>  $OP_{LOG-i}$  a sauvé des flammes à la fois sa<sub>i</sub> propre maison et celle des voisins].  
 '[Paul<sub>i</sub>'s courage]<sub>k</sub> [<sub>VP</sub> t<sub>k</sub>  $OP_{LOG-i}$  saved from the fire both his<sub>i</sub> own house and the neighbors'.]

Similarly, our hypothesis correctly predicts that the apparent antecedent of the anaphor (the overt DP denoting the logophoric center) can be further embedded in the clause as in (76) or in (77)<sup>45</sup> (repeating example (v) from fn. 25). No Condition C violation is triggered because the logophoric operator is within the spellout domain of the DP phase in these cases, which is naturally construed as a logophoric domain under the discourse and syntactico-semantic conditions of the sentence.

- (76) Ces racontars sur le fils du voisin ramènent au souvenir de Marie<sub>i</sub> [<sub>DP</sub>  $OP_{LOG-i}$  les ignobles propos des médias sur son<sub>i</sub> propre fils].  
 'The gossip about the neighbor's son brings back to Mary<sub>i</sub>'s memory [<sub>DP</sub>  $OP_{LOG-i}$  the media's horrible words about her<sub>i</sub> own son].'

<sup>44</sup> This is supported by the fact that expressions such as *according to x* do not only modify clauses, but also nouns.

<sup>45</sup> Even if we adopt Belletti & Rizzi's (1988) proposal about the structure of *psych*-verbs (where the object c-commands the subject at some level of representation, i.e. before movement of the subject when it is in the theme position), the anaphor *lui-même* is not plain here, since *Marc* is embedded within the object and thus cannot c-command *lui-même* at any level of representation.

- (77) [<sub>DP</sub> OP<sub>LOG-i</sub> Les méchants commentaires des internautes sur lui<sub>i</sub>-même] ont atteint le moral de Marc<sub>i</sub>.  
 ‘[<sub>DP</sub> OP<sub>LOG-i</sub> The net surfers’ mean comments about himself<sub>i</sub>] have affected Marc<sub>i</sub>’s morale.’

At the same time, our hypothesis allows an exempt anaphor to occur within the subject as in (26) repeated below: the active logophoric operator is within the TP spellout domain<sup>46</sup> in this case.<sup>47</sup>

- (78) [La mère de Julie]<sub>i</sub> pense que [<sub>TP</sub> OP<sub>LOG-i</sub> sa<sub>i</sub> propre mère devrait être élue].  
 ‘[Julie’s mother]<sub>i</sub> thinks that [<sub>TP</sub> OP<sub>LOG-i</sub> her<sub>i</sub> own mother should be elected].’

### 3.4. Deriving the other properties of exempt anaphors

In the previous sections, we have presented independent evidence for the hypothesis, summarized below, that logophoric operators provide A-binders of anaphors in their domain.

- *The syntactic status of logophoric operators*
  - There is one dedicated perspectival projection for OP<sub>LOG</sub> per spellout domain of phase (TP, vP, DP).
  - OP<sub>LOG</sub> has to be active if there is a logophor (e.g. exempt anaphor) in its domain.
  - OP<sub>LOG</sub> is a head taking a logophoric pronoun pro<sub>log</sub> as subject.
  - pro<sub>log</sub> is an A-binder.

As explained above, this derives the first difference between plain and exempt anaphors mentioned in section 1.2, namely the presence of visible locality requirements only for plain anaphors. Exempt anaphors are in fact also subject to such requirements, but their local binder pro<sub>log</sub> is silent. The overt DP referring to the logophoric center and coreferent<sup>48</sup> with pro<sub>log</sub> is thus misconstrued as the antecedent of the exempt anaphor.

We have also seen in section 2 that the semantic difference between plain and exempt anaphors also derives from the presence of that operator.

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<sup>46</sup> This is consistent with some previous proposals. Cinque (1999) argues that the Speech Act, Evaluative, Evidential and Epistemic Mood projections, in which Speas (2004) positions logophoric operators, are (the highest) elements of the TP-space, given that they can follow focused and topicalized phrases of the CP-periphery space. Charnavel & Mateu (2015) demonstrate that the logophoric operator responsible for the Clitic Coference Constraint in some Romance languages can occupy a position below the nominative projection. Nishigauchi (2014) claims that the set of projections that he calls POV – point of view – lies below Tense. But even if they propose a lower position for the operator than the standard CP periphery, these proposals still seem to only allow one operator per clause.

