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Strict Logophors

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Outline

1 Background

2 The puzzle of Strict Logophors

3 Proposal

4 Strict-unknown identity

5 Conclusion

Background

Logophoric Pronouns (**LogPs**)

- Logophoric pronouns (**LogPs**) in some west-African langugages occur in the context of an attitude predicate and must refer to the attitude holder.

(1) Kofi$_1$ be **yè**$_{1/*2}$ dzo. **Ewe**

Kofi say **LogP** left
'Kofi said that he left.' *(Clements, 1975)*

(2) Olú$_1$ wí pé **òun**$_{1/*2}$ wá. **Yoruba**

Olu say that **LogP** come
'Olu said that he came.' *(Manfredi, 1987)*

(3) ọ́$_1$ sị̀rị̀ nà **yá**$_{1/*2}$ byàrà. **Igbo**

he said that **LogP** came
'He said that he came.' *(Hyman and Comrie, 1981)*

Profile of Ewe, Yoruba and Igbo

All 3 languages belong to the Niger-Congo language family:

- **Ewe** is spoken in Ghana (Volta & Oti regions) and Togo (southern).
- **Yoruba** speaking area spans mainly from Nigeria and Benin to smaller communities in Cote D'Ivoire, Serria Leone and the Gambia.
- **Igbo** is spoken in Nigeria and in some minor communities in Equitorial Guinea and Cameroon.

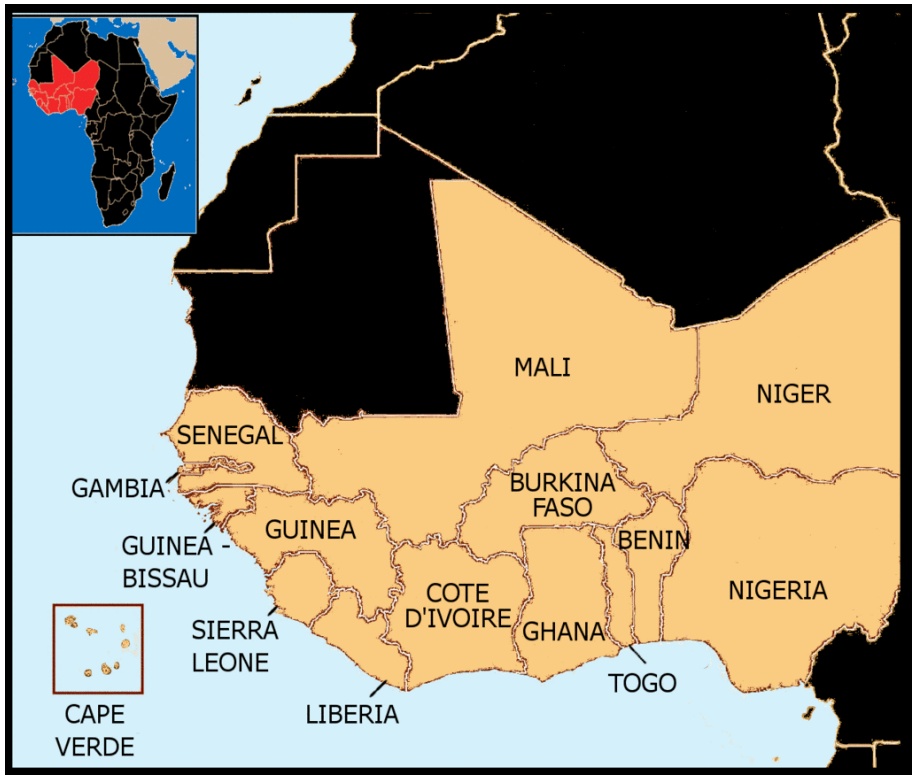

Figure: West Africa

Context

- Part of the LeibnizDream project supported by the European Research Council (ERC)

Question

Question

How is the dependency between LogP and the attitude holder encoded in the grammar?

(4) **Kofi**$_1$ súsú/gblɔ/dʒi/... be Afi a ɖe **yè**$_{1/*2}$ **Ewe**
Kofi$_1$ think/say/want/... COMP Afi will marry **LogP**$_{1/*2}$
'**Kofi** thinks/says/wants that Afi will marry **him**.'

Previous accounts (Heim 2002; von Stechow 2003; Pearson 2015)

- LogPs are bound variables – bound from the edge of the embedded clause
- Binding is enforced by a syntactic feature [LOG]
- [LOG] requires that the pronoun be 'checked' in the syntax by a matching binder at the edge of the embedded clause
- If there is no matching binder, the derivation crashes at LF.

Pearson 2015

Syntax:

Kofi says that [$\boldsymbol{\lambda x_1}\, \lambda w$ Afi will marry $\underbrace{\boldsymbol{x_{1/*2,[LOG]}}}_{\text{LogP}}$]

Pearson 2015

(5) *Syntax*:

Kofi says that [$\boldsymbol{\lambda x_1}\, \lambda w$ Afi will marry $\underbrace{\boldsymbol{x_{1/*2,[\textsc{log}]}}}_{\text{LogP}}$]

(6) $[\![(5)]\!] \approx$ *In all worlds in which what Kofi says is true, Afi marries the person Kofi identifies as himself in those worlds.* (***de se* reading**)

(7) a. $[\![\text{say (that) P}]\!]^w = \lambda x.\ \forall \langle w', x' \rangle \in \text{SAY}_{x,w}, [\![P]\!](x')(w')$,

b. $\text{SAY}_{x,w} := \{\langle w', x' \rangle$: what x says in w is true in w' and x identifies themselves as x' in $w'\}$

De se reference

- ***De se*** co-reference: The pronoun refers to who the attitude holder locates as themselves in the relevant worlds
  - Pearson (2015): Ewe LogPs also allow *de re* readings (=coreference unbeknownst to the att' holder)
  - Pearson's claim has been challenged recently (Bimpeh et al. 2022)
- We assume that LogPs only allow a *de se* reading.

