Obligatory *de se* logophors in Ewe, Yoruba, and Igbo: variation and competition

Abigail Anne Bimpeh, Imke Driemel, Itai Bassi, Silvia Silleresi

1. Introduction

The term 'logophoric pronoun' or 'logophor' goes back to Hagège (1974) and has been widely used since Clements (1975). A simplified view of logophors is that they occur in the context of an attitude predicate, i.e., predicates that convey the attitude (thought, believe, speech, desire, etc) of an individual, and they unambiguously refer to that individual (the attitude holder). A typical case of logophoricity is shown for Ewe in (1a), where *yè* is the logophoric pronoun (henceforth LogP) occurring in the context of *be* 'say' and must refer to the attitude holder, Kofi, whose speech is reported. Besides the logophoric pronoun, Ewe has an ordinary pronoun (henceforth OrdP) *é* which can also occur in the context of an attitude predicate but cannot refer to the attitude holder (with a qualification, to be discussed later). Thus, in (1b), *é* refers to someone (contextually salient) other than Kofi.[1]

(1) a. Kofi$_1$ be **yè**$_{1/*2}$ dzo.   b. Kofi$_1$ be **é**$_{*1/2}$ dzo.   **Ewe**
         Kofi   say LogP   left   Kofi   say OrdP   left
         'Kofi said that he left.'   'Kofi said that he left.'   (Clements 1975: 142)

This paper examines logophoricity in three West African languages: **Ewe** (Kwa, Ghana), **Yoruba** (Benue-Congo, Nigeria) and **Igbo** (Benue-Congo, Nigeria). We provide new data from original fieldwork about the interpretation of LogPs and OrdPs in these languages.[2] Our main focus is on the distinction between *de se* reference and *de re* reference and how it is reflected in the pronominal systems of the languages. The paper is organised as follows: In section 2, we provide the background to our study. Section 3 presents our findings. Section 4 provides a novel analysis of the data set, highlighting pronominal competition and cross-liguistic variation. Section 5 concludes.

2. Background

The literature presents a number of disagreements with respect to the distribution of logophoric and ordinary pronouns in these languages. We will begin by discussing whether OrdP can refer to the attitude holder or not. (1b) showed that *é* must not refer to the attitude holder, and Bimpeh (2019) confirms this generalization in her pilot study on this question, as exemplified in (2a). However, as shown in (2b), Pearson (2015: 97) reports on the possibility of OrdP referring to the attitude holder. This judgment is available for two out of five speakers who served as consultants for her study. There seems to be a tension, then, between Pearson's results and other literature, a tension we try to clarify in this study.

[1] Ewe behaves like Abe (Kwa, Côte d'Ivoire) in this respect, see Koopman & Sportiche (1989: 579).

[2] We are grateful to our speakers Noble Ahiaklo-Kuz, Mary Amaechi, Daniel Aremu, Veronica Ebere Ugwu, Johnson Fọlọrunṣọ Ilọri, Anastasia Nuworsu, and Gerald Okey Nweya.

(2) a. Mawuse$_1$ be dɔ le **yè**$_{1/*2}$ / **é**$_{*1/2}$ wu-m. **Ewe**
Mawuse say stomach is LOGP / ORDP kill-PROG

'Mawuse said that she is hungry.' (cf. Bimpeh 2019: 2)

b. Kofi$_1$ be **yè**$_{1/*2}$ / **é**$_{\%1/2}$ dzo.
Kofi say LOGP / ORDP left

'Kofi said that he left.' (Pearson 2015: 94,97)

As for Igbo and Yoruba, both languages display a distinction between weak and strong pronouns, where the former have been argued to constitute clitics (Pulleybank 1986, Déchaine 2001). The strong forms have been identified as LOGPs in these languages. In Yoruba, according to Manfredi (1987), the LOGP *òun* must refer to the attitude holder, see (3). The observations regarding ORDP, however, are inconsistent for Yoruba as well. According to Pulleybank (1986) and Manfredi (1987), the ORDP *ó* cannot refer to the attitude holder, as shown in (3); but Adésolá (2005) and Lawal (2006) report that co-reference is possible for *ó*, see (4).

(3) Olú$_1$ wí pé **òun**$_{1/*2}$ / **ó**$_{*1/2}$ wá. **Yoruba**
Olu say that LOGP / ORDP come

'Olu said that he came.' (Manfredi 1987: 104)

(4) Olú$_1$ ti kéde pé **oun**$_1$ / **ó**$_{1/2}$ n' bò lóla. **Yoruba**
Olu ASP announce that LOGP / ORDP PROG come tomorrow

'Olu has announced that he is coming tomorrow.' (Adésolá 2005: 184)

For Igbo, Hyman & Comrie (1981) and Manfredi (1987) observe that the LOGP *yá* has to co-refer with the attitude holder, whereas the ORP *ó* cannot refer to the attitude holder, shown in (5).

