# Switch-reference under control?

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# 1 Introduction

- What this talk is about: work in progress about the syntax of switch-reference constructions in Yawanawa, a language of the Panoan family spoken in the Southwest Amazon region.
- What is switch-reference: a syntactic mechanism that morphologically marks argument co-construal between clauses. In Yawanawa and Panoan languages in general, it is marked on adverbial clauses.
- Why is it relevant: this a typologically widespread UG mechanism of argument co-construal. How can syntactic theory account for it?

Guiding intuition: SR is a mechanism linking one argument (subject or object) of a modifying adverbial clause to the subject of a matrix clause. A familiar UG system that achieves this type of co-construal is Control. Roughly, there is a referential element in a superordinate clause controlling an non-referential or anaphoric element in a dependent clause. A crucial question: what do controller and controlled elements need to be?

I will try to show:

- how the system works;
- the problems that the traditional analysis of SR faces in YW (control);
- an alternative line of analysis (Op+resumption, predication).

## 2 Of non-finiteness and co-construal

Control effects show us the relationship between non-finiteness and subject coconstrual in Yawanawa (YW).

- (1) Non-finiteness and OC in Yawanawa complement constructions
  - a.  $[\tilde{E} \quad ixixiw\tilde{a} \quad atxi-(*a)] \tilde{e} \quad nama.$

1s.erg surubim.fish catch-PRF 1s.erg dream.PRF

'I dreamed I caught a surubim fish.'

- b. [Ē ixixiwā atxi-\*(a)] Shukuvenā nama.
  - 1S.ERG surubim.fish catch-PRF S.ERG dream.PRF
  - 'I dreamed Shukuvena caught a surubim fish.'
- (2) Brazilian Portuguese (also Italian)
  - a. Maria<br/>iquer  $PRO_i$ ir. /  $Eu_j$  <br/>  $quero\ PRO_j$ ir

M. want.3sg go.inf / I want.1sg go.inf

'Maria wants to go./ I want to go'

- b. Maria<sub>i</sub> quer [que eu/ ela<sub>\*i/i</sub> vá].
  - M. want.3sg that I/ she go.pres.subj
  - 'Maria<sub>i</sub> wants me/her/\*herself to go.'
- c. \*Eu quero [que eu vá].
  - I want.1sg that I go.pres.subj

intended 'I want myself to go.'

The form of the embedded verb in (1-b) is the same as the form found with typical raising, control, and V+Aux constructions in YW.

- (3) YW infinitives:
  - a. Ē [mã raya-i] ene-a.
     1SG.NOM already work-INF finish-PRF
     'I have already finished working.'
  - b. Shukuvenā [peshe wa-tia-i] nihuān-ā. Shukuvena.ERG house make-start-INF decide-PRF
    - 'Shukuvena decided to start building a house.'
  - c. E-wē kuxati kewāwa-i ka-i. 1SG-POSS knife sharpen-INF go-PROG 'I'm going to sharpen my knife.'
  - Control into complements: a relationship between defective Inflection ([-T] or [-Agr]) and the presence of PRO, a [-Ref] element bound by a controller.
  - No coherent linguistic phenomenon of adjunct control (Landau, 2013).
- (4) Ambiguity of co-construal in adjunct clauses
  - a. Before  $he_i$  left,  $he_{i/i}$  visited Tucson.
  - b. Before Bill<sub>i</sub> left, he<sub>i/i</sub> visited Tucson.
  - c. Before  $he_{i/j}$  left,  $Bill_i$  visited Tucson. Finer 1985
- (5) a. Before PRO<sub>i/\*i</sub> leaving, Bill<sub>i</sub> visited Tucson.
  - Antes de morrer, mamãe era feliz.
     before of die.INF mom was happy
     'Before she died, mom was happy'
  - c. Antes de PRO<sub>i</sub> morrer, mamãe era feliz.
     before of die.INF mom was happy
     'Before dying, mom was happy'
  - d. Antes de papai morrer, mamãe era feliz. before of dad die.INF mom was happy 'Before dad dying, mom was happy.'

#### 3 Panoan switch-reference

Panoan languages have a rich switch-reference system (SR) that leaves no room for ambiguity of coconstrual in adjoined adverbial clauses.

- These adverbial clauses have a temporal/aspectual relation to their superordinate clause.
- As in complementation structures, finiteness plays a major role in co-construal.
- 4 Same-Subject (SS) markers that may occur in these adjoined adverbial clauses.
- Why are there 4 markers that indicate subject co-construal? Because they also encode two other things (2X2):
  - 1. the aspect of the adjoined clause;
  - 2. Case agreement with the immediate superordinate subject (the subject that the dependent clause's subject is coconstrued with).

