Verbs in Uchumataqu

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1   Introduction[1]

Uchumataqu is the by now almost extinct language of the Uru people of Iruitu, a community along the Desaguadero river, which runs from Lake Titicaca into the Bolivian *altiplano*, the high plateau stretching from La Paz to Oruro and beyond.[2] Together with its sister language Chipaya, it forms the small Uru or Uru-Chipaya language family. The language has never been described very well, and when Muysken visited the community in 2000 and 2001 it was too late: only knowledge of words and fixed phrases remains, except for one speaker, who learned the language from her grandmother and could speak it haltingly. That speaker passed away in 2004. From the archival sources and the published earlier materials it is clear that Iruitu was never a large community; speaker numbers may never have been higher than 100 or so.

Fortunately, there are some fragments of descriptions, word lists, and a few texts, collected over the past hundred years or so. An overview of the research carried out on Uchumataqu among the Urus of Iruitu is given in Table 1.

[2] A brief sketch of Uchumataqu is provided in Muysken (2001). An account of recent revitalization efforts is given in Muysken (2002), a first exploration of Aymara influence on Uchumataqu in Muysken (2000), and a detailed analysis of the process of language death in Muysken (in prep.). A compilation of all the data that could recently be elicited in Iruitu appears in Nacionalidad Indígena de Irohito (2005). An overview of all the recent work on the Uru-Chipaya languages is given in Dedenbach-Salazar (2002).

Table 1. Overview of the research carried out over the years on Iruitu and
Uchumataqu

year	researcher	language and place of publication	nature and size of the data
1893	Max Uhle	German manuscript (Berlin)	word list, grammatical sketch
1901	José Toribio Polo	Spanish (Lima)	word list and phrases; numerals Uchumataqu-Spanish-Puquina; phonological and morphological sketch; ethnographic notes
1910	Zenón Bacarreza	Spanish (La Paz)	word list Chipaya-Spanish-Uchumataqu; phrases
1929	Walter Lehmann	German manuscript (Berlin)	word lists, comparative notes; grammatical sketches
1931	Arturo Posnansky	Spanish (La Paz)	a few words, ethnographic notes
1935	Alfred Métraux	French (Paris)	word and phrase list, ethnographic notes
1934 [1949]	Enrique Palavecino	Spanish (Buenos Aires)	ethnographic notes
1941	Weston LaBarre	English (U.S.)	ethnographic notes; phonological and morphological sketches; kinship terms; single words
1938-51	Jehan Vellard	French (Lima, Paris)	texts, word lists, grammar notes, ethnographic notes

Resi-dent; 1988	Lorenzo Inda	Spanish (La Paz), Aymara manuscript	word list, phrases, ethno-history
1978 [1990]	Nathan Wachtel	French (Paris)	ethno-history
1995	Colette Grinevald	Spanish typescript (La Paz)	word list, orthography
2001-2	Pieter Muysken	Spanish type-script (La Paz)	word list, phrases, grammar notes, orthography

Only a few sources contain enough information on verb morphology in Uchumataqu to be useful here. Since they date from around ca. 1893, ca. 1931, ca. 1948, and ca. 2000, they are rather neatly spaced in time and potentially allow us to answer five questions:

(a) Can we reconstruct the original system of Uchumataqu verb morphology?

(b) Is it possible to trace the change in verb morphology at the different stages of decay of the language?

(c) How distantly related are Uchumataqu and its sister language Chipaya?

(d) Can we reconstruct the verbal morphology of Uru-Chipaya as a whole?

(e) What is the typological profile of verb morphology in Uchumataqu, and more generally, Uru-Chipaya?

A further question (f): What light does Uchumataqu verbal morphology shed on the possible relations between Uru-Chipaya and other language families of South America?, is beyond the scope of this paper.

This paper is organized as follows. In §2 we provide information on the sources consulted, and in §3 we detail what can be gleaned from these about verbal morphology in Uchumataqu, to answer questions (a) and (b). §4 compares the Uchumataqu data to the much better preserved data on Chipaya, based on Rodolfo Cerrón Palomino (2001; 2006), to establish the genetic distance between the two languages (question (c)). Finally, §5 contains a first attempt to reconstruct the verbal morphology of the ancestor language to both Uchumataqu and Chipaya (question (d)), and briefly consider the typological profile of the former (question (e)).

