The interpretation of the nonfinite logophoric pronoun in Anlo Ewe

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Logophoric pronouns

The logophoric pronoun refers to the individual whose thought or speech is reported in a given context (Clements (1975)). *be*, a complementizer in Ewe, can also mean *say*.

(1) a. Kofi be yèi/*k/*s dzo.
Kofi say LOG leave
’Kofi said he left.’

b. Kofi be e*i/*k/*s dzo.
Kofi say he leave
’Kofi said he left.’

c. Kofi be me*i/*k/*s dzo.
Kofi say I leave
’Kofi said I left.’

In Ewe, *yè* appears after the complementizer *be*. It has 3rd person features. It is used in indirect discourse (never in a quote).
The sentence below is ambiguous: each yè may refer to Kofi or Marie.

(2) Marieᵢ be Kofiⱽ xɔse be yèᵢ/j na yèᵢ/j cadeau
Mary say Kofi believe COMP LOG give COMP gift
'Mary said that Kofi believed that he/she gave him/her a gift.'
Apart from the logophoric pronoun yè, there is also the focus pronoun yé:

(3) Mango-nye-wo (yé) Kofi du. mango-1SG-PL FOC Kofi eat
    ‘Kofi ate [my mangoes]F.’

They have different tones, so we know which one we’re dealing with.
There is also the strong pronoun ye, which has no tone:

(4) yeᵢ/*yèᵢ wo vidyidyi-a dzo dyi na Amaᵢ. PRO/LOG GEN child-bearing-D straighten heart to Ama
    ‘Herᵢ having a child made Amaᵢ happy.’

This presentation focuses only on the logophoric pronoun.
I argue that the so-called logophoric pronoun yé is actually a non-logophoric overt PRO in nonfinite position (at least in the Anlo dialect of Ewe). Therefore, yé in Anlo Ewe is a new kind of pronoun, which I call a *left-periphery bound pronoun*.

I provide an update to Pearson (2015)’s reason, based on φ-features, for why PRO cannot have long-distance antecedents and *de re* readings. I argue that the feature [+log] is necessary for long-distance readings, and that *de re* readings for logophoric pronouns are highly marked.
Finally, I argue for a synthesis of two separate approaches to logophoric pronouns and control.

For Clements (1975), Pearson (2015), the logophoric pronoun is bound by an abstraction operator in the left periphery of the embedded clause.

For Chierchia (1990), OC PRO is bound by an abstraction operator in the left periphery clause, as well.

The main empirical finding is that we have evidence for a synthesis of these approaches given the phonetic identity between OC PRO and the logophoric pronoun: they are both ye. This provides a novel argument against approaches to control which involve movement, and support for Chierchia’s theory of control.
Ewe

- Ewe is a Niger-Congo language spoken in southeastern Ghana and southern Togo.
- Ewe forms a dialect continuum with Mina, which is mostly mutually intelligible with Ewe.
- A dialect continuum is a spread of language varieties which become less similar as they are further apart geographically.
- The dialects furthest apart, Mina and Ewe share a mutual intelligibility of 85%; distinct variations may even exist between towns that are miles away from each other (Goeh-Akué (2009)).
– Given this, we should not expect the logophoric pronoun in all dialects of Ewe to behave in the same way. And they don’t.
– As we will see, the dialects of Ewe differ greatly in the distribution of the logophoric pronoun.
– The logophoric pronoun is yi in Danyi Ewe.
– Some dialects, such as the Ewedome dialect, do not ever allow de re readings with yé.
– At least some do, such as Mina, Anlo and the speakers from Togo that Pearson (2015) got data from.
– In the Anlo dialect (perhaps the regional variation located in the Atiavi town in the Volta region), the logophoric pronoun has become what I call a left-periphery bound pronoun. The fact that this variation exists has to be accounted for.
For a long time it was thought that logophoric pronouns must be read *de se*; Heim (2002) for example predicted that the logophoric pronoun must be read *de se*. This was contradicted by Pearson (2015). Below is my own example of the *de re* reading noted by Pearson.