<sup>47</sup> If the anaphor is (within) the subject of the DP, it is not contained within the spellout domain of this DP and thus does not have to be bound within it (see Charnavel & Sportiche 2016 for more details).

<sup>48</sup> The logophoric pronoun pro<sub>log</sub> can also be bound by a quantified logophoric center:

(xiv) [Chaque garçon]<sub>i</sub> pense qu’on [<sub>vP</sub> pro<sub>log-i</sub> OP<sub>LOG</sub> prendra soin de lui<sub>i</sub>-même et de ses frères].  
 ‘[Each boy]<sub>i</sub> thinks that one will [<sub>vP</sub> pro<sub>log-i</sub> OP<sub>LOG</sub> take care of himself<sub>i</sub> and his brothers].’

The goal of this last section is to show that this is also the case of the three other properties distinguishing between exempt and plain anaphors.

### 3.4.1. Non-exhaustive binding

As observed in section 1.2, one of these properties is the apparent possibility of non-exhaustive binding: unlike plain anaphors, exempt anaphors seem to be able to have partial or split antecedents. The presence of the logophoric operator accounts for this property: what we in fact observe is not non-exhaustive binding of the anaphor, which must in fact be exhaustively bound by the logophoric operator (as seen in section 3.2), but non-exhaustive coreference (or possibly binding, see footnote 48) between the operator and the apparent overt antecedent(s) of the anaphor. Just like standard pronouns (including logophoric pronouns, see section 3.2), the silent pronoun  $pro_{log}$  introduced by the logophoric operator can refer to the sum of two antecedents or to part of an antecedent.

Split antecedence, schematized in (79), is illustrated in (80) (repeating (67)).

(79) antecedent-1<sub>i</sub> ... antecedent-2<sub>k</sub> ... [XP ... OP<sub>LOG-i+k</sub> ... anaphor<sub>i+k</sub>...]

(80) Christel<sub>i</sub> pense qu'Agness<sub>k</sub> a dit que l'avenir de son fils [VP OP<sub>LOG-i+k</sub> dépend d'elles<sub>i+k</sub>-mêmes et de leurs parents].

'Christel<sub>i</sub> thinks that Agness<sub>k</sub> said that her son's future [VP OP<sub>LOG-i+k</sub> depends on themselves<sub>i+k</sub> and their parents].'

In (80), the exempt anaphor *elles-mêmes* refers to the sum of *Christel* and *Agness*. This is because the pronoun introduced by the logophoric operator binding it refers to that sum, since these two attitude holders form the plural logophoric center of the domain. Split antecedence of  $pro_{log}$  in (80) is similar to that of the overt pronoun *elles* 'they' in (81).

(81) Christel<sub>i</sub> pense qu'Agness<sub>k</sub> a dit que l'avenir de son fils dépend d'elles<sub>i+k</sub> et de leurs parents.  
'Christel<sub>i</sub> thinks that Agness<sub>k</sub> said that her son's future depends on them<sub>i+k</sub> and their parents.'

Apparent split antecedence of exempt anaphors thus arises when the discourse and syntactico-semantic conditions determine a plural value for the logophoric center, and that the parts of that plural center are represented as distinct overt DPs in the sentence.

Partial binding can be explained in a similar way: there is in fact no partial binding of the anaphor, but partial coreference between the operator and its antecedent, as shown in (82)-(84).

(82) [antecedent<sub>i</sub> and x]<sub>k</sub> ... [XP ... OP<sub>LOG-i</sub> ... anaphor<sub>i</sub>...]

(83) [Christel<sub>i</sub> et ses enfants]<sub>k</sub> croient que l'avenir [<sub>VP</sub> OP<sub>LOG-i</sub> ne dépendra que de ses<sub>i</sub> propres efforts].  
 '[Christel<sub>i</sub> and her children]<sub>k</sub> believe that the future will [<sub>VP</sub> OP<sub>LOG-i</sub> only depend on her<sub>i</sub> own efforts].'

