A Note on a Phonologically Conditioned Selection of Verbalization Suffixes in Aymara

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Abstract

The selection of *ya* vs. the normal *:* (vowel lengthening) as a verbalizing suffix in Aymara is phonologically conditioned by a straightforward rule that avoids double lengthening of a vowel.

1 Introduction

Nominal roots and stems of Aymara, spoken in Bolivia and Peru, can normally admit an abstract verbalizing suffix, commonly notated as the colon (*:*), that has the surface effect of lengthening the preceding vowel, e.g. *warmi* = 'woman', *warmi.:* ⇒ *warmï-* = 'be a woman'. The verbalized stem can then admit the normal infinitive and verbal-inflection suffixes, e.g. *warmïña* = 'to be a woman', *warmïni* = 'she will be a woman', etc.

However, some verbal-inflection suffixes begin with the *:* morphophoneme and so by themselves cause the preceding vowel to be lengthened, e.g. *:* is the 1>3-Future suffix and *:ta* is the 2>3-Future suffix. If such a lengthening suffix appeared immediately after a verbalized stem like *warmï-*, the result would be a doubly lengthened vowel as shown in Figure 1. Such a result appears to be ill-formed; Aymara not surprisingly eschews doubly lengthened vowels. In such a phonological context, Aymara resorts to using the *ya* allomorph instead of lengthening for verbalization, as shown in Figure 2.

```
      N2V 1>3-Future
warmi . : . : ⇒ *warmï¨
'I will be a woman'
```

Figure 1: A Phonologically Impossible Double Vowel Lengthening

2 The Data

2.1 Other Uses of *ya*

Briggs (1993, pp. 172–175) first describes the standard use of *ya*, arguably a separate suffix, as a causative verbal suffix, e.g. *chura(ña)* = 'to give', *chura.ya(ña)* = 'to cause [someone] to give'. She notes also that *ya* is used idiosyncratically to verbalize a very small set of noun roots including *suti* = 'name', where *suti.ya(ña)* = 'to cause (to be) name(d)', i.e. 'to baptize'. Such cases must simply be added to the dictionary and are not germane to the present discussion.

2.2 Productive Alternations

The remaining productive examples presented by Briggs are superficially more problematic. For the cases in Figure 3, she notes correctly that verbalizing (N2V) *ya* "precedes vowel lengthening that here functions as the inflectional verbal suffix for 1>3-Future" but apparently fails to realize that this context is the key to explaining the choice of the *ya* allomorph. These examples are completely parallel to *warmiyä* in Figure 2.

Other sets of examples, based on a common root or stem, alternate between using *ya* and vowel lengthening for verbalization. Thus the examples in Figure 4 involve *ya* followed by the 1>3- and 2>3-Future suffixes, whereas Figure 5 illustrates that normal vowel lengthening is required by the parallel 3>3- and 4>3-Future examples. The explanation is that Figure 5 illus-

```
      N2V  1>3-Future
warmi . ya . : ⇒ warmiyä
'I will be a woman'
```

Figure 2: Phonologically Conditioned Use of the *ya* verbalizer before a Lengthening Suffix

```
         N2V   1>3-Future
Ukhama . ya  . :         .pi:
'Thus I will be.'

         N2V  1>3-Future
Usu.ta . ya . :          .xa,
jani.w sar.ka.:.ti.
'If I am (will be) ill, I won't go.'
```

Figure 3: A *ya* allomorph that "precedes vowel lengthening"

trates normal verbalization with *:*, whereas the examples in Figure 4 require the allophone *ya* to avoid a double vowel lengthening.

Similarly, Briggs provides four *yati.cha-* (= 'cause to know' = 'teach') examples, all involving the 1>3- and 2>3-Future, but illustrating *ya* verbalization in the affirmative (Figure 6) vs. the normal vowel lengthening in the negative (Figure 7). The *ya* allomorph is again required to avoid double lengthening in the affirmative examples, whereas it is not needed in the negative examples of Figure 7, where the suffix *ka* separates the two *:* morphophonemes.

```
            N2V  1>3-Future
qullqi.ni . ya . :
'I will have money'

            N2V  2>3-Future
qullqi.ni . ya . :ta
'you will have money'
```

Figure 4: Use of *ya* with root *qullqi*

```
            N2V  3>3-Future
qullqi.ni . :  . ni
'(s)he will have money'

            N2V  4>3-Future
qullqi.ni . :  . ñani
'we (incl.) will have money'
```

Figure 5: Use of *:* with root *qullqi*

In conclusion, the *ya* allomorph is used for verbalization always and only where it is necessary to avoid the illegal double lengthening of the preceding vowel.

```
             N2V  1>3-Future
yati.ch.iri . ya . :         .wa
'I will be a teacher'

             N2V  2>3-Future
yati.ch.iri . ya . :ta       .wa
'you will be a teacher'
```

Figure 6: Affirmative *yati.cha-* examples 1>3- and 2>3-Future with *ya* verbalization

```
yani.w
             N2V      1>3-Future
yati.ch.iri . :  .ka . :         .ti
'I will not be a teacher'

jani.w
             N2V      2>3-Future
yati.ch.iri . :  .ka . :ta       .ti
'you will not be a teacher'
```

Figure 7: Negative *yati.cha-* examples 1>3 and 2>3-Future with *:* verbalization

3 Aymara Morphological Analyzer/Generator

The *:* vs. *ya* alternation presented a practical problem in the development of an automatic morphological analyzer/generator for Aymara words.[1] The first versions of the system, based on the morphotactic descriptions in Hardman et al. (1988), produced spurious solutions involving double vowel lengthening and failed to analyze productive examples with *ya* verbalization as shown above. The addition of a rule to detect double vowel lengthening and to change the verbalization allomorph to *ya* in those contexts was a trivial matter.

References

Lucy Therina Briggs. 1993. *El Idioma Aymara: Variantes regionales y sociales.* ILCA, La Paz.

Martha J. Hardman, Juana Vásquez, and Juan de Dios Yapita. 1988. *Aymara: Compendio de estructura fonológica y gramatical.* ILCA, La Paz.

[1] http://www.xrce.xerox.com/research/mltt/aymara