Phorhépecha Clitics

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1. Introduction

Transitive clauses in Phorhépecha (language isolate, Michoacán) feature agreement clitics whose form is affected by the ϕ-features of the subject and direct object

(1) Akxe=**tsïn** xe-s-ti
Akshay=**1OBJ:PL** see-PST-3SUBJ
'Akshay saw us.'

(3) Ji=**kin** xe-xa-ka.
1SG=**2OBJ:SG** see-PROG-1/2SUBJ
'I am seeing you (sg.).'

(2) Inde=ø xe-xa-ti.
3.DEM=**3SG** see-PROG-3SUBJ
'He is seeing her.'

- Local-person vs. 3rd-person objects pattern differently wrt clitics & object number agreement:

(4) **Three generalizations**

	1/2 objects	3 objects
Person exponed on clitic?	✓	✗
Omnivorous number?	✓	✗
Obj. Num. agreement on verb?	✗	✓

- All three effects are analyzed as the result of **participant object shift** which lands **above the subject** and is **ordered before verbal object number agreement**

- An example of person-specific syntax (Bianchi 2006, Merchant 2006, Deal 2016) - local-person objects move higher than 3rd-person objects

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Background on Phorhépecha

- About 110,000 speakers (Chamoreau 2009, 2012a, 2012b)

- Data elicited in collaboration with a native speaker of the Cheranástico variety living in Chicagoland

- Both data and analysis are novel; previous descriptions (Chamoreau 2014, Capistrán 2002) are of other varieties whose clitic systems are not the same as the one reported here
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Roadmap for Today

- Participant Objects: Object Person Preference, Omnivorous Number

- 3rd-person Objects: Number Agreement Only With Subject

- 3rd-person Objects: Object Number Agreement on Verb
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2. Person-Specific Syntax: Participant Object Preference & Omnivorous Number

- Clitics are hosted by multiple word classes & multiple possible positions in clause

(5) jas=**ri** tu ara-s-ka kurinda.
today=**2SUBJ:SG** youSG eat-PST-1/2SUBJ bread [adverb]
'Today you ate bread.'

(6) ima no=**tsïn** xe-s-ti.
3.DEM neg=**1OBJ:PL** see-PST-3SUBJ [negation]
'He did not see us.'

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participant object preference

- When the object is first- or second-person, the clitic expones the object's person feature.

(7) Inde=**rin** xe-xa-ti.
3.DEM=1OBJ:SG see-PROG-3SUBJ
'He is seeing me.'

(9) Inde=**kin** xe-xa-ti.
3.DEM=2OBJ:SG call-PROG-3SUBJ
'He is seeing you (sg.).'

(8) T'u=**rin** wandaapa-s-ka.
2SG=1OBJ:SG call-PST-1/2SUBJ
'You called me.'

(10) Ji=**kin** xe-xa-ka.
1SG=2OBJ:SG see-PROG-1/2SUBJ
'I am seeing you.'

Omnivorous Number Agreement (Nevins (2011), p. 941)

Georgian agreement markers

(11) g- xedav- **t**
2OBJ- saw -**pl**
'I saw y'all, We saw y'all, He saw y'all, We saw you.'

Table 1: Georgian *-t*		
	2SG.OBJ	2PL.OBJ
1SG.SUBJ	-ø	-t
1PL.SUBJ	-t	-t

The form of the clitic depends on the person and number of *both* the subject and the object.[1]

Table 2: First-Person Object

	SG.OBJ	PL.OBJ
SG.SUBJ	=rin	=tsïn
PL.SUBJ	=tsïn	=tsïn

Table 3: Second-Person Object

|	SG.OBJ	PL.OBJ
SG.SUBJ	=kin	=ksïn
PL.SUBJ	=ksïn	=ksïn

--- **Omnivorous number agreement** ---

- When the object is first- or second-person, clitic marks whether *either* the subject or the object (or both) is plural.

(12) inde=**tsïn** xe-s-ti
3.DEM=1OBJ:PL see-PST-3SUBJ
'They saw me/us, He saw us'

(14) inde=**ksïn** xe-s-ti
3.DEM=2OBJ:PL see-PST-3SUBJ
'They saw you/y'all, He saw y'all'

(13) chaa=**tsïn** wandaapa-s-ka.
2PL=1OBJ:PL see-PST-1/2SUBJ
'Y'all called me/us, You (sg) called us.'

(15) jucha=**ksïn** wandaapa-s-ka
1PL=2OBJ:PL see-PST-1/2subj
'We saw you/y'all, I saw y'all.'