The puzzle of Strict Logophors

Problematic Prediction

- The stipulation that LogP must be internally bound to the attitude holder implies that it should generally behave like a bound variable.
- This makes an incorrect prediction with respect to the **strict/sloppy ambiguity** in ellipsis- and association with *only*-contexts.

Strict Logophors: Ewe data

(8) Eli (le) mɔ-kpɔ-m be **yè** a ɖe Abla. Yao hã.
Eli be path-see-PROG COMP **LogP** will marry Abla. Yao too.
'Eli hopes that he(=**Eli**) will marry Abla. **Yao** too
~~hopes that ✓**Eli**$_{\underline{strict}}$/ ✓**Yao**$_{\underline{sloppy}}$ marries Abla~~.'

ellipsis

Strict Logophors: Ewe data

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(11) Eli ko yé súsú be **yè** ɖudzi le awu-dodo ʃe hoʊiʊli me.
Eli only FOC think COMP **LogP** win (in dress-wear POSS contest inside).
'Only Eli thinks that he won (the costume contest).' *only*
Possible: No x other than Eli thinks ✓**Eli**$_{\underline{strict}}$/ ✓***x***$_{\underline{sloppy}}$ won.

Strict Logophors: Ewe data

(12) Eli (le) mɔ-kpɔ-m be **yè** a ɖe Abla. Yao hã.
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(13) Eli ko yé súsú be **yè** ɖudzi le awu-dodo ʃe houiuli me.
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'Only Eli thinks that he won (the costume contest).' *only*
Possible: No x other than Eli thinks ✓**Eli**$_{\underline{strict}}$/ ✓***x***$_{\underline{sloppy}}$ won.

- The data above are from original fieldwork with 3 speakers (see also Bimpeh and Sode 2021)
- In Yoruba and Igbo (2 speakers each) the picture is messier as far as we checked. There seems to be cross-speaker disagreements, but some of our speakers accepted strict logophors for certian attitude predicates. We hope to clarify the picture in future work.

LogP's Dilemma

- If:
  - Ellipsis(/focus altenratives) must match in meaning with their antecedent, and
  - LogPs must be bound at the edge of CP,
- Then: only bound-variable (=sloppy) reading is predicted
  - Strict readings are **undergenerated**

(14) Predicted antecedent clause(/prejacent):

Eli hopes [λx_2 ... that $y\grave{e}_{2[log]}$ will marry Abla]

(15) Predicted ellipsis clause(/focus alternatives):

Yao hopes [λx_2 ... that $y\grave{e}_{2[log]}$ will marry Abla], too.

LogP's Dilemma

(16) LogP's Dilemma:

If LogPs have to be syntactically bound, how are strict readings possible? If they don't, how to ensure LogP's obligatory (*de se*) coreference with the attitude holder?

Proposal

In a nutshell

- LogP consists of two sytactic pieces: $\textbf{LogP} \equiv [\textsc{log}\ \textit{pro}_i]$

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  - See also Bimpeh et al. 2022

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- $\textit{pro}_i$ is a variable, but one that is not (necessarily) bound
  - Direct λ-binding by the antecedent is not enforced at LF
- LOG is semantic feature resposible for the (*de se*) coreference requirement of LogPs. It encodes reference to the 'Logohoric Center'
  - See also Bimpeh et al. 2022
- Strict readings are possible because LOG's semantic contribution can be suspended when computing focus and ellipsis, similar to other pronominal features (see Sauerland 2013; Bassi 2021, a.o.)

Road Map

- Step 1: we present our proposal for the (*de se* coreference requirement of LogPs in basic sentences

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- Step 1: we present our proposal for the (*de se* coreference requirement of LogPs in basic sentences
- Step 2: show how it helps explain strict readings in ellipsis and focus
  - given auxiliary assumptions re: pronominal features in ellipsis and focus
- Step 3: present a novel and correct prediction of our analysis