Before we continue, we should give a word of caution. The older sources are not very consistent, even internally. The data presented suggest considerable variability, possibly characteristic of a decaying language, but also as a result of the way the data were collected and by whom. The data are currently being analyzed further, and hence the conclusions reached here will be preliminary.

2   The sources consulted here

The four main older data sets on Uchumataqu were not collected by professional linguists. Max Uhle (1856-1944) was a German archeologist and ethnographer, who researched the major Tiwanaku archeological site not too far from Iruitu, excavated the site of Pachacamac, near Lima, and collected enormous amounts of data on various Andean languages and cultures, including Aymara. Uhle had had linguistic training, and his early data on Uchumataqu have been meticulously transcribed. None of his work on this or other Andean languages was published; it is to be found in manuscript form in Berlin (1893), in the Max Uhle Nachlass at the Iberoamerikanisches Institut. The disorganized condition of the manuscripts and his handwriting, which is hard to decipher, cause the representation of his views on Uchumataqu given here to be somewhat preliminary.

Walter Lehmann (1878-1939), like Uhle, was a German ethnologist, who likewise travelled widely in South and Central America. His manuscripts, again like those of Uhle, are kept in Berlin (1929), where he worked for the Museum of Ethnology.

Alfred Métraux (1902-1963) was a Swiss-born French ethnographer, who published on a wide variety of languages and ethnic groups in South America, including the Tupí-Guaraní, the Uru-Chipaya, and the Matako. He is best known for his work on Easter Island and Haitian Voodoo. He visited both the Uru of Iruitu and the Chipaya, and his linguistic field notes are published conjointly with his ethnographic description of both groups (1935).

While Uhle, Lehmann, and Métraux were well-known scholars for whom Uchumataqu had been mostly a side-line, Jehan [or Jean] Vellard was less known, and his most famous work is in fact on the Urus. He was primarily a physical anthropologist. He became director of the Institut Français d'Études Andines in Lima in 1948, and died in Argentina in 1967. He visited the group a number of times, between 1939 and 1951, and published extensively on them (cited here are Vellard 1951, 1954). However, around the mid 20th century the language was already disappearing, and his data show that the language was also already becoming morpho-syntactically simpler by then, even though its lexicon was still intact.

3 Uchumataqu verbal morphology

We will now attempt to reconstruct the development of verb morphology of Uchumataqu as much as possible on the basis of what the different authors say about it. As far as data are available, we will try to treat four aspects: (a) tense/mood/aspect marking; (b) participant marking; (c) derivational morphology; (d) subordinating morphology.

3.1 Tense/mood/aspect

Uhle gives a schematic table with the different tenses, aspects, and moods, which is not fully interpretable but from which some basic information can be gleaned.

Table 2. Verb inflection as in Uhle (1893)[3]

	Praesens	Perfect	Futur
basic (Einfach)	*-(a)ča/* *-(a)tsa*	*-a(č)a/* *-atsa*	*-a-ki:-ča* *-la*
present durative (Durativ der Praesens)	*-u-ča*	*-t-u-ča*	*-(a)sta-ni/* *-(a)ča-ni*
perfect durative (Durativ der Perfects)	---	---	*-t-k-a-n(i)/* *-t-j-a-ni*
potential (Potential)	*-a:tsa-tsa*	*-t-a:tsa-tsa*	
optative (Optativ)	*-ača-j/* *-ača-k(i)*	*-t-u-ča-j*	
participle (Particip.)	*-ni*	*-ta*	
gerund (Gerundium)	*-ku*		
imperative (Imperativ)	*-a(i)*		
infinitive (Infinitiv)	*-s(ni)*		

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[3] We interpret final *j* in these data as a velar fricative.