(5) ó$_1$ sìrì nà **yá**$_{1/*2}$ / **ó**$_{*1/2}$ byàrà. **Igbo**
he said that LOGP / ORDP came

'He said that he came.' (Hyman & Comrie 1981: 19)

The second disagreement we wish to focus on has to do with so-called *de se* readings of LOGPs. A typical use of LOGP in an attitude context is associated with the inference that the attitude holder is aware that they are referring to themselves. Such a construal is a *de se* reading. For example, the *de se* reading of LOGP in (1a) implies that Kofi is aware that he is referring to himself; in Kofi's mind, the person who left is him. Using possible-world semantics, this can be modeled by saying that in (1a), *yè* refers to Kofi across the worlds compatible with Kofi's beliefs about the actual world (his 'doxastic alternatives'). Recently, Pearson (2015) claimed that Ewe LOGP does not require a *de se* reading, and also allows for the so-called *de re* reading, which implies a subtler relation of co-reference with the attitude holder. On a *de re* reading, the attitude holder has some intended description in mind, which unbeknownst to them actually refers to them. In other words, the pronoun refers to the attitude holder in the actual world, but not in his doxastic alternatives. Such potential readings can be accessed using 'mistaken identity' scenarios as in (6).

(6) <u>De re</u> *Context: John has just found an old paper that he wrote, but he doesn't realize that he is the author of the paper. He reads it and is impressed by what a good paper it is. He says, "Whoever wrote this paper is clever."*

John be **yè** le cleva. **Ewe**
John say LOGP COP clever

'John said that he was clever.' (Pearson 2015: 98)

Pearson (2015) reports that in the mistaken identity scenario in (6), most of her speakers could use the logophoric pronoun to refer to John's 'unrecognized self' (see also Satik (2021)). We want to point out that ORDP was not tested in this scenario.

Recently, Bimpeh (2019) made dissenting claims to Pearson's. In Bimpeh's data as exemplified in (7), LogP is incompatible with a senario of a *de re* coreference, suggesting that Ewe's LogP nevertheless is confined to describe *de se* coreference.

(7) De re *Context: An Asian woman was declared missing from a party touring the Eldgjá volcanic region in south Iceland after getting off the party's bus to freshen up. She only hopped off the bus briefly, but had also changed her clothes - and her fellow travelers did not recognize her when she climbed back on again to continue the party's journey. When the details of the missing person were issued, the woman reportedly didn't recognize her own description [woman with a pink sweater] and unwittingly joined the search party for herself.*

#Asia	nyɔnu	la	xɔese	be	**yè**	bú.	**Ewe**
Asia	woman	DEF	believe	COMP	LogP	lost	

'The Asian woman believes that she is missing.' (Bimpeh 2019: 9)

As far as we are aware, the *de se-de re* distinction has not been empirically investigated thoroughly in Yoruba or Igbo. Adésolá (2005: 183) briefly addressed the issue for Yoruba in a footnote. He provides paraphrases of sentences containing OrdP and LogP. The paraphrases indicate that the LogP *òun* only allows for *de se* co-reference, while the OrdP *rè* allows for both *de se* and *de re* co-reference, see (8) and (9). Anand (2006: 55-56) mentions that the judgements are shared by his speakers.

(8) *Paraphrase de se: Self-reference is intended by the reported speaker (or believer).*

Olú	gbàgbó	pé	ilé	**òun**	ti	wó.	**Yoruba**
Olu	believe	that	house	LogP.GEN	ASP	fall	

'Olu believes that his house has collapsed.' (Adésolá 2005: 183)

(9) *Paraphrase de re: It is possible that the reported speaker (or believer) does not know that he was in fact referring to his own house.*

Olú	gbàgbó	pé	ilé	**rè**	ti	wó.	**Yoruba**
Olu	believe	that	house	OrdP.GEN	ASP	fall	

'Olu believes that his house has collapsed.' (Adésolá 2005: 183)

Finally, as far as we know, no study has addressed the *de se-de re* question in Igbo.

In sum, while the co-reference possibilities of LogPs are consistently reported to be restricted to the attitude holder across languages, diverging observations have been made for OrdPs. Additionally, obligatory *de se* readings of logophors have been questioned, at least for Ewe.

In this study, we try to partly clarify the disagreements using novel elicitation data. Our attempt involves providing our consultants with minimal pairs of sentences differing only in that one sentence had LogP and the other OrdP, and we asked them to judge such pairs against various contexts. We will show below that, with this methodology, our consultants provided consistent judgements within each language and across constructions, although we found differences across languages.

3. Results

We elicited data from three Ewe speakers (two Anlo dialect and one Ewedome dialect), two Yoruba speakers and two Igbo speakers. All data was elicited via multiple Zoom sessions with each speaker, transcribed live by the experimenters and checked by the speakers. We used a binary grammaticality judgment task designed as a yes/no task with joint presentation for both types of pronoun (LogP vs. OrdP) and contexts (Marty et al. 2020): speakers were asked to express their grammaticality judgments on both sentences (one with LogP and one with OrdP), but they were free to accept as grammatical both sentences, one sentence or none. Data points were verified across several attitude predicates such as *think*, *hope*, *say*, *promise*, and *want*. Speakers' spontaneous comments on the reasoning behind their responses were also noted.

