On Logophoric Pronouns in African Languages:
Universals, Variation, and Larger Comparisons

Mark C. Baker

Rutgers University

General Remarks

There is a fractal quality to research on universals and variation.

The key issues arise at many levels of granularity:

- Variation in the language of a single speaker
- Variation across idiolects, unrecognized dialects
- Variation across recognizable dialects
- Variation across closely related languages

Micro-comparative (Kayne)

- Variation across distantly related languages
- Variation—and lack thereof—across unrelated languages

Macrocomparative (Baker)

Conceptually and practically, the issues raised by patterns of variation and universality are quite similar at each level.

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Heart of today's talk

- Variation across distantly related languages
- Variation—and lack thereof—across unrelated languages

The last phase of today's talk

Conceptually and practically, the issues raised by patterns of variation and universality are quite similar at each level.

The Topic: Logophoric Pronouns

Some languages have a special pronoun used in complement clauses to refer to the matrix "subject".

Okon a-ma-a-dọkkọ eka ọmọ/*imọ mbʌk. (Ibibio)
Okon told mother his/LOG news
'Okon told his mother the news.'

Okon a-ke-dọkkọ Edem ke Emem i-mma-gha imọ.
Ozo told Edem that Emem like-NEG LOG
'Okon$_i$ told that Edem$_k$ that Emem doesn't like him$_{i,*k}$'

Okon a-ke-dọkkọ Edem ke Emem i-mma-gha anye.
Ozo told Edem that Emem like-NEG LOG
'Okon$_i$ told that Edem$_k$ that Emem doesn't like him$_{k,\#i}$'

The Topic: Logophoric Pronouns

Some languages have a special pronoun used in complement clauses to refer to the matrix subject.

Òzó miànmián wẹ̀ẹ̀ ọ kìé èkhù. (Edo)
Ozo forgot that he opened door
'Ozo$_i$ forgot that s/he$_{k,*i}$ opened the door.'

Òzó miànmián wẹ̀ẹ̀ íṛèn kìé èkhù.
Ozo forgot that he+F opened door
'Ozo$_i$ forgot that he$_{i,*k}$ opened the door.'

Otherwise, *iren* is a strong/focused pronoun:

Òzó gbé ẹ̀rè/ ??íṛèn.
Ozo hit him/ him+F 'Ozo hit him.'
íṛèn / *ẹ̀rè ọré Òzó gbé.
Him+F/ *him FOC Ozo hit 'It's him that Ozo hit.'

Logophoric Pronouns vs Indexical Shift

In some languages, a first person pronoun used in a complement clauses can refer to the matrix subject.
Magahi (also Zazaki, Amharic, Uyghur, Nez Perce…)

This too is a special pronoun that can refer to agent, not goal:
Santeeaa Banteeaa-ke kahl-ai ki ham Ram-ke dekh-l-i-au hal.
Santee Bantee-ACC told-3S that I Ram-ACC saw-1S-NHA be
'Santee told Bantee that I (=Santee, not=Bantee) saw Ram.'

But it can also be in a matrix clause referring to the speaker:
Ham jaa-it h-i
I go-PROG be-1sS
'I am going.'

Logophoric pronouns vs LD reflexives

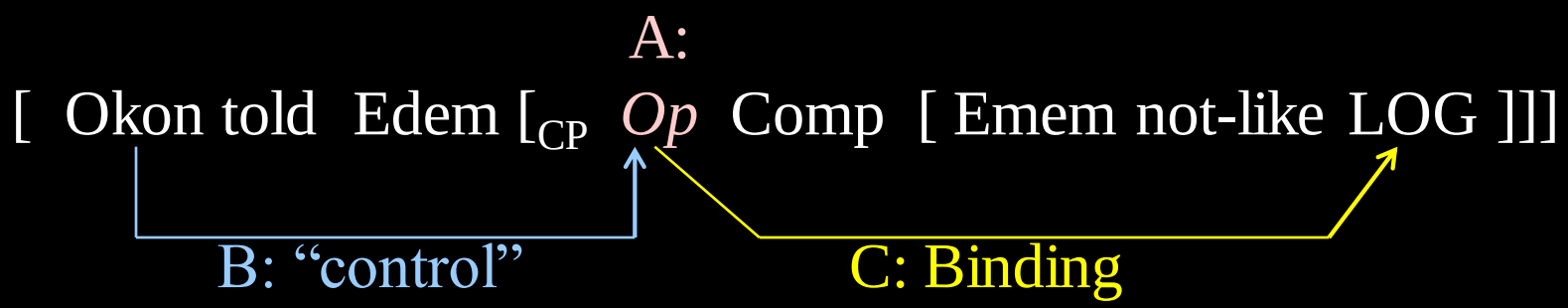
In some languages, a reflexive pronoun used in a complement clauses can refer to the matrix subject. Korean (many others)

This too is a special pronoun that can refer to agent, not goal:
John-i Mary-eykey [caki-ka am-ila-ko] malhayssta
John-NOM Mary-to self-NOM cancer-be-C said
'John told Mary that he/*she has cancer.'