A new route to obligatory *de se* coreference

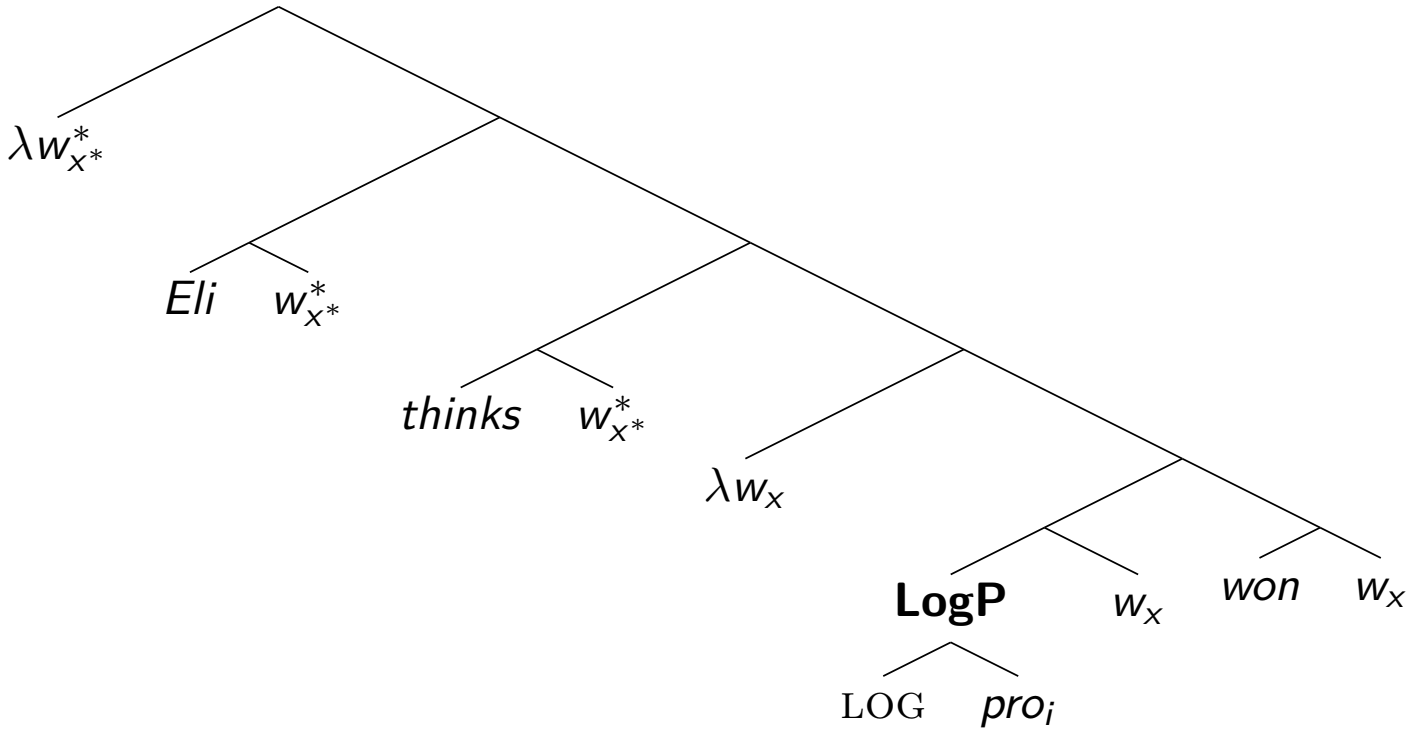
(17)

Eli	súsú	be	**yè**	ɖudzi.
Eli	think	COMP	**LogP**	win.

'Eli thinks that he won.'

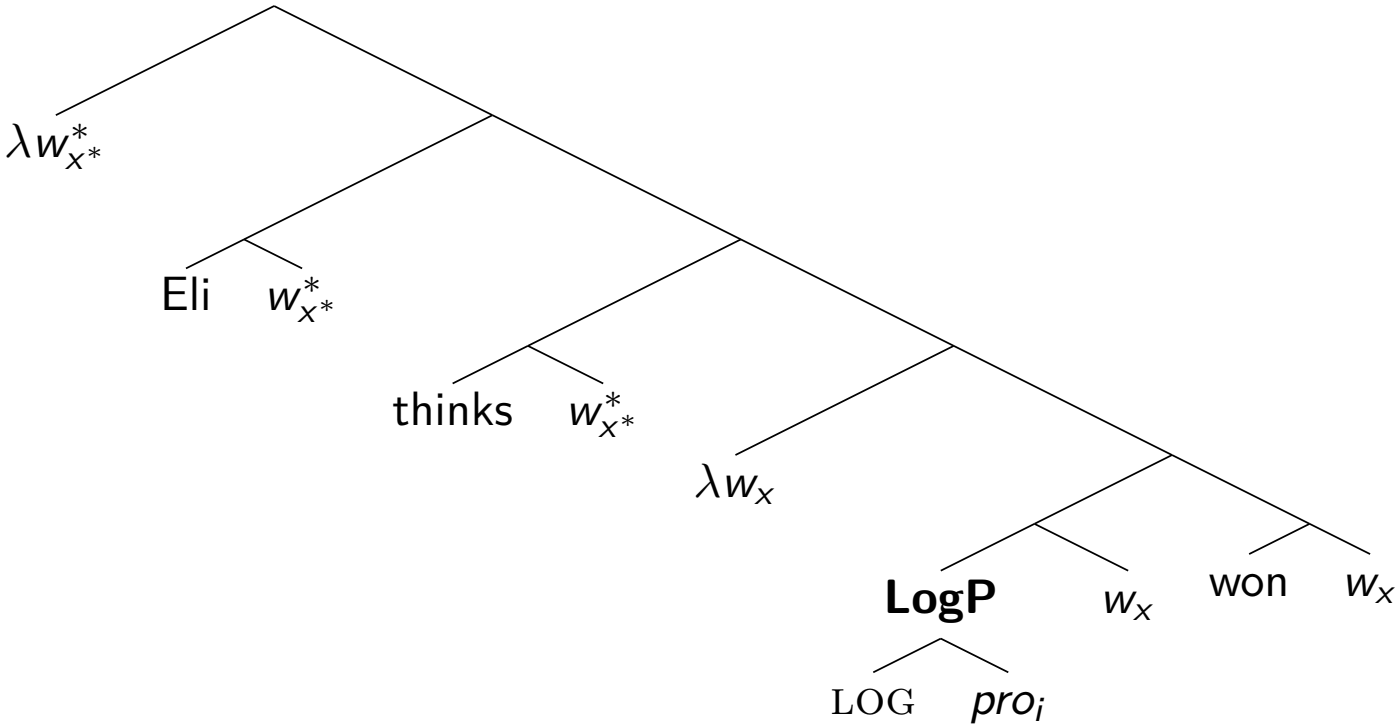
A *de se* semantics for LogPs

(18)