(5) Scenario: Kofi is taking his dog out for a walk, and his dog constantly poops on the ground, but Kofi doesn’t realize it. There are other people walking their dogs down the same path. He starts to walk back to his home, and he sees the trail of poop that he made on the ground. He gets very angry at whoever did this (but doesn’t realize that it was him). He thinks whoever this guy is, he is stupid.

a. Kofi bou be yè nyi honvi. (Kofi thinks he is stupid.)

The possibility of the *de re* readings in Ewe is in fact unusual. One prediction is that there might be dialects in which the *de re* reading is impossible.
Logophoric pronouns in languages such as Yoruba, Tangale and Wan require that the logophoric pronoun is read de se. The sentence in Yoruba below is false; if it could be read de re then it would be true (Nike S. Lawal, p.c.).

(6) Scenario: Taiwo sees a portrait of a very fat person from behind at his grandfather’s house. He thinks to himself "wow, that person is very fat." Taiwo doesn’t realize that it was him in the portrait; Taiwo actually thinks that he is not fat.

a. Taiwo ro pe oun sanra (Taiwo thinks he is fat).

Pearson leaves the question of how de re readings are possible in Ewe unanswered.
Yè in Spec, nonfinite TP

- All of this data is from the Anlo dialect of Ewe.
- It is in the form yèa (optionally ya). -a is the irrealis marker.
- All control infinitives have an irrealis mood (Stowell (1982)).

(7) Agbe₁ dzagbagba/nlobe/dzina/vovom/wosumu/dzi/susum
    Agbe try/forget/want/afraid/decide/like/intend
    be yè₁-a dzo.
    COMP LOG-IRR leave
    ’Agbe₁ tried/forgot/wanted/is afraid/decided/likes/intends PRO₁ to leave.’

(8) Kofi₁ dzagbagba/nlobe/dzina/vovom/wosumu/dzi/susum
    Kofi try/forget/want/afraid/decide/like/intend
    be yè₁-a kpo dzidzor.
    COMP LOG-IRR experience happiness
    ’Kofi₁ tried/forgot/wanted/is afraid/decided/likes/intends PRO₁ to be happy.’
Finiteness

Nonfinites cannot be progressive; nonfinites license NPIs.

(9)  a. Kofi$_i$ be  yè$_i$  dzo  dzo-m.
    Kofi  COMP  LOG  leave  RED-PROG
    'Kofi said he left (was leaving).'

   b. *Kofi$_i$ be  yè$_i$-a  dzo  dzo-m.
    Kofi  COMP  LOG-IRR  leave  RED-PROG
    '(lit. Kofi$_i$ said PRO$_i$ to leave (*leaving).)'

(10) a. *Kofi$_i$ me-be  yè$_i$  dzo  o.
    Kofi  NEG1-COMP  LOG  leave  NEG2
    'Kofi said he left (was leaving).'

   b. Kofi$_i$ me-be  yè$_i$-a  dzo  o.
    Kofi  NEG1-COMP  LOG-IRR  leave  NEG2
    '(lit. Kofi$_i$ said PRO$_i$ to leave (*leaving).)'
Ewe doesn’t have covert PRO

You can’t leave a gap instead of the logophoric pronoun, in any sentence with ...be yèa...:

(11) *Agbe\textsubscript{i} dzagbagba be $\emptyset$ a dzo.
    Agbe try COMP $\emptyset$ IRR leave
    ’Agbe\textsubscript{i} tried PRO\textsubscript{i} to leave.’

This looks like a that-trace effect. This means that it doesn’t involve movement with a trace or covert PRO (but it could still involve movement with resumptive pronouns). Be is not optional either.
Yèa is read as a bound variable

It’s been noted that PRO is interpreted as a bound variable (Landau (2013)). So is yè.

(12) Ame adeke me be yè-a dzo o.
    person no-one NEG1 COMP LOG-IRR leave NEG2
    ’No one said to leave.’

