Promiscuous Paradigms and the Morphologically Conditioned "Ergative Split" in Texistepec Popoluca (Zoquean)*

EHREN MICHAEL REILLY
Johns Hopkins University

0. Introduction

Many authors have struggled to capture the relationship between the various phenomena to which the label "ergativity" is applied. Languages can conflate transitive objects with intransitive subjects, to the exclusion of transitive subjects, at several different levels: syntactic structure, morphological case marking, and verbal agreement systems (Dixon 1994). While some of these patterns may partially overlap in a single language, the overlap is never complete—no language seems to be 100 percent ergative, by any definition (Dixon 1977, 1994). The diversity of these patterns both within and across languages has challenged efforts to define ergativity in a way that is both informative and restrictive. I argue against the assumption that ergative patterns share some underlying syntactic commonality, based on evidence that, in verbal agreement systems, the source of "ergativity" or "split ergativity" may originate in the morpho-phonology, rather than the assignment of Case in the syntax.

This paper advocates a position first adopted by Woolford (1999), that there are two distinct types of ergative agreement. One type is parasitic on Case, typically involving agreement only with Nominative (a.k.a. "Absolutive") arguments, as in Hindi. A second type occurs in languages with no ergative case morphology on nominals, and crucially does not depend on the assignment of Ergative Case in the syntax (Woolford 1999). I argue that the second type is just one of many examples of phonology and morphology "intrusively" affecting the choice between syntactically distinct agreement paradigms.

In support of the distinction between ergative agreement systems that are based on Case and those based on morphological paradigm selection, I present

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evidence from Texistepec Popoluca, a Zoquean language of Veracruz, Mexico. In Texistepec Popoluca the choice of a historically "nominative" clitic paradigm over a historically "ergative" affixal agreement paradigm is blocked by the introduction of another unrelated clitic. This indicates that, synchronically, the mechanism responsible for cross-referencing the arguments by either agreement or clitics is sensitive to the linear ordering of clitics and affixes before the verb.[1]

Woolford (1999, 2001) demonstrates that the typology implicit in recent alignment-based approaches to morphology in Optimality Theory predicts the existence of languages that have ergative agreement systems without Ergative Case. I show that this typology allows for the Texistepec system as well. I further provide historical evidence that an independent sound change triggered the morpho-phonological change responsible for the current "split" in the agreement system. This split is due to the different morpho-phonology of clitics and affixes.

1. On the Dissociation of Ergative Case and Ergative Agreement Systems

Ergative agreement and Ergative Case can exist independently of one another. There are two known ergative agreement patterns, out of three logical possibilities. We find systems like Mayan and Zoquean languages with cross-referencing verbal morphology for both "ergative" and "nominative" ("absolutive") arguments. We also find languages like Hindi where only arguments with Nominative Case control agreement—agreement is with intransitive subjects and with Nominative objects in clauses that have Ergative or Dative subjects. But there is a typological gap, since no language seems to have agreement only with Ergative DPs (transitive subjects) (Woolford 1999 and references). For those who would attribute ergative agreement and ergative Case marking to the same grammatical mechanism, this gap is problematic, since the most common type of nominal Ergative Case system has overt Ergative marking and zero marking for Nominative/Absolutive (Dixon 1994).

Further evidence for the dissociation of case and agreement is that many languages with Ergative-Absolutive nominal case marking also have Nominative-Accusative (subject-object) agreement systems (Woolford 1999 and references).

(1) Walmatjari: **ERG-ABS** Case, Su-Obj agreement (Hudson 1978)

a. parl - tjara - **Ø** pa -lu - pinja njanja marnin - warnti - **rlu**
boy -DU -**ABS** INDIC - SuPl - ObjDu *saw* *woman*- PL -**ERG**
'The women saw the two boys.'

b. marnin - warnti - **Ø** pa -lu wurna yani
woman- PL -**ABS** INDIC -SuPl *walkabout* *went*
'The women went for a walk.'