But it can also be in a matrix clause referring to the subject:
Tom-i caki-lul piphanhayssta.
Tom-NOM self-ACC criticized
'Tom criticized himself.'

The Distribution of Logophoricity

My Analytical Framework



Okon a-ke-dọkkọ Edem ke Emem i-mma-gha imọ.
Ozo told Edem that Emem like-NEG LOG
'Okon$_i$ told that Edem$_k$ that Emem doesn't like him$_{i,*k}$'

…in the tradition of Koopman and Sportiche (1989) (Abe)

Analytical Framework: Initial Motivations

Pronouns behave differently above and below the C node:

Okon a-ke-dọkkọ eka ọmọ/* imọ ke Emem a-ma-a-dep ebot
Ozo told mother his/LOG that Emem bought goat
'Okon$_i$ told his mother that Emem bought a goat.'

Okon a-ke-dọkkọ Edem ke Emem i-mma-gha imọ/%anye
Ozo told Edem that Emem like-NEG LOG/him
'Okon$_i$ told that Edem$_k$ that Emem doesn't like him$_i$'

Analytical Framework: Initial Motivations

Pronouns behave differently depending on what is in C node

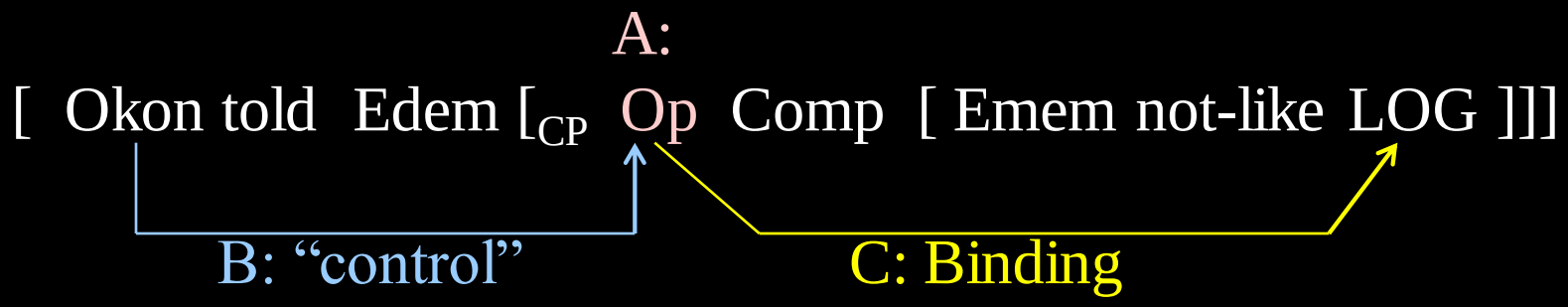
Obuut a-ma-a-mʌn Okon ke imọ/anye a-ma-a-yip ngwet.
Shame held Okon that LOG/he stole book
'Okon is ashamed that he stole a book.'

Obuut a-ma-a-mʌn Okon sia ayin ọmọ/*imọ a-ma-a-sọng Emem ayin
Shame held Okon because son his/LOG be.strong Emem eye
'Okon is ashamed because his son insulted Emem.'

Okon i-kit-te ke eka imọ a-due.
Okon see-NEG that mother LOG is.at.fault
Okon does not see that his mother is guilty.

Okon a-ma-a-kit naña Emem a-yip ebot ọmọ/*imọ.
Okon saw how Emem stole goal his/LOG
Okon saw Emem steal(ing) his goat.

My Analytical Framework



From this perspective, there are three subtopics to typologize:

1) Where can Ops occur? In what kinds of phrases?
2) What can control an Op? What are the restrictions on this?
3) What restrictions apply to Op binding the LOG pronoun?

Today I'll remark briefly on (1) and (2) and then go into (3) in somewhat more detail.

Components (1): Distribution of Op

1) Where can Ops occur? In what kinds of phrases?

Rough answer: They can in full finite CPs with verbal C.
Okon i-kit-te ke eka imọ a-due.
Okon see-NEG that mother LOG is.at.fault
Okon does not see that his mother is guilty.

They cannot in nominalizations with noun-like syntax.
Okon i-kit-te n-du-due eka ọmọ/*imọ
Okon see-NEG NMLZ-RED-be.at.fault mother his/LOG
Okon did not see his mother's fault.

More comparison is needed with: nominal CPs, reduced clauses, infinitives, gerunds. (Most allow LOG in Ibibio.)

Components (2): Control of Op

2) What can control an Op? What are the restrictions on this?
Rough answer: "Thematic subjects" can. The thematic part: the controller should be an agent/source/experiencer.

'Tell' & 'ask': the agent-subject but not the goal-object.
Emem a-ke-bip Okon mme Edem a-ma-a-kit imọ.
Emem asked Okon if Edem saw LOG
'Emem$_i$ asked Okon$_k$ if Edem saw him$_{i,k}$.'

'Hear': the experiencer subject or the source-object
Okon a-ke-kop a-to Emem ke Edem i-ki-maa-gha imọ.
Okon heard from Emem that Edem like-NEG LOG
'Okon$_i$ heard from Emem$_k$ that Edem does not like him$_{i,k}$.'

