

NOMINAL MORPHOPHONOLOGICAL PROCESSES OBSERVED IN PEDRO DE LA MATA'S *ARTE DE LA LENGUA CHOLONA* (1748)

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1. Introduction

The Cholón language is an indigenous North-Peruvian language. The area in which this language was spoken is vast. It reached from the Huallaga River, a tributary of the Marañón River, until the eastern slopes of the Andes, and from Juanjui in the north until Tingo Maria in the south. Cholón formed one language family (Cholonan) together with Híbito. Both languages now seem to be extinct.

Fortunately, there is a description of Cholón, the *Arte de la Lengua Cholona*, written by Fray Pedro de la Mata. Pedro de la Mata belonged to the Order of the Franciscans. He finished his *Arte* in 1748 in Truxillo, a city located on the north coast of Peru. In 1772, the grammar was copied by another friar, Fray Gerónimo Clota. Clota wrote the copy in San Buenaventura del Valle, a mission on the Huallaga River. This manuscript can nowadays be consulted in the British Library (Department Manuscripts, Shelfmark Additional 25322) in London. Pedro de la Mata's grammar gives us an overall picture of Cholón. Structurally, Cholón is an agglutinative SOV language, and nominal and verbal forms can be composed of a stem and several affixes. Person markers are usually prefixed, and case markers, numeral classifiers, aspect markers and auxiliaries are suffixed.

In this paper we shall focus on the nominal prefixes (section 2) and on nominal morphophonological phenomena, such as vowel assimilation (section 3), vowel suppression (section 4) and stem alternation (section 5).

The grammatical data in this article are taken from Pedro de la Mata's *Arte de la Lengua Cholona*. These data - the Cholón vowels, consonants and lexical items transcribed - is represented in bold characters. The original spelling, however, is not always maintained. The symbols *c*, *ch*, *g*, *i*, *j*, *ll*, *ng*, *qu*, *u*, *v*, *z* have been replaced as follows:

| | |
|--|------|
| c ; qu | > k |
| c / _i , e; z | > s |
| ch | > č |
| g / _e ; j | > h |
| i / _V\$, \$V_ \$ | > y |
| ll | > ʎ |
| ng [~] | > ŋ |
| tz | > tʰ |
| u / _V\$, \$V_ \$; v | > w |

2. Nominal person markers

The Cholón language has the following nominal affixes that mark possession:

| | | |
|-------|--------------------|---------------------|
| 1s: | <i>a-</i> | ‘my’ |
| 2s.M: | <i>mi-</i> | ‘your’ |
| 2s.F: | <i>pi-</i> | ‘your’ |
| 3s: | \emptyset | ‘his’, ‘her’, ‘its’ |
| 1p: | <i>ki-</i> | ‘our’ |
| 2p: | <i>mi- ... -ha</i> | ‘your’ |
| 3p: | <i>i-, čí-</i> | ‘their’ |

These nominal person markers are prefixed to nouns, except for the plural marker *-ha*, which is suffixed. The forms which end in *i* are the neutral forms. This final *i* can assimilate with a stem vowel and change into *e* and *u*, as we shall see in section 3. Consequently, *mi-*, *pi-*, *ki-*, *i-* and *čí-* can also appear as *me-/mu-*, *pe-/pu-*, *ke-/ku-*, *e-/u-* and *ču-* respectively. The form *če-* has not been found in nominal forms (cf. section 3).

The second person singular presents an interesting case, because it makes a distinction in gender. The form *mi-/me-/mu-* is used to indicate a male person, and the form *pi-/pe-/pu-* is used to designate a female person. This distinction in gender is restricted to the second person singular.

The second person plural possessive marker is a discontinuous morpheme that consists of two elements: a second person marker *mi-/me-/mu-* and a plural marker *-ha*. This plural marker is suffixed to the stem of the noun.

The third person plural has two forms: a vocalic form *i-/e-/u-* and a consonantal form *čí-/ču-*. The former is used, if the stem begins with an alveolar *t*, *s*, *n*, *l* or with a palatal *č*, *š*, *ň*. The latter is employed before an initial *p*, *k*, *m*.

