Data for studying postpositions in Chamicuro

Steve Parker
Dallas International University and SIL International

1. Introduction

This paper presents a corpus of data focusing on the grammatical function of postpositions in Chamicuro, an Amazonian language of Peru. Chamicuro is a nearly extinct member of the Maipurean or Arawakan family (Simons & Fennig 2018). Its ISO 639-3 code is [ccc].

The present document serves as an appendix to Parker (2018), a book chapter in which I analyze Chamicuro’s three clitic postpositions: the comitative =musta ‘with’, the locative =shana(ye) ‘in, at, on, to’, and =yotko ‘until’. In that chapter I refer to a separate, more extensive repository of examples posted online, which is this file. Due to space constraints, Parker (2018) contains only a small sample of the relevant constructions – just enough to illustrate the analytical claims. The data presented here, on the other hand, virtually exhaust all of the Chamicuro forms containing postpositions which I collected during my fieldwork (three short periods between 1985 and 1993; see Parker 2010a,b). Nevertheless, there are still a few remaining pieces of pertinent data scattered throughout my hand-written notes which are technically unpublished, though archived as Parker (1985a,b,c).

Unlike its companion chapter, this appendix contains little analysis and discussion of Chamicuro data, except for interlinear glosses of each morpheme. Parker (2018) provides not only a fuller description of the syntax and semantics of these postpositions, but also a brief sketch of a few other details of Chamicuro grammar. It includes a synopsis of the phonology as well, so that the reader can understand the practical orthography used in writing Chamicuro data. I repeat the correspondences below, where the phonemic segments are transcribed using the Americanist system:

(1)  Consonants:

<table>
<thead>
<tr>
<th>grapheme</th>
<th>p</th>
<th>t</th>
<th>k</th>
<th>ts</th>
<th>ch</th>
<th>ċh</th>
<th>s</th>
<th>sh</th>
<th>šh</th>
<th>m</th>
<th>n</th>
<th>ň</th>
<th>l</th>
<th>ly</th>
<th>(r)</th>
<th>w</th>
<th>y</th>
<th>ʔ</th>
<th>j</th>
</tr>
</thead>
<tbody>
<tr>
<td>phoneme</td>
<td>p</td>
<td>t</td>
<td>k</td>
<td>t̂</td>
<td>č</td>
<td>ċ</td>
<td>s</td>
<td>š</td>
<td>š</td>
<td>m</td>
<td>n</td>
<td>ň</td>
<td>l</td>
<td>ľ</td>
<td>(ř)</td>
<td>w</td>
<td>y</td>
<td>ʔ</td>
<td>h</td>
</tr>
</tbody>
</table>

Vowels:

<table>
<thead>
<tr>
<th>grapheme</th>
<th>i</th>
<th>e</th>
<th>a</th>
<th>o</th>
<th>u</th>
<th>ii</th>
<th>ee</th>
<th>aa</th>
<th>oo</th>
<th>uu</th>
</tr>
</thead>
<tbody>
<tr>
<td>phoneme</td>
<td>i</td>
<td>e</td>
<td>a</td>
<td>o</td>
<td>u</td>
<td>i:</td>
<td>e:</td>
<td>a:</td>
<td>o:</td>
<td>u:</td>
</tr>
</tbody>
</table>

In (1), the segment /č/ is a voiceless retroflexed (or “bunched”) alveopalatal affricate. The corresponding voiceless fricative is /š/. The voiced lateral approximant /ľ/ is palatal or alveopalatal. The voiced alveolar flap (or tap) /ř/ is used only in loanwords. A colon after a

© 2018 by Steve Parker. This document is intended primarily for academic use. You may make copies of this work for research or instructional purposes (under fair use guidelines) free of charge and without further permission. However, republication or commercial use of this material is expressly prohibited without my prior written consent.
vowel indicates contrastive length. All other phonological symbols represent their typical Americanist pronunciations.

The following abbreviations are used throughout this document. Most of those appearing in glosses are consistent with the Leipzig conventions (Max Planck Institute 2015):

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>first person</td>
<td>FUT</td>
<td>future</td>
</tr>
<tr>
<td>2</td>
<td>second person</td>
<td>LOC</td>
<td>locative</td>
</tr>
<tr>
<td>3</td>
<td>third person</td>
<td>M</td>
<td>masculine</td>
</tr>
<tr>
<td>?</td>
<td>uncertain gloss</td>
<td>N</td>
<td>noun</td>
</tr>
<tr>
<td>-</td>
<td>morpheme boundary</td>
<td>NEG</td>
<td>negative</td>
</tr>
<tr>
<td>=</td>
<td>clitic boundary</td>
<td>OBJ</td>
<td>object</td>
</tr>
<tr>
<td>&quot; &quot;</td>
<td>quoted speech</td>
<td>PL</td>
<td>plural</td>
</tr>
<tr>
<td>()</td>
<td>optional elements</td>
<td>POSS</td>
<td>possessive</td>
</tr>
<tr>
<td>ABS</td>
<td>absolute</td>
<td>PRO</td>
<td>pronoun</td>
</tr>
<tr>
<td>CAUS</td>
<td>causative</td>
<td>PST</td>
<td>past</td>
</tr>
<tr>
<td>COM</td>
<td>comitative</td>
<td>PURP</td>
<td>purposive</td>
</tr>
<tr>
<td>DET</td>
<td>determiner</td>
<td>REL</td>
<td>relative</td>
</tr>
<tr>
<td>DIM</td>
<td>diminutive</td>
<td>SG</td>
<td>singular</td>
</tr>
<tr>
<td>EP</td>
<td>epenthetic</td>
<td>TR</td>
<td>transitive</td>
</tr>
</tbody>
</table>

The data below are organized into three major sections. First, §2 contains all of the examples of postpositions appearing in texts (continuous discourse). Consequently, all of them occur in complete sentences, or at least in a full clause with a verb. Next, §3 presents a list of Chamicuro words and phrases elicited in isolation. Finally, §4 displays two tables of paradigmatic data: one involving the comitative morpheme =musta, and a second one illustrating the locative =shana(ye).

At the beginning of each of these three sections I briefly explain how the respective data were elicited, transcribed, and organized. As indicated below, most of the data in this appendix have been previously published, although not necessarily in the same format as displayed here. Rather, the main purpose of this document is to bring together all of the extant Chamicuro forms relevant to the study of postpositions into a single comprehensive corpus in order to facilitate a more systematic analysis of their behavior. A related goal is to provide numerous additional examples documenting the patterns discussed in Parker (2018).

As noted above, this file does not present any actual linguistic analysis per se, apart from glossing each morpheme. Nevertheless, in §4 I comment briefly on the two variants of the locative marker: =shana vs. =shanaye. The latter exhibits an apparently optional suffix (-ye) whose meaning and function are difficult to determine (see Parker 2018). The second paradigm presented there (Table 2) might help us unravel this detail. In that section I also mention a few other Arawakan languages exhibiting a locative suffix which appears to be cognate with Chamicuro -ye.

2. Data from texts

The following examples with postpositions come from the text “Nuestros antepasados” (“Our ancestors”), in Parker et al. (1987: 10-19). They appear there in this order, although not necessarily sequential to one other. That is, there may be other Chamicuro utterances before,
between, and after some of these sentences which form part of that same discourse. The original, hand-transcribed field notes containing most of the texts discussed in this appendix have been microfiched in their raw, unedited form as Parker (1985a).

All of the numbered examples in this paper are formatted as follows. The first line displays the Chamicuro data, using the practical orthography explained in (1). The Chamicuro utterances are divided into words and morphemes. In several instances it is not clear whether to transcribe the juncture right before (or after) postpositions as just a clitic (morpheme) boundary, or as a separate prosodic word, i.e. blank space (see Parker 2018). The second line in each example gives the corresponding morpheme-by-morpheme glosses, using the abbreviations listed above. The third line is a free translation in English, and the last (fourth) line gives the corresponding free translation in Spanish, as provided by the two Chamicuro speakers. The Spanish translation at the end of each example is usually followed by a page number referring to where that utterance was initially published (when relevant).

Throughout this file, the Chamicuro postpositional morphemes of interest are formatted in bold typeface (in the numbered examples) in order to make them easier to identify and search for. These include the three postpositions (musta ‘with’, shana ‘in, at, on, to’, and yo(j)ko ‘until’), as well as the suffix -ye, which occurs in locative constructions plus in a few other noun phrases.