(84) [Christel<sub>i</sub> et ses enfants]<sub>k</sub> croient que l'avenir ne dépendra que de ses<sub>i</sub> efforts.  
 '[Christel<sub>i</sub> and her children]<sub>k</sub> believe that the future will only depend on her<sub>i</sub> efforts.'

In sum, exempt anaphors must be exhaustively bound, just like plain anaphors, but the illusion is created that they allow split or partial antecedents, because their silent binder does.

### 3.4.2. Strict readings

Another property that distinguishes exempt from plain anaphors, as mentioned in section 1.2, is the availability of strict readings in ellipsis and focus constructions: while plain anaphors are standardly assumed to only trigger sloppy readings, exempt anaphors can also give rise to strict readings (see Lebeaux 1984, Reinhart & Reuland 1993, i.a.).

This observation remains valid after stricter control of the data, namely if we adopt our inanimacy strategy for distinguishing between plain and exempt anaphors and if we incorporate Hestvik's 1995 and Kehler's 2002 discovery that anaphors in ellipsis behave differently in subordination and in coordination, as shown by the contrast between (85) and (86).

(85) John<sub>i</sub> defended himself<sub>i</sub> before Bill did. (✓sloppy/✓strict reading)  
 i.e. ... before Bill<sub>k</sub> defended {himself<sub>k</sub>/him<sub>i</sub>}.

(86) John<sub>i</sub> defended himself<sub>i</sub> and Bill did too. (✓sloppy/\*strict reading)  
 i.e. ... and Bill<sub>k</sub> defended {himself<sub>k</sub>/\*him<sub>i</sub>} too.

Indeed, the contrast between (87) and (88) below, in which the ellipsis site<sup>49</sup> is in a subordinate clause, confirms that inanimate (thus plain) anaphors only exhibit sloppy readings, while animate anaphors can give rise to both sloppy and strict readings.

(87) [Ta page internet]<sub>i</sub> contient plus de liens vers elle<sub>i</sub>-même que [la mienne]<sub>k</sub>.  
 i.e. que [la mienne]<sub>k</sub> ne contient de liens vers {elle<sub>k</sub>-même/\*[ta page internet]<sub>i</sub>}  
 '[Your webpage]<sub>i</sub> contains more links towards itself<sub>i</sub> than mine<sub>k</sub> (does).'

i.e. than mine<sub>k</sub> contains links towards {itself<sub>k</sub>/\*[your webpage]<sub>i</sub>} (✓sloppy/\*strict)

<sup>49</sup> In French, only TP-ellipsis is possible, not VP-ellipsis.

- (88) Coralie<sub>i</sub> possède plus de photos d'elle<sub>i</sub>-même que [sa soeur]<sub>k</sub>.  
 i.e. que [sa soeur]<sub>k</sub> ne possède de photos d' {elle<sub>k</sub>-même/Coralie<sub>i</sub>}  
 'Coralie<sub>i</sub> owns more pictures of herself<sub>i</sub> than [her sister]<sub>k</sub> (does).'  
 i.e. than [her sister]<sub>k</sub> owns pictures of {herself<sub>k</sub>/Coralie<sub>i</sub>} (✓sloppy/✓strict)

Our logophoric operator hypothesis accounts for these facts, assuming that the ellipsis site contains a copy of the anaphor (unlike what is assumed under analyses based on vehicle change, cf. Fiengo & May 1994, i.a.). In the case of inanimates, only sloppy readings are available because the elided anaphor has to be locally bound by the overt antecedent, e.g. *la mienne* 'mine' in (87), as represented in (89).

- (89) [Ta page internet]<sub>i</sub> contient plus de liens vers elle<sub>i</sub>-même que la mienne<sub>k</sub> (~~ne contient de liens vers elle<sub>k</sub>-même~~). (sloppy)  
 '[Your webpage]<sub>i</sub> contains more links towards itself<sub>i</sub> than mine<sub>k</sub> (~~contains links towards itself<sub>k</sub>~~).'

In the case of animates, the elided anaphor can also be directly bound by the local antecedent as a plain anaphor, which gives rise to a sloppy reading as in (90)a. But crucially, an elided animate anaphor can also be anteceded by a logophoric operator if it refers to the logophoric center. A strict reading can therefore arise as long as the antecedent of the non-elided anaphor is the logophoric center in the ellipsis site. This is the case in (90)b, where the acceptability of *sa chère* 'her dear' shows that *Coralie* is an empathy locus. As required by the parallelism condition in ellipsis (see Takahashi & Fox 2005, i.a.), the anaphor in the antecedent is also bound by a logophoric operator in that case.