There appear to be some hypothetical basic aspectual, temporal, and modal elements that can be isolated in the forms given:

(1)   *-(a)ča/-(a)tsa-*   basic
       -t-   perfect
       -ki-   future
       -u-   durative
       -ni-   future durative
       -j-/-k-   present optative
       reduplication   present and perfect potential (cf. *-t-* perfect)
       -a(i)-   imperative

3.2   Participant marking

The second important type of information given by Uhle has to do with personal reference markers, which belong to five paradigms, as shown in Table 3. The data provided by Lehmann have been added for the sake of comparison.[4]

The data provided by Lehmann match those of Uhle to a considerable extent. The major exception is the 3rd person, which is given as identical to the 2nd person by Lehmann, but not by Uhle. The form mentioned by Uhle appears to be a deictic element. Most probably the 3SG forms presented by Lehmann represent an error either in the communication with his informant or in the transcription of his fieldnotes, since identity of 2nd and 3rd person pronouns is rare: none of the other sources support this, and in the 3PL the same root *ni-* appears as in Uhle's forms. The plural ending in Uhle's data is *-naka*, taken from Aymara, while the *-u'i:tš* ending in Lehmann so far is a mystery. It does not appear elsewhere in the Uchumataqu sources.

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[4] The following abbreviations are used: ASS = associative, BEN = benefactive or purposive, CAU = causative, DEL = delimitative, DUR = durative, EX = (1st person) exclusive, FEM = feminine, FOC = focus, FUT = future, GER = gerund, HAB = (present) habitual, IMP = imperative, IN = (1st person) inclusive, IND = indicative, LNK = linking vowel, MASC = masculine, PERF = perfective, PL = plural, PRO = pronoun, RED = reduplication, SG = singular, SUB = subordination, and TOP = topicalizer.

Table 3. Personal reference markers in Uhle and Lehmann.

	I	Lehmann pronouns	II	III	IV	Lehmann possession	V
1SG	*wiril*	*'uiʳsh*	*wej*	*wirki*	*wet*	*'uiʳsht*	*-l*
2SG	*a:m*	*a:m*	*am*	*amki*	*m*	*amp*	*-m*
3SG	*ni:*	*'amXá*	*ni(s)*	*ni:ki*	*ni:s*	*amp*	*-s*
1IN	*učum*	*u:tšu:mi*	*(u)čum*	*učumki*	*učuma*	*u:tšu:ma*	*-čum*
1EX	*(wejnaka)*	---	*wejnak/ nik*	*wejnakâki*	*wejnaka*	---	*-l*
2PL	*amčukčuk*	*á:mtšu:k u'*	*amčuk*	*amčukki*	*amčuka*	*ámtšuka*	*-čuk*
3PL	*ninaka*	*ní:u'i:tš*	*ninaka*	*ni:nâkâki*	*ninaka*	*n:'ui:tš*	*-s*

Explanations:
I   [none given]
II   simple form with the verb (Einfache Form beim Verbum)
III   derivation with *-ki* (Ableitung mit *-ki*)
IV   possessives (Possessiva)
V   verb-introducing consonants (Verbum einleitende consonanten)

The crucial element in Table 3 is column V, verb-introducing elements. The explanation suggests that there was a full set of verbal proclitic person markers. This same set of elements also appears as enclitics in Uhle's description, when attached to the negation and reflexive elements, as shown in Table 4. With reflexives, it is possible that Uchumataqu parallels the Quechua emphatic reflexive *kiki-X* 'own/self-X', which is obligatorily inflected for person. For negation, it may well be the case that the person marker is a true clitic attached to the negation element, although syntactically independent from it. The possessive elements are suggested to be proclitic in nature by Uhle. Lehmann's data only provide analytical negation forms here: /uiʳsh á:na tšá:i/ '1SG not be' and /á:na tšá:i/ 'not 3SG'.

Table 4. Non-verbal pronominal elements in Uhle's data.

	Negation		Reflexives		Possessives
1SG	*werki*	*ana-l*	*wej/werel*	*panaka-l*	*wet-*
2SG	*amki*	*ana-m*	*am*	*panaka-m*	*am-*
3SG	*niki/nis*	*ana-s*	*ni*	*panaka-s*	*nis-*
1IN	*učumki*	*ana-čum*			*učum-*
1EX			*wejnik*	*panaka-l*	
2PL	*amčuk(ki)*	*ana-čuk*	*amčuk*	*panaka-čuk*	*amčuk-*
3PL	*ninaka(ki)*	*ana-s*	*ninaka*	*panaka-s*	*ninakš-*

Notice that there are discrepancies between the precise forms presented in Tables 3 and 4.

