Control is not raising: evidence from overt split control in Ewe

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Linguists originally drew a distinction between the two sentences below:

(1) Deniz$_i$ tried to PRO$_i$ eat at Nando’s after ECO-5. (control)
(2) Deniz$_i$ seems t$_i$ to be eating at Nando’s. (raising)

Since Hornstein (1999), many have assumed that there is no distinction, apart from control structures involving movement into a $\theta$-position.
In this approach, it’s difficult to derive split control, found with verbs of proposal and communication (Landau (2013)).

(3) Bill$_i$ told Monica$_k$ PRO$_{i+k}$ to eat at Nando’s together.

Prima facie, there doesn’t seem to be a way to move Bill and Monica. One solution for split control in Fujii (2006) does allow for movement without violating the MLC, via pied-piping, but neither this nor Boeckx et al. (2010)’s updated solution can derive the facts we see in Ewe.
– 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).

– The structure of the split control PRO is a coordinate structure with two pronouns (even in English):

\[
(4) \quad \text{CoordP}_{i+k} \\
\downarrow \\
\text{DP}_i \quad \text{Coord'} \\
\downarrow \\
\text{Coord} \quad \text{DP}_k \\
\downarrow \\
\emptyset \quad \text{PRO}
\]
Finally, I argue for a synthesis of two separate approaches to logophoric pronouns and OC PRO.

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.

I argue that we have empirical evidence for a synthesis of these approaches given the phonetic identity between OC PRO and the logophoric pronoun.
Logophoric pronouns

The logophoric pronoun refers to the individual whose thought or speech is reported in a given context (Clements (1975)).

(5) a. Kofi\textsubscript{i} be  yè\textsubscript{i}/*k/*s dzo.
    Kofi say LOG leave
    ’Kofi\textsubscript{i} said he\textsubscript{i} left.’

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

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

In Ewe, yè can only appear after the complementizer be. It has 3rd person features.
Two similar pronouns

Apart from the logophoric pronoun yè, there is also the focus pronoun yé:

(6) Mango-nye-wo (yé) Kofì 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:

(7) ye₁/*yè₁ wo vidyidyi-a dzo dyi na Ama₁.
PRO/LOG GEN child-bearing-D straighten heart to Ama
’Her₁ having a child made Ama₁ happy.’

This presentation focuses only on the logophoric pronoun.
Logophoric pronouns need not be read *de se*

Pearson (2015) shows that, contrary to assumptions by Heim (2002) among others, *yè* need not be read *de se*. Below is my own example of the de re reading noted by Pearson.

(8) 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.)
Yè in Spec, nonfinite TP

– It has not been examined in the specifier of a nonfinite clause.
– It is in the form yèa (optionally ya). -a is the irrealis marker.
– All control infinitives have an irrealis mood (Stowell (1982)).

(9) Agbe₁ djagbagba/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.’

(10) Kofi₁ djagbagba/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.’
You can’t leave a gap instead of the logophoric pronoun, in any sentence with ...be yèa...:

(11)  *Agbe_{i} djagbagba be ∅_{i} a  dzo.
    Agbe  try   COMP ∅ IRR leave
    ’Agbe_{i} tried PRO_{i} to leave.’

This means that it doesn’t involve movement with a trace or covert PRO (but it could still involve movement with resumptive pronouns).
Yèa is read as a bound variable

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

(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 djagbagba 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 yèi-{a}_{de se/*de re} 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\textsubscript{k} fe velia-wo\textsubscript{i} djagbagba be yè\textsubscript{i}/\textsubscript{k}-wo dzo. Agbe GEN friend-PL try COMP LOG-PL leave ’Agbe’s friends tried to leave.’

(16) [Kofi\textsubscript{k} fe dzila-wo\textsubscript{i} wosusu be yè\textsubscript{i}/\textsubscript{k}-wo ho 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 djagbagba be yèi/*j-a kpo
Agbe believe COMP Kofi try COMP LOG-IRR experience
dzidzor.
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 yè 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) Emoᵢ djagbagba be yèᵢ-a dzegome.
    Machine try COMP LOG-IRR start
    ’The machine tried to reboot.’

(20) Emoᵢ wosumu be yèᵢ-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 as we’ll see, Ewe doesn’t seem to have raising.

(21) Ati-a\textsubscript{i} dzegome/dzudzo/yidzi be yè\textsubscript{i}-a nge.  
Tree-NOM begin/stop/resume COMP LOG-IRR break.  
’The tree\textsubscript{i} began/stopped/resumed PRO\textsubscript{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.
(22) Kofi$_i$ djagbagba be yè$_i$-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$_i$ be yè$_i$ 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)’
## Summary

<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 <em>de se</em></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>
Finiteness

Nonfinites cannot be progressive; nonfinites license NPIs.

(24) 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).’