- (90) a. Coralie<sub>i</sub> possède plus de photos d'elle<sub>i</sub>-même que [sa soeur]<sub>k</sub> (~~ne possède de photos d'elle<sub>k</sub>-même~~). (sloppy)  
 'Coralie<sub>i</sub> owns more pictures of herself<sub>i</sub> than [her sister]<sub>k</sub> (~~owns pictures of herself<sub>k</sub>~~).'  
 b. Coralie<sub>i</sub> [<sub>VP1</sub> OP<sub>LOG-i</sub> possède plus de photos d'elle<sub>i</sub>-même] que sa<sub>i</sub> (chère) soeur [<sub>VP2</sub> OP<sub>LOG-i</sub> (~~ne possède de photos d'elle<sub>i</sub>-même~~)]. (strict)  
 'Coralie<sub>i</sub> [<sub>VP1</sub> OP<sub>LOG-i</sub> owns more pictures of herself<sub>i</sub>] than her<sub>i</sub> (dear) sister [<sub>VP2</sub> OP<sub>LOG-i</sub> (~~owns pictures of herself<sub>i</sub>~~)].'

The same holds for focus constructions as shown in (7)b-(8)b repeated in (91)-(92): the availability of strict readings depends on the presence of a logophoric operator.

- (91) Seule Simone<sub>i</sub> [<sub>VP</sub> OP<sub>LOG-i</sub> aime les photos d'elle<sub>i</sub>-même].  
 'Only Simone<sub>i</sub> [<sub>VP</sub> OP<sub>LOG-i</sub> likes pictures of herself<sub>i</sub>].'  
 Focus alternatives: i. x likes pictures of x (sloppy)  
 ii. x OP<sub>LOG-i</sub> likes pictures of herself<sub>i</sub> (strict)

(92) Seule [ta page internet]<sub>i</sub> contient des liens vers elle<sub>i</sub>-même.

‘Only [your webpage]<sub>i</sub> contains links towards itself<sub>i</sub>.’

Focus alternatives: i. x contains links towards x

(sloppy)

ii. \*x OP<sub>LOG-i</sub> contains links towards itself<sub>i</sub>

(\*strict)

Thus, the availability of strict readings depends on the possibility of construing the antecedent of the overt anaphor as a logophoric center in the ellipsis site. This can explain the contrast between subordination and coordination observed by Hestvik (1995) and Kehler (2002) as subordination favors this possibility. For instance, John, the main subject of the sentence in (85) above, can easily be construed as the empathy locus of the whole sentence, including the subordinate clause. But in (86), it is hard to interpret John as the empathy locus outside the first conjunct: because of the symmetry of the coordinated structure, it is much more natural to construe Bill (the subject of the second conjunct) than John (the subject of the first conjunct) as the empathy locus in the second conjunct. This accounts for the contrast in French between (88), which involves subordination and licenses a strict reading, and (93), which involves coordination and only marginally licenses a strict reading: as indicated in (b), the logophoric operator does not have the right value to trigger a strict reading.

(93) a. Coralie<sub>i</sub> a accroché de nombreuses photos d’elle<sub>i</sub>-même dans son bureau et Suzanne<sub>k</sub> aussi (a accroché de nombreuses photos d’ {elle<sub>k</sub>-même/??Coralie<sub>i</sub>}).

‘Coralie<sub>i</sub> hung many pictures of herself<sub>i</sub> in her office and Suzanne<sub>k</sub> (did) too (hang many pictures of {herself<sub>k</sub>/??Coralie<sub>i</sub>}).’

(✓sloppy, ??strict)

b. Coralie<sub>i</sub> [<sub>VP1</sub> OP<sub>LOG-i</sub> a accroché de nombreuses photos d’elle<sub>i</sub>-même dans son bureau] et Suzanne<sub>k</sub> [<sub>VP2</sub> OP<sub>LOG-k/??i</sub> (~~a accroché de nombreuses photos d’elle<sub>k/??i</sub>-même~~) aussi].