Clearly an important area for further research concerns the actual distribution of the person markers. Are they proclitic or enclitic, and with which categories are they used as such? Are they obligatory, and if so, with which categories? Uhle gives examples which he refers to as "Pronominale Pleonasmen", where the enclitic is attached to a lexical pronominal form. Thus the question arises, more generally, how many participant markers can co-occur in a clause.

(2) *were-l*   PRO.1SG-1SG
     učum-čum   PRO.1IN-1IN
     ami-m   PRO.2SG-2SG
     amčuk-čuk   PRO.2PL-2PL
     ni:-š   PRO.3SG-3SG

However, no examples have been found in Uhle's manuscript so far illustrating the use of the proclitic or enclitic elements in texts.

There is no information readily available about derivational morphology either.

3.3 Subordinating morphology

With respect to subordinating morphology, Uhle suggests that the suffixes in Table 2 play a role:

(3) *-ni-*   present participle
     -ta-   perfect participle (cf. *-t-* perfect)
     -ku-   gerund
     -s(ni)-   infinitive

In Métraux (1935), the next source to be discussed, only a few verbal paradigms are given, from which possible grammatical characteristics can be discovered.

3.4   Tense/mood/aspect
Future tense is marked with *-ki-*:

(4)   a.   *haka*   *wens*   *ok^x-u-ki-čai*
            tomorrow   PRO.1SG   go-1SG-FUT-IND
            'I will go tomorrow.'
       b.   *haka*   *pukul-tan*   *šoñi*   *ok^x-a - ki-<j>a*
            tomorrow   two-ASS   man   go-LNK-FUT-IND
            'Tomorrow the two men will go.'

There is a suffix *-la(y)-*, which may have a durative meaning, although in other examples this is not apparent.

(5)   a.   *pisk   nonxi   ok^x-lay-u-<j>a*   *inači*
            two   day   go-DUR-1SG-IND   in.vain
            'I went during two days in vain.'
       b.   *ok^x-lai-čai*
            go-DUR-IND
            'I am going.'

It is unclear from Métraux's data how perfective is expressed; several suffixes are used, and it is not clear what the relation is between them:

(6)   a.   *wirili*   *niwiči-tani*   *ok^x-as-u-čai*
            PRO.1SG   PRO.3PL-with   go-PERF-1SG-IND
            'I have gone with them.'
       b.   *xoraturč-ki   ok^x-tka-la-ča*
            hilacata-TOP   go-PERF-DUR-IND
            'The hilacata (chief) has gone.'

There is an imperative form of the verb ending in *-a*:

(7)   a.   *lul-a*
            eat-IMP
            'Eat!'

b. *čuks*   *ok^x-a*
   you.PL   go-IMP
   'You all go away!'

3.5   Participant marking

A first feature of participant marking is that *-u-* is limited to first person:

(8)   a.   *wiril*   *ok^x-u-(čai)*
             PRO.1SG   go-1SG-IND
             'I go.'
       b.   *wiri*   *lul-u-(čai)*
             PRO.1SG   eat-1SG-IND
             'I eat.'

In other persons *-u-* is absent:

(9)   a.   *owiša*   *lux-ča*
             sheep   eat-IND
             'The sheep eats.'
       b.   *amin*   *pi-ča*
             PRO.2SG   come-IND
             'You come.'

Furthermore, the proclitic mentioned by Uhle only occurs with third persons, singular and plural:

(10)   a.   *ni*   *š-pi-ča*
             PRO.3SG   3-come-IND
             'He comes.'
       b.   *niwiči*   *š-pi-ča*
             PRO.3PL   3-come-IND
             'They come.'

There are no examples with other persons.

Métraux does not provide information about derivational morphology or about subordination.