(13) Ame adeke me dzagbagba be yè-a kpo
    person no-one NEG1 try COMP LOG-IRR experience
dzidzor o.
happiness NEG2
    ’No one tried to be happy.’
Chierchia (1990) first noted that PRO must be read *de se*. This context and sentence is from Hornstein (1999), translated:

(14) Kofi is a war hero who suffers from amnesia and remembers nothing of his wartime experiences. Suppose this person sees a TV program describing his own exploits, and is impressed with the courage exhibited by that person, who he does not know is himself. Kofi comes to believe that the hero will win a medal.

a. Kofi$_i$ emo kpom be yè$_i$-a ho kplu.
   Kofi expect see COMP LOG-IRR COP medal
   ’*Kofi$_i$ expects PRO$_i$ to get a medal.’
Yèa must be c-commanded

(15) \[Agbe_k \text{ fe } velia-wo]_i \text{ dzagbagba be } \ yè_i/**_k-wo \text{ dzo.}\]

Agbe GEN friend-PL try COMP LOG-PL leave

‘Agbe’s friends tried to leave.’

(16) \[Kofi_k \text{ fe } dzila-wo]_i \text{ wosusu be } \ yè_i/**_k-wo \text{ ho } \text{ ekplu}\]

Kofi GEN parent-PL decide COMP LOG-PL COP medal

‘Kofi’s parents decided to get a medal.’
Yèa cannot usually have a long-distance antecedent

It’s been well-known that finite yè can have long-distance antecedents (ex. Clements (1975), Pearson (2015)). Yèa cannot.

(17) Agbej kadedzi be Kofi dzagbagba be yèi/*j-a
    Agbe believe COMP Kofi try COMP LOG-IRR
    kpo dzidzor.
    experience happiness
    ’Agbe believes that Kofi tried to be happy.’

(18) Agbej be Kofi dzi-be yèi/*j-a yide sukuu.
    Agbe COMP Kofi want-COMP LOG-IRR go-to school
    ’Agbe said that Kofi wants to go to school.’

It can only in the case of promise.
Inanimate control is possible

This is the big one, because ye can’t have inanimate referents in finite clauses (see Clements (1975), Pearson (2015)). Even in English, there is a sense in which the sentences below don’t involve personification and are still grammatical:

(19)  Emo$_i$ dzagbagba be ye$_i$-a dzegome.
    Machine try COMP LOG-IRR start
    ’The machine tried to reboot.’

(20)  Emo$_i$ wosumu be ye$_i$-a dzudzu.
    Machine decide COMP LOG-IRR stop
    ’The machine decided to stop.’

It’s difficult to find genuine examples of inanimate control in Ewe due to it having SVCs (I can’t use "John forced the car to stop").
Inanimate control is possible

The sentence below is fine. Usually, a sentence like this would be analyzed as a raising construction due to inanimates, but for reasons I cannot mention here, Ewe doesn’t seem to have raising.

(21) Ati-a_i dzegome/dzudzo/yidzi be yè_i-a nge.
    Tree-NOM begin/stop/resume COMP LOG-IRR break.
    ’The tree_i began/stopped/resumed PRO_i to break.’

If we follow Charnavel & Sportiche (2016) in using inanimacy as a test for logophoricity, this would mean that yè is not actually a logophoric pronoun. Charnavel & Sportiche (2016) is intuitive: it wouldn’t make any sense for trees and other inanimate objects to be logophoric anyway as they can’t have attitudes.
(22) Kofi\textsubscript{i} dzagbagba be yè\textsubscript{i}-a fle agbale afi Agbe. Kofi try COMP LOG-IRR buy book before Agbe

’Kofi tried to buy a book before Agbe tried to buy a book. (sloppy reading only)’

(23) Kofi\textsubscript{i} be yè\textsubscript{i} fle agbale afi Agbe. Kofi COMP LOG buy book before Agbe

’Kofi said he bought a book before Agbe said he bought a book. (both sloppy and strict readings available)’
The pronoun can also appear in the object position, but in this case it is always long-distance and doesn’t have the properties of overt PRO.

(24) Agbej kadedzi be Kofi_ip dzagbagba be yè_i/*j-a fo yè_j/?i.
    Agbe believe COMP Kofi try COMP LOG-IRR hit LOG
    ’Agbe_j believes that Kofi tried to hit him_j.’
Contra Pearson (2015)’s prediction (footnote 36), nonfinite yè, though it has the properties of PRO, does have $\phi$-features (*me is the weak first person pronoun).