First, we confirmed the basic fact that LOGPs unambiguously refer to the attitude holder. (10)-(12) illustrate this using several embedding predicates. With respect to ORDP, however, the data reveal cross-linguistic variation. More specifically, our results for Ewe align with Clements (1975) and Bimpeh (2019): ORDPs cannot co-refer with the attitude holder (given a neutral context; see below for *de re* contexts). On the other hand, ORDP *ó* in Yoruba and ORDP *ọ́* in Igbo do allow coreference with the attitude holder. Our results corroborate the judgements in Adésọlá (2005) and (Lawal 2006) for Yoruba ORDPs, but are not in line with Hyman & Comrie's (1981) observations with respect to ORDPs in Igbo.

(10) a. Koku$_1$ súsú be **yè**$_{1/*2}$ / **é**$_{*1/2}$ l̃ Afi.   **Ewe**
      Koku   think that LOGP / ORDP love Afi
      'Koku thinks that he loves Afi.'

    b. Koku$_1$ le mɔ-kpɔ-m be **yè**$_{1/*2}$ / **é**$_{*1/2}$ a ɖe Afi.
      Koku COP path-see-prog that LOGP / ORDP POT marry Afi
      'Koku hopes that he will marry Afi.'

    c. Koku$_1$ be **yè**$_{1/*2}$ / **é**$_{*1/2}$ a ɖe Afi.
      Koku say LOGP / ORDP POT marry Afi
      'Koku said that he will marry Afi.'

(11) a. Adé$_1$ rò wípé **òun**$_{1/*2}$ / **ó**$_{1/2}$ fẹ́ Ọlá.   **Yoruba**
      Ade think that LOGP / ORDP marry Ola
      'Ade thinks that he married Ola.'

    b. Adé$_1$ ń rètí wípé **òun**$_{1/*2}$ / **ó**$_{1/2}$ máa fẹ́ Ọlá.
      Ade PROG hope that LOGP / ORDP FUT marry Ola
      'Ade hopes that he will marry Ola.'

    c. Adé$_1$ (sọ) wí-pé **òun**$_{1/*2}$ / **ó**$_{1/2}$ máa fẹ́ Ọlá.
      Ade say that LOGP / ORDP FUT marry Ola
      'Ade said that he will marry Ola.'

(12) a. Ézè$_1$ chèrè nà **yá**$_{1/*2}$ / **ọ́**$_{1/2}$ lụ́rụ́ Àdá.   **Igbo**
      Eze think that LOGP / ORDP marry Ada
      'Eze thought that he married Ada.'

    b. Ézè$_1$ nwèrè ò-lìlè-ányá nà **yá**$_{1/*2}$ / **ọ́**$_{1/2}$ gà à-lú Àdá.
      Eze have NOM-look-eyes that LOGP / ORDP FUT PTCP-marry Ada
      'Eze is hopeful that he will marry Ada.'

    c. Ézè$_1$ sì-rì nà **yá**$_{1/*2}$ / **ọ́**$_{1/2}$ gà à-lú Àdá.
      Eze say-PST that LOGP / ORDP FUT PTCP-marry Ada
      'Eze said that he will marry Ada.'

Next, we tested *de re* ('mistaken identity') contexts. Across all three languages, LOGPs are consistently rejected in *de re* contexts by all of our speakers, while ORDPs were accepted as shown in (13). We observe that LOGPs were judged infelicitous, while the ordinary pronouns were fine for our consultants.

(13) <u>De re</u> *Context: Donald Duck (DD) went to the grocery store to buy flour. Then, he mistakenly put sugar in his cart. DD went on and then, he saw a trail of sugar going up and down the aisles and thought that someone's bag had a hole in it and looked around for the guy. DD says: "I wonder who is losing sugar"; "Certainly, the guy who is losing sugar is stupid, as he does not check". Later he says: "Is it me the stupid guy who is losing sugar?" "No, because I did not buy sugar but flour".*

a. Donald Duck súsú be **#yè** / **é** dzɔ-mo-vi. **Ewe**
Donald Duck think that LOGP / ORDP exist.with-face-small
'Donald Duck thinks that he is stupid.'

b. Donald Duck chèrè nà **#yá** / **ọ́** bù ónyéńzúzù. **Igbo**
Donald Duck think that LOGP / ORDP COP stupid.person
'Donald Duck thinks that he is stupid.'

c. Donald Duck rò pé **#òún** / **ó** jẹ́ òmùgọ̀. **Yoruba**
Donald Duck think that LOGP / ORDP COP stupid.person
'Donald Duck thinks that he is stupid.'

Compare (13) to a minimally different *de se* context as in (14), which makes clear that Donald Duck is intending to refer to himself. Here, parallel to the data provided above ((10)-(12)), LOGPs are acceptable across languages, and ORDPs show a split: unacceptable in Ewe, acceptable in Yoruba and Igbo.