Our Solution: Participant Objects Move Above the Subject
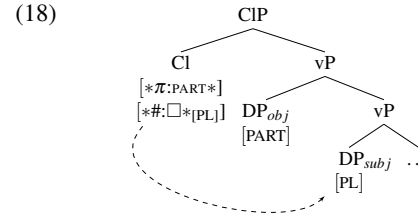
(16) Inde=ksïn xexati (3PL>2SG)
"They are seeing you (sg)."
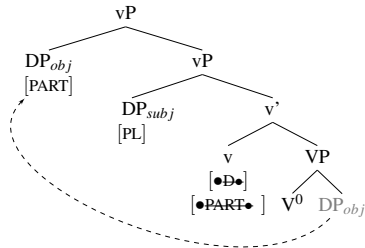
- feature stack on v: (Müller 2010)
- second feature causes v to attract a [+part] argument to *outer* specifier

(17)
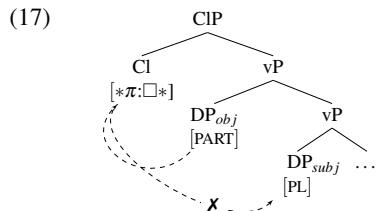
- clitic: functional head with ϕ-probes (Sportiche 1996)
- person probe finds object unless object is 3rd person - **part. object preference**

(18)

- Number probe searches for plural DP in search domain (outside vP phase)
- Probe can interact with subject/object DPs
- Probe is valued if either or both are plural - **omnivorous number agreement**

3. Against Cyclic Agree: No Omnivorous Number Agreement with Third-Person

- Phorhépecha: **When object is third-person, only subject's number features exposed on clitic (*no* omnivorous agreement)**

(19) Ji=ø jurendaa-s-ka inde-echa-ni. **(1SG>3PL)**
1SG=1SUBJ:SG teach-PST-1/2SUBJ 3.DEM-PL-ACC
'I taught them.'

(20) Jucha=**ch** xaa-xa-ka. **(1PL>3PL)**
1PL=1SUBJ:PL see-PROG-1/2SUBJ
'We are seeing them.'

(21) Ima=ø no xaa-s-ti. **(3SG>3PL)**
3.DEM=3SG neg see-PST-3SUBJ
'He did not see them.'

(22) Ima=ks no xaa-s-ti. **(3PL>3PL)**
3.DEM=3PL neg see-PST-3SUBJ
'They did not see them.'

Cyclic Agree (Béjar & Rezac 2009): third-person objects should allow omnivory

--- **Cyclic Agree for Person ✓** ---

(23) ... [$_{vP}$ v [$_{VP}$ ... DP.OBJ$_{3PL}$]

(24) [$_{vP}$ DP.SUBJ [$_{vP}$ v [$_{VP}$ ...

- CA probe is relativized for [**part**]
- probe agrees with an participant object (24)
- if the object is not a participant, the probe agrees with the subject (25)

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[1]We only claim that this paradigm is accurate for our consultant's variety - other varieties have somewhat different systems (Erik Zyman, p.c.)

(25) ... [$_{vP}$ v [$_{VP}$ ... DP.OBJ$_{3PL}$]

- but #-probe on v should agree with plural object, regardless of person (26-27)
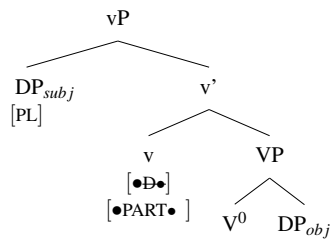
(26) [$_{vP}$ DP.SUBJ [$_{vP}$ v [$_{VP}$ ...

- incorrectly predicts number of a plural third-person object will be exponed

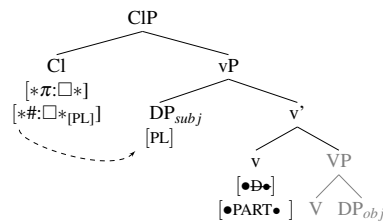## Our Solution: Third-Person Objects Do not Undergo Object Shift

(27)

- the [●PART●] feature on v isn't satisfied; no object shift

- the [●D●] feature on v triggers merger of the subject

(28)

- Cl is merged with vP

- Cl probes for closest goal in its c-command domain: the subject

- object is trapped by a phase boundary & therefore cannot be a possible goal for #-probe

4. Prediction: Object Shift Bleeds Object Agreement

- If local-person objects move to Spec,vP, we predict that this movement can bleed some other operation which occurs very low

- This is borne out - Phorhépecha features object number agreement on the verb, but only for 3rd-person objects

- Agreement morpheme is very low in the clausal spine - directly adjacent to verb stem

Third-Person Objects:

clitic agreement & verbal agreement are in complementary distribution

(29) Ji=ø   xe-xa-ka
      1SG=1SUBJ:SG see-PROG-1/2SUBJ
      'I am seeing her.'

(30) Ji=ø   x-aa-xa-ka.
      1SG=1SUBJ:SG see-3PL.OBJ-PROG-1/2SUBJ
      'I am seeing them.'

(31) T'u=**ri**   xe-xa-ka.
      2SG=2SUBJ:SG see-PROG-1/2SUBJ
      'You are seeing her.'