(2) chamekolo ti’-kana i-nen-kana-kati i-jsepijt-e-kana i-chi’nachtal-e=shana-ye
Chamicuro deceased-PL 3-come-PL-PST 3-live-?/-PL 3-village-poss=loc-?
‘Our ancestors (the deceased Chamicuros) came to live in their village.’
‘Nuestros antepasados (los chamicuros finados) vinieron a vivir en sus tierras (su pueblo).’
(Parker et al. 1987: 11)

(3) i-šwisyo-kana-kati paspatal=musta
3-come.down.river-PL-PST raft=COM
‘They came down (the Huallaga River) on a raft (by raft).’
‘(Ellos) bajaron el río (Huallaga) en una balsa.’ (p. 11)

(4) paspatal=musta kana ka i-šwisy-ako
raft=COM PL PST(?) 3-come.down.river-?
‘They came down (the Huallaga River) on a raft (by raft).’
‘En (una) balsa bajaron el río (Huallaga).’ (p. 11)

(5) i’-to-kana ka čhijta=shana
3-go-?-PL PST(?)/DET(?) land=LOC
‘They went (walking) by land.’
‘Fueron (caminando) por tierra.’ (p. 11)

(6) mayeto kana ka i-kijte-kana kapone-pat=shana
thus PL PST 3-arrive-PL Paucar-Yaku=LOC
‘Thus they arrived to/at Caponepati (a creek).’
‘Así llegaron a (la quebrada) Caponepati (Paucar-Yaku).’ (p. 11)
(7) “akana sojpay-i ana’=shana-yey
there.is demon-EP this=LOC-?
“There’s a demon/devil here (in this place).”
“Hay un demonio aquí (en este sitio).” (p. 13)

(8) “ashkos a-tos-pijt-i (mas) išokolo=shana-yey
let’s.go 1PL-cut?-EP (more) center(?)=LOC-?
“Let’s go cutting a path further into (the middle of) the jungle.”
“Vamos a abrir trocha (camino) más adentro (más al centro) de la selva.” (p. 13)

note: I suspect that the Chamicuro word išokolo in this sentence may be the same word as išhujkuš ‘jungle’. If that is true, then the form išokolo (as it appears in my hand-written field notes) is either (1) an alternate (variant) pronunciation, or (2) an error (mistranscription) on my part, or (3) a slip of the tongue by don Gregorio.

(9) i-kijyo-kwen-kana ka paj-na yeepa-chap=shana
3-arrive=?-PL DET another-DET river-DIM(?)=LOC
‘(Thus) they arrived at another creek.’
‘Llegaron (asi) a otra quebrada.’ (p. 13)

(10) mashe’to kana ka wusk-a tilishka-kana ka ka-jsepijt-a-ka-na
he PL PST %-take-? all-PL PST REL-live-?-REL(?)-DET
shačhullo-kana masha=shana-yey
youth-PL 3.PRO=LOC-?
‘He took (away) all the young people who lived there (in that place).’
‘Él llevó a todos los jóvenes que vivan allí (en ese lugar).’ (p. 15)

(11) mashe’to kana ka shitpošh-ka tilishka-kana ka ka-chi’naska’neýya-kana ka
he PL PST %-take.out-DET all-PL PST REL-remain-PL PST
i-ch’nachtale=shana-yey
3-village=LOC-?
‘He took all those who remained (by themselves) in their village.’
‘Él sacó a todos los que quedaban (solos) en el pueblo (en sus tierras).’ (p. 17)

(12) i-pa-jsepijt-a-kwen-kana ka Pampa.Hermos=shana-yey
3-CAUS-live-?-?-PL DET Pampa.Hermosa=LOC-?
‘He took them to live (made them live) in Pampa Hermosa.’
‘(Él) les hizo vivir (los llevó a vivir) en Pampa Hermosa.’ (p. 17)

(13) akana ka-jsepijt-a-kana (na) Pampa.Hermos=shana-yey shačhullo-kana
there.are REL-live-?-PL DET Pampa.Hermosa=LOC-? youth-PL
‘There are young people who live in Pampa Hermosa.’
‘Hay jóvenes que viven en Pampa Hermosa.’ (p. 17)

The following examples with postpositions come from the text “Mi familia” (“My family”), in Parker et al. (1987: 18-19). They appear there in this order, although not necessarily sequential to
one other. That is, there may be other Chamicuro utterances before, between, and after some of these sentences which form part of that same discourse.

(14) ma’sha wata ka u-jsepijt-a-ka u-’luj’hana=musta-kana Pampa.Hermosa=shana-ye
many year PST 1SG-live:?-DET 1SG-relative=COM-PL Pampa.Hermosa=LOC-
‘I lived for many years with my relatives in Pampa Hermosa.’
‘Vivi muchos años con mis familiares (chamicuros) en Pampa Hermosa.’ (p. 19)

(15) masha i’-to-kana-kati u-wusya-kel-i (n)alanjal=shana
3.PRO 3-go:-?HL-PST 1SG-take:-?EP Naranjal=LOC
‘They (my daughters) took me to Naranjal (to live).’
‘Ellas (mis hijas) me llevaron al Naranjal (para vivir).’ (p. 19)

(16) u’-t-i ska’ne u-jsepijt-a-kel-na u-lya’lo=musta u-chi’nuke=shana
1SG-PRO-EP alone 1SG-live:-?DET 1SG-wife=COM 1SG-house=LOC
‘I live (there) by myself with my wife in my house.’
‘Vivo (allí) solo con mi esposa en mi casa.’ (p. 19)

The following examples with postpositions come from the text “La historia de dos tigres” (“The story about two jaguars”), in Parker et al. (1987: 22-27). They appear there in this order, although not necessarily sequential to one other. That is, there may be other Chamicuro utterances before, between, and after some of these sentences which form part of that same discourse.

(17) i’-to-kana ka ikito=shana
3-go: -?PL DET Iquitos=LOC
‘They went to Iquitos (a jungle city).’
‘Se fueron a Iquitos (para vivir allí).’ (p. 19)

(18) u’-ka i’shujkul=shana ta’wojko
1SG-go-DET jungle=LOC far
‘I went far away into the jungle.’
‘Me fui lejos en el monte.’ (p. 23)

(19) y-ashli-jko i-kut=musta ma’pjeta kju’tu opala
3-stand.up: -? 3-foot=COM two foot only
‘It (the jaguar) stood up on its hind legs.’
‘(El jaguar) se paró en sus dos patas (posteriore) solamente.’ (p. 25)

The following examples with postpositions come from the text “La historia de un tigre” (“The story about a jaguar”), in Parker et al. (1987: 26-31). They appear there in this order, although
not necessarily sequential to one other. That is, there may be other Chamicuro utterances before, between, and after some of these sentences which form part of that same discourse.

(21) mashe’tako-cha ka  u-payakswe’takente išhujkul=shana
there-also DET 1SG-go.walking jungle=LOC
‘I went also walking there through the jungle also.’
‘Ahí también me fui andando por el monte.’ (p. 27)

(22) u’-to-kati  u-lya’lo=musta
1SG-go-?-PST 1SG-wife=COM
‘I went with my wife.’
‘Fui con mi esposa.’ (p. 27)

(23) u-kijyo-ka  yeepa-chap=shana-ye
1SG-arrive-DET river-DIM(?)=LOC-?
‘I arrived to/at a creek.’
‘Llegué a una quebrada.’ (p. 27)

(24) “kolo’t-awa-s-i  ana’=shana”
wait-1.OBJ-2PL-EP this=LOC
“Wait for me here!”
“Espérenme aquí!” (p. 27)

(25) u-nish-kwen-i  i-nejko u-latalae=shana
1SG-see-?-EP 3-come 1SG-side=LOC
‘I saw that it (the jaguar) was coming at my side.’
‘Vi que venía a mi lado (el jaguar).’ (p. 29)

(26) i-šholt-ako  masha=shana-ye
3-lie.down-? 3.PRO=LOC-?
‘It (the jaguar) was lying down (on the ground) there (in that place).’
‘(El jaguar) estuvo echado (en el suelo) ahí (en ese sitio).’ (p. 29)

(27) w-achi-kwen-ka  y-ish=shana-ye
1SG-grab-?-DET 3-tail=LOC-?
‘I grabbed it (the jaguar) by the tail.’
‘Lo agarré del rabo (al jaguar).’ (p. 29)

(28) i-wusyak-awa  išhujkul=shana
3-take-1.OBJ jungle=LOC
‘It (the jaguar) took me (pulled me) into the jungle.’
‘(El jaguar) me llevaba al monte (jalándome).’ (p. 29)
(29) u-sapato-’te=musta w-akatijya-kwen-na i-kuspejta=shana
1SG-shoe-POSS=COM 1SG-kick-DET 3-rib=LOC
‘With my shoe I kicked it (the jaguar) in its ribs.’
‘Con mi zapato le pateaba en las costillas (al jaguar).’ (p. 29)

(30) mashe’to ka u-lot-tu’nate i-kuspejta=shana-ye
there DET 1SG-hit-? 3-rib=LOC-?
‘I punched it (the jaguar) in the ribs.’
‘Le di puñetazos en las costillas (al jaguar).’ (p. 31)

(31) u-shakatisyo-kwen-ka masha=shana-ye i-pekano
1SG-leave-?-DET 3.PRO=LOC-? 3-meat/flesh
‘I left its meat/flesh there (in that place).’
‘Dejé su carne allí (en ese lugar).’ (p. 31)

(32) kajso’nó’ta shena masha=shana-ye
cost previously 3.PRO=LOC-?
‘(Jaguar skins) cost a lot (had a big price) then (in that time).’
‘(El cuero/piel del jaguar) valía mucho (tenía un precio alto) en ese tiempo (entonces).’
(p. 31)

The following examples with postpositions come from the text “El cuento de la inundación total de la tierra” (“The story about a worldwide flood”), in Parker et al. (1987: 30-33). They appear there in this order, although not necessarily sequential to one other. That is, there may be other Chamicuro utterances before, between, and after some of these sentences which form part of that same discourse.