(14) <u>De se *Context:*</u> *Donald Duck (DD) went to the grocery store to buy flour. Then, he mistakenly put sugar in his cart. DD went on and then, he saw a trail of sugar going up and down the aisles and thought that someone's bag had a hole in it and looked around for the guy. DD says: "I wonder who is losing sugar" "Certainly, the guy who is losing sugar is stupid, and it is not me because I bought flour not sugar!" Later he says "But I did not check!" "Let me see if it's me the stupid guy who is losing sugar." He checks in his bag and sees the sugar. Finally, he realised.*

a. Donald Duck súsú be **yè** / **#é** dzɔ-mo-vi. **Ewe**
Donald Duck think that LOGP / ORDP exist.with-face-small
'Donald Duck thinks that he is stupid.'

b. Donald Duck chèrè nà **yá** / **ọ́** bù ónyéńzúzù. **Igbo**
Donald Duck think that LOGP / ORDP COP stupid.person
'Donald Duck thinks that he is stupid.'

c. Donald Duck rò pé **òún** / **ó** jẹ́ òmùgọ̀. **Yoruba**
Donald Duck think that LOGP / ORDP COP stupid.person
'Donald Duck thinks that he is stupid.'

(15) exemplifies the same point as (13). We constructed other *de re* and *de se* contexts and used other embedding predicates; the facts and generalizations described above replicated consistently. For reasons of space, then, we do not show other examples.

(15) <u>De re *Context:*</u> *Elmo goes to visit Big Bird. While there, Big Bird shows him old paintings he found from back when Elmo was living there with him. After looking at several pictures, Elmo does not recognize one of the paintings which is particularly pretty. Elmo says: "I wonder who painted this. Certainly, the person who painted is a good painter". Later he says: "Is it me the good painter who painted this? No, because I am not very talented in painting".*

a. Elmo be **#yè** / **é** nye nutala nyuie aɖe. **Ewe**
Elmo say LOGP / ORDP is thing.draw.one-who good INDF
'Elmo said that he is a good painter.'

b. Elmo sì nà **#yá** / **ọ́** nà-ésè íhé ǹké ọ́má. **Igbo**
Elmo say that LOGP / ORDP IPFV-paint thing nke good
'Elmo said that he is a good painter.'

c. Elmo so pé **#òún** / **ó** jẹ́ akunlé tí ó dára. **Yoruba**
Elmo say that LOGP / ORDP is painter REL RP good
'Elmo said that he is a good painter.'

5

To summarize, the following generalizations emerge from our study: (a) LoGPs obligatorily encode *de se* readings; (b) ORDPs allow *de re* readings; (c) ORDPs block *de se* readings in Ewe but not in Yoruba and Igbo. In the next section we offer a theoretical model to account for these generalization.

4. Analysis

4.1. Obligatory de se *semantics for logophors*

We start with accounting for the obligatory *de se* behavior of logophoric pronouns. Our proposal relies heavily on concepts and tools developed in recent decades in the semantic literature on *de se* attitudes.

The central novelty here is that the obligatory *de se* nature of LoGPs is encoded as a presupposition, introduced by a syntactic feature of LoGPs. The reason for this novelty will become evident in section 4.3, where we show that the hypothesis that logophors introduce a *de se* presupposition can be coupled with the theory of competition through *Maximize Presupposition!* to explain why the ordinary (non-logophoric) pronoun in Ewe do not admit *de se* readings.

Our proposal is embedded within the centered-world ontology of Lewis 1979, according to which attitude ascriptions involve quantification over world-individual pairs. The Lewisian analysis of *de se* makes use of the notion of a world's center, which is the individual who the attitude holder locates as themselves on the relevant worlds. A Lewis-inspired paraphrase of a sentence like *Donald Duck thinks he is stupid* (on the *de se* reading) is given in (16). Here and below, 'w_x' is shorthand for the world-individual pair $< w, x >$.

(16) $[\![$Donald thinks he^{de-se} is stupid$]\!]$ ≈ *in each world in the set of worlds doxastically accessible to Donald, the individual who Donald locates as himself—the* **Center**—*in that world is stupid.*

Logical Notation: $\forall w_x \in \text{BEL}_{Donald}$, *x is stupid$_w$*

Insipred by this, the Logical Form (LF) we propose for a sentence with a LoGP like *Donald Duck thinks that* LoGP *is stupid* is presented in (17). Below we supply a semantics for the syntactic pieces in a way that eventually results in the meaning in (16).