(25) Me be me dzo.
(26) *Me be yè dzo.
<table>
<thead>
<tr>
<th>Properties</th>
<th>Finite yè</th>
<th>Nonfinite yè</th>
<th>OC PRO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phonetically overt</td>
<td>✓</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Has φ-features</td>
<td>✓</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Must be c-commanded</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Must be read \textit{de se}</td>
<td>✗</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Long-distance antecedent?</td>
<td>✓</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Bound variable</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Inanimate reading?</td>
<td>✗</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Sloppy reading only</td>
<td>✗</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
As I pointed out earlier, we don’t get these results for other dialects of Ewe. In the Ewedome dialect, we do not get the *de re* reading noted by Pearson, and we always get long-distance readings even in the subject position of nonfinite clauses, and an inanimate reading is not possible. An anonymous reviewer has also pointed out to me that their consultants did not agree with the inanimate control judgments I have provided here. I am currently surveying speakers of Anlo and so far, the 2 Anlo speakers I consulted both agreed with the data that I have provided here. So this distribution seems unique to the (maybe some regional) Anlo dialect of Ewe.
(27) Agbe_{i} kadedzi be Kofi_{j} dzagbagba be yè_{i/j}-a
Agbe believe COMP Kofi try COMP LOG-IRR
kpo dzidzor.
experience happiness
’Agbe believes that Kofi tried (for Agbe) to be happy.’

(28) Agbe_{i} be Kofi_{j} dzi-be yè_{i/j}-a yide sukuu.
Agbe COMP Kofi want-COMP LOG-IRR go-to school
’Agbe said that Kofi wants (Kofi/Agbe) to go to school.’
We get subject control with *promise*, as expected.

(29)  Agbe\textsubscript{i} do englugble ne Fafa\textsubscript{k} be yè\textsubscript{i}-a fo ntsu-a.  
\textquoteleft Agbe\textsubscript{i} promised Fafa\textsubscript{k} PRO\textsubscript{i} to beat the man.	extquoteright

Split control is also a possibility. This is particularly interesting.

(30)  Agbe\textsubscript{i} do englugble ne Fafa\textsubscript{k} be [yè\textsubscript{i}-wo meve yè\textsubscript{k}-wo\textsubscript{i+k} fo ntsu-a.  
LOG-PL \quad beat man-DEF  
\textquoteleft Agbe\textsubscript{i} promised Fafa\textsubscript{k} PRO\textsubscript{i} to beat the man.	extquoteright
Mysteriously, Anlo doesn’t have partial control.

(31) *Agbe₁ do englugble ne Fafaₖ be yèᵢ⁺-wo fo ntsu-a.
    Agbe make promise to Fafa COMP LOG-PL beat man-DEF
    ’Agbe₁ promised Fafaₖ PROᵢ⁺ to beat the man.’
The reason the logophoric pronoun and the control pronoun have the same phonetic form is because they’re both bound by the very same operator (potentially *be*).

– The usual approach to logophoric pronouns (ex. Anand (2006)): they’re bound by an operator in the left periphery of the embedded clause.

– Chierchia (1990)’s approach to OC PRO: bound by an operator in the left periphery of the embedded clause.

Heim (2002), among others, have already made this suggestion. All I’ve done is find empirical evidence for a synthesis of these two approaches.
Heim notes that Chierchia’s theory of control can also account for the distribution of logophoric pronouns.

\[
\begin{align*}
(32) & \quad [_{CP_1} \lambda w_1 [w_1 \text{John claimed}_{[log]} [_{CP_2} \lambda x_2[log] \lambda w_3 [w_3 \text{PRO}_{2[log]} \text{to be clever}]]]] \\
(33) & \quad [_{CP_1} \lambda w_1 [w_1 \text{John claimed}_{[log]} [_{CP_2} \lambda x_2[log] \lambda w_3 [w_3 \text{yè}_{2[log]} \text{was clever}]]]]
\end{align*}
\]

This is obviously false because PRO can have inanimate readings, but I will repair this shortly.
Since they only occur after *be*, it could be that they’re both bound by *be*. I assume a similar syntactic structure to Anand (2006)’s.