‘Coralie<sub>i</sub> [<sub>VP1</sub> OP<sub>LOG-i</sub> hung many pictures of herself<sub>i</sub> in her office] and Suzanne<sub>k</sub> (did) [<sub>OP<sub>LOG-k/??i</sub></sub> (~~hang many pictures of herself<sub>k/??i</sub>~~) too].’

Coordination structures are nevertheless predicted to be able to give rise to strict readings if the antecedent of the overt anaphor is construed as a logophoric center in the ellipsis site. (94), where the expression *d’après* ‘according to’ makes Thomas an attitude holder in the whole sentence, shows that this is borne out.

(94) D’après Thomas<sub>i</sub>, la police [<sub>VP1</sub> OP<sub>LOG-i</sub> fait souvent appel à lui<sub>i</sub>-même et ses

informateurs], et les services secrets [<sub>VP2</sub> OP<sub>LOG-i</sub> ~~font souvent appel à lui<sub>i</sub>-même et ses informateurs~~ aussi].

(strict)

‘According to Thomas<sub>i</sub>, the police [<sub>VP1</sub> OP<sub>LOG-i</sub> often calls on himself<sub>i</sub> and his informants and the secret service (does) [<sub>VP2</sub> OP<sub>LOG-i</sub> ~~often call on himself<sub>i</sub> and his informants~~ too].’

Similarly, the strict reading in (93) becomes available if the discourse and syntactico-semantic conditions allow Coralie to be a logophoric center in the ellipsis site. This is the case in (95), in which the presence of *sa chère* ‘her dear’ in the second conjunct favors the construal of Coralie as an empathy locus there.

- (95) Coralie<sub>i</sub> [<sub>VP1</sub> OP<sub>LOG-i</sub> a accroché de nombreuses photos d’elle<sub>i</sub>-même dans son bureau] et sa<sub>i</sub> chère soeur [<sub>VP2</sub> OP<sub>LOG-i</sub> ~~a accroché de nombreuses photos d’elle<sub>i</sub>-même dans son bureau~~] aussi. (strict)  
 ‘Coralie<sub>i</sub> [<sub>VP1</sub> OP<sub>LOG-i</sub> hung many pictures of herself<sub>i</sub> in her office] and her<sub>i</sub> dear sister (did) [<sub>VP2</sub> OP<sub>LOG-i</sub> ~~hang many pictures of herself<sub>i</sub> in her office~~] too.’

### 3.4.3. Non-complementarity with pronouns

The last property that is usually assumed to distinguish exempt from plain anaphors is their distribution in free variation with pronouns, while plain anaphors are supposed to be in complementary distribution with pronouns (Bouchard 1984, Lebeaux 1984, i.a.; cf. Safir 2004).

As noted by Hicks (2009) and Charnavel & Sportiche (2016), i.a., this difference is less robust than the other ones. While the plain anaphor *elle-même* cannot be replaced with the pronoun *elle* in (96) (repeating (9)), both the pronoun *son* and the anaphor *son propre* are acceptable in (97) (repeating (3)a).

- (96) [La Terre]<sub>i</sub> tourne sur elle<sub>i</sub>-\*(même).  
 ‘[The earth]<sub>i</sub> spins on it<sub>i</sub>\*(self).’

- (97) [Cette auberge]<sub>i</sub> fait de l’ombre à son<sub>i</sub> (propre) jardin et au jardin de la maison voisine.  
 ‘[This inn]<sub>i</sub> gives shade to its<sub>i</sub> (own) garden and to the garden of the neighboring house.’

This questions the existence of a complementary distribution between plain anaphors and pronouns, which motivated the assumption that the binding domains for anaphors and pronouns are identical. Such facts instead suggest that the domain for Condition B is smaller than the domain for Condition A (cf. Huang 1983, Chomsky 1986, Reinhart & Reuland 1993, i.a.).

Regarding exempt anaphors, the question of how they are predicted to be in free variation with pronouns hinges on the definition of Condition B and how it could be violated in the presence of a logophoric operator. In most cases, we can assume that an exempt anaphor can be freely replaced with a pronoun given that a pronoun does not require a logophoric operator and the logophoric operator is only active in the presence of a logophor in its domain. For instance in



anaphors is explained by assuming that they are the same objects: there are silent logophoric operators introducing logophoric pronouns that can A-bind seemingly exempt anaphors in their local domain. This allows us to explain both the syntactic and the semantic specificities of exempt anaphors, as compared to plain anaphors, without postulating a lexical difference between them.

