Polypersonal Agreement and Verb Complements in Aymara

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Abstract

Aymara is an affixally polysynthetic language where verbs agree with the subject and the non-agentive argument that ranks highest on the person hierarchy. Since nominal verbal forms cannot be marked for agreement, arguments of verb complements are necessarily expressed on the finite verb. An analysis is presented.

1 Introduction

Aymara is a Native American language spoken by roughly two million speakers in Bolivia, Chile and Peru. The Aymaran family (comprised of Aymara, Jaqaru, and Kawki) is a linguistic isolate with no close relative. Aymara is an affixally polysynthetic language (according to Mattissen's (2006) classification) with a rich morphology. Finite verbs agree with the subject and the non-agentive argument that ranks highest on the person hierarchy[1] (Hardman et al., 2001). Arguments of verb complements are marked on the finite verb.

[1] $2 > 1 > 3$

2 Aymara morphology

Aymara words consist of a lexical root and a chain of suffixes. Aymara exhibits extensive vowel elision which is conditioned phonologically and morphologically, for example:

(1) *Jani-w* *yat-k-t-ti*
not-FOC know-NEG-SMPL2>3-POL
"I don't know."

In (1) the underlying form of the verb is *yati-ka-ta-ti*.

3 Polypersonal agreement

Finite verbs agree with their arguments, for example:

(2) *Uñj-sma-wa*
see-SMPL1>2-FOC
"I see/saw you."

In (2) the morpholexical entry of the form *uñjsma* appears to be

(3) $\begin{bmatrix} \text{LEXSEM} & \text{‘uñja-’} \\ \text{SUBJ} & \begin{bmatrix} \text{PERSON} & 1 \end{bmatrix} \\ \text{OBJ} & \begin{bmatrix} \text{PERSON} & 2 \end{bmatrix} \\ \text{TENSE} & \text{SMPL} \end{bmatrix}$

However, except for the subject the verb always agrees with the non-agentive argument that ranks highest on the person hierarchy, for example:[2]

(4) *T’ant’ alja-ːma*
bread buy-FUT1>2
“I will sell you bread.”

So in (4) the morpholexical entry of the form *aljäma* appears to be

(5) $\begin{bmatrix} \text{LEXSEM} & \text{‘ala-’} \\ \text{SUBJ} & \begin{bmatrix} \text{PERSON} & 1 \end{bmatrix} \\ \text{IOBJ} & \begin{bmatrix} \text{PERSON} & 2 \end{bmatrix} \\ \text{TENSE} & \text{FUT} \end{bmatrix}$

Hence the grammatical function of the agreed-with argument depends on the context in which the verb appears.

4 Affix hopping

Polypersonal agreement in Aymara is even more complicated. In (6), the object expressed with the suffix *-sma* refers to the object of the verb complement:

(6) *Tump-iri-w jut-sma*
visit-AG-FOC come-SMPL1>2
“I come/came to visit you.”

The morpholexical entry for *jutsma* uses a regular expression for the grammatical function of the agreed-with argument:[3]

(7) $\begin{bmatrix} \text{LEXSEM} & \text{‘juta-’} \\ \text{SUBJ} & \begin{bmatrix} \text{PERSON} & 1 \end{bmatrix} \\ \text{COMP+ } \mathcal{X} & \begin{bmatrix} \text{PERSON} & 2 \end{bmatrix} \\ \text{TENSE} & \text{SMPL} \end{bmatrix}$

The variable $\mathcal{X}$ can be OBJ, IOBJ and a few others, for example the causee in causative constructions.

(8) is another example of polypersonal agreement with an embedded object:

(8) *T’ant’ alja-ñ̃ mun-sma*
bread sell-INF want-SMPL1>2
“I want to sell you bread.”

The morpholexical entry for *munsma* is

(9) $\begin{bmatrix} \text{LEXSEM} & \text{‘muna-’} \\ \text{SUBJ} & \begin{bmatrix} \text{PERSON} & 1 \end{bmatrix} \\ \text{COMP* } \mathcal{X} & \begin{bmatrix} \text{PERSON} & 2 \end{bmatrix} \\ \text{TENSE} & \text{SMPL} \end{bmatrix}$

Note that the sentence is underspecified for what word is focussed. One possible parse is given in Figure 1.

[2]Note that there is no overt focus marker. Focus marking is obligatory in declarative sentences (Hardman et al., 2001; Bossong, 1989) but there is a phonologically-conditioned zero allomorph. For another example of phonologically-conditioned allomorphy in Aymara see (Beesley, 2000)

[3]Note that the Kleene operator is + rather than * here because the verb *juta-* “come” is intransitive.

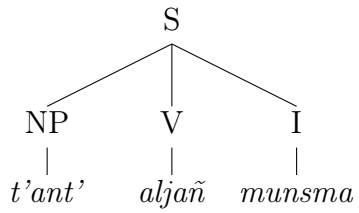

Figure 1: Parse of *T'ant' aljañ munta.*

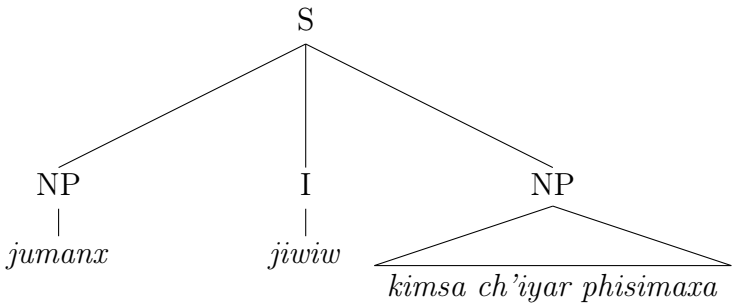

Figure 2: Phrase structure tree of (10).

5 Computational analysis

We have developed a morphological analyser that can "guess" the elided vowels in words. The output of the analyser is a list of morphological entries that are used by the parser we are working on. The output of the parser is a phrase structure tree (which is flat since Aymara is non-configurational) and a dependency tree. An example is in order:

(10) *Juma-n-x* *jiw-i-w*
you-GEN-TOP die-SMPL3>3-FOC
kimsa *ch'iyar* *phisi-ma-xa*
three black cat-POSS2-TOP
"Your three black cats died."

The phrase structure tree of (10) is given in Figure 2. The dependency tree of (10) is given in Figure 3.

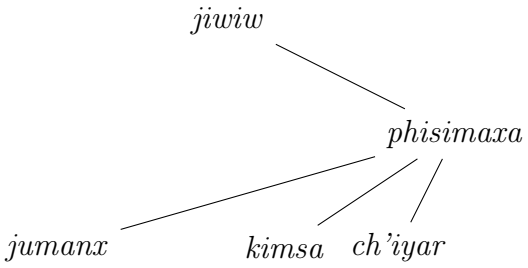

Figure 3: Dependency tree of (10).

References

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