In the examples below, the nouns *pa* ‘father’, *kot* ‘water’, *pana* ‘way’, *taka* ‘bone’ and *šaš* ‘armadillo’ are employed to illustrate the use of the person marker *čí-* before *p*, *k*, *m*, and the use of the person marker *i-* before an alveolar, such as *t*, and before a palatal, such as *š*. The paradigms below will also show that the nouns *pa*, *kot*, and *pana* have a relational form¹ which begins with a nasal. In the paradigms of *pa* and *kot* only the third person singular has a relational form. This form begins with the nasal η . The other persons keep the absolute form² with the stem-initial *p* and *k* respectively. The third person singular form of *pa* is *ηuč* ‘his father’ (a irregular form), the third person singular form of *kot* is *ηot* ‘his water’. The relational form of *pana* is *mana*. This form can be reduced to *mna*. *mana* appears in the third person singular form, *mna* occurs in the other forms.

¹ Relational form: the form which appears in the possessive paradigm of the noun, where it occurs after a prefixed person marker or after the zero-marked third person singular.

² Absolute form: the citation form that could appear as a lemma in a dictionary.

Absolute forms, relational forms and the irregular third person form *ŋuč*, which is a case of stem suppletion, will be discussed in section 5. In the following table all possessive forms of the Cholon nouns discussed above are listed:

| | <i>pa</i> 'father' | <i>kot</i> 'water' | <i>pana</i> 'way' | <i>taka</i> 'bone' | <i>šaš</i> 'armadillo' |
|----|-----------------------|-----------------------|----------------------|-----------------------|---------------------------|
| 1s | <i>a-pa</i> | <i>a-kot</i> | <i>a-mna</i> | <i>a-taka</i> | <i>a-šaš</i> |
| 2s | <i>mi-pa</i> | <i>mi-kot</i> | <i>mi-mna</i> | <i>mi-taka</i> | <i>mi-šaš</i> |
| 3s | <i>Ø-ŋuč</i> | <i>Ø-ŋot</i> | <i>Ø-mna</i> | <i>Ø-taka</i> | <i>Ø-šaš</i> |
| 1p | <i>ki-pa</i> | <i>ki-kot</i> | <i>ki-mna</i> | <i>ki-taka</i> | <i>ki-šaš</i> |
| 2p | <i>mi-pa-ha</i> | <i>mi-kot-ha</i> | <i>mi-mna-ha</i> | <i>mi-taka-ha</i> | <i>mi-šaš-ha</i> |
| 3p | <i>či-pa</i> | <i>či-kot</i> | <i>či-mna</i> | <i>i-taka</i> | <i>i-šaš</i> |

3. Vowel assimilation

From a structural point of view, a possessive person marker can be composed of a vowel (*a-*, *i-*, *e-*, *u-*), a consonant + a vowel: (*mi-*, *pi-*, *ki-*, *či-*) or is marked zero: *Ø*. Person markers composed of a consonant + a vowel (2s, 1p, 2p, 3p, including the third person plural which consists of a vowel only) have a neutral form in *i* (*mi-/pi-* (2s), *ki-* (1p), *mi- ... -ha* (2p), *či-* (3p), *i-* (3p)). This vowel can assimilate with the first vowel of a subsequent stem, provided that the first vowel of that stem is *e* or *u*. The neutral *i* does not harmonize with *a* and *o*. The first vowel of a stem can be suppressed (see section 4). If vowel elision occurs in a nominal stem, *i* can assimilate with a second stem vowel *e* or *u*.

Assimilation of the vowel of a possessive person prefix with a stem vowel, however, is not a compelling process. For instance, instead of the form **me-nen* 'your hand', we find *mi-nen* in the *Arte*. Furthermore, assimilation does not take place in nominal forms, if the stem has an initial *p*, *k* and *m* followed by *e*, i.e. if the stem of a noun begins with one of the sequences *pe*, *ke* and *me*. Therefore, the third person plural marker *či-*, which only occurs before an initial *p*, *k* and *m*, cannot harmonize with an *e*-stem. As a consequence, *či-* cannot manifest itself as *če-* in nominal forms, like it does in verbal forms. It can, however, harmonize with a *u*-stem, and can thus appear as *ču-* as well.