Components (2): Control of Op

2) What can control an Op? What are the restrictions on this?
Rough answer: "Thematic subjects" can (at the S&S interface)
Subject part: between two thematically eligible NPs, it matters which is the subject; subjects of active sentences always count.

Okon a-ma-a-toiyo ke imọ i-kpina i-dep adesi
Okon remembered that LOG should buy rice
Okon remembered that he should buy rice.

Nditọ e-ma=e-toiyo Okon ke mm- imọ/*imọ i-kpina i-dep adesi
Children reminded Okon that PL-LOG/*LOG should buy rice
The children reminded Okon that they/*he should buy rice.

NB: I have little clear evidence of variation so far: Like Ibibio is Yoruba, also the Ewe data from the literature (Clements).

Focus: Op binding the Pronoun

3) What restrictions are there on Op binding the LOG pronoun?
First impression: there are almost no restrictions. The logophoric pronoun can be any GF, it can be inside a deeper embedded clause; it can be inside a complex phrase (island).

Okon a-kere ke Edem a-ke-n-dọkkọ ke Mfọn e-kpono imọ.
Okon thinks that Edem me-told that Mfon respects LOG
'Okon$_i$ thinks that Edem$_k$ told me that Mfon respects him$_{i,k.}$

Okon a-kere ke Edem a-sʌk a-yem awo-nwaan se i-di-do imọ.
Okon thinks that Edem is seeking woman that marry LOG
Okon$_i$ thinks that Edem$_k$ is looking for a woman who will marry him$_{i,k}$.

Focus: Op binding the Pronoun

3) What restrictions are there on Op binding the LOG pronoun? But there are some restrictions that appear when one tries to have two different pronouns inside a clause referring to the same antecedent.

Okon a-ma-a-kere ke ayin ọmọ a-ma-i-mien imọ.
Okon thinks that son his insulted Log
?Okon thinks that his son insulted him.

Okon a-ma-a-kere ke (anye) a-ma-i-mien eka imọ.
Okon thinks that he insulted mother Log
*Okon thinks that he insulted his mother.

Focus: Op binding the Pronoun

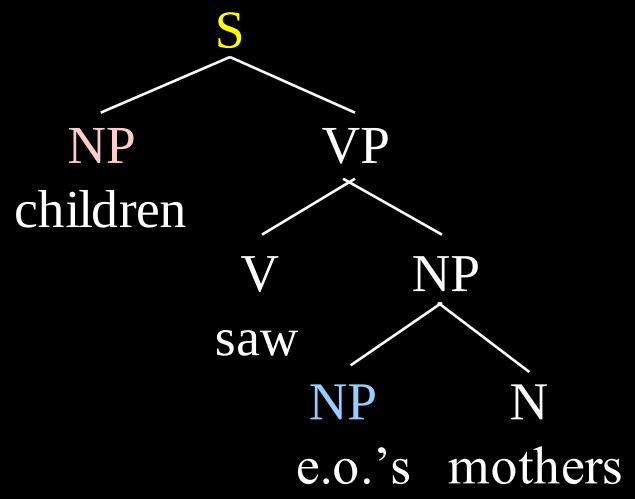
Primer on C-command (c-c):
X c-commands Y if the first category that properly contains X also contains Y. This is important for the behavior of pronouns in many languages

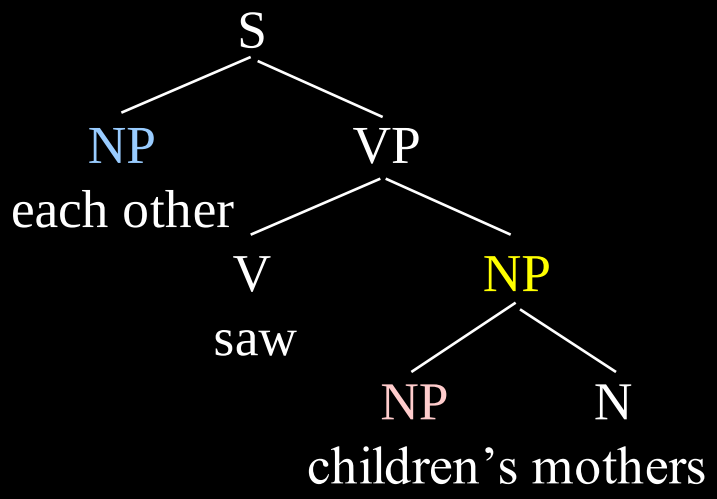
The children saw each other's mothers.	OK
The children's mothers saw each other.	* (on intended meaning)
Each other's mothers saw the children.	?*
Each other saw the children's mother.	*

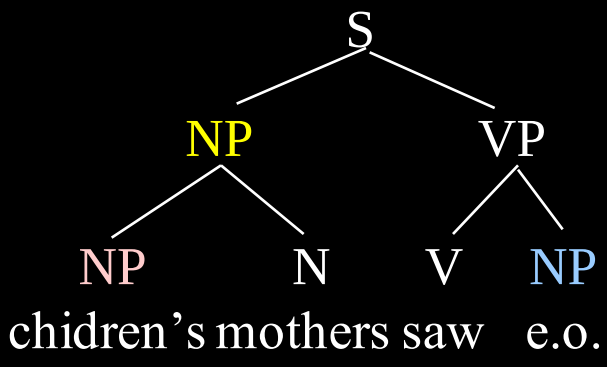
The antecedent of *each other* must c-command it.