(25) 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).’)
Since Ewe has SVCs, object control is usually not possible, apart from verbs like *persuade* or *pressure*. We see the form *ne*, the pronoun for jussive mood in Ewe.

(26) Agbe₁ ble Fafa₂ nu be ne k fo ntsu-a.
    Agbe persuade Fafa nu COMP JUSS beat man-DEF
    ’Agbe₁ persuaded Fafa₂ PRO₂ to beat the man.’

Jussive mood involves issuing orders.
We get subject control with *promise*, as expected.

(27) \textit{Agbe}_i \quad \textit{do} \quad \textit{englugble ne} \quad \textit{Fafa}_k \quad \textit{be} \quad \textit{yè}_i\text{-a} \quad \textit{fo} \quad \textit{ntsu-a}. \quad \text{Agbe make promise to Fafa COMP LOG-IRR beat man-DEF} \quad \text{‘Agbe}_i \text{ promised } \textit{Fafa}_k \text{ PRO}_i \text{ to beat the man.’}

Split control is also a possibility.

(28) \textit{Agbe}_i \quad \textit{do} \quad \textit{englugble ne} \quad \textit{Fafa}_k \quad \textit{be} \quad \textit{[yè}_i\text{-wo meve} \quad \textit{Agbe make promise to Fafa COMP LOG-PL two+person} \quad \textit{yè}_k\text{-wo}_{i+k} \quad \textit{fo} \quad \textit{ntsu-a}. \quad \text{LOG-PL beat man-DEF} \quad \text{‘Agbe}_i \text{ promised Fafa}_k \text{ PRO}_i \text{ to beat the man.’}
Mysteriously, Ewe doesn’t have partial control.

(29)  *Agbe_{i} do englugble ne Fafa_{k} be yè_{i+}-wo fo ntsu-a.  
  Agbe make promise to Fafa COMP LOG-PL beat man-DEF 
  ’Agbe_{i} promised Fafa_{k} PRO_{i+} to beat the man.’
Problems for the control as movement approach

- There seems to be a raising vs. control contrast in Ewe.
- Can’t derive split control in Ewe.
- Can’t explain why the resumptive control pronoun and the logophoric pronoun have the same phonetic form.
Does Ewe have raising?

I haven’t been able to find a single instance of raising in Ewe. If control the same thing as raising, then this is not expected. If a language has control but no raising, then they’re not the same.

(30)  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.’

(31)  *E dzegome/dzudzo/yidzi be  \(ati-a_i\)  nge.
     It begin/stop/resume  COMP tree-NOM break.
     ’It began/stopped/resumed (for) the tree to break.’
Does Ewe have raising?

There’s a clear contrast with *seem*. The expletive construction is fine, but the one involving raising or the controlled pronoun is not. *Seem* in Ewe only takes finite embedded clauses, however.

(32) a. E wo be ati-a nge.  
    It seem COMP tree-NOM break  
    ’It seems the tree broke’

b. *Ati-ai wo be ti nge.  
    Tree-NOM seem COMP break  
    ’The tree seems to be breaking.’

c. *Ati-ai wo be yei nge.  
    Tree-NOM seem COMP LOG break  
    ’The tree seems to be breaking.’
In his work on Buli on overt control, Abdul-Razak Sulemana points out that one such predicate is *right* or *appropriate*. But this doesn’t work in Ewe either.

(33)  *Agbe nyọ  be  yè̀-a  na yi sukuu.  
Agbe  right  COMP  LOG-IRR  ?  go  school  
’Agbe is right to go to school.’

(34)  E nyọ  be  Agbe na yi sukuu.  
It  right  COMP  Agbe  ?  go  school  
’It is right for Agbe to go to school.’
In this case, OC PRO has the following structure:

(36) \text{yè}_i\text{-wo} \text{ meve} \quad \text{yè}_k\text{-wo} \\
LOG-PL \quad \text{two+person} \quad \text{LOG-PL}

\text{Meve} originates from coalescence between two words, \text{wome} and \text{eve} which mean \text{two} and \text{person}, respectively, Also, the complex pronoun is an external argument of the embedded verb.
– Each of the pronouns refer to one of the controllers. Together, the entire complex pronoun refers to both of the controllers.
– The structure *Agbe meve Fafa* is ungrammatical.
– *Meve* is a coordinator that can only be used with pronouns.

(37) Wo meve wo fo ntsua.
3PL two+men 3PL beat man
’They beat the man.’