Since Ergative Case does not entail ergative agreement, there is little explanatory benefit in attributing ergative agreement to covert Ergative Case.

[1] Here "clitic" broadly denotes any syntactically or prosodically dependent grammatical particle.

Examples like (1) show that covert Ergative Case in the syntax is not sufficient to explain ergative agreement, and the discussion below will show that it is not necessary either.

2. Promiscuous Paradigms and Agreement Splits

If we adopt the prevalent view that agreement is a purely syntactic phenomenon, then we are committed to the position that choice between agreement paradigms should be unaffected by linear morphological and morpho-phonological conflicts. One problem this view faces is the selection of definite articles in Spanish.

Spanish feminine nouns beginning with stressed *á* take the masculine definite article *el*, thus avoiding hiatus between the feminine article *la* and the noun's initial *á*. For example, with feminine *água* 'water', the masculine article is selected: *el água*, not **la água.* Either the [+FEM] feature of the feminine article is paradoxically deleted in a certain phonological environment, or the phonology must somehow occasionally trump morphosyntax in paradigm selection.

A similar problem arises when agreement "splits" are conditioned by a linear morphological environment, rather than a syntactic criterion. Woolford (2001:19) notes that in Yimas, the presence of a negative clitic before the verb blocks the usual agreement clitic, causing the alternation in (2).

(2) a. ama+wa-t
1CL+*go*-PERF
'I went.'

b. **ta**+ka-wa-t
NegCl+1AgrSu-*go*-PERF
'I didn't go.'

Similarly, in Lavukaleve (Papuan), canonical subject and object agreement appears on all verbs except those bearing the prefix *e-*, which occupies the usual subject agreement slot.[2] Verbs in *e-* use the "object" agreement paradigm to agree with their subjects as seen in (3) from Terrill (2003).

(3) a. meo vo-**e**-tegi -ge
tuna 3PlObj- **SBD**- *feed* -ANT
'…when the bonito started feeding...'

b. vau a-igu-ge
out 1SgSu-*go*-ANT
'…when I went out…'

There is no compelling syntactic explanation for this split. The subject in (3a) cannot have Accusative Case by means of ECM, because this pattern can occur with any verb in the superordinate clause. The problem with treating this as an "ergative split" (in which the "subject" agreement is actually "ergative") is that the only intransitive subjects that trigger "absolutive" agreement are third person subjects in adverbial clauses, while all others trigger "ergative" agreement. A

[2] According to Terrill (2003:424–5), this prefix appears on intransitive verbs in adverbial clauses.

better option is to attribute the pattern to a morphological alternation like the Spanish and Yimas examples above. Under this approach, we need only acknowledge that the paradigms are "promiscuous" (i.e., not inviolably limited to one grammatical role), and that paradigm choice can be influenced independently of the syntax by the linear morphological or phonological environment.

A similar but more complex morphologically conditioned agreement split is found in Texistepec Popoluca. The "ergative" paradigm is extended to intransitive subjects in the imperfective aspect only, as seen in (4). This pattern is unattested in languages with overt case on DPs—in fact, it is the reverse of a typological universal noted by Dixon (1994:99) that ergativity is associated with perfectivity.[3] While the other aspects are marked by a free word (4b) and suffix (4c), the imperfective clitic (4a) occupies the same morphological position that the "absolutive" proclitic usually fills.

(4)	a. ʔuw̃ɛ̃j	b. maʔ kwɛj	c. kwɛːjp
	ʔu+ ^{N}-wɛj	maʔ # **k**+wɛj	**k**+wɛj-p
	IMPFV+**1Su**-*howl*	PERF # **1Su**+*howl*	**1Su**+*howl*-FUT
	'I am howling.'	'I howled.'	'I will howl.'

Accounting for this pattern in terms of the Case assignment in the syntax would be problematic, but several morphological theories can already generate such a pattern in the morphological structure, independently of the syntax.