(33) ka’nil-sheye Chamekolo=shana-ye…
ancestor-before Chamicuro=LOC-?
‘Previously (before), in the village called Chamicuro, …’
‘Antiguamente, en (el pueblo llamado) Chamicuro, …’ (p. 31)

(34) u-wusya-kwen-kana ka u-chi’nuke=shana-ye
1SG-take-?-PL DET 1SG-house=LOC-?
‘I took them (my children) home (to my house).’
‘Los llevé (a mis hijos) a casa.’ (p. 31)

(35) “Ashko pkwach=shana”
let’s.go field=LOC
“Let’s go to the (cultivated) field.”
“Vamos a la chacra.” (p. 31)
(36) a’-to ka a-pkwach-i’-te=shana-ye
1PL-go-? DET 1PL-field-EP-POSS=LOC-?
‘We went to our field.’
‘Fuimos a nuestra chacra.’ (p. 31)

(37) a-nepna’ta-ka ajtin=shana-ye
1PL-go-DET path=LOC-?
‘We were going along the path (trail).’
‘Ibamos por el camino.’ (p. 31)

(38) i-nisyo-kana a-latale=shana-ye
3-sing-PL 1PL-side=LOC-?
‘(Some birds) were singing at our side.’
‘(Unos pajaritos) estaban cantando a nuestro lado.’ (p. 31)

(39) y-okāchuku’-kana ka ajtin=shana(-ye)
3-land-PL DET path=LOC(-?)
‘(The birds) landed on (flew down onto) the path (trail).’
‘(Los pajaritos) se bajaron en el camino (al camino).’ (p. 31)

(40) p-es-ye’-na chi’nuke matis-i-lapa=shana
2-make-FUT-DET house genipa.tree-3-branch=LOC
“Make a house in the branches of a genipa tree.”
“Haz(te) una casa (o, la casa) en las ramas de un árbol de jagua.” (p. 33)

(41) a-kijyo ka a-chi’nuke=shana
1PL-arrive DET 1PL-house=LOC
‘We arrived home (to our house).’
‘Llegamos a nuestra casa.’ (p. 33)

(42) u-šhanata-ska’-ne-yo ka u-chi’nuke matis-i-lapa=shana
1SG-make-only-? DET 1SG-house genipa.tree-3-branch=LOC
‘I was the only person who made a house in the branches of a genipa tree.’
‘Yo fui la única persona que hice mi casa en las ramas de un árbol de jagua.’ (p. 33)

(43) masha ka u-chi’nako onojko=shana-ye, y-ali-yo ka keeni
when DET 1SG-be up=LOC-? 3-fall-? DET rain
‘When we were up (in our house in the tree), the rain started to fall.’
‘Cuando ya estábamos arriba (en nuestra casa en el árbol), la lluvia empezó a caer.’ (p. 33)
I was the only one who remained alive, (together) with my wife and children (sons and daughters).

‘Yo sólo quedé vivo, con mi esposa y mis hijos y mis hijas.’ (p. 33)

Thus we have continued to multiply (increase in number) until now.

‘Así aumentamos (nos hemos multiplicado) hasta ahora.’ (p. 33)

The following examples with postpositions come from a short text (“When I return to Pampa Hermosa”) which has not been previously published. They appear there in this order, although not necessarily sequential to one other. That is, there may be other Chamicuro utterances before, between, and after some of these sentences which form part of that same discourse. This text is the only one which has remained solely in my hand-written field notes until now.

When I get home… (to my house)

‘Cuando llegue a mi casa…’

That’s why they took me to Yarinacocha.

‘Por eso me llevaron a Yarinacocha.’

Let’s talk with it/that one (that language) (again).

‘Vamos a hablar con él/ese (idioma) (otra vez).’
3. Data elicited in isolation

The words and phrases in (51)-(71) below come from Parker (2010a). Virtually all of them were elicited orally by direct translation, normally in isolation. That is, I pronounced an expression in Spanish to the two Chamicuro speakers, and they provided these equivalents orally. I wrote them down by hand on paper, and eventually they were published as part of that paper. The numbers on the bottom (last) line of each example in (51)-(71) refer to Parker (2010a). The first number is the entry number, and the second is the page number on which that entry appears in that document.

(51) pi-’t-i
   2-PRO-EP
   ‘you’
   ‘tú, usted’ (509, p. 35)

(52) pi-t=musta
   2-PRO=COM
   ‘with you’
   ‘contigo, con usted’ (508, p. 35)

(53) u-’t-i
   1SG-PRO-EP
   ‘I’
   ‘yo’ (908, p. 52)

(54) u-t=musta
   1SG-PRO=COM
   ‘with me’
   ‘conmigo’ (885, p. 51)

(55) shana(-ye)
   LOC(-?)
   ‘to, at, in, on’
   ‘a, en’ (586, p. 38)

(56) ana’=shana
   this=LOC
   ‘here’
   ‘aquí, acá’ (31, p. 16)

(57) ana’=shana-ye
   this=LOC-?
   ‘someone, somebody’
   ‘alguien’ (32, p. 16)
(58) ana’-ye  
this-?  
‘this one’  
‘este, esta’ (33, p. 16)

(59) ata’-ye  
that-?  
‘that one (distal)’  
‘aquel, aquella’ (46, p. 16)

(60) ata’=shana  
that=LOC  
‘there’  
‘allí, allá’ (45, p. 16)

(61) i’yijku=shana  
above=LOC  
‘on top (of), above’  
‘encima (de)’ (204, p. 23)

(62) mey-ana’=shana-ye  
NEG-this=LOC-?  
‘no one, nobody, none’  
‘nadie, ninguno’ (414, p. 32)

(63) pawa  
‘field, countryside, outdoors, patio’  
‘campo, patio’ (488, p. 35)

(64) pawa=shana  
patio=LOC  
‘outside, outdoor, out-of-doors’  
‘afuera’ (489, p. 35)

(65) yilijko=shana  
inside=LOC  
‘inside, indoors’  
‘(a)dentro’ (1027, p. 57)

(66) na’shana-na  
who-DET  
‘who?’  
‘¿quién?’ (446, p. 33)
(67) ala’-ye
    that-
      ‘that one’
      ‘ese, esa’ (20, p. 15)

(68) meploneye
    ‘child (M)’
      ‘niño, muchacho (M)’ (409, p. 31)

(69) anaskajneye
    ‘something’
      ‘algo’ (30, p. 16)

(70) na’yeni
    ‘where?’
      ‘¿dónde?, ¿adónde?’ (451, p. 33)

(71) na’kolyaye
    ‘when?’
      ‘¿cuándo?’ (441, p. 33)

The following sentence comes from my hand-written field notes, and has not been previously published. It was pronounced by the Chamicuro speakers in isolation, not as part of any other context.

(72) u’-t-i       u-nacha’t-i    chamekolo    u-kumpale    musta    kana    pewa
    1SG-PRO-EP 1SG-speak-EP    chamicuro  1SG-companion    COM    PL    good
    ‘I’m speaking Chamicuro with my good friends.’
    ‘Estoy hablando (el idioma) chamicuro con mis buenos amigos (compadres/paisanos).’

The words, phrases, and sentences in (73)-(182) come from Parker (1994: 75-104), except for two cases noted to the contrary (examples 102-103). All of these were elicited orally by direct translation, normally in isolation. That is, I pronounced an expression in Spanish to the two Chamicuro speakers, and they provided these equivalents orally. I wrote them down by hand on paper, and eventually they were published as part of that book. The original, hand-transcribed field notes containing many of the examples in this section have been microfiched in their raw, unedited form as Parker (1985b,c). See also Parker (2010a,b) for other relevant data.