Since the vowel of a possessive marker assimilates with the vowel of a following stem, vowel harmonization is regressive in Cholón. Furthermore, it is also a "non-contact" harmonization. The vowel that harmonizes (the vowel of the person marker) is generally separated by a consonant from the vowel harmonized (the stem vowel), as a result of which there is no contact between (i.e. immediate adjacency of) both vowels. Even if the noun begins with a vowel, the vowel of person prefixes will not be adjacent to it. This is because both vowels are then separated through insertion of an epenthetic consonant *n*. In the case of *el* 'yucca' this *n* emerges even in the (zero-marked) third person (see below and see section 5).

The nouns *el* ‘yucca’, *ʎu* ‘peacock’ and *pul* ‘son’ below will serve as examples for vowel assimilation of the person prefixes with an *e*- and a *u*-stem. The paradigm of the noun *kešum* ‘chin’ shows that a possessive prefix does not harmonize with a noun that has a *ke*-sequence in initial position, but that it keeps its neutral form in *i*. The examples also give evidence that in Cholón assimilation is regressive and that it is a non-contact phenomenon.

| | <i>el</i> ‘yucca’ | <i>ʎu</i> ‘peacock’ | <i>kešum</i> ‘chin’ | <i>pul</i> ‘son’ |
|----|----------------------|------------------------|------------------------|---------------------|
| 1s | <i>a-n-el</i> | <i>a-ʎu</i> | <i>a-kešum</i> | <i>a-pul</i> |
| 2s | <i>me-n-el</i> | <i>mu-ʎu</i> | <i>mi-kešum</i> | <i>mu-pul</i> |
| 3s | <i>Ø-n-el</i> | <i>Ø-ʎu</i> | <i>Ø-ŋešum</i> | <i>Ø-mul</i> |
| 1p | <i>ke-n-el</i> | <i>ku-ʎu</i> | <i>ki-kešum</i> | <i>ku-pul</i> |
| 2p | <i>me-n-el-ha</i> | <i>mu-ʎu-ha</i> | <i>mi-kešum-ha</i> | <i>mu-pul-ha</i> |
| 3p | <i>e-n-el</i> | <i>u-ʎu</i> | <i>či-kešum</i> | <i>ču-pul</i> |

The possessive prefixes thus maintain their neutral form before a noun that begins with *pe*, *ke* and *me*; and before a noun that has an *a*- and an *o*-stem. This we have been seen in section 2. The neutral form is obviously also maintained before an *i*-stem, as can be seen in the paradigm of the noun *ʎiš* ‘ape’ below.

| | |
|----|------------------|
| 1s | <i>a-ʎiš</i> |
| 2s | <i>mi-ʎiš</i> |
| 3s | <i>Ø-ʎiš</i> |
| 1p | <i>ki-ʎiš</i> |
| 2p | <i>mi-ʎiš-ha</i> |
| 3p | <i>i-ʎiš</i> |

4. Vowel suppression

Cholón nouns which consist of more than one syllable can be reduced by vowel suppression or elision (cf. the paradigm of the word *pana* ‘way’ in section 2). Vowel suppression can take place, if a multi-syllabic noun is preceded by a person marker. In such nominal structures, the vowel of the first syllable of the noun, i.e. the second syllable in the possessive nominal structure, can be elided. According to the data in the *Arte*, suppression generally occurs if the relational forms of the noun have *m* in initial position, and if the absolute form of the noun begins with the consonant *n*.

Obviously, the vowel is not suppressed in a third person singular form, because this form is not preceded by an overt possessive marker. The first vowel of a multi-syllabic noun is not elided either, if the prefixed person marker only consists of one vowel, such as the third person plural marker *i-/e-/u*. Since this possessive marker occurs before an initial *t*, *č*, *s*, *š*, *ʎ*, *n*, *ñ*, *l*, (cf. section 2), the third person plural forms

of nouns that have these consonants in initial position are not submitted to vowel elision.

Like vowel assimilation, vowel suppression is not compulsory. In the paradigm of the noun *pangala* ‘turkey (species)’ the first vowel of the relational form *mangala* is not suppressed, notwithstanding the fact that the stem has *m* in initial position. The reason why the vowel is not elided could be that, in this case, vowel elision would produce a form with three contiguous consonants: **mngala*, which is presumably not allowed in Cholón.