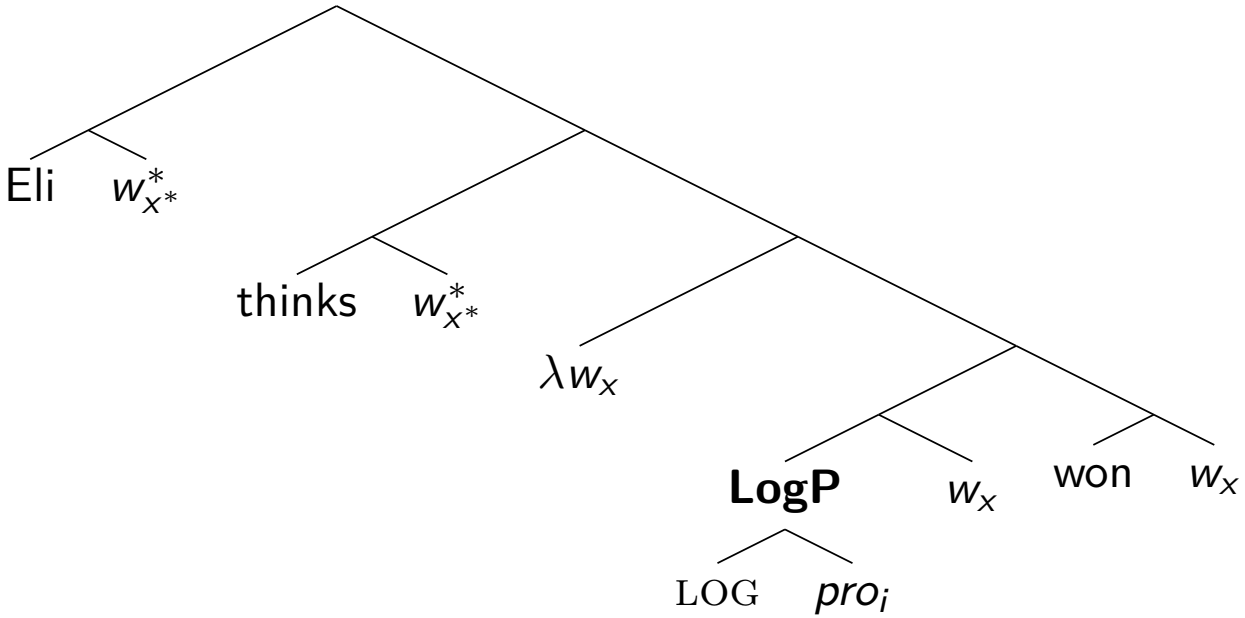
$[\![(18)]\!] \approx$ *In each of Eli's belief worlds, Eli's 'self' (the '**Logophoric Center**') won.*

A *de se* semantics for LogPs



- 'Centered-worlds' (Lewis 1979 a.o.) represented in the LF (see also Sauerland 2018)
  - Technically: variables over **world-individual pairs** (notated 'w_x'; by covention: type s) saturate argument slots in the denotation of verbal and nominal predicates

A *de se* semantics for LogPs

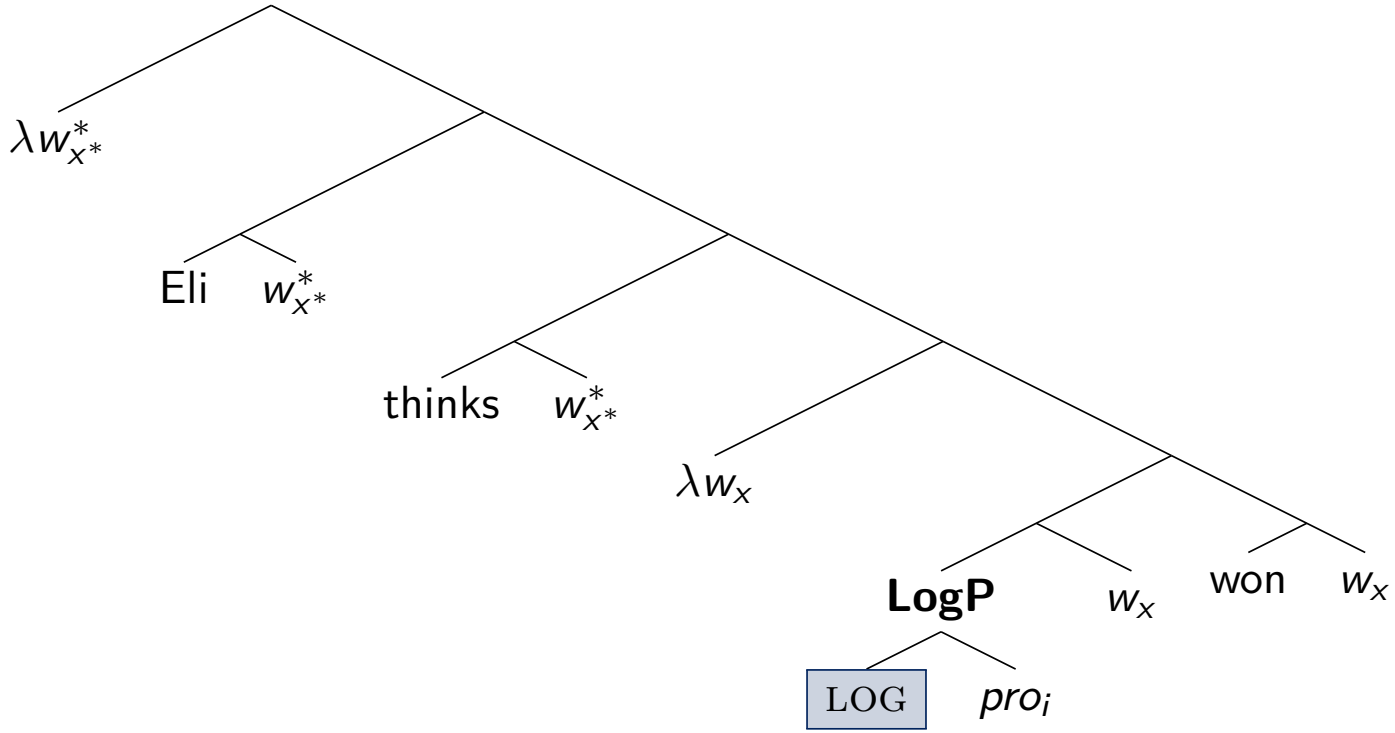


(19) $[\![\text{think}_{w^*_{x^*}}]\!]^g = \lambda p_{\langle s,t\rangle} \lambda y : \forall w_x \in \text{BEL}_y,\ w_x \in dom(p).$ (cf. Heim 1992)

$$. \forall w_x \in \text{BEL}_y,\ p(w_x)$$

(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 $w\}$.