(38) Agbe kple/*meve Fafa fo ntsua.
Agbe and/two+men Fafa beat man
’Agbe and Fafa beat the man.’
In the control as movement approach, yè would be analyzed as a resumptive pronoun, and the names would be base-generated. But this is just ungrammatical in Ewe:

(39) *[Agbe\textsubscript{i} meve Fafa\textsubscript{k}]\textsubscript{i+k}

(40) * CoordP\textsubscript{i+k}

\begin{center}
\begin{tikzpicture}


\node (Agbe) at (0,0) {Agbe}
\node (Coord) at (2,0) {Coord'}
\node (Coord') at (1,-2) {Coord}
\node (DP\textsubscript{i}) at (-2,-2) {DP\textsubscript{i}}
\node (DP\textsubscript{k}) at (3,-2) {DP\textsubscript{k}}
\node (meve) at (1,-4) {meve}

\path (Agbe) edge (Coord)
\path (Coord) edge (Coord')
\path (Coord') edge (DP\textsubscript{i})
\path (Coord') edge (DP\textsubscript{k})
\path (DP\textsubscript{i}) edge (meve)
\path (DP\textsubscript{k}) edge (meve);
\end{tikzpicture}
\end{center}
The solution to split control in Fujii (2006) involves pied-piping as follows.

\[(41)\]

```
  vP
   / \ \\
  v'  v
   /   / \\
 DP   VP
   /   / \\
 A   [A+B]
   /   / \\
  v   V'
   /   / \\
 DP   [A+B]
   /   / \\
  V   CP
   /   / \\
 DP   C'
   /   / \\
[A+B]  
```
Split control

(42)

\[ (\text{Agbe meve Fafa}) \]
Split control

- It doesn’t seem possible for the control as raising account to get the right results in the PF.
- What happens to meve? It’s clearly not a resumptive "coordinator." So why doesn’t it move up together with Fafa, as well?
- Why don’t we see three resumptive pronouns instead of two? Why are there no resumptive pronouns in the middle of the tree? And why don’t we see raising?
- The updated solution presented in Boeckx et al. (2010), which involves just movement of [+B] and then A, doesn’t fare any better, either. It still can’t account for meve.
- What these facts show is that the split controlled complex pronoun is not derived by any kind of movement.
Nonfinite ｙè is obviously not resumptive

- Why should the finite and nonfinite have the exact same phonetic form, down to the tone?
- According to the control as raising account, this is a complete coincidence, but we know it’s not. We already have the tools to derive this similarity.
- The control as raising account is fundamentally unable to account for the similarities between the finite and nonfinite ｙè.
- In my approach, the answer is simple: in PF, ｙè is obtained when it’s bound by an operator in the left periphery.
- Instead of looking for similarities between control and raising, why not look for similarities between control and logophoric pronouns in other African languages?
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.
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.

(43)

\[
\begin{array}{c}
\text{CP} \\
\text{C} \\
\text{be}_i \\
\text{TP} \\
\text{DP}_i \\
\text{yè} \\
\text{T'}
\end{array}
\quad
\begin{array}{c}
\text{CP} \\
\text{C} \\
\text{Op}_i \\
\text{TP} \\
\text{DP}_i \\
\text{PRO} \\
\text{T'}
\end{array}
\]

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.
Animacy

- Why is nonfinite yè not logophoric? Why is finite yè logophoric?
- In the Heim (2002) approach, a [log] feature is transferred from the attitude predicate to the logophoric pronoun or OC PRO and this requires it to be bound by the abstraction operator.
- Given that inanimate control exists, this can’t be the entire story.
- Control predicates that allow inanimate control likely transfer another feature, such as [C] (C for control).
- Why is finite yè never inanimate? I’m unsure. Maybe predicates that have inanimate control have something in common that I’m missing.
- Inanimate control has not been studied enough.
Another problem that remains is why nonfinite yè does not allow long-distance antecedents, unlike finite yè.

Pearson (2015) argues that this has something to do with PRO not having \(\phi\)-features.

This is clearly not correct, because nonfinite yè has \(\phi\)-features.

This might simply be because long-distance antecedents are licensed by the [+log] feature. Because nonfinite yè is underspecified for animacy, it cannot have de re readings or long-distance antecedents (?).
More work needs to be done

I’ve just shown one level of control. I still haven’t accounted for syntactic agreement between the controller and PRO. Landau is right to point out this problem in his criticism of the Chierchia approach:

(44) \[Agbe_k \text{fe velia-wo}_i \text{djackbagba be } y\grave{e}_i/^{*}_k\text{-wo dzo.}\]
\[Agbe \text{GEN friend-PL try COMP LOG-PL leave}\]
’Agbe’s friends tried to leave.’

But the approach to control in this presentation isn’t meant to be a complete theory of control. I think control has to involve the operation Agree in the narrow syntax at some point; this agreement might be a consequence of Heim (2002)’s [log] feature transfer.
Conclusion

– I’ve argued that the logophoric pronoun in the Anlo dialect of Ewe is actually an overt PRO in nonfinite subject position.

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

– It might be worthwhile to investigating what control and logophoric pronouns have in common.

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

– Thank you!