Vowel elision can be found in the paradigms of the nouns *pakupɬew* ‘passion fruit’ (relational form *makupɬew*), *puyup* ‘bridge’ (relational form *myup*), *naɬo* ‘pupil’ and *sala* ‘married woman’. The forms below represent evidence that the first vowel of a stem is suppressed, if the stem has *m* or *n* in initial position. They also show that the vowel is not suppressed after a mono-vocalic prefix, such as *i-*. The paradigm of the noun *sala* is remarkable, because vowel elision does usually not take place in a stem that begins with *s*, and because the form of the third person plural is irregular. The irregular form *i-tala* ‘their married woman/women’, instead of a regular **i-sala*, could suggest that the noun *sala* ‘married woman’ could be a relational form derived from an absolute form **yala* ‘woman’. The fact is that nouns of which the absolute form begins with the semi-vowel *y* generally present a stem-initial *s* and *ɬ* in their relational or possessive forms (see section 5). **yala* ‘woman’ would then become *sala* and *ɬala* ‘somebody’s woman’, i.e. a ‘married woman’.

| | <i>pakupɬew</i> ‘passion fruit’ | <i>puyup</i> ‘bridge’ | <i>naɬo</i> ‘pupil’ | <i>sala</i> ‘woman’ |
|----|------------------------------------|--------------------------|------------------------|------------------------|
| 1s | <i>a-mkupɬew</i> | <i>a-myup</i> | <i>a-naɬo</i> | <i>a-sla</i> |
| 2s | <i>mu-mkupɬew</i> | <i>mu-myup</i> | <i>mi-naɬo</i> | <i>mi-sla</i> |
| 3s | <i>Ø-makupɬew</i> | <i>Ø-myup</i> | <i>Ø-naɬo</i> | <i>Ø-sala</i> |
| 1p | <i>ku-mkupɬew</i> | <i>ku-myup</i> | <i>ki-naɬo</i> | <i>ki-sla</i> |
| 2p | <i>mu-mkuɬew-ha</i> | <i>mu-myup-ha</i> | <i>mi-naɬo-ha</i> | <i>mi-sla-ha</i> |
| 3p | <i>ču-mkupɬew</i> | <i>cu-myup</i> | <i>i-naɬo</i> | <i>i-ɬala</i> |

5. Stem alternation

A number of nouns make a distinction between an absolute form - the pure, free form that can for instance occur as a lemma in a dictionary - and a relational form. The relational form is the form that appears in the possessive paradigm of the noun, where it occurs after a prefixed person marker or after the zero-marked third person singular.

Nouns that distinguish between an absolute form and a relational form are those of which the stem of the absolute form begins with a vowel or with one of the following consonants: *p*, *k*, *y*, *h*. The former, the vowel-initial nouns, take an epenthetic *n* in their relational forms: #V > n-V/\$_, as we have seen in section 3. The latter, the

p-initial, *k*-initial, *y*-initial and *h*-initial nouns alter the beginning of their stem. This alternation occurs as follows:

#*p* > *m*/\$_ : nouns with a stem-initial *p* change *p* into the nasal *m* in their relational forms. The nouns *pa* ‘father’, *pan* ‘mother’, *pul* ‘son’ and *puluč* ‘husband’ are an exception. They keep the initial *p* in all forms, except in that of the third person singular. However, the third person singular form of *pa* and *pan* is *ηuč* ‘his father’ instead of **ma* and *ηeč* ‘his mother’ instead of **man* respectively. The third person singular forms of *pul* and *puluč* - *mul* ‘his son’(cf. section 3) and *muluč* ‘her husband’ respectively - have a regular relational form with *m* in initial position.