(73) ajkoch-i
    house-EP
    ‘house’
    ‘casa’ (p. 75)
(74) ajkoch=shana
    house=LOC
    ‘in/at/to the house’
    ‘en/a la casa’ (p. 75)

(75) u-mak-la ajkoch=shana
    1SG-sleep-DET house=LOC
    ‘I sleep in the house.’
    ‘Duermo en la casa.’ (p. 75)

(76) pi’to-ch-i
    canoe-ABS-EP
    ‘canoe’
    ‘canao’ (p. 75)

(77) pi’to-ch=shana
    canoe-ABS=LOC
    ‘in the canoe’
    ‘en la canoa’ (p. 75)

(78) u-mak-la pi’to-ch=shana
    1SG-sleep-DET canoe-ABS=LOC
    ‘I sleep in the canoe.’
    ‘Duermo en la canoa.’ (p. 75)

(79) w-ashkala’-la chamalo ajkoch=shana
    1SG-kill-DET bat house=LOC
    ‘I kill the bat in the house.’
    ‘Mato al murciélago en la casa.’ (p. 75)

(80) w-ashkala’-la chamalo pi’to-ch=shana
    1SG-kill-DET bat canoe-ABS=LOC
    ‘I kill the bat in the canoe.’
    ‘Mato al murciélago en la canoa.’ (p. 75)

(81) pkwach-i
    field-EP
    ‘cultivated field’
    ‘chacra’ (p. 76)

(82) pkwach=shana
    field=LOC
    ‘in/at/to the field’
    ‘en/a la chacra’ (p. 76)
(83) w-ashkala’-la chamalo pkwach=shana
1SG-kill-DET bat field=LOC
‘I kill the bat in the field.’
‘Mato al murciélago en la chacra.’ (p. 76)

(84) ajkala palaka chamalo ajkoch=shana
there.is one bat house=LOC
‘There is a bat in the house.’
‘Hay un murciélago en la casa.’ (p. 76)

(85) ajkala palaka chamalo yeepa=shana
there.is one bat river=LOC
‘There is a bat in/at the river.’
‘Hay un murciélago en el río.’ (p. 76)

(86) ajkala kilko chamalo ajkoch=shana
there.are three bat house=LOC
‘There are three bats in/at the house.’
‘Hay tres murciélagos en la casa.’ (p. 76)

(87) ajkala kilko chamalo yeepa=shana
there.are three bat river=LOC
‘There are three bats in/at the river.’
‘Hay tres murciélagos en/por el río.’ (p. 76)

(88) ajkoch=shana i-nchinte chamalo
house=LOC 3-be bat
‘The bat is in the house.’
‘El murciélago está en la casa.’ (p. 76)

(89) chamalo i-nchinte yeepa=shana
bat 3-be river=LOC
‘The bat is in/at the river.’
‘El murciélago está en/por el río.’ (p. 76)

(90) chamalo-kana i-nchinte ajkoch=shana
bat-PL 3-be house=LOC
‘The bats are in the house.’
‘Los murciélagos están en la casa.’ (p. 76)

(91) chamalo-kana i-nchinte yeepa=shana
bat-PL 3-be river=LOC
‘The bats are in/at/by the river.’
‘Los murciélagos están en/por el río.’ (p. 76)
(92) u-chi’nale-na yeepa=shana
1SG-be-DET river=LOC
‘I am in/at the river.’
‘Estoy en/por el río.’ (p. 76)

(93) chi’nale-na ajkoch=shana
be-DET house=LOC
‘You (SG) are in/at the house.’
‘Estás en la casa.’ (p. 76)

(94) i-chi’nale-na ajkoch=shana
3-be-DET house=LOC
‘He/she is in/at the house.’
‘Él/ella está en la casa.’ (p. 76)

(95) a-chi’nale-na ajkoch=shana
1PL-be-DET house=LOC
‘We are in/at the house.’
‘Estamos en la casa.’ (p. 77)

(96) chi’nale-s-na ajkoch=shana
be-2PL-DET house=LOC
‘You (PL) are in/at the house.’
‘Ustedes están en la casa.’ (p. 77)

(97) i-chi’nale-kana-na ajkoch=shana
3-be-PL-DET house=LOC
‘They are in/at the house.’
‘Ellos están en la casa.’ (p. 77)

(98) na’shana-ye
who-?
‘who?’
‘¿quién?’ (p. 82)

(99) na’shana-na ka-mak-a
who-DET REL(?)-sleep-REL(?)
‘Who is sleeping?’
‘¿Quién está durmiendo?’ (p. 83)

(100) u-nuk-la kinil wan=shana
1SG-eat-DET manioc morning=LOC
‘I eat manioc in the morning(s).’
‘Como (la) yuca por/en la mañana.’ (p. 83)
(101) u-mak-la wan=shana
1SG-sleep-DET morning=LOC
‘I sleep in the morning(s).’
‘Duermo por la mañana.’ (p. 83)

(102) u-mak-i
1SG-sleep-EP
‘I sleep’
‘duermo’ (Parker 2010a: 46)

(103) chpolya-ye
night-?
‘night’
‘noche’ (Parker 2010a: 19)

(104) u-mak-la chpolya=shana
1SG-sleep-DET night=LOC
‘I sleep at night.’
‘Duermo en/por la noche.’ (p. 83)

(105) u-nuk-ka kinil-i ka paj-wata=shana
1SG-eat-DET manioc-EP DET other-year=LOC
‘Last year I ate manioc.’
‘El año pasado comí yuca.’ (p. 88)

(106) i-nuk-ka kinil-i ka paj-wata=shana
3-eat-DET manioc-EP DET other-year=LOC
‘He/she ate manioc last year.’
‘Él/ella comió yuca el año pasado.’ (p. 88)

(107) a-nuk-ka kinil-i ka paj-wata=shana
1PL-eat-DET manioc-EP DET other-year=LOC
‘Last year we ate manioc.’
‘El año pasado comimos yuca.’ (p. 88)

(108) i-nuk-kana-ka kinil-i ka paj-wata=shana
3-eat-PL-DET manioc-EP DET other-year=LOC
‘They ate manioc last year.’
‘Ellos comieron yuca el año pasado.’ (p. 88)

(109) u-šshapes-ka kinil-i ka paj-wata=shana
1SG-look.for-DET manioc-EP DET other-year=LOC
‘Last year I looked for the manioc.’
‘El año pasado busqué la yuca.’ (p. 88)
(110) i-shapes-ka kinil-i ka paj-wata=shana
3-look.for DET manioc-EP DET other-year=LOC
‘He/she looked for the manioc last year.’
‘Él/ella buscó la yuca el año pasado.’ (p. 89)

(111) a-shapes-ka kinil-i ka paj-wata=shana
1PL-look.for DET manioc-EP DET other-year=LOC
‘Last year we looked for the manioc.’
‘El año pasado buscamos la yuca.’ (p. 89)

(112) i-shapes-kana-ka kinil-i ka paj-wata=shana
3-look for PL-DET manioc-EP DET other-year=LOC
‘They looked for the manioc last year.’
‘Ellos buscaron la yuca el año pasado.’ (p. 89)

(113) w-ashtakulka cheshana ka paj-wata=shana
1SG-hunt deer DET other-year=LOC
‘Last year I hunted deer.’
‘El año pasado cacé venados.’ (p. 89)

(114) y-ashtakulka cheshana ka paj-wata=shana
3-hunt deer DET other-year=LOC
‘He/she hunted deer last year.’
‘Él/ella cazó venados el año pasado.’ (p. 89)

(115) a-w-ashtakulka cheshana ka paj-wata=shana
1PL-EP-hunt deer DET other-year=LOC
‘Last year we hunted deer.’
‘El año pasado cazamos venados.’ (p. 89)

(116) y-ashtakulka-kana-ka cheshana ka paj-wata=shana
3-hunt-PL-DET deer DET other-year=LOC
‘They hunted deer last year.’
‘Ellos cazaron venados el año pasado.’ (p. 89)

(117) w-ajpok-ka cheshana ka paj-wata=shana
1SG-cook DET deer DET other-year=LOC
‘Last year I cooked the deer.’
‘El año pasado cociné el venado.’ (p. 89)

(118) y-ajpok-ka cheshana ka paj-wata=shana
3-cook DET deer DET other-year=LOC
‘He/she cooked the deer last year.’
‘Él/ella cocinó el venado el año pasado.’ (p. 89)
(119) a-w-ajpok-ka cheshana ka paj-wata=shana
1PL-EP-cook-DET deer DET other-year=LOC
‘Last year we cooked the deer.’
‘El año pasado cocinamos el venado.’ (p. 89)

(120) y-ajpok-kana-ka cheshana ka paj-wata=shana
3-cook-PL-DET deer DET other-year=LOC
‘They cooked the deer last year.’
‘Ellos cocinaron el venado el año pasado.’ (p. 89)