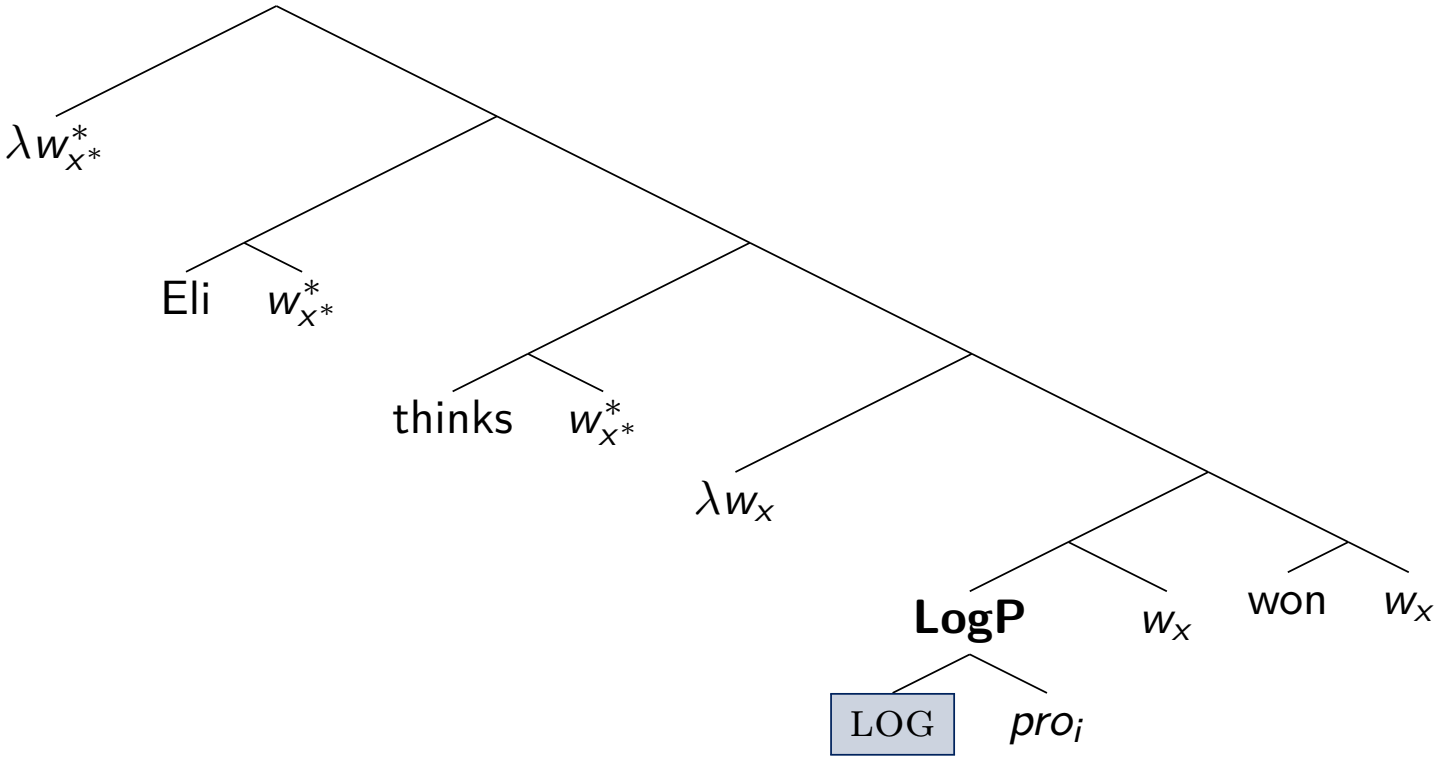
A *de se* semantics for LogPs



(21) a. $[\![\text{LOG}]\!]^g = \lambda f_{\langle s,e\rangle}.\ \lambda_{w_x} : f(w_x) = x.\ f(w_x)$ (*cf. Cooper 1979 on ϕ-features*)

b. $[\![pro_i]\!]^g = g(i)$ (*an Individual Concept, type $\langle s, e\rangle$*)