I'm proposing these markers are complementizers, more specifically, non-finite complementizers, and that this non-finiteness is tightly connected to their "same subject" meaning.

SS marker	Aspect	Case of matrix subj
-shũ	perfective	ergative
-ashe	perfective	nominative
-kĩ	imperfective	ergative
-i	imperfective	nominative

Something to note: This isn't your regular case of complementizer agreement. These complementizers are not agreeing with the subject of their own clause, but rather with the subject of the (immediately) superordinate clause.

#### 3.1 Structural issues

Claim: SS clauses are adjoined adverbial clauses with defective Inflection

#### 3.1.1 Adjoined adverbial clauses

These dependent clauses are behaving like adjoined adverbial clauses and not like coordinated clauses (even though their meaning often resembles that of coordinate constructions):

- (6) Dependent clause can be initial or final
  - a. [Shukuvenā yuma pi-ashe] mai kiri ka. Shukuvena.ERG fish eat-SS.PREV.NOM down-river go.PRF 'After Shukuvena ate fish, he went down river.'
  - b. [Shukuvena mai kiri ka] yuma pi-ashe.
     Shukuvena down-river go.PRF fish eat-SS.PREV.NOM
     'Shukuvena went down river after eating fish.'

Dependent clause is island for extraction, but not the matrix clause:

- (7) Asymmetrical extraction possibilities
  - a. Tsua-m $\tilde{e}_i$  [yuma pi-ashe]  $t_i$  mai kiri ka? who.NOM-INT fish eat-SS.PREV.NOM down-river go.PRF 'Who after eating fish went down river?'
  - b. Tsu $\tilde{\mathbf{a}}$ -m $\tilde{\mathbf{e}}_{\mathrm{i}}$  [nuku-sh $\tilde{\mathbf{u}}$ ]  $t_{\mathrm{i}}$  shenipahu yu-i? who.ERG-INT arrive-SS.PREV.ERG narrative tell-PROG
    - 'Who is telling stories after having arrived?
  - c. \*Awea-mẽ<sub>i</sub> [Shukuvena mai kiri ka] t<sub>i</sub> pi-ashe? what-INT Shukuvena down-river go.PRF eat-SS.PREV.NOM-INT 'What did Shukuvena go down river after eating?

#### 3.1.2 Defective Inflection:

A clear asymmetry: DS allows for more functional material to be overtly expressed in its clause than SS does:

- DS markers may co-occur with an Aspect marker that expresses perfectivity/boundedness.
- This co-occurrence is banned from SS clauses.
- (8) SS markers cannot be preceded by Aspect marker:
  - a. [(Ē) yumāi-ki tuwe-a-kē] Shukuvenā rete-a.

    1s.ERG jaguar-at shoot-PRF-DS.PREV Shukuvena.ERG kill-PRF

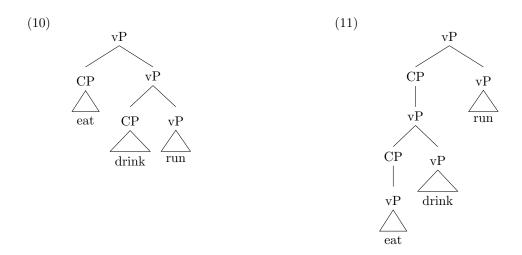
    'After I shot at the jaguar Shukuvena killed it.'
  - 'After I shot at the jaguar, Shukuvena killed it.'
  - [(Ē) yumāi-ki tuwe-(\*a)-shū] rete-a. 1s.erg jaguar-at shoot-PRF-ss.prev.erg kill-prF
    - 'After shooting at the jaguar, I killed it.'

#### 3.1.3 Locality

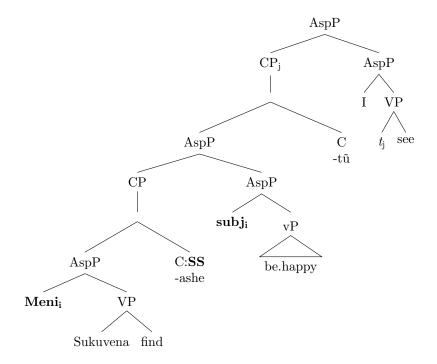
SS relations are strictly local

- A SS clause can be linked to another SS clause, not necessarily to a matrix finite clause, (9);
- A SS clause can be linked to an embedded clause, (12);
- Either way, the subject of the SS clause is co-construed with the immediately superordinate subject.

