Person hierarchy effects from Φ-agreement at the left periphery in Kawahíva

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Introduction

In general, person hierarchy effects result from a probe agreeing with multiple goals, typically in the low domain of the clause (Béjar 2003; Béjar & Rezac 2009, a.m.o), as schematized in (1).

(1) $[_{CP}\ C\ [_{TP}\ [_{vP}\ EA\ [_{v_{[\Phi]}}\ [_{VP}\ IA\ V\ ]\ ]\ ]\ ]\ ]$

However, in the Tupí-Guaraní language Kawahíva, spoken in the Brazilian Amazon, the person hierarchy 1>2>3 manifests only when the verb moves to CP, overtly or covertly. Otherwise, agreement is restricted to the internal argument.

Data comes from original fieldwork on the Júma [ISO: jua] and Jupaú [ISO: urz] dialects.

Claim

Kawahíva matrix clauses exhibit the following clausal structure (dos Santos, accepted).

(2) $[_{CP}\ C\ [_{MoodP}\ [_{TP}\ [_{VoiceP}\ EA\ [_{Voice}\ \ [_{vP}\ v\ [_{VP}\ IA\ V\ ]\ ]\ ]\ ]\ ]\ ]\ ]$

I propose Kawahíva matrix clauses come with two probes: a [SPKR-PART-Φ]-relativized probe on C and a flat Φ-probe on *v*.

(3) $[_{CP}\ C_{[SPKR\text{-}PART\text{-}\Phi]}\ [_{MoodP}\ [_{TP}\ [_{VoiceP}\ EA\ [_{Voice}\ \ [_{vP}\ [v_{[\Phi]}\ [_{VP}\ IA\ V\ ]\ ]\ ]\ ]\ ]\ ]\ ]\ ]$

This analysis is used to explain i) the lack of person hierarchy effects when the verb does not move to the CP in matrix clauses; ii) the absence of subject agreement and person hierarchy effects in dependent clauses; and iii) an asymmetry between subject and object agreement markers under verbal reduplication.

These findings extend other proposals for multiple loci for Φ-agreement in the clausal spine, including Coon's (2013) and Oxford's (2014) proposals for agreement on *v*, and Compton (2017) for agreement on C in Inuktitut.

Agreement in matrix clauses

Kawahíva matrix verbs obligatorily index either the subject (4) or object (5); the choice depends on a person hierarchy 1>2>3 (dos Santos 2023).

(4) ***A**-hepia* *ki* *ji* *pe* *ko.*
1.SG.A-see PST 1.SG 2.PL REAL
'I saw you (PL.).'

(5) ***Ji**=repia* *ki* *pe* *ko.*
1.SG.B=see PST 2.PL REAL
'You (PL.) saw **me**.'

The complete set of subject markers (Set A), which are inflectional prefixes, and that of object markers (Set B), which are bound pronouns (Set B), is provided in Table (1).

	Set A	Set B
1st person sg.	a-	ji=
2nd person sg.	ere-	nde=
1st person incl.	txi-	nhãnde=
1st person excl.	oro-	ore=
2nd person pl.	pe-	pe=
3rd person	v- ∼ o-	–

Table 1. Kawahíva agreement markers.

Verb movement to CP

The appearance of person hierarchy effects is dependent on verb movement to CP, overtly or covertly.

Kawahíva exhibits long-distance verb movement to CP in matrix clauses, driven by a categorial feature [V] on C (dos Santos, accepted).

(6) $[_{CP}\ C_{\substack{[V]\\[SPKR]}}\ [_{MoodP}\ [_{TP}\ [_{VoiceP}\ EA\ [_{Voice}\ [_{vP}\ [v_{[\Phi]}\ [_{VP}\ IA\ V\ ]\ ]\ ]\ ]\ ]\ ]\ ]\ ]\ ]$

However, in contexts of extraction (when C bears [$\overline{A}$]), the verb may either move covertly or not move at all; the choice depends on whether the extractee is a DP or a PP.

(7) $[_{CP}\ C_{\substack{[V]\\[SPKR]\\[\overline{A}]}}\ [_{MoodP}\ [_{TP}\ [_{VoiceP}\ EA\ [_{Voice}\ [_{vP}\ [v_{[\Phi]}\ [_{VP}\ IA\ V\ ]\ ]\ ]\ ]\ ]\ ]\ ]\ ]\ ]$

A summary of the differences correlated with the type of extractee is in (2).