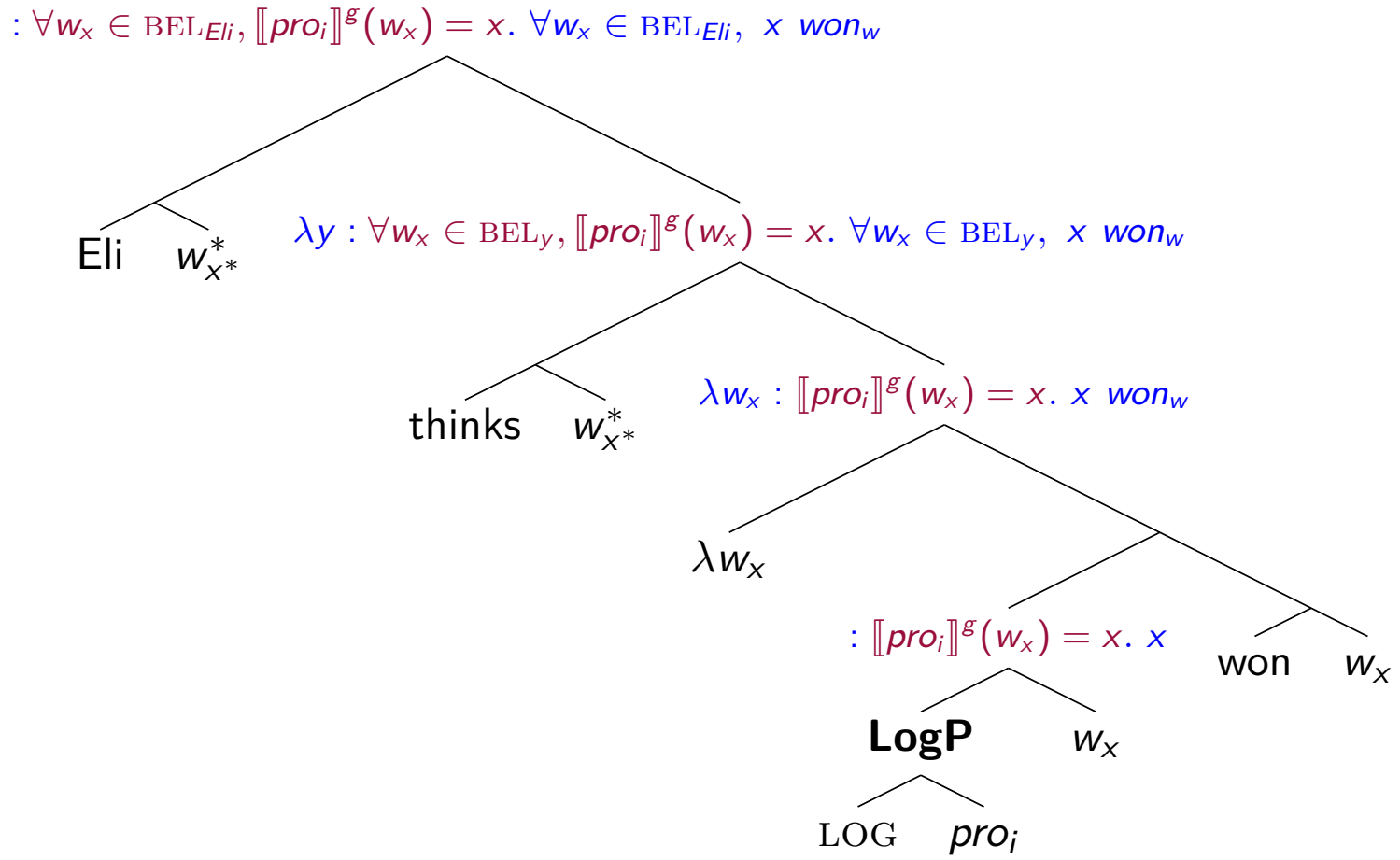
A *de se* semantics for LogPs



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

b. $[\![pro_i]\!]^g = g(i)$ (an Individual Concept, type $\langle s, e\rangle$)

A *de se* semantics for LogPs



A *de se* semantics for LogPs

$[\![(18)]\!] \approx \forall w_x \in \mathrm{BEL}_{Eli},\ x\ won_w$.

In each of Eli's belief worlds, the person who Eli identifies as himself won.

A free individual concept

- pro_i's value needs to be resolved using contextual cues, or accommodated otherwise
- But LOG will effectively restrict its possible values

[1] It might be more appropriate to restrict the possible concepts to those which return an individual that the attitude holder is acquainted with through that concept. To do that, we could adopt Percus and Sauerland 2003's Concept Generator (CG) theory and incorporate CGs into the LFs. See appendix.

A free individual concept

- pro_i's value needs to be resolved using contextual cues, or accommodated otherwise
- But LOG will effectively restrict its possible values [1]

(24) a. ✓$[\![pro_i]\!]^g = \lambda w_x.\ x.$ (the *self*-concept)

b. ✓$[\![pro_i]\!]^g = \lambda w_x.$ the person in w who x knows as 'Eli'

c. ✗$[\![pro_i]\!]^g = \lambda w_x.$ the person in w who x knows as 'Ann'

[1] It might be more appropriate to restrict the possible concepts to those which return an individual that the attitude holder is acquainted with through that concept. To do that, we could adopt Percus and Sauerland 2003's Concept Generator (CG) theory and incorporate CGs into the LFs. See appendix.

Intermediate Summary

- We offered a semantics that delivers *de se* coreference with the attitude holder
  - with the novelty that part of LogP is a presuppositional LOG feature
- How does this help us with strict readings?

Deriving Strictness

association with *only*

(25) Eli ko yé súsú be **yè** ɖudzi (le awu-dodo ʃe hoʊiʊli me).
Eli only FOC think COMP **LogP** win (in dress-wear POSS contest inside).

'Only Eli thinks that he won (the costume contest).'

Possible: No *y* other than Eli thinks ✓**Eli**$_{\underline{strict}}$/ ✓***y***$_{\underline{sloppy}}$ won.

Deriving Strictness

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(26) Eli ko yé súsú be **yè** ɖudzi (le awu-dodo ʃe hoʊiʊli me).
Eli only FOC think COMP **LogP** win (in dress-wear POSS contest inside).

'Only Eli thinks that he won (the costume contest).'

Possible: No *y* other than Eli thinks ✓**Eli**$_{\underline{strict}}$/ ✓***y***$_{\underline{sloppy}}$ won.

- If LOG imposes its presupposition across all alternatives, only sloppy reading is possible.
- But...