(34)

However, unlike Anand (2006) and Heim (2002), given the existence of inanimate control I argue that this operator need not be in the left periphery of an attitudinal embedded clause.
One conclusion from this data that I would like to argue for, however, is that \( \text{yè} \) is not a logophoric pronoun in Anlo Ewe. It is a new kind of pronoun that merely has to be bound in the left periphery of the embedded clause. I call this a *left-periphery bound pronoun*. This accounts for its phonetic form.
We define a concept generator as follows.

(35) \( G \) is a concept generator in \( w \) iff:

a. \( G \) is of type \(<e,<s,e>>\)

b. For all \( y \), \( G(y) \) is a \( y \)-concept in \( w \)

c. For all \( y \), if there is a \( w' \) such that \(<y,w'> \in \text{DoxAlt}(x,w)\), then \( G(y)=G(x) \)
The *de re* LF is as follows.

\[(36) \quad \begin{align*}
    & a. \quad [\lambda w_1 [\text{John} [[\text{say} W_1] [\lambda G_2 [1 [\lambda w_3 [\text{LOG}_1 G_2] [\text{is clever} \ W_2]]]]]]] \\
    & b. \quad [\lambda w: \exists_{<e, <s, e>>}. \ G \text{ is a concept generator for John in } w \ & \forall w' \\
    & \quad \in \text{Say}(\text{Kofi, } w), \ G(y) \text{ is clever in } w'] \\
    & c. \quad [\lambda w: \exists_{<e, <s, e>>}. \ G \text{ is a concept generator for John in } w \ & \forall w' \\
    & \quad \in \text{Say}(\text{Kofi, } w), \ G(\text{John}) \text{ is clever in } w']
\end{align*}\]

The concept generator wraps the pronoun in a projection called resP. The *de se* reading is obtained when there is no resP. We now need to find a way to block PRO from getting embedded in a resP and therefore obtaining *de re* readings.
– For Pearson, PRO is a minimal pronoun in the sense of Kratzer (2009), which inherits \( \phi \)-features from its controller. It inherits these \( \phi \)-features by binding with the abstraction operator; this means that it must be inside PRO’s local domain. For Kratzer, such phi-feature unification must be local, so it can’t take a long-distance antecedent.

– For Pearson, the ability of \( \text{yè} \) to take a long-distance antecedent triggers the possibility of embedding \( \text{yè} \) in a resP as a last resort option. In this way the two are connected with each other.

– But given that \( \text{yè} \) has a third person feature, no feature unification is needed and long-distance binding should be possible in Anlo, but this is wrong.
Nonfinite yè and PRO are also licensed by a [C] feature rather than [log]. I’ll just have to stipulate that [C] is a feature that stands for control and is not inherently logophoric.

(37) $[\text{CP}_1 \lambda w_1 \; [w_1 \; \text{John claimed}_{[C]} \; [\text{CP}_2 \; \lambda x_2[C] \; \lambda w_3 \; [w_3 \; \text{PRO}_{2[C]} \; \text{to be clever}]]]]$

(38) $[\text{CP}_1 \lambda w_1 \; [w_1 \; \text{John claimed}_{[\text{log}]} \; [\text{CP}_2 \; \lambda x_2[\text{log}] \; \lambda w_3 \; [w_3 \; \text{yè}_{2[\text{log}]} \; \text{was clever}]]]]$

Because control is not an inherently logophoric process, the long-distance readings and therefore de re readings are blocked. The feature [log] is required for long-distance readings.
Kinds of logophoric pronouns

We can split up logophoric pronouns into three classes.

– Class 1: The generic logophoric pronoun in languages like Yoruba, Tangale, Wan and some dialects of Ewe which is always read long-distance and de se.

– Class 2: The logophoric pronoun in Mina and some dialects of Ewe which is always read long-distance but may be read de re.