(17)
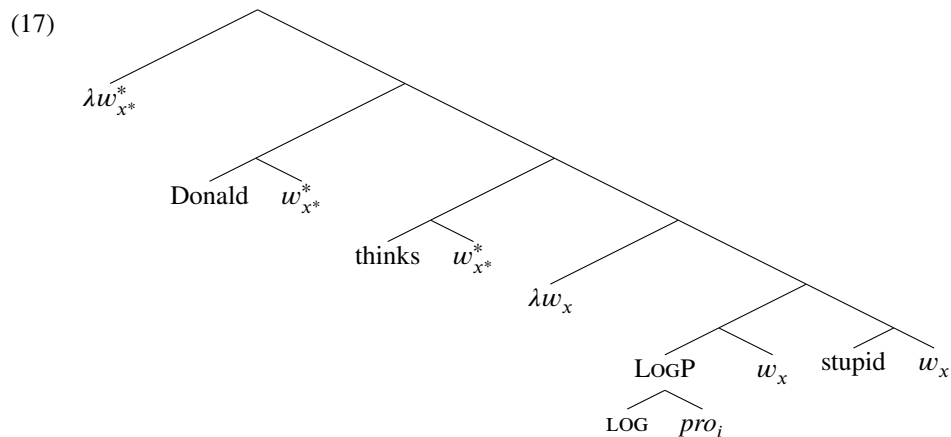
This LF assumes a theoretical framework where variables over worlds—in this case centered-worlds—are represented in the syntax and saturate argument slots in the denotation of verbal and nominal predicates (e.g. von Fintel & Heim 2011, Sauerland 2018). We designate such variables with the semantic type *s*.

(18) a. $[\![$Donald$]\!] = \lambda w_x.$ *Donald*. *(type $\langle s, e \rangle$)*

b. $[\![$stupid$]\!] = \lambda w_x.\lambda z.$ *z is stupid in w*. *(type $\langle s, et \rangle$)*

An attitude predicate like *think* (and *say*) relates a proposition to an individual, as standard; it encode quantification over doxastic alternatives, designated below by BEL (for 'belief'). After Lewis and followers, a BEL set for some person is a set of centered-worlds, defined in (20).

(19) $[\![\text{think}_{w^*_{x^*}}]\!]^g = \lambda p_{\langle s,t\rangle}\lambda y : \forall w_x \in \text{BEL}_y,\ w_x \in dom(p).\ \forall w_x \in \text{BEL}_y,\ p(w_x) = 1$[3]

(20) $\text{BEL}_y := \{w_x \mid w$ is compatible with y's beliefs and x is the 'Center' of w—the individual in w who y perceives as y's 'self' in $w\}$.

With this in place, we are now getting to our central innovation, namely the structure and interpretation of the logophoric pronoun itself. As can be seen in (17), LOGP consists of two elements in the syntax, one is a variable (pro_i), and the other is a feature LOG. pro_i is a variable over individual concepts—a function from centered-worlds to individuals (type $\langle s,e\rangle$). LOG's denotation is in (21): formally, LOG maps a concept (f) to itself, with the added condition that the concept's value in the evaluation world is the center of that world. Essentially, LOG introduces a presupposition responsible for making the logophor as a whole denote the attitude holder's Center.

(21) $[\![\text{LOG}]\!]^g = \lambda f_{\langle s,e\rangle}.\ \lambda w_x : \underbrace{f(w_x) = x}_{presupposition}.\ f(w_x)$

Notice that since LOG imposes identity between $f(w)$ and the center (x), the denotation can be written equivalently as in (22).

(22) $[\![\text{LOG}]\!]^g = \lambda f_{\langle s,e\rangle}.\ \lambda w_x : f(w_x) = x.\ \boldsymbol{x}$ (equivalent to (21))

Our analysis brings LOG close to ϕ-features on pronouns, like number or gender. As in the classical semantics for ϕ-features due to Cooper (1979) (see also Sauerland 2003, Heim 2008b, Charnavel 2019, a.o.), LOG contributing nothing but a presupposition on the value of a pronominal index.

(23) illustrates the compositional interpretation of the whole structure.