3. Generating Ergative Agreement and Splits in the Morphology

Most theories of morphology posit some level of morphological or phonological structure, which is responsible for the selection of phonological material to express morpho-syntactic features, and/or for the linear arrangement of morphemes (e.g., Distributed Morphology (Halle & Marantz 1993), A-Morphous Morphology (Anderson 1992), OT-LFG (Bresnan 2001), and alignment-based OT morphology (McCarthy & Prince 1993, Grimshaw 2001, Legendre 1998a,b)). These approaches all claim that spell-out of morpho-syntactic features as either affixes or clitics is the result of competition, governed by constraints or processes that dictate where and how (and if) features will be expressed.

Woolford (1999) uses such a competition-based approach to analyze the "ergativity" of the agreement system in Jacaltec Mayan (Table 1) (Craig 1977).

Table 1.

	Subject Agr prefix	Clitic/default
1	*w-*	*-hin*
2	*haw-*	*-hach*
3	*y-*	-Ø

	Subject	Object
Intrans:	Clitic	
Trans:	SubjAgr	Clitic

[3] See Anderson (1977) and Dixon (1977) for discussion of this association.

In Woolford's analysis, the clitic paradigm is the default inflection. However, for transitive clauses, where the single clitic cannot express all the morphosyntactic features, an otherwise absent subject agreement prefix emerges. For Jacaltec, this means using the clitic paradigm for transitive objects and intransitive subjects, and the subject agreement prefix for transitive subjects only—an "ergative" pattern of agreement that is crucially not dependent on Ergative Case.

While several approaches could simply stipulate that a particular language works in this way, Woolford (1999, 2001) observes that a small set of constraints proposed in unrelated work on morphology in Optimality Theory predicts languages like Jacaltec. Work by Anderson (1996), Legendre (1998a,b), and Grimshaw (2001) on clitic placement and Bresnan's (2001) treatment of pronominal synthesis predict a typology including "ergative" agreement patterns generated in the morphology. I will employ the markedness constraints in (5) and the faithfulness constraint in (6) (Bresnan 2001, Woolford 2001).

(5) a. ***affix** Economize / preferentially avoid affixes.
b. ***clitic** Economize / preferentially avoid clitics.

(6) **MAX$_{PERSON}$** Faithfully agree with person features in the input.

When markedness outranks faithfulness, morpho-syntactic features are not expressed. The ranking {*affix,*clitic} » MAX$_{PERS}$ prohibits agreement. But when the markedness constraints are ranked below MAX$_{PERS}$, agreement appears. In this case, the relative ranking of *affix and *clitic will determine how the features are expressed. Whichever form is more marked fails to appear, as shown in (7–10).

(7) Ranking for **only affixal agreement**

Input: Subj	MAX$_{PERS}$	*clitic	*affix
a. ☞ Agr_{Subj}			*
b. Cl_{Subj}		*!	
c. Ø	*!		*

(8) Ranking for **only affixal agreement**

Input: Subj & Obj	MAX$_{PERS}$	*clitic	*affix
a. ☞ Agr_{Subj}; Agr_{Obj}			**
b. Cl_{Subj}; Cl_{Obj}		*!*	*
c. Cl_{Obj} ; Agr_{Subj}		*!	*
d. Agr_{Subj}; Ø	*!		*

(9) Ranking for **only clitics**

Input: Subj	MAX_{PERS}	*affix	*clitic
a. Agr_{Subj}		*!	
b.☞ Cl_{Subj}			*
c. Ø	*!		

(10) Ranking for **only clitics**

Input: Subj & Obj	MAX_{PERS}	*affix	*clitic
a. Agr_{Subj}; Agr_{Obj}		*!*	
b.☞ Cl_{Subj}; Cl_{Obj}			**
c. Cl_{Obj}; Agr_{Subj}		*!	*
d. Cl_{Subj}; Ø	*!		*

A morphological ergative agreement pattern relies on a mixed distribution of clitics and affixes, but for both clitics and affixes to appear, some higher ranked constraint must sometimes compel the more marked form. For this purpose we introduce into the ranking from (10) a clitic-verb alignment constraint (McCarthy & Prince 1993; Legendre 1998a; Grimshaw 2001; Woolford 1999, 2001).