(121) u-wus-ka kinil-i ka paj-wata=shana
1SG-take-DET manioc-EP DET other-year=LOC
‘Last year I carried (took) the manioc.’
‘El año pasado llevé la yuca.’ (p. 89)

(122) i-wus-ka kinil-i ka paj-wata=shana
3-take-DET manioc-EP DET other-year=LOC
‘He/she carried the manioc last year.’
‘Él/ella llevó la yuca el año pasado.’ (p. 89)

(123) a-wus-ka kinil-i ka paj-wata=shana
1PL-take-DET manioc-EP DET other-year=LOC
‘Last year we carried the manioc.’
‘El año pasado llevamos la yuca.’ (p. 89)

(124) i-wus-kana-ka kinil-i ka paj-wata=shana
3-take-PL-DET manioc-EP DET other-year=LOC
‘They carried the manioc last year.’
‘Ellos llevaron la yuca el año pasado.’ (p. 90)

(125) u-š̄hko-ka kinil-i ka paj-wata=shana
1SG-wash-DET manioc-EP DET other-year=LOC
‘Last year I washed the manioc.’
‘El año pasado lavé la yuca.’ (p. 90)

(126) i-š̄hko-ka kinil-i ka paj-wata=shana
3-wash-DET manioc-EP DET other-year=LOC
‘He/she washed the manioc last year.’
‘Él/ella lavó la yuca el año pasado.’ (p. 90)

(127) a-š̄hko-ka kinil-i ka paj-wata=shana
1PL-wash-DET manioc-EP DET other-year=LOC
‘Last year we washed the manioc.’
‘El año pasado lavamos la yuca.’ (p. 90)
(128) i-šhkok-kana-ka kinil-i ka paj-wata=shana
3-wash-PL-DET manioc-EP DET other-year=LOC
‘They washed the manioc last year.’
‘Ellos lavaron la yuca el año pasado.’ (p. 90)

(129) u-šhko-ka u-kinil-i-ne ka paj-wata=shana
1SG-wash-DET 1SG-manioc-EP-POSS DET other-year=LOC
‘Last year I washed my manioc.’
‘El año pasado lavé mi yuca.’ (p. 90)

(130) i-šhko-ka i-kinil-i-ne ka paj-wata=shana
3-wash-DET 3-manioc-EP-POSS DET other-year=LOC
‘He/she washed his/her (own) manioc last year.’
‘Él/ella lavó su (propia) yuca el año pasado.’ (p. 90)

(131) a-šhko-ka a-kinil-i-ne ka paj-wata=shana
1PL-wash-DET 1PL-manioc-EP-POSS DET other-year=LOC
‘Last year we washed our manioc.’
‘El año pasado lavamos nuestra yuca.’ (p. 90)

(132) i-šhkok-kana-ka i-kinil-i-ne ka paj-wata=shana
3-wash-PL-DET 3-manioc-EP-POSS DET other-year=LOC
‘They washed their (own) manioc last year.’
‘Ellos lavaron su (propia) yuca el año pasado.’ (p. 90)

(133) u-’-ka paj-wata=shana
1SG-go-DET other-year=LOC
‘Last year I went.’
‘El año pasado me fui.’ (p. 90)

(134) i-’-ka paj-wata=shana
3-go-DET other-year=LOC
‘He/she went last year.’
‘Él/ella se fue el año pasado.’ (p. 90)

(135) a-’-ka paj-wata=shana
1PL-go-DET other-year=LOC
‘Last year we went.’
‘El año pasado nos fuimos.’ (p. 90)

(136) i-’-kana-ka paj-wata=shana
3-go-PL-DET other-year=LOC
‘They went last year.’
‘Ellos se fueron el año pasado.’ (p. 90)
(137) u-šak-ka paj-wata=shana
1SG-dance-DET other-year=LOC
‘Last year I danced.’
‘El año pasado bailé.’ (p. 90)

(138) i-šak-ka paj-wata=shana
3-dance-DET other-year=LOC
‘He/she danced last year.’
‘Él/ella bailó el año pasado.’ (p. 91)

(139) a-šak-ka paj-wata=shana
1PL-dance-DET other-year=LOC
‘Last year we danced.’
‘El año pasado bailamos.’ (p. 91)

(140) i-šak-kana-ka paj-wata=shana
3-dance-PL-DET other-year=LOC
‘They danced last year.’
‘Ellos bailaron el año pasado.’ (p. 91)

(141) ish-na u-kijka
already-DET 1SG-arrive
‘I’m arriving already.’
‘Ya estoy llegando.’ (p. 92)

(142) ish-na u-kijka-na ilijko=shana
already-DET 1SG-arrive-DET house=LOC
‘I’m already arriving at/to the house.’
‘Ya estoy llegando a la casa.’ (p. 92)

(143) ish-na i-kijka
already-DET 3-arrive
‘He/she is arriving already.’
‘Ya está llegando (él/ella).’ (p. 92)

(144) ish-na i-kijka-na ilijko=shana
already-DET 3-arrive-DET house=LOC
‘He/she is already arriving at/to the house.’
‘Él/ella ya está llegando a la casa.’ (p. 92)

(145) ish-na a-kijka
already-DET 1PL-arrive
‘We are already arriving.’
‘Ya estamos llegando.’ (p. 92)
(146) ish-na a-kijka-na iliiko=shana
already-DET 1PL-arrive-DET house=LOC
‘We are already arriving at/to the house.’
‘Ya estamos llegando a la casa.’ (p. 92)

(147) ish-kana-na i-kijka
already-PL-DET 3-arrive
‘They are already arriving.’
‘Ya están llegando (ellos).’ (p. 92)

(148) ish-kana-na i-kijka-na iliiko=shana
already-PL-DET 3-arrive-DET house=LOC
‘They are already arriving at/to the house.’
‘(Ellos) ya están llegando a la casa.’ (p. 92)

(149) ish-na u-kijka-na u-chi’nuke=shana
already-DET 1SG-arrive-DET 1SG-house=LOC
‘I’m already arriving at my house.’
‘Ya estoy llegando a mi casa.’ (p. 92)

(150) ish-na i-kijka-na i-chi’nuke=shana
already-DET 3-arrive-DET 3-house=LOC
‘He/she is already arriving at his/her (own) house.’
‘Él/ella ya está llegando a su (propia) casa.’ (p. 92)

(151) ish-na a-kijka-na a-chi’nuke=shana
already-DET 1PL-arrive-DET 1PL-house=LOC
‘We are already arriving at our house.’
‘Ya estamos llegando a nuestra casa.’ (p. 92)

(152) ish-kana-na i-kijka-na i-chi’nuke=shana
already-PL-DET 3-arrive-DET 3-house=LOC
‘They are already arriving at their (own) house.’
‘Ellos ya están llegando a su (propia) casa.’ (p. 92)

(153) u-tošhoj-ka u-chi’nuke=shana
1SG-enter-DET 1SG-house=LOC
‘I went into (entered) my house.’
‘Entré a mi casa.’ (p. 92)

(154) i-tošhoj-ka i-chi’nuke=shana
3-enter-DET 3-house=LOC
‘He/she went into (entered) his/her (own) house.’
‘Él/ella entró a su (propia) casa.’ (p. 93)
(155) a-toşhoj-ka a-chi’nuke=shana
1PL-enter-DET 1PL-house=LOC
‘We went into (entered) our house.’
‘Entramos a/en nuestra casa.’ (p. 93)

(156) i-toşhok-kana-ka i-chi’nuke=shana
3-enter-PL-DET 3-house=LOC
‘They went into (entered) their (own) house.’
‘Ellos entraron a su (propia) casa.’ (p. 93)

(157) u-kijya-ke’t-i, u-toşhok-ye’t-i u-chi’nuke=shana
‘When I arrive, I’m going to go into (enter) my house.’
‘Cuando llegue, voy a entrar a mi casa.’ (p. 93)

(158) u-kijya-kati, u-toşhoj-ka u-chi’nuke=shana
1SG-arrive-PST 1SG-enter-DET 1SG-house=LOC
‘When I arrived, I went into (entered) my house.’
‘Cuando llegué, entré a mi casa.’ (p. 93)

(159) i-kijya-kati, i-toşhoj-ka i-chi’nuke=shana
3-arrive-PST 3-enter-DET 3-house=LOC
‘When he/she arrived, he/she went into (entered) his/her (own) house.’
‘Cuando él/ella llegó, entró a su (propia) casa.’ (p. 93)

(160) a-kijya-kati, a-toşhoj-ka a-chi’nuke=shana
1PL-arrive-PST 1PL-enter-DET 1PL-house=LOC
‘When we arrived, we went into (entered) our house.’
‘Cuando llegamos, entramos a nuestra casa.’ (p. 93)