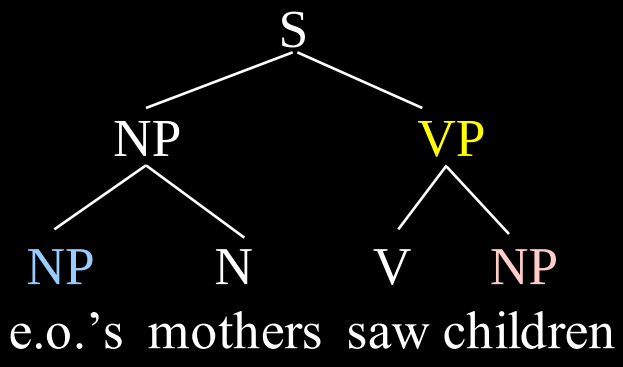
Focus: Op binding the Pronoun

X c-commands Y if the first category that contains X contains Y.









Focus: Op binding the Pronoun

Mixed pronouns are possible if neither pronoun c-commands the other; they are bad if either one c-commands the other.

Okon a-ma-a-kere ke ayin ọmọ a-ma-i-mien imọ.
Okon thinks that son his insulted Log
?Okon thinks that his son insulted him.

Okon a-ma-a-kere ke (anye) a-ma-i-mien eka imọ.
Okon thinks that he insulted mother Log
*Okon thinks that he insulted his mother.

Okon a-ma-a-kere ke imọ i-ma-i-mien eka ọmọ.
Okon thinks that LOG insulted mother his
*Okon thinks that he insulted his mother.

Okon a-ma-a-kere ke ñ-ya-a-nọ eka imọ ngwet ọmọ.
Okon thinks that I-will-give mother LOG book his
?Okon thinks that I will give his mother his book.

Focus: Op binding the Pronoun

There is surprising variation in this respect: Four languages in which this has been investigated have four different patterns:

Abe: (K&S 1989) It is always bad for a plain pronoun and a logophor to corefer, regardless of c-command.

Edo: (Baker 1998) It is bad for a plain pronoun to corefer with a logophor unless the logophor c-commands the pronoun.

Yoruba: (Adesola 2005) It is bad for a pronoun and a logophor to corefer only if the pronoun c-commands the logophor.

Ibibio: (Baker now) It is bad for a plain pronoun and a logophor to corefer if either one c-commands the other.

Focus: Op binding the Pronoun

In fact, this is not as chaotic as it may look. There is one important universal, plus one or two parametric choices.

- Plain pronoun c-cs logophor: *Bad in all*
- Logophor c-cs pronoun: OK Yoruba, Edo; bad Ibibio, Abe
- Neither c-cs the other: OK in Ibibio, Yoruba; bad Edo, Abe

…and a plain pronoun can't be in a logophoric domain even if there is no logophor in Edo & Abe, OK in Ibibio, Yoruba.

Op binding the Pronoun: Universal Part

Plain pronoun c-cs logophor: *This is bad in all*

Abe; (…) $Ø_i$ wu $n_{j,*i}$ wo n.
he saw LOG's dog DET
'(He said that) He saw his dog.'

Edo: Ozo hoo ne ọ mịẹ̀n igho írẹ̀n.
Ozo want that he find money LOG
'Ozo wants (him) to find his money.

Yoruba: Olu fẹ̀ ki o ri owo oun.
Olu want that he find money LOG
'Ozo wants (him) to find his money.

Ibibio: *Okon a-ma-a-kere ke anye a-ma-i-mien eka imọ.
Okon thinks that he insulted mother Log
Okon thinks that he insulted his mother.

Op binding the Pronoun: Universal Part

Why is it "universally" bad for a pronoun to c-c a logophor?

Claim: This taps into something deep. There are two parts:

- What logophors intrinsically are: bound variables
- Deep principles about how pronouns relate to bound variables: the "Strong Crossover" effect

Op binding the Pronoun: Universal Part

Step one A: Logophors are intrinsically bound variables, whereas pronouns may/must genuinely refer. Quantifiers:

Owo ndomo-keet i-ki-kere-ke ke Okon a-sua imọ.
person even-one think-NEG that Okon hate LOG
'Nobody thinks that Okon hates him.'

??Owo ndomo-keet i-ki-kere-ke ke Okon a-sua anye.
person even-one think-NEG that Okon hate him
'Nobody thinks that Okon hates him.'

*Owo ndomo-keet i-ki-kere-ke ke eko imọ a-sua anye.
person even-one think-NEG that mother LOG hate him
'Nobody thinks that his mother hates him.'

Op binding the Pronoun: Universal Part

Step one B: Logophors are intrinsically bound variables, (whereas pronouns genuinely refer.) Sloppy identity readings

Okon a-ma-a-bo ke imọ i-ya-i-di usọrọ odo, ye Emem nko
Okon said that LOG will-come party the and Emem too
'Okon said that he will come to the party, and Emem (did) too.'
(=Emem said that Emem will come to the party.)