(11) $\mathbf{CL_{[V^0}}$ Align(Clitic, Right, V^0, Left)

The ranking of $CL_{[V^0}$ » MAX_{PERS} » *clitic produces a one-clitic limit, because both clitics cannot simultaneously align with the verb stem.

(12) Ranking that enforces a **one-clitic limit**

Input: Subj & Obj	$CL_{[V^0}$	MAX_{PERS}	*clitic
a. $Cl + Cl + V^0$	*!		**
b.☞ $Cl + V^0$		*	*
c. $Ø + V^0$		**!	

We can now combine the results of tableaux (10) and (12). Affixes will be required in order to satisfy MAX_{PERSON} in transitive clauses only, where it is not possible for the less marked clitics to cross-reference both arguments. The alignment constraint $Subj_{[V^{stem}}$ in (13) ensures that the subject agreement will be expressed as an affix, leaving object agreement to be expressed as a default clitic.

(13) $\mathbf{Subj_{[V^{stem}}}$ Align (Subject, Right, V^{stem}, Left)

If we include $Subj_{[V^{stem}}$ in the rankings from (10) and (12), we find a constraint ranking to yield a simple ergative agreement system, like the Jacaltec system in Table 1 above: $CL_{[V^0}$ » MAX_{PERSON} » *affix » *clitic » $Subj_{[V^{stem}}$.

(14) Ranking for **clitics and affixes in an "ergative" pattern**

Input: Subj	$CL_{[V}{}^{0}$	MAX_{PERS}	*affix	*clitic	$Subj_{[V}{}^{stem}$
a. Agr_{Subj}			*!		
b.☞ Cl_{Subj}				*	

(15) Ranking for **clitics and affixes in an "ergative" pattern**

Input: Subj & Obj	$CL_{[V}{}^{0}$	MAX_{PERS}	*affix	*clitic	$Subj_{[V}{}^{stem}$
a. $Cl_{Subj} + Cl_{Obj}+V$	*!				
b.☞ $Cl_{Obj} + Agr_{Subj}+ V$			*	*	
c. $Cl_{Subj}+ Agr_{Obj} +V$			*	*	*!

Woolford's approach thus yields an "ergative" pattern of agreement that does not require covert Ergative Case, and does not require any enrichment to the theory. A bold prediction of this approach is that where "ergativity" is based on one clitic blocking another, other clitics unrelated to the cross-referencing system could cause the same blocking effect, inducing affixal agreement for intransitive subjects. I will argue that is this is what happens in Texistepec Popoluca.

4. Texistepec Popoluca Agreement: A Morphologically Based Split

4.1. Ergativity and Inverse

The cross-referencing of core arguments in Texistepec Popoluca employs a paradigm of affixes (Set A) and a paradigm of clitics (Set B). In Table 2, the cells with A affixes are un-shaded, and cells with B clitics are shaded.

Table 2. Cross-referencing morphology for all possible argument structures

Subj→Obj (any asp.)	**Subj→Obj** (any asp.)	**Subj** (imperf.)	**Subj** (perf., future)
1→ 3 1st-A /^{N}-/	**3→ 1** 1st-B /k+/	**1** 1st-A /^{N}-/	**1** 1st-B /k+/
2→ 3 2nd-A /j^{N}-/	**3→ 2** 2nd-B /kj+/	**2** 2nd-A /j^{N}-/	**2** 2nd-B /kj+/
3→ 3 3rd-A /j-/		**3** 3rd-A /j-/	**3** Ø-
1→2 /k+^{N}-/ ; **2→1** /kj+^{N}-/ = portmanteau			

In Table 2, the agreement shows an ergative pattern, as illustrated by (16).