(161) i-kijya-kana-kati, i-toşhok-kana-ka i-chi’nuke=shana
3-arrive-PL-PST 3-enter-PL-DET 3-house=LOC
‘When they arrived, they went into (entered) their (own) house.’
‘Cuando (ellos) llegaron, entraron a su (propia) casa.’ (p. 93)

(162) i-nuuşhape’t-i
3-eat-EP
‘He/she is eating.’
‘(Él/ella) está comiendo.’ (p. 93)

(163) i-nuuşhape’-ka u-t=musta
3-eat-DET 1SG-PRO=COM
‘He/she is eating with me.’
‘(Él/ella) está comiendo conmigo.’ (p. 93)
(164) yene a-nuuşhape’-na u-t=musta
come 1PL-eat-DET 1SG-PRO=COM
‘Come (SG) eat with me.’
‘Ven a comer conmigo.’ (p. 93)

(165) i-nuuşhape’-kana
3-eat-PL
‘They are eating.’
‘(Ellos) están comiendo.’ (p. 93)

(166) i-nuuşhape’-kana-na u-t=musta
3-eat-PL-DET 1SG-PRO=COM
‘They are eating with me.’
‘(Ellos) están comiendo conmigo.’ (p. 93)

(167) yene-s-i a-nuuşhape’-na u-t=musta
come-2PL-EP 1PL-eat-DET 1SG-PRO=COM
‘Come (PL) eat with me.’
‘Vengan a comer conmigo.’ (p. 94)

(168) i-şhakatukulu’t-i
3-play-EP
‘He/she is playing.’
‘(Él/ella) está jugando.’ (p. 94)

(169) i-şhakatukulu’-na u-t=musta
3-play-DET 1SG-PRO=COM
‘He/she is playing with me.’
‘(Él/ella) está jugando conmigo.’ (p. 94)

(170) yene a-şhukatukulu’-na u-t=musta
come 1PL-play-DET 1SG-PRO=COM
‘Come (SG) play with me.’
‘Ven a jugar conmigo.’ (p. 94)

(171) i-şhakatukulu’-kana
3-play-PL
‘They are playing.’
‘(Ellos) juegan (o están jugando).’ (p. 94)

(172) i-şhakatukulu’-kana-na u-t=musta
3-play-PL-DET 1SG-PRO=COM
‘They are playing with me.’
‘(Ellos) juegan (o están jugando) conmigo.’ (p. 94)
(173) yene-s-i a-šakatu-ku’-na u-t=musta come-2PL-EP 1PL-play-DET 1SG-PRO=COM ‘Come (PL) play with me.’
‘Vengan a jugar conmigo.’ (p. 94)

(174) y-usmatejpash-ka ma’nal-i palajta’pasa=shana-ye y-usmus-yo-kati 3-jump-DET jaguar-EP other.side=LOC-? 3-run=?-PST ‘The jaguar jumped to the other side (of the creek) and ran off.’
‘El jaguar saltó al otro lado (de la quebrada) y se fue corriendo.’ (p. 101)

(175) yene-na u-lutale=shana(-ye) a’-melka-čh-ale-na ma’ši’to come-DET 1SG-side=LOC(-?) 1PL-scare-PURP-OBJ-DET bee ‘Come (SG) to my side to scare away the bee.’
‘Ven a mi lado para espantar a la abeja.’ (p. 101)

(176) likajpe’ta u-šanatu’čhomawan-i chpoška=yojko meyo-kemajt-aka yesterday 1SG-work-EP afternoon=until NEG-tire-?
‘Yesterday I worked until the afternoon and didn’t get tired.’
‘Ayer trabajé hasta la tarde y no me cansé (sin cansarme).’ (p. 102)

‘Habiéndome ido para Pampa Hermosa, acabo de llegar (o, recien estoy llegando).’ (p. 102)

(178) u’-ka išhujkul=shana(-ye), y-achikw-awa ka ma’nal-i 1SG-go-DET jungle=LOC(-?) 3-grab-1.OBJ DET jaguar-EP ‘When I went to the jungle, the jaguar grabbed me.’
‘Habíándome ido al monte (a la selva), el jaguar me agarró. O, cuando me fui al monte, el jaguar me agarró.’ (p. 102)

(179) šanata’čhomawai-ka u’-t-i so’no, u-pakarastaley-ye’t-i work-DET 1SG-PRO-EP price 1SG-pay-2OBJ-FUT-EP ‘If you work for me, I’m going to pay you.’
‘Si trabajas por mí, te voy a pagar.’ (p. 103)

(180) u’-ye’-na ijto’wejša=shana u-jko’-čh-ale 1SG-go-FUT-DET down.river=LOC 1SG-fish-PURP-OBJ ‘I’m going downriver in order to fish.’
‘Me voy (río) abajo para pescar.’ (p. 103)
(181) i-ʔšamane i-pa-’lis-ne i-ʔhomat-i yeepa=shana
    3-father 3-CAUS-? TR 3-son-EP river=LOC
    ‘The father sends his son to the river.’
    ‘El padre manda a su hijo (que vaya) al río.’ (p. 104)

(182) i-ʔšamane i-pa-’lis-ne i-ʔhomat-i y-asa’-čh-ale yeepa=shana
    3-father 3-CAUS-? TR 3-son-EP 3-swim-PURP-OBJ river=LOC
    ‘The father sends his son to the river (in order) to swim.’
    ‘El padre manda a su hijo a nadar en el río (manda a su hijo al río para nadar).’ (p. 104)

The following words and phrases with postpositions have not been previously published. They were elicited orally by direct translation, normally in isolation. That is, I pronounced an expression in Spanish to the two Chamicuro speakers, and they provided these equivalents orally. I then wrote them down by hand on paper. Those original, hand-transcribed field notes have been microfiched in their raw, unedited form as Parker (1985b,c). See also Parker (2010a,b) for other relevant data.

(183) mesa=shana
    table=LOC
    ‘on the table’
    ‘en la mesa’

(184) i-men(u)=shana
    3-tongue=LOC
    ‘on his/her tongue’
    ‘en su lengua (de él o de ella)’

(185) menu-ch=musta
    tongue-ABS=COM
    ‘with the tongue’
    ‘con la lengua’

(186) menu-ch-pewa shana
    tongue-ABS-good LOC
    ‘on the good tongue’
    ‘en la lengua buena’

(187) menu-ch-pewa musta
    tongue-ABS-good COM
    ‘with the good tongue’
    ‘con la lengua buena’
(188) y-awana=shana
3-mouth=LOC
‘in his/her mouth’
‘en su boca (de él o de ella)’

(189) y-awana=musta
3-mouth=COM
‘with his/her mouth’
‘con su boca (de él o de ella)’

(190) awana-ch-pewa  shana
mouth-ABS-good LOC
‘in the good mouth’
‘en la boca buena’

(191) awana-ch-pewa  musta
mouth-ABS-good COM
‘with the good mouth’
‘con la boca buena’

(192) yelna  shana
man  LOC
‘in/on the man/husband’
‘en/al hombre/esposo’

(193) yelna  musta
man  COM
‘with the man/husband’
‘con el hombre/esposo’

(194) yelna  pewa  shana
man  good  LOC
‘to/on the good man/husband’
‘en/al hombre/esposo bueno’

(195) yelna  musta  pewa
man  COM  good
‘with the good man/husband’
‘con el hombre/esposo bueno’

(196) pewa molota
good  woman
‘She is a good woman/wife.’
‘(Ella) es una buena mujer/esposa.’
(197) molota pewa
t
woman good
‘the good woman/wife’
‘la mujer/esposa buena’

(198) molota shana

woman LOC
‘in/on the woman’
‘en/a la mujer’

(199) molota musta

woman COM
‘with the woman’
‘con la mujer’

(200) molota shana pewa

woman LOC  good
‘in/on the good woman’
‘a/en la mujer buena’

(201) molota musta pewa

woman COM  good
‘with the good woman’
‘con la mujer buena’

(202) yeepa=shana

river=LOC
‘in/at/to the river’
‘en/al río’

(203) yeepa=musta

river=COM
‘with the river’
‘con el río’

(204) yeepa pewa shana

river  good LOC
‘in/at/to the good river’
‘en/al río bueno’

(205) yeepa pewa musta

river  good COM
‘with the good river’
‘con el río bueno’
(206) kawsa **shana**
    smoke LOC
    ‘in the smoke’
    ‘en el humo’

(207) kawsa **musta**
    smoke COM
    ‘with the smoke’
    ‘con el humo’

(208) kawsa pewa **shana**
    smoke good LOC
    ‘in the good smoke’
    ‘en el humo bueno’

(209) kawsa pewa **musta**
    smoke good COM
    ‘with the good smoke’
    ‘con el humo bueno’