- (9) Superordinate clause may be another SS clause, or a matrix clause
  - a. Shukuvenā pi-**ashe** aya-i **itxu**-a. Shukuvena.ERG eat-SS.PREV.NOM drink-SS.SIMULT.NOM run-PRF 'Shukuvena ate and then ran drinking.'
  - b. Shukuvenā pi-shū aya-ashe itxu-a. Shukuvena.ERG eat-SS.PREV.ERG drink-SS.PREV.NOM run-PRF 'Shukuvena ate, drank, and then ran.



(12) [[Menĩ Shukuvena vetxi-ashe] inĩmai-tũ] ẽ ũi-a. Meni.erg Shukuvena find-ss.prev.nom be.happy.IMPF-COMP 1s.erg see-prf 'I saw that Meni was happy when she found Shukuvena.'



# 4 On defective Inflection and Control

Non-finiteness in the literature has been defined in terms of defectiveness of Inflection (Landau, 2013; Borer, 1989)

- 1. Landau (2013) argues that in control constructions, defective Inflection nodes defined as [-Agr] or [-T] are directly related to the presence of PRO in the structure, a [-Ref] argument.
  - Tight connection between non-finiteness and the presence of a non-referential element in the clause –PRO an anaphoric element that is eventually bound by a controller.
  - System works for control into complements only.
- 2. Borer (1989) also argues that non-finiteness is related to defective Inflection. But defective inflection is not connected to the presence of a non-referential element such as PRO in the non-finite clause.
  - Languages like Saramancan and Korean in which non-finite clauses under OC may have overt subjects;
  - Control configuration involves an Anaphoric Agr(eement) node. That is, the Agr node in the dependent clause is defective, lacking features of its own. This type of Agr node moves to C and is bound there by a matrix subject.
  - Once Agr inherits  $\phi$  features from the matrix subject, it transmits/checks them against features of own subject.

# 4.1 A configurational effect

There are at least three reasons to believe that SS interpretations in YW are **not** the effect of binding a non-referential PRO.

#### 4.1.1 YW SS clauses may have an overt DP or pronoun

- (13) Adverbial SS clauses don't necessarily have PRO
  - a. [Pi-pai-kī] ē yuma atxi-a. eat-DES-SS.SIMULT.ERG 1S.SUBJ fish catch-PRI 'Willing to eat, I caught fish.'
  - b. [Evenanea vakehu-shū] ea sai-shū-pãu-ni.
     sibling child-SS.PREV.ERG 1S.ACC sing-APPL-IMPF.REM-PST.REM

'When my sister was little, she used to sing to me.'

- c. [Ē mãnĩa hi-shũ] ẽ pi-a. 1s.erg banana get-ss.prev.erg 1s.erg eat-prf
  - 'I got bananas and then I ate them.'
- d. [A katxuri i-shū] tsuma. 3S.ACC behind AUX.INTR-SS.PREV.ERG hold.PRF
  - '(He) is behind her, holding her.'

# 4.1.2 Even if a quantifier or an indefinite is the subject in an adverbial clause, SS marking still obtains

- (14) Quantifiers and indefinites trigger SS
  - a. [Ashkãyahi munu-i ka-xiã-shū], awē awī iwe-a-hu. everyone dance-INF go-PST.NIGHT-SS.PREV.ERG 3S.POSS wife bring-PRF-PL 'Everyone went dancing last night, and brought their wives.'
  - b. [Tsuama munu-i ka-xiã-shũ=ma] awẽ awī iwe-a=ma. nobody dance-INF go-PST.NIGHT-SS.PREV.ERG=NEG 3S.POSS wife bring-PRF-PL-NEG 'Nobody went dancing last night and brought their wives.'
  - c. Shekepãwã,  $[tsu\tilde{a}-ra]$  shekepãwã atxi- $sh\tilde{u}$ ] isma-i. lizard wh.erg-INDEF lizard catch-SS.PREV.ERG show-PROG
    - 'A lizard, someone caught a lizard and is showing it.' (Consultant is describing a photograph)

#### 4.1.3 DS marking obtains with subject-less predicates

(15) Weather predicate and DS

a. [Nũ kai-**nũ**] uik-i tae-a.

1P.SUBJ go.IMPF-DS.SIMULT rain-SS.SIMULT.NOM start-PRF

'We were going and it started raining.'

#### 4.1.4 What this means

The anaphoric element inside the adverbial clause...