(16) a. maʔ kwɛj
maʔ k+wɛj
PERF 1B+*howl*
'I howled.'

b. maʔ wɛj
maʔ Ø +wɛj
PERF 3B+*howl*
'He howled.'

c. maʔ w̃ɛ̃jaʔ
maʔ Ø-^{N}-wɛj-aʔ
PERF 3B-1A-*howl-APPL*
'I howled to him.'

Also, cross-referencing for first and second persons always aligns with the verb stem, often at the expense of any third person argument in the clause. This is known as "inverse alignment" (Klaiman 1993). In Texistepec Popoluca, inverse clauses like (17b) lack subject agreement.

(17) a. maʔ ʔãʔm
maʔ Ø-^{N}-ʔaʔm
PERF 3B-1A-*see*
'I saw him/her/it.'

b. maʔ kʔaʔm
maʔ k+ʔaʔm
PERF 1B+*see*
'She/he/it saw me.'

Finally, there is an apparent split in ergativity between those clauses with the imperfective clitic *ʔu* and those without it, as discussed in section 2 above. Here, (18a) uses a Paradigm A prefix to cross-reference the subject.

(18) a. ʔuw̃ɛ̃j
ʔu+ ^{N}-wɛj
IMPFV+**1A**-*howl*
'I am howling.'

b. maʔ kwɛj
maʔ # **k**+wɛj
PERF # **1B**+*howl*
'I howled.'

c. kwɛːjp
k+wɛj-p
1B+*howl*-FUT
'I will howl.'

4.2. Explaining Inverse Alignment

Using the approach to agreement outlined in section 3, I will address the "inverse alignment" phenomenon in (17). The alignment of first and second person features always with the stem is enforced by an alignment constraint as in (19). I also decompose MAX$_{\text{PERSON}}$ into MAX$_{1\&2}$ and MAX$_{3\,\text{RD}}$ so that third person arguments that cannot be aligned are not expressed.

(19) **1&2$_{\text{[V-Stem}}$** Align(1st&2nd Person, Left, Verb Stem, Right)

(20) **MAX$_{1\&2}$** Express 1st and 2nd person features.

The ranking shown in (21) and (22) produces a pattern of agreement that is both "ergative" and "inverse."

(21) Ranking for **inverse alignment**

Input:1stSu; 3rdObj	MAX$_{1\&2}$	1&2$_{\text{[V-Stem}}$	CL$_{\text{[V}^0}$	Subj$_{\text{[V}^{\text{stem}}}$	MAX$_{3\text{RD}}$	*aff	*cl
a. *1Agr$_{Subj}$+3Agr$_{Obj}$*		*!		*		**	
b. *3Cl$_{Obj}$ + Ø*	*!			*	*	*	*
c.☞*3Cl$_{Obj}$+1Agr$_{Subj}$*						*	*
d. *1Cl$_{Subj}$ + Ø*					*!		*

(22) Ranking for **inverse alignment**

Input:3rdSu; 1stObj	MAX$_{1\&2}$	1&2 $_{\text{[V-Stem}}$	CL$_{\text{[V}^0}$	Subj$_{\text{[V}^{\text{stem}}}$	MAX$_{3\text{RD}}$	*aff	*cl
a. *3Agr$_{Subj}$+ 1Agr$_{Obj}$*				*!		**	
b. *3Cl$_{Subj}$+1Cl$_{Obj}$*			*!				**
c. *1Cl$_{Obj}$ + 3Agr$_{Subj}$*		*!				*	*
d. *3Cl$_{Subj}$+ Ø*	*!						
e.☞*1Cl$_{Obj}$ + Ø*					*		*

4.2. Explaining Split Ergativity

The second problem, the "split" in ergativity, is captured even more easily under this approach. We simply decompose the constraint on clitic alignment, $CL_{[V^0}$, allowing differential alignment for the imperfective and person clitics.

(23) **$Impfv_{[V^0}$, $Pers_{[V^0}$** Align a functional feature with V^0.