(210) timil=**shana**
    wind=LOC
    ‘in the wind’
    ‘en el viento’

(211) timil=**musta**
    wind=COM
    ‘with the wind’
    ‘con el viento’

(212) timil=**shana** pewa
    wind=LOC good
    ‘in the good wind’
    ‘en el viento bueno’

(213) timil=**musta** pewa
    wind=COM good
    ‘with the good wind’
    ‘con el viento bueno’

(214) koloshetali-ch=**shana**
    paddle-ABS=LOC
    ‘in/on the paddle (oar)’
    ‘en el remo’
(215) koloshetali-ch=musta
    paddle-ABS=COM
    ‘with the paddle (oar)’
    ‘con el remo’

(216) koloshetali-ch=shana pewa
    paddle-ABS=LOC good
    ‘in/on the good paddle (oar)’
    ‘en el remo bueno’

(217) koloshetali-ch-pewa musta
    paddle-ABS-good COM
    ‘with the good paddle (oar)’
    ‘con el remo bueno’

(218) šhalyota shana
    macaw LOC
    ‘in/on the macaw’
    ‘en/al guacamayo’

(219) šhalyota musta
    macaw COM
    ‘with the macaw’
    ‘con el guacamayo’

(220) šhalyota pewa shana
    macaw good LOC
    ‘in/on the good macaw’
    ‘en/al guacamayo bueno’

(221) šhalyota musta pewa
    macaw COM good
    ‘with the good macaw’
    ‘con el guacamayo bueno’

(222) tsemoye shana
    buzzard LOC
    ‘in/on the buzzard (vulture)’
    ‘en/al gallinazo’

(223) tsemoye musta
    buzzard COM
    ‘with the buzzard (vulture)’
    ‘con el gallinazo’
(224) tsemo’ye shana pewa
  buzzard  LOC  good
  ‘in/on the good buzzard (vulture)’
  ‘en/al gallinazo bueno’

(225) tsemo’ye musta pewa
  buzzard  COM  good
  ‘with the good buzzard (vulture)’
  ‘con el gallinazo bueno’

(226) y-aḥhole shana
  3-belly  LOC
  ‘in/on his/her belly’
  ‘en su barriga (de él o de ella)’

(227) y-aḥhole musta
  3-belly  COM
  ‘with his/her belly’
  ‘con su barriga (de él o de ella)’

(228) shijpa-ch=shana
  hand-ABS=LOC
  ‘in/on the hand’
  ‘en la mano’

(229) shijpa-ch=musta
  hand-ABS=COM
  ‘with the hand’
  ‘con la mano’

(230) shijpa-ch=shana pewa
  hand-ABS=LOC  good
  ‘in/on the good hand’
  ‘en la mano buena’

(231) shijpa-ch=musta pewa
  hand-ABS=COM  good
  ‘with the good hand’
  ‘con la mano buena’

(232) i-s=shana
  EP-name=LOC
  ‘in the name’
  ‘en el nombre’
(233) i-s=musta
    EP-name=COM
    ‘with the name’
    ‘con el nombre’

(234) i-s=shana  pewa
    EP-name=LOC good
    ‘in the good name’
    ‘en el nombre bueno’

(235) i-s(i)=musta  pewa
    EP-name=COM good
    ‘with the good name’
    ‘con el nombre bueno’

(236) shto-ch=shana
    fingernail-ABS=LOC
    ‘in/on the fingernail’
    ‘en la uña’

(237) shto-ch=musta
    fingernail-ABS=COM
    ‘with the fingernail’
    ‘con la uña’

(238) shto-ch=shana  pewa
    fingernail-ABS=LOC good
    ‘in/on the good fingernail’
    ‘en la uña buena’

(239) shto-ch=musta  pewa
    fingernail-ABS=COM good
    ‘with the good fingernail’
    ‘con la uña buena’

(240) iila  shana
    blood  LOC
    ‘in/on the blood’
    ‘en la sangre’

(241) iila-ch=musta
    blood-ABS=COM
    ‘with the blood’
    ‘con la sangre’
(242) iila-ch=shana  pewa
blood-ABS=LOC good
‘in the good blood’
‘en la sangre buena’

(243) iila-ch=musta  pewa
blood-ABS=COM good
‘with the good blood’
‘con la sangre buena’

(244) oshlo  shana
peccary  LOC
‘in/on/at/to the collared peccary’
‘en/al sajino’

(245) oshlo  musta
peccary  COM
‘with the peccary’
‘con el sajino’

(246) oshlo  pewa  shana
peccary  good  LOC
‘in/on/at/to the good peccary’
‘en/al sajino bueno’

(247) oshlo  musta  pewa
peccary  COM  good
‘with the good peccary’
‘con el sajino bueno’

(248) kawal=musta
horse=COM
‘by (with) horse (or, on horseback)’
‘a caballo’

(249) i-kut=musta
3-foot=COM
‘by/on foot’
‘a pie’

4. Data arranged into paradigms

The following two tables display paradigmatic data involving nouns plus postpositions. The first table focuses on the comitative morpheme =musta ‘with’, while the second one contains the locative construction =shana(ye) ‘in, at, on, to’. These paradigms were compiled from the different sources described throughout this file, which are listed together in the references at the
end. Some of the specific examples in these tables have not been previously published, while others have been, albeit not necessarily in this format. The papers, books, and microfiched materials referenced herein contain a few additional examples of some of the patterns illustrated below.

One of the main points of analytical difficulty illustrated by the second paradigm is the subtle distinction in Chamicuro between two variants of the locative marker: =shana vs. =shanaye. For example, as observed in Table 2, the phrase ‘on the ear’ can be pronounced as either chayichshana or chayichshanaye. When I asked the two speakers about this, they were not able to identify any difference in meaning between these two forms. See Parker (2018) for further discussion of this point.

More recently, Fernando O. de Carvalho (personal communication) has pointed out that certain other languages in the southern branch of Arawakan also exhibit locative markers with a form similar to -ye. He notes that these are often found in more complex locative constructions, such as those involving relational nouns – phrases like ‘at the back of the house’ or ‘at the lip (that is, edge) of the village’, etc. It seems plausible that the suffix -ye in Chamicuro is cognate with these, a fact which could shed light on its function.

For example, Baure [brg] of Bolivia has a single, very productive locative suffix -ye which “encodes a wide range of different spatial relations” (Admiraal 2016: 72). This morpheme attaches to nouns, certain adverbs, and compounds. In some constructions its appearance is lexicalized. For instance, Admiraal (2016: 67) cites the form /neʔ-ye/ ‘here-LOC’ (‘here’), which appears in a Baure song. This word is strikingly similar to the Chamicuro word /anaʔ-ye/ ‘this one’ listed in (58) above. In Parker (2018) I note that anaʔ- is a bound proximal demonstrative, and speculate that the suffix -ye in this word may be either a type of classifier, or perhaps the same morpheme as occurs at the end of the locative =shanaye. To illustrate, in the sentence below (repeated from (7) above), the word anaʔshanaye ‘here’ literally means ‘in this location or place’:

(250) “akana sojpay-i anaʔ=shana-ye”
    there.is demon-EP this=LOC-?
    “There’s a demon/devil here (in this place).”
    “Hay un demonio aqui (en este sitio).”

Nevertheless, in (57) above the word anaʔshanaye was glossed differently by the Chamicuro speakers when pronounced in isolation. See Parker (2018) for further discussion of this intriguing phenomenon.