Deriving strictness

- It has been argued that certain featural content on pronouns can be switched off when computing focus alternatives (Sauerland 2013; Bassi 2021 a.o.)
  - Strict readings of self anaphors (see also McKillen 2016; Bruening 2019)
  - ϕ-features on bound pronouns

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- It has been argued that certain featural content on pronouns can be switched off when computing focus alternatives (Sauerland 2013; Bassi 2021 a.o.)
  - Strict readings of ṣelf anaphors (see also McKillen 2016; Bruening 2019)
  - ϕ-features on bound pronouns
- We assume that LOG, being a kind of ϕ-feature, can be absent from alternatives in the same way

Deriving Strictness

(27) a. LF: Only [$\text{Eli}_{[\mathbf{F}]}$ thinks λw_x [[$_{\text{LOGP}}$ **[LOG *pro*$_i$]**$_{w_x}$] won$_{w_x}$]]

Deriving Strictness

(29) a. LF: Only $\big[$ Eli$_{[\mathbf{F}]}$ thinks λw_x [$[_{\text{LogP}}$ **[LOG *pro$_i$*]**$_{w_x}$] won$_{w_x}$] $\big]$

b. Alt's: $\{$ Kofi thinks λw_x [$[_{\text{LogP}}$ **[~~LOG~~ *pro$_i$*]**$_{w_x}$] won$_{w_x}$] ,
Koku thinks λw_x [$[_{\text{LogP}}$ **[~~LOG~~ *pro$_i$*]**$_{w_x}$] won$_{w_x}$] , ...$\}$

Deriving Strictness

(31) a. LF: Only $[$ Eli$_{[F]}$ thinks λw_x $[$ $[_{\text{LOGP}}$ **[LOG *pro$_i$*]**$_{w_x}$ $]$ won$_{w_x}$ $]$ $]$

b. Alt's: $\{$ Kofi thinks λw_x $[$ $[_{\text{LOGP}}$ **[~~LOG~~ *pro$_i$*]**$_{w_x}$ $]$ won$_{w_x}$ $]$,
Koku thinks λw_x $[$ $[_{\text{LOGP}}$ **[~~LOG~~ *pro$_i$*]**$_{w_x}$ $]$ won$_{w_x}$ $]$, ...$\}$

- At the level of the prejacent, LOGP must pick out Eli's 'self' in Eli's belief worlds;
- but LOG's presupposition can be absent from alternatives, clearing the path to a strict reading (*pro$_i$* can remain free)

Deriving Strictness

(33) a. LF: Only [Eli$_{[F]}$ thinks λw_x [[$_{\text{LOGP}}$ **[LOG *pro$_i$*]**$_{w_x}$] won$_{w_x}$]]

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- At the level of the prejacent, LOGP must pick out Eli's 'self' in Eli's belief worlds;
- but LOG's presupposition can be absent from alternatives, clearing the path to a strict reading (*pro$_i$* can remain free)
- *pro$_i$*'s value can be whatever concept the alternative attitude holders associate with Eli, e.g.:

(34) Possible value for *pro$_i$*:

λw_x. the individual that x knows by the name "Eli";

...

Deriving strictness

- The account of the ambiguity in ellipsis works the same
- Assuming the identity condition on ellipsis (Parallelism), too, ignores ϕ-features (Ross 1967).

Ellipsis

(35) Eli (le) mɔ-kpɔ-m be **yè** a ɖe Abla. Yao hã.
Eli be path-see-PROG COMP **LogP** will marry Abla. Yao too.
'Eli hopes that he(=**Eli**) will marry Abla. **Yao** too
~~hopes that ✓**Eli**$_{\underline{strict}}$/ ✓**Yao**$_{\underline{sloppy}}$ marries Abla~~.'

Sloppiness

- The sloppy reading can be derived too

  Only [$\text{Eli}_{[\mathbf{F}]}$ thinks λw_x [[$_{\text{LOGP}}$ **[LOG *pro*$_i$]**$_{w_x}$] won$_{w_x}$]]

  - Either by λ-binding *pro*$_i$ to the matrix subject
  - or by fixing the 'self' concept as the value of *pro*$_i$, with or without interpreting LOG across the alternatives
  - (or both)

Strict-unknown identity

New prediction

(36) Eli ko yé súsú be **yè** ɖudzi le awu-dodo ʃe hoʊiʊli me.
Eli only FOC think COMP **LogP** win in dress-wear POSS contest inside.

'Only Eli thinks that he won the costume contest.'

- **Prediction**:

The alternatives to Eli—though not Eli himself—can be mistaken or unaware of the exact reference of LogP

- Because the contextually-salient concept that pro_i stands for can refer to different individuals in the minds of different attitude holders.

(37) Possible values for pro_i:

λw_x. *the individual that x knows by the name "Eli"*;
λw_x. *the individual that x knows as the guy who was wearing the red costume*;
...

New prediction: Strict-unknown identity

(38) *Context*: There is a costume contest. Eli, a participant who was wearing a red costume, overhears the judges of the contest debating, and concludes from what he hears that he is going to be declared as the winner. Koku and Kofi, who watched the costume show, are wrong about the identity of the man with the red costume; they don't know it was Eli. They might even disagree among themselves who it was). But they don't think that he, whoever he is, will win.

New prediction: Strict-unknown identity

(40) *Context*: There is a costume contest. Eli, a participant who was wearing a red costume, overhears the judges of the contest debating, and concludes from what he hears that he is going to be declared as the winner. Koku and Kofi, who watched the costume show, are wrong about the identity of the man with the red costume; they don't know it was Eli. They might even disagree among themselves who it was). But they don't know that he, whoever he is, will win.

- According to 3 Ewe speakers with whom we checked, the sentence is felicitous and true in this context.

(41) Eli ko yé súsú be **yè** ɖudzi le awu-dodo ƒe hoʋiʋli me.
Eli only FOC think COMP **LogP** win in dress-wear POSS contest inside.