The final ranking in (24) and (25) incorporates this split into the system. Because $Impfv_{[V^0}$ dominates *affix, a violation of the imperfective alignment is avoided by the use of an affix rather than a person clitic to cross-reference the intransitive subject in (24). In (25), where there is no imperfective clitic in the way, cross-referencing by person clitic proceeds as usual.

(24) Ranking for **split ergativity**

Input:3rdSu; Impf	$MAX_{1\&2}$	$1\&2_{[VStem}$	$Pers_{[V^0}$	$Su_{[V^{stem}}$	MAX_{3RD}	$Impfv_{[V^0}$	*aff	*cl
a.☞ *Impf*+3Agr_{Subj}							*	
b. *Impf*+3Cl_{Subj}						*!		*
c. 3Cl_{Subj}+*Impfv*			*!					
d. *Impfv* + Ø					*!			*

(25) Ranking for **split ergativity**

Input:3rdSu; Impf	$MAX_{1\&2}$	$1\&2_{[VStem}$	$Pers_{[V^0}$	$Su_{[V^{stem}}$	MAX_{3RD}	$Impfv_{[V^0}$	*aff	*cl
a. *Perf*+3Agr_{Subj}							*!	
b.☞ *Perf*+3Cl_{Subj}								*
c. 3Cl_{Subj}+*Perf*			*!					
d. *Perf* + Ø					*!			*

This approach explains a problematic agreement system without complicating the syntax. The selection among clitic, affix, and zero and the linear alignment of these elements alone produces the complex agreement pattern.

5. Historical Evidence in Favor of This Approach

There is converging diachronic evidence that the Texistepec Popoluca ergative split is due to morphological alignment rather than Case in the syntax. I will explain how a small phonological change triggered a morphological change, which is now responsible for the split discussed in section 4.2.

Table 3 shows Sets A and B for Proto-Zoquean (PZ), Sierra Popoluca (SP), and Texistepec Popoluca (TP) (Wichmann 1996, Kaufman 1963).

Table 3. Zoquean Set A and B paradigms

Set A	PZ	SP	TP
1st-excl.	*ɨn-*	*an-*	^{N}-
2nd	*min-*	*in-*	*j*^{N}-
3rd	*ɨj-*	*i-*	*j-*

Set B	PZ	SP	TP
1st-excl.	*ɨ-*	*a-*	*k-*
2nd	*mi-*	*mi-*	*kj-*
3rd	Ø-	Ø-	Ø-

Texistepec Popoluca's Set B markers (in the shaded column) reflect a complete innovation. This innovation, I argue, is responsible for the synchronic split in the imperfective. In other Zoquean languages, there is no split.

The *k* in TP's Set B forms is the reflex of the final segment of the adverbial particle **maʔak* in PZ meaning 'earlier today'. This innovation resulted from the adoption of **maʔak* as the perfective aspect marker. Presumably, **maʔak* became the perfective marker after the loss of the PZ perfective suffix **-wɨ*, which was in turn due to a sweeping sound change in TP, in which all short vowels in final position were deleted (Wichmann 1996, 2003). The left half of this adverb remains as the current pre-verbal perfective marker *maʔ*, as shown in Table 4.

Table 4. Zoquean perfective aspect markers (Kaufman 1963, Wichmann 1996)

Proto-Zoquean	Chimalapa Zoque	Sierra Popoluca	Texistepec
-wɨ	*-wɨ*	*-u*	*maʔ #*

Synchronically, the perfective *maʔ* is a free word, not an affix or clitic, and the *k* of Set B is a very recently grammaticized clitic.[4] So, while other Zoquean languages show a very parallel paradigmatic alternation between the two Sets in their shared pre-verbal "slot," it is no surprise that the Texistepec Popoluca Set B markers show very different morpho-phonological alignment than the Set A markers. This is illustrated by the TP first person Set A and B forms in Table 5.

Table 5.