The richest data on Uchumataqu by far are those of Vellard. He published word lists, some stories, a number of complete sentences, and also gave an extensive ethnographic description.

3.6   Tense/mood/aspect
Vellard (1954: 101-2) mentions the following endings for the Uchumataqu
verb (spelling adjusted):

(11) *-i-čay*   present
       -a-čay or *-a-ki-čay*   future
       -u-čay   recent past
       -ak-u-čay   remote past
       reduplicating the verb root and adding *-iki-čay*   very remote past
       -ačačay   habitual
       ke-verb root   repetitive

3.7   Participant marking
As to participant marking, Vellard's data contain the distinction between
first and second person future forms:

(12) a.   *okw-a-čay*
            go-FUT-IND
            'I will go.'
       b.   *okw-aki-čay*
            go-FUT.2SG-IND
            'You will go.'   (V 67 I 6)

However, this not consistent in his data.
    There are a number of instances of proclitic elements:

(13) a.   *wis-ki*   *tom*   *wis-ka-čai*
            PRO.1SG-TOP   net   1SG-take-IND
            'I take the net.'   (V 49, III, 16)
       b.   *wirs-ki*   *čuñi*   *surti*   *wis-nu-čai*
            PRO.1SG-TOP   good   luck   1SG-dream-IND
            'I dreamt of good luck.'   (V 51 1025)

(14) a.   *ču-tsiq'-i*
            1PL.IN-talk-IMP
            'Let us talk.'   (V 51 838)
       b.   *ču-ki*   *šiš-ki*
            1PL.IN-TOP   take-IMP
            'Let us take.'
                                                          (V 51 894)

    c. *ačumi*   *ču-pax-ki*
        PRO.1PL.IN   1PL.IN-unite-IMP
        'Let us all get together.'   (V 51 913)
    d. *ču*   *čarta-ki-čai*
        (PRO?).1PL.IN   dance-IMP-IND
        'Let us dance.'

It is not absolutely clear how to interpret the forms in (14), given the topic marker in (14b), but in exhortatives we tend to find a shortened form of the subject pronoun preceding the verb.

    Personal markers on verbs do no appear to be obligatory, at least when clitics are present. The question remains how personal reference is expressed when no clitics appear. Clitics appear with or without topic markers; prefixes marking personal reference on the verb are not always directly related to the clitics.

3.8 Derivational morphology

Vellard (1954: 103) mentions the derivational ending for causative *-ačučay*, but in the examples a number of forms occur. In Vellard's notes, published in 1967 (p. 35), the causative is indicated as *-haručay*, and in Vellard (1951: 893, 909, 910, 911) other causative forms are presented, namely *-ta-/-ča/-a-*:

(15)   a.   *ska-ta-čay*   'send'
            bring-CAU-IND
       b.   *tana-ča-čay*   'cause to drink'
            drink- CAU-IND
       c.   *la-hi-čay*   'fly'
            la-ha-čay   'cause to fly'
       d.   *šaxk'i-čay*   'run'
            šaxk'a-čay   'cause to run'

There are a number of intriguing cases of verbal compounds in Vellard's data. The volitive future in (16b) is relatively productive:

(16)   a.   *tuk'-okw-a*
            be.silent-go-IMP
            'Go with your mouth shut.'   (V 51 839)
       b.   *hana pek'-ketsi-niki-čay*
            not   want-fight-FUT-IND
            'We do not want to fight.'   (V 51 941)

There is also considerable (partial) reduplication in Uchumataqu, both with verbs indicating inherent repetition, and to indicate strong action. In most examples, initial CVC is reduplicated:

(17) a. *tar-tars-ki*
          RED-shake-TOP
          'I shake (something).'   (V 51 930)
      b. *k'aw-k'awa-čai*
          RED-cry-IND
          'to cry very loudly'   (V 51 847)

3.9   Subordination marking

As to subordination marking, Vellard lists a few gerund-like forms ending in *-u-*:

(18) a. *uxk'-u*
          go-GER
          'going'   (V 51 877)
      b. *okw-u*
          leave-GER
          'leaving'   (V 51 878)

There are a few examples with a benefactive or purposive:

(19) *liki-č-črapay*
      drink-INF-BEN
      'in order to drink'   (V 67 II 1)

There are subordinate adverbial forms with *-ka*:

(20) *xoxa*   *ako-čay*   *čiča-ka*
      throat   dry-IND   talk-SUB
      'My throat is dry from talking.'   (V III 33)

To complete this survey, at present there is no evidence of productive morphology any more. All speakers use frozen forms, often third and first persons, and in the present tense.