In this paper, the logophoric operator hypothesis has been primarily motivated on the basis of French data. The hope is of course that this hypothesis explains the distribution of exempt anaphors more generally, i.e. in the many other languages where exempt and plain anaphors have the same form. As we have seen, this seems promising in cases like English *himself*, Japanese *zibun*, Mandarin *ziji*, among others, but a careful application of the logophoric tests and the other diagnostics mentioned will be necessary to confirm the predictions.

This does not mean that all these exempt anaphors will exhibit exactly the same characteristics as French ones. I leave open the possibility that other cases of morphologically identical plain and exempt anaphors exhibit additional, language-specific properties not found with these French anaphors. For instance, it seems that English *himself* is subject to an additional prosody-related condition preventing exempt *himself* from appearing in certain positions such as the direct object position as suggested by Ahn (2015) or Charnavel & Zlogar (2016). Also, Mandarin *ziji* seems to be subject-oriented, as opposed to French *son propre* and *lui-même*. Fully explaining the behavior of plain and exempt anaphors in other languages will thus require an understanding of other independent factors that could interact with the logophoric operator hypothesis in ways to be determined.

Moreover, the present article does not say anything about languages where the two kinds of anaphors are morphologically distinct. In particular, it does not exclude the existence of more specified anaphors: some anaphors in some languages may well be more specified, e.g. [-log], so as to be unbindable by perspectival elements (such anaphors would only be plain; a potential candidate could be Dutch *zichzelf*); or conversely, some anaphors in some languages may be more specified, e.g. [+log], so as to be necessarily perspectival (such anaphors would be logophors; potential candidates are Dutch *hemzelf* or Tamil *taan*, cf. Sundaresan 2012).

Furthermore, the focus of this article was on exempt anaphors that are not subject to any syntactic requirement (also sometimes called *free* anaphors). I did not aim to take a stand on the putative existence of so-called *long distance* anaphors (cf. Reinhart & Reuland 1993, Cole et al.

2006, Reuland 2011, i.a.), which are considered to be exempt from locality constraints (their antecedent can be outside the local binding domain defined by Condition A), but not from binding constraints (they still need to be bound). Such anaphors are also often assumed to be monomorphemic and subject-oriented, as opposed to complex anaphors such as French *son propre* and *lui-même*. The null hypothesis would be to reduce the behaviors of so-called long distance anaphors and free anaphors to a unique behavior (i.e. to capture both cases using the logophoric operator hypothesis). But this would imply that long distance anaphors have the same distributional and interpretive properties as free anaphors, which is an empirical question. This question is investigated in Charnavel & Sportiche 2017 in the case of Icelandic *sig*. Further careful empirical investigation should decide the issue whether long distance anaphors should be considered as a different category than exempt anaphors.

Besides crosslinguistic investigations, further work needs to be done to address several remaining questions tied to the logophoric operator hypothesis. My goal was to reduce the behavior of exempt anaphors to that of plain anaphors by using independently existing tests and mechanisms (binding, logophoric operator). But of course, the logophoric operator hypothesis could be made more precise by further specifying these mechanisms it involves (which should be done on independent grounds): on the one hand, the discourse and syntactico-semantic conditions that determine the value of a logophoric center in a domain; on the other hand, the binding mechanism for anaphors. Regarding the latter question, the logophoric operator hypothesis supports a Chomskian, antecedent-based theory of Condition A against predicate-based theories, which rely on the notion of coargumenthood, since logophoric operators are never coarguments. But the nature of binding involved in Condition A remains to be specified. This is controversial, as some reduce it to Agree (Hicks 2009, Reuland 2011, Rooryck & Vanden Wyngaerd 2011, i.a.), and others adopt a movement approach (see discussion in Charnavel & Sportiche 2016:section 5). Regarding the former, the precise examination of other types of logophors (besides exempt anaphors) should be crucially informative. In particular, it would be worth further investigating the behavior of motion verbs like *come*, which we have argued take a logophor as implicit argument.

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