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New prediction: Strict-unknown identity

(42) a. LF: Only [$\text{Eli}_{[\mathbf{F}]}$ thinks λw_x [[$_{\text{LOGP}}$ **[LOG *pro*$_i$]**$_{w_x}$] won$_{w_x}$]]

New prediction: Strict-unknown identity

(44) a. LF: Only $[$ Eli$_{[\mathbf{F}]}$ thinks λw_x $[$ $[_{\text{LOGP}}$ $\mathbf{[LOG}$ ***pro$_i$***$\mathbf{]}_{w_x}$ $]$ won$_{w_x}$ $]$ $]$

b. Alt's: $\{$ Kofi thinks λw_x $[$ $[_{\text{LOGP}}$ $\mathbf{[}$~~$\mathbf{LOG}$~~ ***pro$_i$***$\mathbf{]}_{w_x}$ $]$ won$_{w_x}$ $]$,
Koku thinks λw_x $[$ $[_{\text{LOGP}}$ $\mathbf{[}$~~$\mathbf{LOG}$~~ ***pro$_i$***$\mathbf{]}_{w_x}$ $]$ won$_{w_x}$ $]$, ...$\}$

(45) $[\![pro_i]\!]^g = \lambda w_x$. *the man who x knows as wearing the red costume in w*

Conclusion

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- We proposed a theory of the semantics of logophoric pronouns in Ewe, Igbo and Yoruba on which their *de se* coreference comes from a presuppositional feature that can optionally be ignored when computing focus and ellipsis
  - Insipred by the properties of ϕ-features, more generally, in these enviroments (Sauerland 2013; Bassi 2021, a.o.)
- Correctly predicts (subtle) strict readings of logophors

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- Correctly predicts (subtle) strict readings of logophors

Open Question

What does the theory imply for the typology of logophoric-like elements cross-linguistically (shifted Indexicals, PRO)?

LogP and PRO: speculations

- Logophoric pronouns famously share some semantic properties of PRO, most notably the obligatory *de se* reading
- It is thus sometimes suggested that LogP and PRO should receive a uniform analysis at LF
- As opposed to LogP, however, PRO does not allow strict readings in ellipis and focus (Landau 2013, a.o.).

LogP and PRO: speculations

- Suppose that LogP and PRO indeed have the same basic LF make up—**[LOG *pro*$_i$]**
- ...But that PRO comes with the added condition that its variable-part must be λ-bound directly by the controller

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(47) Mary λx *x* wants [to $\underbrace{\textbf{[LOG } \boldsymbol{x}\textbf{]}}_{\text{PRO}}$ win]

- Then, only sloppy readings will be possible

LogP and PRO: speculations

(48) Mary λx x wants [to $\underbrace{[\textsc{log}\ x]}_{\text{PRO}}$ win]

- Suppose further that this binding configuration is subject to some *locality* conditions (maybe due to a syntactic feature on PRO)

LogP and PRO: speculations

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- Then, it may be possible to further explain why LogP but not PRO allows for long-distance antecedents:

(52) Kofi$_1$ súsú be Koku$_2$ dʒi be **yè$_{1/2/*3}$** a ɖe Afi
Kofi$_1$ thinks COMP Koku$_2$ wants COMP **LogP$_{1/2/*3}$** will marry Afi

(53) Kofi$_1$ thinks that Koku$_2$ wants to **PRO$_{*1/2}$** marry Afi

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Kofi$_1$ thinks COMP Koku$_2$ wants COMP **LogP$_{1/2/*3}$** will marry Afi

(56) Kofi$_1$ thinks that Koku$_2$ wants to **PRO$_{*1/2}$** marry Afi

- ...and maybe also why PRO but not LogP can only appear in subject positions

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References I

Bassi, I. (2021). *Fake Feature and Valuation From Context*. PhD thesis, Massachusetts Institute of Technology.

Bimpeh, A. A., Driemel, I., Bassi, I., and Silleresi, S. (2022). Obligatory de se logophors in Ewe, Yoruba and Igbo: Variation and competition. To appear in Proceedings of WCCFL 40, https://osf.io/p8gsv/.

Bimpeh, A. A. and Sode, F. (2021). Evidence against de se binding: Strict readings of the logophoric pronoun in Ewe. In *Proceedings of TripleA*, volume 6. MIT Working Papers in Linguistics.

Bruening, B. (2019). Generalizing the presuppositional approach to the binding conditions. Unpublished Ms. Draft: https://udel.edu/ bruening/Downloads/BindingPresupp5.pdf.

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

References II

Cooper, R. (1979). The interpretation of pronouns. In Heny, F. and Schnelle, H., editors, *Selections from the Third Groningen Round Table, Syntax and Semantics,*, volume 10, pages 61–92. Academic Press, New York.

Heim, I. (1992). Presupposition projection and the semantics of attitude verbs. *Journal of Semantics*, 9:183–221.

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

Landau, I. (2013). *Control in Generative Grammar*. Cambridge University Press, Cambridge.

Lewis, D. (1979). Attitudes de dicto and de se. *The philosophical review*, 88(4):513–543.

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

McKillen, A. (2016). *On the interpretation of reflexive pronouns*. PhD thesis, McGill University.

References III

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

Percus, O. and Sauerland, U. (2003). Pronoun Movement in Dream Reports. In Kadowaki, M. and Kawahara, S., editors, *Proceedings of NELS 33*, pages 347–366. GLSA, University of Massachusetts, Amherst.

Ross, J. (1967). *Constraints on Variables in Syntax*. PhD thesis, Massachusetts Institute of Technology.

Sauerland, U. (2013). Presuppositions and the alternative tier. In *Semantics and Linguistic Theory*, volume 23, pages 156–173.

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

von Stechow, A. (2003). Feature Deletion under Semantic Binding: Tense, Person, and Mood under Verbal Quantifiers. In Kadowaki, M. and Kawahara, S., editors, *Proceedings of NELS 33*, page 133–157. GLSA, University of Massachusetts, Amherst.