(32) T'u=**ri**   x-aa-xa-ka.
      2SG=2SUBJ:SG see-3PL.OBJ-PROG-1/2SUBJ
      'You are seeing them.'
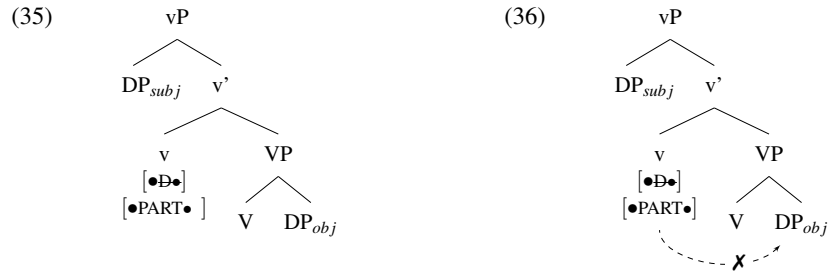
(33) Inde=ø   xe-xa-ti.
      3.DEM=3SG   see-PROG-3SUBJ
      'She is seeing her.'

(34) Inde=ø   x-aa-xa-ti.
      3.DEM=3SG   see-3PL:OBJ-PROG-3SUBJ
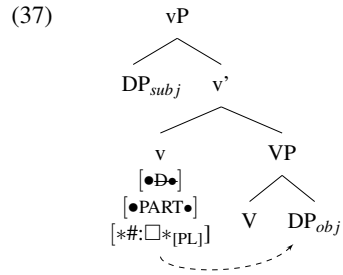   'She is seeing them.'

- A problem: movement out of vP must occur before agreement into vP to avoid a counter-cyclic derivation

Our solution: Ordering Merge before Agree

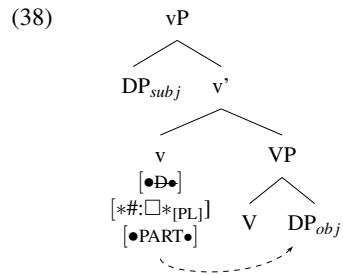- 3rd-person objects not goals for the [PART] probe on v: do not undergo shift

(35)
```
          vP
         /  \
    DP_subj  v'
            /  \
           v    VP
      [●D●]     /  \
    [●PART● ]  V   DP_obj
```

(36)
```
          vP
         /  \
    DP_subj  v'
            /  \
           v    VP
      [●D●]     /  \
    [●PART●]   V   DP_obj
              ⌐--✗--⌐
```

no object shift because the third-person object cannot check the PART feature on v

(37)
```
          vP
         /  \
    DP_subj  v'
            /  \
           v    VP
      [●D●]     /  \
    [●PART●]   V   DP_obj
  [*#:□*_[PL]]
       ⌐----------⌐
```

- a third stacked feature on v is a #-probe relativized for plural

- this #-probe searches for a goal in its c-command domain

- only nominal in the search space is a third-person object: participant objects have already shifted to a specifier of v due to the second stacked feature [PART] on v

- movement is ordered before Agree

the opposite order makes false predictions

(38)
```
          vP
         /  \
    DP_subj  v'
            /  \
           v    VP
      [●D●]     /  \
 [*#:□*_[PL]]  V   DP_obj
    [●PART●]      ⌐--✗--⌐
```

- Object is still in base position when agreement feature is triggered

- falsely predicts that local-person objects should also be agreed with

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No verbal object agreement for 1/2 objects:

(39) inde=tsïn   xe-(*aa)-s-ti
      3.DEM=1OBJ:PL   see--(*3PL.OBJ)-PST-3SUBJ
      'They saw me, He saw us, They saw us'

(40) inde=ksïn   xe-(*aa)-s-ti
      3.DEM=2OBJ:PL   see-(*3PL.OBJ)-PST-3SUBJ
      'They saw you, He saw y'all, They saw y'all'

Merge and Agree cannot be triggered by different heads

(41) ... [_vP DP.SUBJ [_v' v [_1/2P [_1/2' 1/2 [_VP ... DP.OBJ_3PL]
            ⌐--✗--⌐- - - - - - - - - - - - - - - - - - ⌐
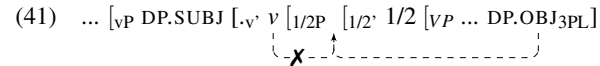
- A non-starter: Merge is before Agree, but landing site of Merge is still below probe

- The *only* way to get the facts right is to have object shift and object agreement be mediated by ordered operations triggered by features on the *same* head (Georgi 2017)

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5. Conclusion

- Phorhépecha features complementary person splits in omnivory and object agreement

- Local-person objects move higher than 3rd-person objects - **person-specific syntax**

- Omnivorous number is relatively little-studied cross-linguistically - it may be that such a movement-based analysis is viable for many such patterns

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