- is not PRO
- could be Infl+C

In principle, the controller could be matrix T or the matrix subject, but crucially, the adjoined clause must be below the matrix subject for Case agreement to obtain.

#### 4.1.5 Control and Principle C

Assuming that the adjunction site of a SS adverbial clause must be below the subject (for c-c to obtain), this sentence raises some problems:

- (16) a. Ea  $pro\left[_{\text{CP}}\left[_{\text{Infl}}\right] \text{ Nãimahu kãwã}\right]$ -kĩ]  $t_{pro}$  a-wẽ weshati rehũ ea 1s.obj Nãimahu walk.by-ss.simult.erg 3s-poss knife tip.inst 1s.acc wixa. scratch.prf

  'Me, Naimahu was walking by and scratched me with the tip of her knife.'
  - The possessive in the matrix clause is being bound by a covert subject with  $\phi$  features somewhere in the matrix clause either above or below the adjunction site;
  - If a pro with  $\phi$  features is above the adjunction site, we would expect a condition C effect pronominal c-commanding a co-construed DP;

# 5 Alternative analyses?

- Anaphoric element in dependent clause is Op(erator) in Spec, CP;
- How does this operator become linked to the local subject?
- Operator in SS clauses is bound by matrix subject.

# 5.1 What would this system buy us?

- Controlled item is an anaphor, reducing the necessary assumptions of co-indexing and indirect control that an anaphoric head would require;
- Controlled element is independent of the Agreement relation between the subject, Infl, and C in the adverbial clause.
- Prediction: the controlled Op in the adverbial clause could link to any argument position inside the adverbial clause. That is, the controlled element wouldn't need to be the subject, it could be an object.

This is a very welcome prediction:

- (17) YW SR paradigm: SS, DS, O=S
  - a. [Livia;-ne yumãij uĩ-**ashe**] *pro*i itxu-a. Livia-ERG jaguar see-SS.PREV.NOM run-PRF 'Livia saw a jaguar and ran away.'

- b. [Livia<sub>i</sub>-nẽ yumãi<sub>j</sub> uĩ-a-**kẽ**]  $pro*_{i/*j/k}$  itxu-a. Livia-ERG jaguar see-PRF-DS.PREV pro run-PRF '(Someone) ran when Livia saw a jaguar.'
- c. [Livia<sub>i</sub>-nẽ yumãi<sub>j</sub> uĩ-a] pro<sub>j</sub> itxu-a. Livia-ERG jaguar see-OBJ=SUBJ pro run-PRF 'Livia saw a jaguar and it (the jaguar) ran away.'

I have been focusing on the properties of SS, but YW and other Panoan languages allow a matrix subject to be co-construed with a dependent object. This would be very problematic for a standard control theory:

- (18) Unattested control structure:
  - a. Richard<sub>i</sub> tried [PRO<sub>i</sub> to catch Molly].
  - b. \*Molly<sub>i</sub> tried [(Richard) to catch PRO<sub>i</sub>]. (Landau, 2013, p. 108)
  - This type of system brings us closer to a predicational account of adverbial clauses (Clark, 1990; Williams, 1992; Landau, 2007)
  - Clark (1990) argues that PRO in an adverbial clause is a  $\lambda$  operator that moves to Spec,CP of the embedded clause. This operation makes the clause be interpreted as a predicate to be saturated by the matrix subject.

# 5.2 Further advantages

Besides the appeal of possibly accounting for dependent object to matrix subject co-construal, a predicational account of SR involving an Op-trace mechanism offers one more advantage:

- Some adverbs in Panoan languages agree in Case with the argument they are being predicated of;
- Agreement markers that appear in these adverbial predicates have the same morphology as SS markers

- (19) YW: Locative predicate agreement
  - a. Ē Estados Unidos anu-**ashe**, Shukuvena Tarauacá anu a-ve tsãik-i.

    1SG.NOM United States loc-SS.NOM Shukuvena T. LOC 3SG-COM speak-PROG

    'I, in the United States, am speaking to Shukuvena in Tarauacá.
  - b. Ē Estados Unidos anu-shū Tashkā TV anu ũi-a.
    1SG.ERG United States loc-SS.ERG Tashkã TV LOC see-PRF
    'I, in the United States, saw Tashkã on TV.'

# 6 Summary

- Traditional Control analysis of SR doesn't account for YW system (and Panoan in general);
- A bound Op + resumption mechanism is a potential solution to the problem;
- Interpreting adverbial clauses as predicates brings them closer to simple adverbs;
- YW morphology suggests to treat these two categories are a natural class.

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