4   Verbal morphology in Chipaya

Having presented what we can reconstruct from the three main grammatical sources on Uchumataqu, we now turn to the description of the most recent and complete description of Chipaya, the one given by Cerrón Palomino (2001; 2006).

4.1   Tense/mood/aspect

For tense/mood/aspect, Cerrón Palomino mentions the following suffixes, leaving open their precise semantic nature but suggesting that they are aspectual rather than temporal:

(21) a.   *-iñ-/-ñi-/-ñ-*   present (habitual)
      b.   *-chin-/-chi-*   past (completive)
      c.   *a-(ki)-*   future (incompletive)

4.2   Participant marking

With respect to participant marking, the picture sketched by Cerrón Palomino is quite complex. First of all, there are occasional instances of proclitic subject marking on the verb:

(22) a.   *zh-lik-la*
           1PL-drink-IMP
           'Let us drink!'
      b.   *kezi-zh   lik-a-tra-ni*
           chicha-1PL   drink-IMP-IND-?
           'Let us drink chicha!'

According to the author, this pattern is marginal and hardly used any more. Moreover, in his view, it is derived from object deletion and recliticization of the stranded person marker. Olson (1966: 18) notes that the use of this form was already rare in the 1960s.

   More common are cases where the person marker encliticizes onto any element that receives focus. The forms of the clitic do not make all distinctions:

(23) *l*   1SG, 3SG.FEM, 1PL.EX, 3PL.FEM (= FOC.1)
      m   2SG (=FOC.2)
      zh   3SG.MASC, 1PL.IN, 2PL, 3PL.MASC (=FOC.3)

One of the examples provided is:

(24) a. *wer   sum   alkanti-l   khiy-a-tra*
          I   good alcalde-1SG   be-FUT-IND
          'I will be **a good alcalde**.'
      b. *wer-il   ana   sum   alkanti   khiy-a-tra*
          I-1SG   NEG   good   alcalde   be-FUT-IND
          '**I** will not be a good alcalde.'

A third possibility for participant marking is to incorporate a reduced form
of the pronoun into the inflected verb:

(25) a. *am-ki   majña-m   thaj-ñ-am-tra*
          you-TOP   early-2SG   sleep-HAB-2SG-IND
          'You sleep early.'
      b. *utrum-nak-ki   majña-zh   thaj-chiñ-trum-tra*
          1PL.IN-PL-TOP   early-1PL.IN   sleep-PERF-1PL.IN-IND
          'We slept early.'

Notice that these reduced pronouns can co-occur with the clitics, and are not
identical to them in form.
    There are two further aspects of the verb morphology that differentiate
for person: the durative marker *-u-* is limited to first person singular (26),
and the future element *-ki-* does not occur with first person singular and plur-
al exclusive (27):

(26) a. *zina-lla-l   thaj-u-tra*
          alone-DEL-1SG   sleep-DUR-IND
          'I am sleeping alone.'
      b. *zina-lla-m   thaj-tra*
          alone-DEL-2SG   sleep-IND
          'You are sleeping alone.'

(27) a. *wer-nak-ki   majña-l   thaj-a-tra*
          1-PL-TOP   early-FOC.1   sleep-FUT-IND
          'We (EX) will sleep early.'
      b. *utrum-nak-ki   majña-zh   thaj-a-ki-tra*
          we.IN-PL-TOP   early-FOC.2   sleep-FUT+*ki*-IND
          'We (IN) will sleep early.'