#*k* > *η*/\$_ : nouns that have *k* in initial position also have only one relational form, and this is also the third person singular form. In this form, *k* is also changed into a nasal, the nasal *η* (see *kot* ‘water’ > *ηot* ‘his water’, section 2). This *k* > *η* alternation in the third person singular form could explain the deviant forms *ηuč* ‘his father’ and *ηeč* ‘his mother’ in the paradigm of *pa* ‘father’ and *pan* ‘mother’ respectively. The fact is, Cholón could have borrowed the deviant forms from Híbito, because in Híbito the words for ‘father’ and ‘mother’ are *Cotc* and *Queec* respectively (Martínez Compañón, 1783). These words - transcribed as *kotk* and *keek* respectively by Adelaar & Muysken (to appear) - do have a stem-initial *k* which in Cholón could regularly change into *η* in the third person singular form. The relational form of *kotk* would then be **ηotk*, and that of *keek* would be **ηeek*. Subsequently, while adopting these forms, Cholón could have changed the stem vowel *o* of *kotk* into *u*, and the final *k* of both *kotk* and *keek* into a palatal *č*.

#*y* > *tʰ*, *s*/\$_ : nouns which have *y*- in initial position alter this consonant into *s* and *tʰ* in their relational forms. Note the paradigm of *yuč* ‘alfalfa’ below:

| | |
|----|------------------|
| 1s | <i>a-tʰuč</i> |
| 2s | <i>mu-tʰuč</i> |
| 3s | <i>suč</i> |
| 1p | <i>ku-suč</i> |
| 2p | <i>mu-suč-ha</i> |
| 3p | <i>u-tʰuč</i> |

#*h* > *s*, /\$_ : nouns with a stem-initial *h* change *h* into *s* in the third person singular form. Example: *hil* ‘word’ > *sil* ‘his word’.

These consonant alternations show that a modifying stem can present different grades: a continuant grade (*y*, *h*), a stop grade (*k*) and a nasal grade (*η*) (Anderson,

1985: 168). I would like to add a fricative (*s*) and an affricate (*tʃ*) grade to this classification. In Cholón, the continuant grade of the absolute form changes into a fricative and an affricate grade in the relational forms. Furthermore, the stop grade changes into a nasal grade in at least the relational possessive third person form.

Note that Guarani also has nouns that distinguish an absolute form from relational forms. These nouns also have a stem-initial alternation or oscillation. They generally have *t-* in initial position in the absolute form, *r-* in a relational form (a form preceded by a determiner), and *h-* in the relational third person form. Note the following examples from (Adelaar & Silva Lôpez, 1986: 25):

| | |
|-----------------|------------------------|
| <i>tera</i> | ‘name’ |
| <i>che-rera</i> | ‘my name’ |
| <i>hera</i> | ‘his name’, ‘her name’ |

6. Person markers and morphophonological processes tabled

In conclusion, the following table will show the occurrence of the third person plural prefixes *i-/e-/u-*, *či-/čü-*, and of vowel suppression and stem alternation in relation with the consonants *p, t, č, s, š, m, n, ñ, l, ʎ, y*. According to the data in the *Arte*, these are the consonants that can appear in initial position in nouns. Furthermore, these consonants can be preceded by a person marker or appear in a relational form, with the exception of the consonant *y*. This consonant does not appear stem-initially in a relational form, but it is relevant for the occurrence of stem alternation.

| | <i>p</i> | <i>t</i> | <i>č</i> | <i>k</i> | <i>s</i> | <i>š</i> | <i>m</i> | <i>n</i> | <i>ñ</i> | <i>l</i> | <i>ʎ</i> | <i>y</i> |
|-----------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| <i>i-/e-/u-</i> | - | + | + | - | + | + | - | + | + | + | + | - |
| <i>či-/čü-</i> | + | - | - | + | - | - | + | - | - | - | - | - |
| VS | - | - | - | - | - | - | + | + | - | - | - | - |
| SA | + | - | - | + | - | - | - | - | - | - | - | + |

Table 1: stem-initial consonants and the occurrence of the person markers *i-/e-/u-*, *či-/čü-*, and of the phenomena of vowel suppression (VS) and stem alternation (SA).

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Abbreviations and symbols

| | |
|----|-------------------------|
| Ø | zero |
| 1 | first person |
| 2 | second person |
| 3 | third person |
| C | consonant |
| F | feminine |
| M | masculine |
| p | plural |
| s | singular |
| SA | stem alternation |
| V | vowel |
| VS | vowel suppression |
| # | noun boundary |
| \$ | syllable boundary |
| - | morpheme boundary |
| * | reconstructed form |
| — | after, before |
| / | in the neighbourhood of |