Okon a-ma-a-bo ke anye i-ya-i-di usọrọ odo, ye Emem nko
Okon said that he will-come party the and Emem too
'Okon said that he will come to the party, and Emem (did) too.'
(Both Okon and Emem talk about another person coming.)

Op binding the Pronoun: Universal Part

Step two: Intrinsic pronouns cannot be derived variables that depend on a variable that they c-command. *Strong crossover*.

Quantifiers:

Everyone loves his mother — All x [x loves his=x mother]

He loves everyone's mother — *All x [he=x loves x's mother]

Interrogative phrases:

Who bought a picture of himself? — Wh x [x bought pic of him=x]

Who did he buy a picture of? — *Wh x [he=x bought pic of x]

Op binding the Pronoun: Universal Part

As semantic variables, logophors also induce Crossover effects.

Quantifiers:

Everyone loves his mother — All x [x loves his=x mother]

He loves everyone's mother — *All x [he=x loves x's mother]

Interrogative phrases:

Who bought a picture of himself? — Wh x [x bought pic of him=x]

Who did he buy a picture of? — *Wh x [he=x bought pic of x]

Logophors:

Okon thinks λ-x C x_{Log} saw [mother his=x] — OK in some.

Okon thinks λ-x C he=x saw [mother x_{Log}] — bad in all.

Op binding the Pronoun: Variable Part

What about the variation that one finds in other configurations? For example, when the logophor c-cs the plain pronoun.

Ozo hoo ne írẹ̀n tie ebe ẹ̀re. (Edo)
Ozo want C LOG read book his
Ozo wants to read his book.
Ade sọ pe oun ti ri iwe rẹ̀. (Yoruba)
Ade say that LOG ASP see book his
Ade said that he has seen his book.

Ok in Edo and Yoruba

(…) n wu O wo n. (Abe)
Log saw his dog DET
… he saw his dog.
Okon a-ma-a-kere ke imọ i-ma-i-mien eka ọmọ
Okon thinks that LOG insulted mother his
*Okon thinks that he insulted his mother. (Ibibio)

Bad in Abe and Ibibio

Op binding the Pronoun: Variable Part

What about the variation that one finds in other configurations?
Hypothesis: this has to do with the fact that pronouns should match their antecedents in phi-features.
Now phi-features vary some across languages (e.g. gender).
+Log counts as a phi-feature in some languages, not all.

(1) X thinks [Op that [Log[+L] saw Pronoun[-L]'s mother.]]

This representation is bad if and only if +L and –L are grammaticalized as phi-features (Yes: Ibi, Abe; No Edo, Yoruba)
Then (1) is out, as is "John$_i$ thinks he$_i$ saw her$_i$ mother"

(This may need to be supplemented with something like Rule H: a pronoun needs to take the closest c-cing NP as its antecedent.)

Op binding the Pronoun: Variable Part

Hypothesis: The variation in pronoun being bound by a logophor has to do with the fact that pronouns should match their antecedents in phi-features.

+Log counts as a phi-feature in some languages, not all.

- This is Koopman and Sportiche's analysis of Abe.
- Evidence of this in Ibibio comes from subject-verb agreement: [3rd sg –Log] triggers different agreement from [3rd sg +Log].

Ekpe a-bo ke (imọ) i-ma-i-to Udo.
Ekpe 3s-say that LOG 3sL-past-3sL-hit Udo

Ekpe a-bo ke (anye) a-diyọngọ ikwo ikwo mfọnmfọn.
Ekpe 3s-say that he 3s-know sing song well

Op binding: The other Variable Part

If neither pronoun binds the other, they can be coreferential in Yoruba and Ibibio, not in Edo and Abe.

Okon a-ma-a-kere ke ayin ọmọ a-ma-i-mien imọ
Okon thinks that son his insulted Log
?Okon thinks that his son insulted him. (Ibibio)
Olu sọ pe baba rẹ̀ ti ri iya oun.
Olu say that father his ASP see mother LOG
'Olu said that his father has seen his mother.' (Yoruba)

OK in Ibibio, Yoruba

Ozo hoo ne iye ẹ̀re bọọ írẹ̀n.
Ozo want that mother his comfort LOG.
#'Ozon wants his mother to comfort him.' (Edo)
(…) O tEEwu foto n lE n tE. (Abe)
his enemy picture DET bother LOG PRT
#(X said that) the picture of his enemy bothered him.

Bad in Edo, Abe

Op binding: The other Variable Part

There is a more basic difference that underlies this: a pronoun all by itself is bad in Edo and Abe, but OK in Yoruba and Ibibio.

Okon a-ke-bo ke Ima a-ma anye (Ibibio)
Okon said that Ima likes him
'Okon thinks that Ima likes him.'
Olu ti kede pe o n' bọ ọlọla. (Yoruba)
Olu ASP announce that he PROG come tomorrow
'Olu announced that he is coming tomorrow.'
'Olu said that his father has seen his mother

OK in Ibibio, Yoruba

#Ozo mianmian wẹ̀ẹ̀ ọ die ekhu. (Edo)
Ozo forget that he open door
'Ozon wants his mother to comfort him.'
#Yapi hE kO O ye sE. (Abe)
Yapi said that he is handsome
Yapi said that he is handsome.