	ʔoʔks 'scrape'	*baʔks* 'beat'	*hak* 'cut'	*soːs* 'cook'	*nim* 'say'
1stB	*kʔoʔks*	*kbaʔks*	*khak*	*ksoːs*	*kdim*
1stA	*ʔõʔks*	*maʔks*	*ɲ̃ãk*	*zoːs*	*nim*

[4] This analysis is further supported by the distribution of adverbial second-position clitics like *+naʔ* 'currently' (i), which frequently appear between *maʔ* and V^0 (ii), but cannot appear between *ʔu+* and V^0 (iii). While *maʔ* can serve as a host for a second-position clitic, *ʔu+* cannot.

i. ʔɛn͡dʲɛː**naʔ** wjoʔkkaʔjja kaːtʃɛʔ
ʔɛn͡dʲɛː+**naʔ** j-woʔk-kaʔj-ja kaːʔtʃɛʔ
NEG+***CL*** 3A-*gather*-INTEN-PL *trash*
'They're not gathering up the trash yet.'

ii. maʔ**naʔ** wɛʔk
maʔ **+naʔ** Ø-wiʔk
PERF+***CL*** 3B-*eat*
'He has just now eaten.'

iii.*ʔu**naʔ** wɛʔk
ʔu+ **+naʔ** wiʔk
IMP+ +***CL eat***
'He's eating now.'

Two TP Set A affixes contain a nasal that is never realized segmentally. This feature systematically nasalizes the onset and/or peak of the verb stem. Due to the innovation described above, the Set B counterpart to this nasal feature is a segmental *k*, which has no direct phonological effect on the stem.

Another difference between Sets A and B arises with derivational stem reduplication. It is typical to inflect both reduplicants with Set A morphology as in (26a), although this is never acceptable with Set B morphology as in (26b).

(26) a. ʔu biʔmb**i**ʔmhoʔj ɛlɛːnaʔʔaːp
ʔu+j-biʔm-(**j-**)biʔm-hoʔj ɛlɛːnaʔ-ʔaːp
IMP+3A-*hop*-(3A-)RED-AMB *Elena*-FEM
'Elena goes hopping around.'

b. maʔ kbiʔmb**i**ʔmhoʔj
maʔ kj-biʔm-(***kj-**)biʔm-hoʔj
PERF 3A-*hop*-(3A-)RED-AMB
'You hopped all around.'

Based on these morpho-phonological data, Set B forms are clitics and Set A forms are affixal subject agreement. Sets A and B do not occupy the same "slot," because historically the source of Set B is a separate adverb off to the left of the verb, while Set A is a prefix. Set A has, in fact, recently fused with the verb even more than in many neighboring languages, by becoming non-segmental.

6. Conclusions

I have argued that the mechanisms responsible for the ergative, inverse, and split characteristics of the Texistepec Popoluca agreement system are independent of Case assignment in the syntax, and that they are morphological in nature. I have joined Woolford (1999, 2001) in advocating a distinction between agreement alternations that are based on Case and those that are based on morphological alignment, supplying new data from Texistepec Popoluca. In particular, I have tried to highlight the commonality between this sort of agreement pattern and other paradigm alternations that are morphological rather than syntactic in nature.

Features from a hierarchically organized syntax must be linearized and assigned a complex but qualitatively different morphological and prosodic structure. Paradigm alternations are often conditioned by the morphological or prosodic environment, and such factors are also involved in the placement of clitics. Conveniently, grammatical descriptions couched in Optimality Theory automatically imply a specific typology, so the analysis here follows quite directly from prior approaches to paradigm alternations and clitic placement.

In general, the explanation of complex and split agreement systems in terms of promiscuous paradigms and morphological alignment is appealing because it affords a much simpler syntax. The cost in terms of morphological machinery is relatively little, since paradigm selection and alignment are things the grammar must already do anyway.

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Department of Cognitive Science, Johns Hopkins University
3400 N. Charles St.
Baltimore, MD 21218

reilly@cogsci.jhu.edu