(23) $: \forall w_x \in \text{BEL}_{Donald},\ [\![pro_i]\!]^g(w_x) = x.\ \forall w_x \in \text{BEL}_{Donald},\ x\ is\ stupid_w$
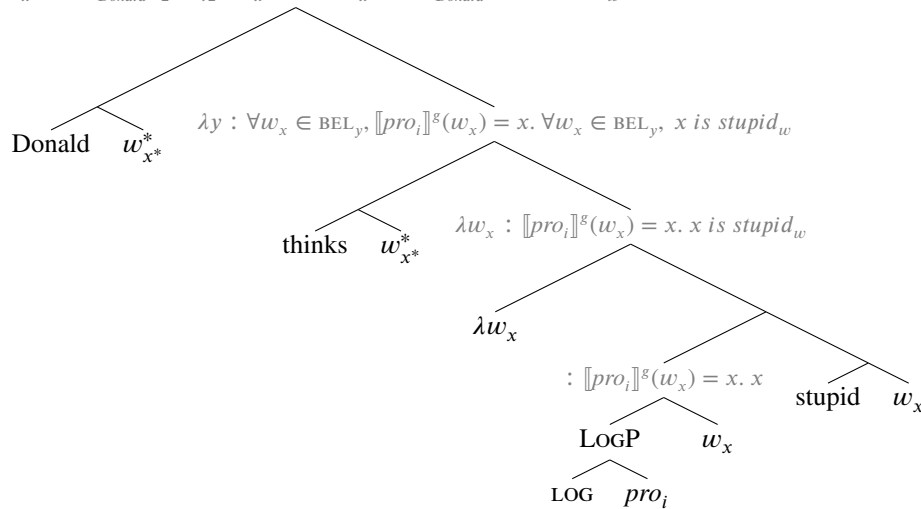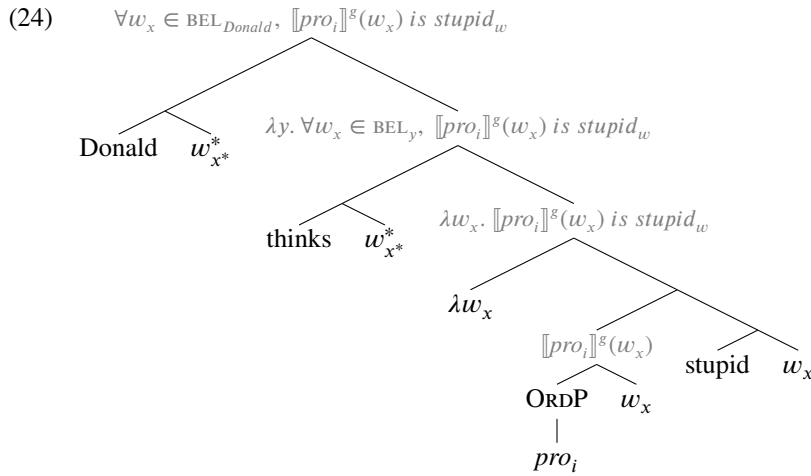

This derives the first desideratum of our analysis: LOGPs, at least in the languages under consideration, are obligatorily read *de se*. This means that LOGPs are not compatible with *de re* attitudes. To see this, recall that on a *de re* coreference, the 'real' referent of the pronoun is the attitude holder, but they themselves do not know that. In more formal parlance, the pronoun refers to the attitude holder in the actual world, but does not refer to them across the BEL worlds. Such a situation is incompatible with the semantic contribution of the LOG feature, which restricts the attitude to be about one-self (i.e. about the Center) across the relevant worlds.

---

[3] We employ the popular notation for representing functions where the part between the colon and the dot describes the domain of the function and is meant to model presuppositional information. The entry in (19), for example, is after Heim 1992 and encodes how the presuppositions of the embedded clause project to the matrix clause.

4.2. ОRDP *and* de re *readings*

We move on to our analysis of ОRDP. We assume that ОRDP syntax is just like a LОGP syntax, except that the LOG feature is absent. If the LOG feature is absent, so is its semantic contribution.

(24) $\forall w_x \in \text{BEL}_{Donald}, [\![pro_i]\!]^g(w_x) \text{ is stupid}_w$

               Donald $w^*_{x^*}$

             $\lambda y. \forall w_x \in \text{BEL}_y, [\![pro_i]\!]^g(w_x) \text{ is stupid}_w$

               thinks $w^*_{x^*}$

                    $\lambda w_x. [\![pro_i]\!]^g(w_x) \text{ is stupid}_w$

                 λw_x

                    $[\![pro_i]\!]^g(w_x)$ stupid w_x

                    ОRDP w_x

                     pro_i

The resulting intepretation of the structure with ОRDP in (24), to paraphrase, is '*In each of Donald's belief worlds w, the value of* $[\![pro_i]\!]^g$ *in w is stupid*'. Being a free variable, the resolution of pro_i depends on information from the context. There are no real constraints on the reference of ОRDP apart from contextual recoverability. This does not only explain why ОRDPs in the languages under consideration can refer to anyone salient, it also explains why they can corefer with the attitude holder on a *de re* reading, which is another desideratum of our analysis. A *de re* construal is the special case where the value of pro_i is an individual concept which refers to the attitude holder in the actual world but not across their BELief worlds ('accidental coreference'). For the case in (13), for instance, the context makes clear that the value of ОRDP is the concept 'the individual who spills sugar'. This concept refers to Donald in the actual world, but (given the context) not across his belief worlds.

The idea that the grammar of Ewe, Yoruba and Igbo does not impose any restrictions on the interpretation of ОRDP (beyond contextual recoverability) corresponds to the intuition that ОRDP is the underspecified, or 'Elsewhere', element in the pronominal system of these languages.

4.3. Competition

In fact, because there are no semantic constraints on the denotation of ОRDP, ОRDP is predicted to even be compatible with *de se* readings. This would be the case in (24) if $[\![pro_i]\!]^g = [\lambda w_x. x]$, i.e. the *self*-concept (assuming that the *self*-concept is always contextually salient). This does give the right result for Yoruba and Igbo, though not for Ewe. Recall from (14) that ОRDP blocks *de se* readings in Ewe.