Bad in Edo and Abe

Op binding: The other Variable Part

So there is a more basic difference here: a pronoun all by itself is bad in Edo and Abe, but OK in Yoruba and Ibibio.

*/OK: Okon$_i$ thinks [Op$_i$ C [… pronoun$_i$ …]]

So also */OK: Okon$_i$ thinks [Op$_i$ C [… pronoun$_i$ …Log$_i$ …]]

Perhaps this is another case of feature matching: Op is +Log in some languages and 0Log in others.

(Maybe: there is some funny instability in this effect. It might be a pragmatic tendency to not use a pronoun when Log is possible.)

Summary: Universals and Variation

The behavior of Logophoric pronouns is a mix of factors:

- Universals that get at the deep nature of the building blocks of language (e.g. the variable-reference distinction)
- Variable features on the morphosyntactic surface.

Both factors are at work in the operator binding the pronoun.

- The control of the operator part seems relatively invariant (over a small sample size): lots of Ibibio, some Yoruba, a bit of Ewe.
- The distribution of the operator is largely unknown; as least there are implicational patterns.

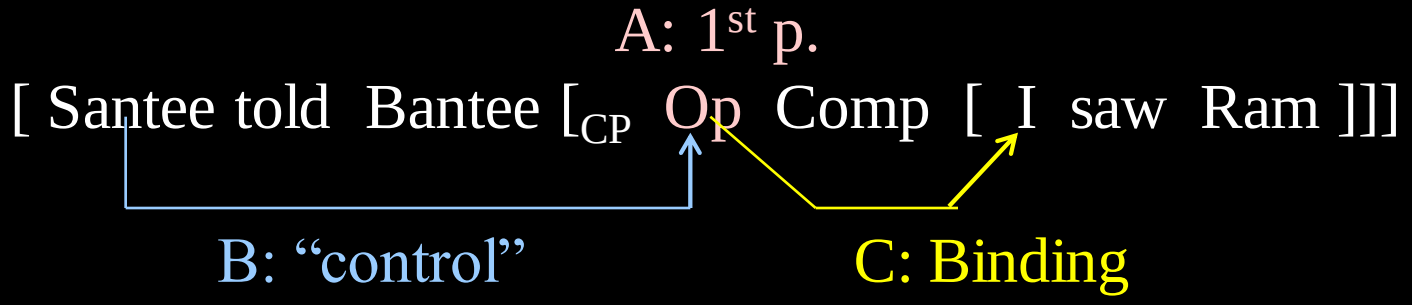
Broader Comparison with Indexical Shift

In some languages, a first person pronoun used in a complement clauses can refer to the matrix subject.
Magahi (also Zazaki, Amharic, Uyghur, Nez Perce…)

Santeeaa Banteeaa-ke kahl-ai ki ham Ram-ke dekh-l-i-au hal.
Santee Bantee-ACC told-3S that I Ram-ACC saw-1S-NHA be
'Santee told Bantee that I (=Santee, not=Bantee) saw Ram.'

Okon a-ke-dọkkọ Edem ke imọ i-ma-i-kit Enọ
Ozo told Edem that LOG saw Eno
'Okon$_i$ told that Edem$_k$ that he$_{i,*k}$ saw Eno.'

Framework applied to Indexical Shift



Santeeaa Banteeaa-ke kahl-ai ki ham Ram-ke dekh-l-i-au hal.
Santee Bantee-ACC told-3S that I Ram-ACC saw-1S-NHA be
'Santee told Bantee that I (=Santee, not=Bantee) saw Ram.'

(Not the standard view for indexical shift, but see Baker 2008.)

Analytical Framework: Initial Motivations

Pronouns behave differently above and below the C node:

Santeeaa Banteeaa-ke kahl-ai ki ham Ram-ke dekh-l-i-au hal.
Santee Bantee-ACC told-3S that I Ram-ACC saw-1S-NHA be
'Santee told Bantee that I (=Santee, not=Bantee) saw Ram.'

#Santeeaa hamar mamii-ke dekhl-ai.
Santee my.GEN mother-ACC see-3NHS
'Santee saw my/*his mother.'