– Class 3: The left-periphery bound pronoun in Anlo which behaves like overt PRO and logophoric pronouns in different contexts and may be read de re.
Class 1 logophoric pronouns

Always long-distance, always de se (Yoruba, Tangale, Ewedome, Wan etc.)

(39) NP
    | yen
    [log]

The de re reading is blocked because it is just a highly marked occurrence that showed up in some dialects of Ewe.
[log] licenses long-distance readings; this makes sense if we assume Charnavel & Sportiche (2016), in which only logophoric anaphors may license long-distance antecedents and inanimate antecedents must be bound locally.
Always long-distance, optionally de se. (Mina, other dialects of Ewe)

(40)  
\[
\begin{align*}
\text{NP} & \quad \text{resP} \\
\text{yè} & \quad \lambda G \quad \text{NP} \\
\text{[log]} & \quad \text{yè} \\
\text{[log]} & 
\end{align*}
\]

The second tree is just something that has become possible over time.
In the Anlo dialect of Ewe: OC PRO must be read de se and must be local. Otherwise it’s the same as class 2.

(41)  
\[
\begin{array}{cccc}
\text{NP} & \text{resP} & \text{NP} & \ast\text{resP} \\
\text{yè} & \lambda G & \text{NP} & \text{yè} \\
[\text{log}] & \text{[C]} & \text{[C]} & \\
\end{array}
\]
– I have to make the admittedly unnatural assumption that resPs are blocked by [C], the control feature.
– This allows us to account for the distribution of PRO as well.
– Right now, this stipulation seems to be the only way to explain why PRO may not have long-distance readings and may not be embedded in a resP.
– Admittedly, I don’t have a satisfying answer for why pronouns with [C] (or just controlled pronouns, and PRO) may not be embedded in a resP.
– Maybe it’s because [log] licenses resPs and other features do not?
Control as movement

(42) Game of Thrones’s writers\textsubscript{i} tried to PRO\textsubscript{i} ruin the final season.  
(control)

(43) Game of Thrones’s fans\textsubscript{i} seem t\textsubscript{i} to hate the final season.  
(raising)

Since Hornstein (1999), many have assumed that there is no distinction, apart from control structures involving movement into a \(\theta\)-position.  
If control is movement, this seems to be at odds with Heim (2002)’s observation that PRO and logophoric pronouns seem similar, and that the distribution of PRO and logophoric pronouns can be both derived by Chierchia (1990)’s abstraction operator.
Nonfinite ÿè being a resumptive

– Why should the finite and nonfinite have the exact same phonetic form, down to the tone?

– A logophoric pronoun being a resumptive is not attested in the Niger-Congo languages (Buli, Ga, etc.) or even in Niger-Congo languages with logophoric pronouns (Yoruba). In the former it’s the third person pronoun in Yoruba it’s some kind of clitic.

– According to the control as movement account, this is a complete coincidence, but we know it’s not. This isn’t satisfying. We already have the tools to derive this similarity.

– In my approach, the answer is simple: in PF, ÿè is obtained when it’s bound by an operator in the left periphery.
Sulemana (2018) points out that the third person pronoun *wa* is also a resumptive pronoun in Buli; it is employed in long-distance extraction of a subject.

(44) (ka) wana_i *(ati) fi pa:-chim *(wa_i) ali dig lammu: Q who ? 2SG think 3SG ? cook meat.DEF ’Who do you think cooked the meat?’ Buli

Fortuitously, Sulemana (2018) argues in favor of the MTC, claiming that *wa* is a resumptive pronoun that is overt PRO derived by A-movement. The third person pronoun in Ewe, *e*, would be predicted to appear as the resumptive pronoun.
Conclusion

– I’ve argued that the logophoric pronoun in the Anlo dialect of Ewe is actually an overt PRO in nonfinite subject position; it’s not a logophoric pronoun, as previously thought. It’s a new kind of pronoun I call a *left-periphery bound pronoun*.

– Both control and logophoricity involve binding by an abstraction operator in the left periphery of the embedded clause.

– I’ve tried to explain the different distribution of logophoric pronouns across languages and dialects.

– Many other problems remain untouched (lack of partial control, etc.)

– Thank you!
References I