Taking seriously the idea that ОRDP is the Elsewhere element, we suggest a blocking through competition theory of the Ewe pattern. Suppose we had a principle like the following, operative in Ewe:

(25)   <u>Ewe LОGP-ОRDP competition principle</u> (*informal*): To describe *de se* coreference with an attitude holder, use LОGP; else, use ОRDP.

The 'else' clause covers both *de re*-coreference and non-coreference with the attitude holder. Thanks to our presuppositional semantics of LОGP, we can make (25) precise using the principle of **Maximize Presupposition!** (Heim 2008a, Sauerland 2008, a.o.).

(26)   <u>MAXIMIZE LOG'S PRESUPPOSITION! (MLP)</u>: An LF with ОRDP cannot be used if replacing ОRDP with LОGP results in an LF whose presupposition is met in the context and which yields equivalent truth conditions.

MLP indirectly excludes a *de se* construal for Ewe OrdP by an 'anti-presupposition' (Percus 2006, a.o.). In any context in which OrdP was used and not LogP, it can be reasoned (by MLP) that the presupposition that would have been imposed by LogP is not met in that context, i.e. that $[\![pro_i]\!]^g$ is not the Center (the 'self') across the attitude holder's BEL worlds.[4]

4.4. Variation

At this juncture, the reader may wonder why the distribution of OrdPs in Yoruba and Igbo differs from the one in Ewe. If MLP is cross-linguistically stable, we would wrongly predict that OrdPs block *de se* readings across languages, contrary to fact. One option is to assume that MLP is not operative in Igbo and Yoruba. This would locate the variation in the semantics-pragmatics component. Another option is to retain MLP cross-linguistically and locate the variation in the morphology. We will entertain the second option in this section.

We implement the cross-linguistic variation within Distributed Morphology (Halle & Marantz 1993), a late insertion model where morpho-syntactic feature bundles are realized by morphological exponents post-syntactically. The insertion contexts for the pronominal subjects are given in (27), based on the syntax and semantics developed in the previous sections. For each language, we provide the relevant vocabulary items, shown in (28)-(30). We argued for the presence of LogP, due to MLP, in sentences which will receive obligatorily *de se* reading. Hence, we assume that such sentences will come with a LOG-feature together with a set of ϕ-features standardly assumed for pronouns. Thus, the feature bundle in (27a) feeds post-syntactic realization of the pronominal subject of the embedded clause. In Ewe, the exponent for LogP (28a) discharges every feature in (27a), and thus blocks the insertion of OrdP (28b), which only realizes a subset of the features in (27a). Following the *Subset Principle* (Halle 1997), *yè* will be chosen over *é* in Ewe *de se* contexts. Sentences with *de re* readings provide the feature bundle in (27b), that is a set of ϕ-features minus LOG. Consequently, only *é* can be inserted, as *yè* is incompatible.

(27) a. *de se* insertion context (23): [LOG,3,SG]

　　 b. *de re* insertion context (24): [3,SG]

(28) a. / yè / ↔ [LOG,3,SG] 　　　 b. / é / ↔ [3,SG] 　　　　　　 *VIs in Ewe*

The difference between Ewe on the one hand and Igbo and Yoruba on the other lies in the specification of exponents for LogP. Both LogPs, (29a) and (30a), realize just as many features in the *de se* insertion context as the respective OrdPs in (29b) and (29b). We assume that equally specific VIs lead to optionality of exponents (Driemel 2018, Davis 2021). Hence, there is no blocking effect for Igbo and Yoruba for *de se* readings, that is both LogP and OrdP can be used. In parallel to Ewe, however, LogPs are banned from *de re* contexts, as they are incompatible with (27b).

(29) a. / yá / ↔ [LOG,3] 　　　 b. / ọ́ / ↔ [3,SG] 　　　　　　 *VIs in Igbo*

(30) a. / òún / ↔ [LOG,3] 　　　 b. / ó / ↔ [3,SG] 　　　　　　 *VIs in Yoruba*

5. Conclusion

This paper documents that logophors in Ewe, Yoruba, and Igbo display obligatory *de se* readings, which is modeled with a novel presuppositional semantics triggered by a LOG-feature on the pronoun. Additionally, we observe in Ewe that logophor and ordinary pronoun are in complementary distribution, in particular that the pronoun *é* is banned from *de se* contexts. We derive this competition by MAXIMIZE LOG'S PRESUPPOSITION! A logophor is chosen over an ordinary pronoun in contexts where its presupposition is met. Not all languages with logophors, however, make this competition visible. In Yoruba and Igbo, competition is opaque due to underspecification of exponents at PF.

---

[4] MLP still allows *pro_i* to be co-valued with the attitude holder when evaluated in the *actual* world, so MLP does not threaten the account of OrdP's option for *de re*-coreference.

References

Adésolá, Olúsèye. 2005. *Pronouns and Null Operators – A-bar Dependencies and Relations in Yorùbá*. Rutgers University dissertation.

Anand, Pranav. 2006. *De de se*. MIT dissertation.