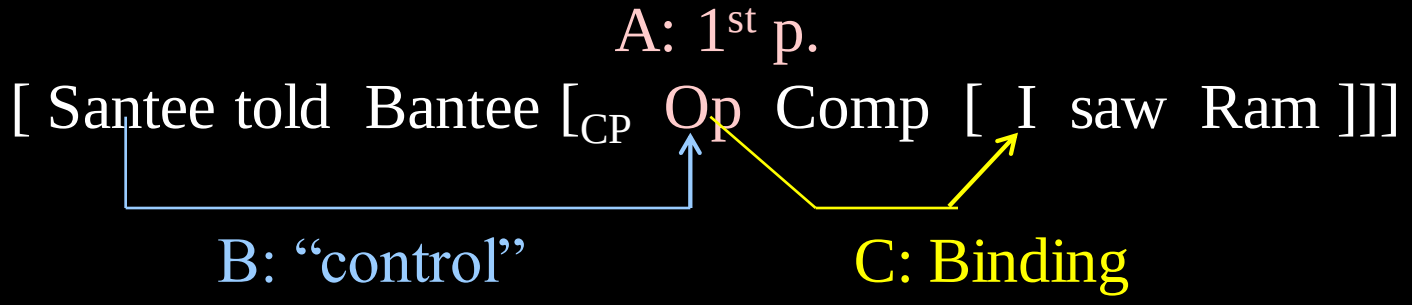
Analytical Framework: Initial Motivations

Pronouns behave differently depending on what is in C node: Uyghur (and Sakha). (Magahi doesn't have many Cs.)

Ahmet [men ket-tim] di-di.
Ahmet I.NOM leave-PST.1s say-PAST
'Ahmet said that I (=Ahmet) left.'

Ahmet [mening ket-ken-lik-im-ni] di-di.
Ahmet my.GEN leave-REL-NMLZ-1s-ACC say-PST
Ahmet said that I (=speaker) left.

Framework applied to Indexical Shift



Three subtopics to typologize then:

1) Where can Ops occur? In what kinds of phrases?
2) What can control an Op? What are the restrictions on this?
3) What restrictions are there on Op binding the 1st pronoun?

These topics are point by point parallel to the analysis of logophoricity

Components (1): Distribution of Op

1) Where can Ops occur? In what kinds of phrases?

Rough answer: Yes in full finite CPs with (verbal) C.

Santeeaa Banteeaa-ke kahl-ai ki ham Ram-ke dekh-l-i-au hal.
Santee Bantee-ACC told-3S that I Ram-ACC saw-1S-NHA be
'Santee told Bantee that I (=Santee, not=Bantee) saw Ram.'

No in infinitives found in NP positions.

Santeeaa Banteeaa-ke [hamraa-se mil-e laa] kahlai.
Santee Bantee-DAT me-INST meet-INF for tell-3NHS
Santee told Bantee to meet me (not=Santee, =speaker)

Components (1): Distribution of Op

Where is the dividing line? Maybe this varies: Infinitives can have logophors in Ibibio.

Okon a-ma -a-temme Emem [edi-kpono imọ].
Okon instruct Emem INF-respect LOG
'Okon instructed Emem to respect him.'

Santeeaa Banteeaa-ke [hamraa-se mil-e laa] kahlai.
Santee Bantee-DAT me-INST meet-INF for tell-3NHS
'Santee told Bantee to meet me.' (not=Santee, =speaker)

Even gerund nominals can have logophors in Ibibio. Is Ibibio an outlier in this, even among logophoric languages?

Components (2): Control of Op

2) What can control an Op? What are the restrictions on this? Rough answer: "Thematic subjects" can. Thematic part: it must be an agent/source/experiencer.

Tell & ask: the agent-subject but not the goal-object.
Santeeaa Banteeaa-ke kahl-ai ki ham Ram-ke dekh-l-i-au hal.
Santee Bantee-ACC told-3S that I Ram-ACC saw-1S-NHA be
'Santee told Bantee that I (=Santee, not=Bantee) saw Ram.'

Hear: the experiencer subject or the source-object
Santeeaa Bantee-se sun-kai ki ham parichhaa paas ho geli.
Santee Bantee-INST heard that I exam pass be go-1S
'Santee heard from Bantee that I (=S or =B) passed the exam.'

Components (2): Control of Op

2) What can control an Op? What are the restrictions on this? Rough answer: "Thematic subjects" can. Subject part: between two thematically eligible NPs, it matters which is the subject.

Ram-ke yaad ha-l-ai ki ham almira-me paisa chhupai-l-i hal.
Ram-DAT memory be that I drawer-in money hid be
'Ram remembered that I (=Ram) hid the money in the drawer.'

Santeeaa Ram-ke yaad dia-l-kai ki ham almira me paisa chhupai-l-i hal.
Santee Ram-DAT memory gave that I drawer in money hid be-PFV
'Santee reminded Ram that I (=S, not R) hid the money in the drawer.'

I have done a detailed comparison of Magahi and Ibibio on this, and the similarities in control are remarkable (to me).

Components (3): Op binding the Pronoun

3) What restrictions are there on Op binding the 1st pronoun?
First impression: there are almost no restrictions. The shifted 1st person pronoun can be in any role, it can be inside a deeper embedded clause, it can be inside a syntactic island….

Santeeaa kahlai ki Banteeaa socha hai ki (ham) Ram-ke dekhii
Santee said that Bantee think be that (I) Ram-ACC saw-1S
'Santee said that Bantee thinks that I (=Santee) saw Ram.'

Santeeaa kahkai ki Banteeaa ego sudar laiki-ke baare-me
Santee said that Bantee one beautiful girl-Gen about-LC
sochkai je hamraa-se biaah kartai.
think who me-with marry do-FUT
'Santee said that Bantee imagined a beautiful woman who will marry me (=Santee).'