4.3 Derivational suffixes

Cerrón Palomino provides only limited data about derivational suffixes (28):

(28) *-ta-*   passive

4.4 Subordinating markers

His account does contain some information about subordinating elements (29). The following are mentioned:

(29) *-kan-*   simultaneous, same subject
      -nan-/-an-   simultaneous, different subject
      -ku-   preceding, same subject
      -tan-   preceding, different subject
      (*-nii-ki*   conditional)
      -i   immediate purposive
      -z-japa   more remote purposive

Having briefly surveyed the picture sketched in Cerrón Palomino's work, we are now in a position to do a preliminary comparison of the various data sets.

5   The original Uru-Chipaya system?

It is clear from the data that Uchumataqu and Chipaya are quite closely related. Allowing for the fact that the different sources come from different periods, were collected in different ways, and taking into account biases and interpretations of the different researchers, the number of similarities is still quite striking. Table 5 contains an overview.

In the tense system, the similarities are very slight, possibly *(a)ki* 'future'. However, in the personal reference system there are a number of correspondences: *l* '1SG', *m* '2SG', *s/zh* '3SG/3SG.MASC', *s/zh* '1PL.IN', *l* '1PL. EX', *s/zh* '3PL/3PL.MASC'. Finally, in the subordinator system there is *ku/u/ ku* 'gerund', *s(ni)/č/z* 'infinitive', and *ta* perfect participle/preceding, different subject'.

There are also a number of clear differences, but this holds for the different sources of Uchumataqu as much as for the overall differences between the two languages. A striking difference is that the gender distinction mentioned by Cerrón for Chipaya is entirely absent in Uchumataqu. It is clear that Uchumataqu and Chipaya are not very distant genetically, although the sources are probably too fragmentary to allow for a full reconstruction of the proto-language at the present stage.

Table 5: Schematic representation of elements occurring in the verbal morphology in the different sources for Uchumataqu and Chipaya

		Uhle (1894)		Vellard (1950)		Cerrón (2003) (Chipaya)	
Tense	*t*	perfect	*i*	present	*iñ, ñ, ñi*	present	
Mood	*k(i)*	future	*u*	recent			
Aspect	*u*	durative		past			
	ačax	optative	*a(ki)*		*a(ki)*	future	
	tsatsa	potential	*ačačay*	FUT.HAB	*chin*	past	
Personal	*l*	1SG	*wis*	1SG	*l*	1SG	
reference	*m*	2SG			*m*	2SG	
	s	3SG			*zh*	3SG.MASC	
					l	3SG.FEM	
	s	1IN	*ču*	1IN	*zh*	1IN	
	l	1EX			*l*	1EX	
	čuk	2PL			*zh*	2PL	
	s	3PL			*zh*	3PL.MASC	
					l	3PL.FEM	
Subordin-	*ni*	present	*ka*	SUB	*kan*	simu,	
ation		participle				same S	
	ku	gerund	*u*	GER	*na/n*	simu,	
	ta	perfect				diff suf	
		participle			*ku*	prec,	
	s(ni)	infinitive	*č*	infinitive		same S	
					ta	prec, diff S	
					z	infinitive	

> simu = simultaneous   diff = different
> prec = preceding   S = subject

To turn to the last research question, the typological profile, (30) contains a first rough approximation of the maximal morphological template of the Uchumataqu verb:

(30) |subject| |**root**| |RED| |link| |derivat.| |tense| |person| |indicative|
     clitic   vowel suffix   mood
                                                             aspect

In no verb form do all these elements occur, and some of them (notably re-duplication, the linking vowel, and derivational suffixes) may not be com-binable. In contrast, some aspect and tense markers may perhaps be com-bined. This is a matter for further investigation. In any case, a system like the one in (30) shares certain features with other languages in the same area. Quechua and Aymara are suffixal, while some of the eastern slope lan-guages, like Leko (cf. van de Kerke, this volume), have personal prefixes.

Work on Uchumataqu and Chipaya is still continuing, and the above is only a first sketch of some of the features of verb morphology in the Uru lan-guages. When Hannss (in prep.) has been completed, and a more detailed picture of Chipaya becomes available through the continuing investigations on this language by the teams of Rodolfo Cerrón Palomino and Sabine Dedenbach-Salazar, it will be possible to draw up a more definitive picture.

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