Clause-initial X(P)	Agreement	V-position	Example
Verb	EA or IA	–	(4)-(5)
Extracted DPs	EA or IA	medial	(8)
Extracted PPs	IA only	final	(9)

Table 2. Summary of clause-initial elements and morphosyntactic properties.

(8) ***Mãngã*** *po* *v-epia* *gã* *rimba'e?*
who IRR 3.A-see 3.PL NWIT.REM.PST
'Who saw them back in the day?'

(9) ***Oi'i=ve*** *ki* *jie* *gã* *repiak-i.*
some.time.ago=to PST 1.SG 3.PL see-i
'The other day, I saw them.'

I posit PPs come with the [V] feature as postpositions share several properties with verbs (e.g., appear with voice and adverbial morphology and object agreement).

When extracted to CP, PPs (not DPs) will also match the [V] on C (10-11), bleeding verb movement to CP. The verb appears only with agreement from the *v*-probe.

(10) $[_{CP}\ PP_{[\overline{A},\,V]}\ [_{C_{\substack{[V]\\[SPKR\text{-}PART\text{-}\Phi]\\[\overline{A}]}}}\ [_{MoodP}\ [_{TP}\ [_{VoiceP}\ EA\ [_{Voice}\ [_{vP}\ [v_{[\Phi]}\ [_{VP}\ IA\ V\ ]\ ]\ ]\ ]\ ]\ ]\ ]\ ]\ ]\ ]$

(11) $[_{CP}\ DP_{[\overline{A}]}\ [_{C_{\substack{[V]\\[SPKR\text{-}PART\text{-}\Phi]\\[\overline{A}]}}}\ [_{MoodP}\ [_{TP}\ [_{VoiceP}\ EA\ [_{Voice}\ [_{vP}\ [v_{[\Phi]}\ [_{VP}\ IA\ V\ ]\ ]\ ]\ ]\ ]\ ]\ ]\ ]\ ]\ ]$

The analysis where the person hierarchy arises from a single probe on *v* does not explain why the hierarchy effects disappear if the verb does not move to CP.

Evidence from dependent clauses

Dependent clauses verbs index only the object:

(12) *O-kwaha* *ki* *ga* *[ji* *nde=repiak=a].*
3.A-know PST 3.SG.MASC 1.SG 2.SG.B=see=NMLZ
'He knew I saw you.'

Furthermore, dependent clauses lack a landing site for extraction, mood particles, and verb fronting (not shown here), all associated with higher projections, including CP, in matrix clauses.

These facts strongly suggest that dependent clauses lack a CP, as in (13).

(13) $[_{TP}\ [_{VoiceP}\ EA\ [_{Voice}\ [_{vP}\ [v_{[\Phi]}\ [_{VP}\ IA\ V\ ]\ ]\ ]\ ]\ ]\ ]\ ]$

If C houses the [SPKR]-relativized probe, these agreement facts are straightforwardly accommodated: subject agreement and person hierarchy effects disappear from dependent clauses because the higher probe is never present.

Application to verb reduplication

A further advantage of this proposal concerns verbal reduplication: object markers, but not subject markers, must be copied into the reduplicant (14-15).

(14) *[Arerety]-are=retyk* *ki*
[RED]-1.EXCL.B=pull.down PST
gã *ko.*
3.PL REAL
'They pulled us all down.'

(15) **Are=[rety]-retyk* *ki*
1.EXCL.B=[RED]–pull.down PST
gã *ko.*
3.PL REAL
'They pulled us all down.'

Subject agreement markers do not have a similar requirement, as shown in (16-17).

(16) *Anhãnga* *o-[kutu]-kutu-pam*
ghost 3.A-[RED]-pierce-completely
j-urua.
i-mouth
'It was the ghost that pierced his mouth (the chief's mouth) multiple times'

(17) **Anhãnga* *[okutu]-o-kutu-pam*
ghost [RED]-3.A-pierce-completely
j-urua.
i-mouth
'It was the ghost that pierced his mouth (the chief's mouth) multiple times"

In the current proposal, this receives a straightforward account: reduplication targets *v*, which does not include the probe on C.

Remarks

Positing two distinct Φ-probes in Kawahíva matrix clauses, one probe relativized to [SPKR-PART-Φ] on C and one flat probe on *v*, provides a unified account for a number of disparate phenomena in the language, including person hierarchy effects only when the verb moves to C in matrix clauses, the total lack of subject agreement and the said effects in dependent clauses, and the requirement that reduplication copies object agreement, but not subject agreement. Additionally, this work extends the typology of where Φ-probes can occur in the clausal spine.

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