Component (3): Op binding the Pronoun

3) What restrictions are there on Op binding the LOG pronoun?

What about restrictions that appear when one tries to have two different pronouns inside a CP referring to the same antecedent?

The analogous question to the one we considered with logophoric pronouns would be whether a plain 3rd person pronoun can be coreferent with a shifted 1st person in the same domain.

Component (3): Op binding the Pronoun

3) What restrictions are there on Op binding the LOG pronoun?
Can a plain 3rd person pronoun can be coreferential with a shifted 1st person in the same domain? No—never (in Magahi)
Not if neither one c-commands the other:
Santeeaa sochlai ki okar maiyaa hamraa kaul karkai.
Santee thought that his mother me-ACC call did
Santee thought that his mother called me. His not=me.
Not if the first person pronoun c-commands the third person pronoun:
Santeeaa sochlai ki Banteeaa hamraa okra kitaab lauTaa detai.
Santee thought that Bantee me-DAT his book return gave
Santee thought that Bantee will return to me his book. (me /= his)
Not if the third person pronoun c-commands the first person pronoun:
Santeeaa sochlai ki Banteeaa okraa hamar kitaab lauTaa detai.
Santee thought that Bantee him-DAT my book return gave
Santee thought that Bantee will return to him my book. (him /= my)

Component (3): Op binding the Pronoun

3) What restrictions are there on Op binding the LOG pronoun? 3rd person and 1st person can't corefer, whereas Log and 3rd person sometimes can—with four patterns in four languages. (Magahi is like Abe.) Suppose there is no variation in this…

Pronouns match their antecedents in morphosyntactic features, +Log may or may not be grammaticized as a feature.
But 1st versus 3rd is always grammaticized as a feature, and OP_{SP} is 1st person by definition.

Therefore indexical shift has only the most restrictive of the four logophoric patterns, for predictable reasons.

One other explicable difference

Two logophors can have different reference in the same single embedded clause; two first person pronouns cannot.

Ndiṭọ e-ke-kop e-to Okon ke imọ i-maa-gha mm-imọ.
children heard from Okon that LOG like-NEG PL-LOG
‘The children heard from Okon that he doesn’t like them.’

*Santeeaa Bantee-se sun-kai ki ham hamraa dekh-l-i hal.
Santee Bantee-INST heard that I me-ACC see-1sS be
Not: ‘Santee heard from Bantee that I (=B) saw me (=S).’

One other predictable difference

A clause can have two Log-Ops (3rd person "topics") but not two Sps (immediate authors of the content).

Children hear from Okon [{Op1, Op2} that [Log saw Log]].
Children hear from Okon [{Sp} that [I saw me]].

Also pronouns {Log, 1st} must be bound by a nearby operator.
A clause has a unique author (Sp) but not a unique topic (Op).

Okon thinks [Op1 that [Emem said [{Op1, Op2} that [Log respects Log].
Okon thinks [Sp1 that [Emem said [Sp2 that [I saw me]].

Rare Features: Indexical Shift

Rare Features: Logophoricity

Conclusions

Fractal comparison: deep universals and superficial variation at every level.

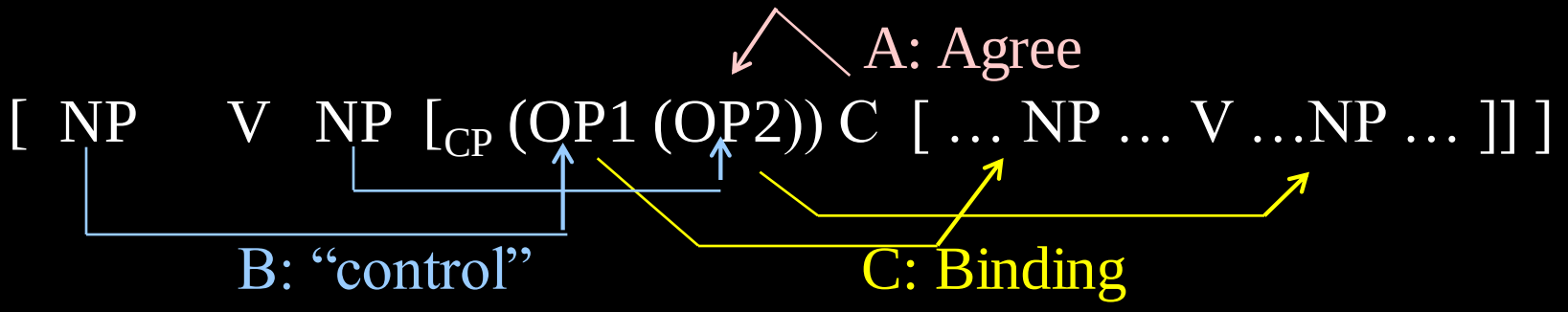
Logophoricity within the West African languages

- Universal crossover condition from variable versus pronoun
- Variation from the role of +Log in the feature system

Logophoricity in Africa compared to indexical shift in Asia

- Universal pattern of control by a thematic subject, etc.
- Variation: optional +Log feature vs obligatory +1 feature, etc.

Appendix: An Analogy



Rare constructions can be built from the same UG skeleton.