Bimpeh, Abigail Anne. 2019. Default de se: The Interpretation of the Ewe Logophor. In M. Ryan Bochnak, Miriam Butt, Erlinde Meertens & Mark-Matthias Zymla (eds.), *Proceedings of TripleA 5*, 1–15. Tübingen: Universitätsbibliothek Tübingen.

Charnavel, Isabelle. 2019. Presupposition failure and intended pronominal reference: person is not so different from gender after all. *Linguistic Inquiry* 50(2). 372–387.

Clements, George. 1975. The Logophoric Pronoun in Ewe: Its Role in Discourse. *Journal of West African Languages* 10. 141–177.

Cooper, Robin. 1979. The interpretation of pronouns. In F. Heny & H. Schnelle (eds.), *Selections from the Third Groningen Round Table, Syntax and Semantics*, vol. 10, 61–92. New York: Academic Press.

Davis, Colin P. B. 2021. Case sensitive plural suppletion in Barguzin Buryat: On case containment, suppletion typology, and competition in morphology. *Glossa: a journal of general linguistics (2016-2021)* 6(1). 116.1–26.

Déchaine, Rose-Marie. 2001. On the left edge of Yorùbá complements. *Lingua* 111. 81–130.

Driemel, Imke. 2018. Person mismatch agreement. In S. Hucklebridge & M. Nelson (eds.), *Proceedings of NELS 48*. Amherst, MA: GLSA.

von Fintel, Kai & Irene Heim. 2011. *Intensional semantics*. Ms., Massachusetts Institute of Technology, Spring 2011.

Hagège, Claude. 1974. Les pronoms logophoriques. *Bulletin de la Société de Linguistique de Paris* 69(1). 287–310.

Halle, Morris. 1997. Distributed Morphology: Impoverishment and Fission. In B Bruening, Y Kang & M McGinnis (eds.), *Papers at the Interface*, vol. 30 (MIT Working Papers in Linguistics), 425–449. New York: Academic Press.

Halle, Morris & Alec Marantz. 1993. Distributed Morphology and the Pieces of Inflection. In Kenneth Hale & S. Jay Keyser (eds.), *The View from Building 20*, 111–176. Cambridge Massachusetts: MIT Press.

Heim, Irene. 1992. Presupposition projection and the semantics of attitude verbs. *Journal of Semantics* 9. 183–221.

Heim, Irene. 2008a. Artikel und Definitheit. In Arnim von Stechow & Dieter Wunderlich (eds.), *Semantik / Semantics: Ein internationales Handbuch zeitgenössischer Forschung*, 487–535. De Gruyter Mouton.

Heim, Irene. 2008b. Features on bound pronouns. *Phi theory: Phi-features across modules and interfaces*. 35–56.

Hyman, Larry M & Bernard Comrie. 1981. Logophoric reference in Gokana. *Journal of African languages and linguistics* 3(1). 19–37.

Koopman, Hilda & Dominique Sportiche. 1989. Pronouns, logical variables, and logophoricity in Abe. *Linguistic Inquiry* 20. 555–588.

Lawal, Nike S. 2006. Yoruba Pronominal Anaphor Òun and the Binding Theory. In John Mugane, John P. Hutchison & Dee A. Worman (eds.), *Selected Proceedings of the 35th Annual Conference on African Linguistics*, 245–257. Somerville, MA: Cascadilla Proceedings Project.

Lewis, David. 1979. Attitudes de dicto and de se. *The Philosophical Review* 88(4). 513–543.

Manfredi, Victor. 1987. Antilogophoricity as Domain Extension in Igbo and Yoruba. *Niger-Congo Syntax and Semantics* 1. 97–117.

Marty, Paul, Emmanuel Chemla & Jon Sprouse. 2020. The effect of three basic task features on the sensitivity of acceptability judgment tasks. *Glossa: a journal of general linguistics* 5(1). 72.

Pearson, Hazel Anne. 2015. The interpretation of the logophoric pronoun in Ewe. *Natural Language Semantics* 23(2). 77–118.

Percus, Orin. 2006. Antipresuppositions. *Theoretical and empirical studies of reference and anaphora: Toward the establishment of generative grammar as an empirical science* 52. 73.

Pulleybank, Douglas. 1986. Clitics in Yoruba. In Hagit Borer (ed.), *Syntax and Semantics 9: The Syntax of Pronominal Clitics*, 43–64. New York: Academic Press.

Satik, Deniz. 2021. Control is not Movement: evidence from overt PRO in Ewe. Unpublished manuscript, February 2021, lingbuzz/004685.

Sauerland, Uli. 2003. A New Semantics for Number. In Robert B. Young & Yuping Zhou (eds.), *Proceedings of SALT 13*, 258–275. Ithaca, NY: Cornell University.

Sauerland, Uli. 2008. Implicated Presuppositions. In Anita Steube (ed.), *The Discourse Potential of Underspecified Structures*, 581–600. De Gruyter.

Sauerland, Uli. 2018. Counterparts block some 'de re' readings. *English Linguistics: journal of the English Linguistic Society of Japan* 35(1). 38–64.