Along the same lines, Paunaka ([pnk], Bolivia) has a suffix -yae which occurs in locative constructions, as well as with genitive predicates (Terhart 2015). And Terêna [ter], spoken in Brazil, has several locative forms, one of which is the particle-like base ya (or yaa). This is also glossed as ‘there’, and can occur following both nouns and verbs (Derbyshire 1986, Gardenia Barbosa 2012). It can even be suffixed by -ye, which is found in certain locative constructions, as well as by -ke, the more productive and general locative marker of Terêna, thus: yaa-ye-ke or ya-ye ‘here’ (Bendor-Samuel 1963).
<table>
<thead>
<tr>
<th>gloss</th>
<th>noun</th>
<th>the(PL) N los/las N</th>
<th>with the N con el/la N</th>
<th>with my N con mi N</th>
<th>with the(PL) N con los/las N</th>
<th>with my(PL) N con mis N</th>
</tr>
</thead>
<tbody>
<tr>
<td>tongue lengua</td>
<td>menu</td>
<td>menu -ch-kana</td>
<td>menu -ch=musta- men</td>
<td>=musta menu -ch=musta-kana</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>mouth boca</td>
<td>awana</td>
<td>awana -ch-kana</td>
<td>awana -ch=musta-w-awana</td>
<td>=musta awana -ch=musta-kana</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>lip labio</td>
<td>ĥila</td>
<td>ĥila -ch-kana</td>
<td>ĥila -ch=musta- ĥila</td>
<td>=mustaĥila -ch=musta-kanau- ĥila</td>
<td>=musta-kana</td>
<td></td>
</tr>
<tr>
<td>tooth diente</td>
<td>aksi</td>
<td>aksi -ch-kana</td>
<td>aksi -ch=musta- a(j)s</td>
<td>=mustaaksi -ch=musta-kana-w-ajs</td>
<td>=musta-kana</td>
<td></td>
</tr>
<tr>
<td>nose nariz</td>
<td>kulu</td>
<td>kulu -ch-kana</td>
<td>kulu -ch=musta- kulu</td>
<td>=mustakulu -ch=musta-kana</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>eye ojo</td>
<td>ojki</td>
<td>ojki -ch-kana</td>
<td>ojki -ch=musta-w-ojk</td>
<td>=mustaojki -ch=musta-kana-w-ojk</td>
<td>=musta-kana</td>
<td></td>
</tr>
<tr>
<td>ear oreja</td>
<td>chayi</td>
<td>chayi -ch-kana</td>
<td>chayi -ch=musta- chayi</td>
<td>=mustachayi -ch=musta-kanau- chayi</td>
<td>=musta-kana</td>
<td></td>
</tr>
<tr>
<td>head cabeza</td>
<td>kashki</td>
<td>kashki -ch-kana</td>
<td>kashki -ch=musta- kash</td>
<td>=mustakashki -ch=musta-kana</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>forehead frente</td>
<td>tolo</td>
<td>tolo -ch-kana</td>
<td>tolo -ch=musta- tolo</td>
<td>=mustatolo -ch=musta-kana</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>hair cabello</td>
<td>shenu</td>
<td>shenu -ch-kana</td>
<td>shenu -ch=musta- shen</td>
<td>=mustashenu -ch=musta-kanau- shen</td>
<td>=musta-kana</td>
<td></td>
</tr>
<tr>
<td>jaw mandíbula</td>
<td>u-pta</td>
<td>pta -ch-kana</td>
<td>pta -ch=musta- pta</td>
<td>=mustapta -ch=musta-kanau- pta</td>
<td>=musta-kana</td>
<td></td>
</tr>
<tr>
<td>beard barba</td>
<td>šhu’na</td>
<td>šhu’na -ch-kana</td>
<td>šhu’na -ch=musta- šhu’na</td>
<td>=mustašhu’na -ch=musta-kana</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>neck cuello</td>
<td>čhano</td>
<td>čhano -ch-kana</td>
<td>čhano -ch=musta- čhano</td>
<td>=mustačhano -ch=musta-kana</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>chest pecho</td>
<td>tu’lu</td>
<td>tu’lu -ch-kana</td>
<td>tu’lu -ch=musta- tul</td>
<td>=mustatu’lu -ch=musta-kana</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>breast seno</td>
<td>teni</td>
<td>teni -ch-kana</td>
<td>teni -ch=musta- ten</td>
<td>=mustateni -ch=musta-kanau- ten</td>
<td>=musta-kana</td>
<td></td>
</tr>
<tr>
<td>back espalda</td>
<td>tusna</td>
<td>tusna -ch-kana</td>
<td>tusna -ch=musta- tusna</td>
<td>=mustatusna -ch=musta-kanau- tusna</td>
<td>=musta-kana</td>
<td></td>
</tr>
<tr>
<td>shoulder hombro</td>
<td>a’wajko</td>
<td>a’wajko -ch-kana</td>
<td>a’wajko -ch=musta-w-a’wajko</td>
<td>=musta’a’wajko -ch=musta-kana-w-a’wajko</td>
<td>=musta-kana</td>
<td></td>
</tr>
<tr>
<td>arm brazo</td>
<td>tinawa</td>
<td>tinawa -ch-kana</td>
<td>tinawa -ch=musta- tinawa</td>
<td>=mustatinawa -ch=musta-kanau- tinaw</td>
<td>=musta-kana</td>
<td></td>
</tr>
<tr>
<td>fingernail uña</td>
<td>shto</td>
<td>shto -ch-kana</td>
<td>shto -ch=musta- shto</td>
<td>=mustashto -ch=musta-kanau- shto</td>
<td>=musta-kana</td>
<td></td>
</tr>
<tr>
<td>water agua</td>
<td>unijsa</td>
<td>unijsa -kanaunijsa</td>
<td>=mustaunijsa -le=mustaunijsa</td>
<td>=musta-kanau-w-unijsa</td>
<td>=musta-kanau -le=musta-kana</td>
<td></td>
</tr>
<tr>
<td>lake lago</td>
<td>sa’pu</td>
<td>sa’pu -kana</td>
<td>sa’pu -ch=musta-sa’pu</td>
<td>=musta-sa’pu</td>
<td>=musta-sa’pu</td>
<td>=musta-kanau-sa’pu</td>
</tr>
<tr>
<td>fire candela</td>
<td>kajchi</td>
<td>kajchi -kana</td>
<td>kajchi -ch=musta-kajka</td>
<td>=mustakajch</td>
<td>=mustakajch</td>
<td>=musta-kanau-kajch</td>
</tr>
<tr>
<td>smoke humo</td>
<td>kawsa</td>
<td>kawsa -kana</td>
<td>kawsa -ch=musta-kawsa</td>
<td>=mustakawsa</td>
<td>=mustakawsa</td>
<td>=musta-kanau-kawsa</td>
</tr>
<tr>
<td>wind viento</td>
<td>timili</td>
<td>timili -kana</td>
<td>timili -ch=musta-timili</td>
<td>=mustatimili</td>
<td>=mustatimili</td>
<td>=musta-kanau-timili</td>
</tr>
<tr>
<td>star estrella</td>
<td>katepul</td>
<td>katepul -kana</td>
<td>katepul</td>
<td>=mustakatepulu</td>
<td>=mustakatepulu</td>
<td>=musta-kanau-katepulu</td>
</tr>
<tr>
<td>stone piedra</td>
<td>chana</td>
<td>chana -kana</td>
<td>chana -ch=musta-chana</td>
<td>=mustachana</td>
<td>=mustachana</td>
<td>=musta-kanau-chana</td>
</tr>
<tr>
<td>hammock hamaca</td>
<td>shnake</td>
<td>shnake -ch-kana</td>
<td>shnake</td>
<td>=mustashnake</td>
<td>=mustashnake</td>
<td>=musta-kanau-shnake</td>
</tr>
<tr>
<td>capuchin monkey (mono) machín</td>
<td>kilko</td>
<td>kilko -kana</td>
<td>kilko =mustakilko</td>
<td>=mustakilko =musta-kanau-kilko</td>
<td>=musta-kanau-kilko</td>
<td>=musta-kanau-kilko</td>
</tr>
</tbody>
</table>
Table 2: Paradigm of noun phrases containing the locative suffixes =shana(-ye) ‘in, on, at, to’

<table>
<thead>
<tr>
<th>glossa</th>
<th>noun nombre</th>
<th>in/on the N en el/la N</th>
<th>in/on my N en mi N</th>
<th>in/on the(PL) N en los/las N</th>
<th>in/on my(PL) N en mis N</th>
</tr>
</thead>
<tbody>
<tr>
<td>tongue lengua</td>
<td>menu</td>
<td>menu -ch=shana</td>
<td>u- men(u) =shana</td>
<td>menu -ch=shana-kana</td>
<td></td>
</tr>
<tr>
<td>mouth boca</td>
<td>awana</td>
<td>awana -ch=shana</td>
<td>w-awana =shana</td>
<td>awana -ch=shana-kana</td>
<td></td>
</tr>
<tr>
<td>lip labio</td>
<td>chila</td>
<td>chila -ch=shana</td>
<td>u- chila =shana</td>
<td>chila -ch=shana-kana</td>
<td></td>
</tr>
<tr>
<td>tooth diente</td>
<td>ajsi</td>
<td>ajsi -ch=shana</td>
<td>w-ajs =shana</td>
<td>ajsi -ch=shana-kana</td>
<td></td>
</tr>
<tr>
<td>nose nariz</td>
<td>kulu</td>
<td>kulu -ch=shana</td>
<td>u- kul =shana</td>
<td>kulu -ch=shana-kana</td>
<td></td>
</tr>
<tr>
<td>eye ojo</td>
<td>ojki</td>
<td>ojki -ch=shana</td>
<td>w-ojk =shana</td>
<td>ojki -ch=shana-kana</td>
<td></td>
</tr>
<tr>
<td>ear oreja</td>
<td>chayi</td>
<td>chayi -ch=shana(-ye)</td>
<td>u- chay =shana</td>
<td>chayi -ch=shana-kana</td>
<td></td>
</tr>
<tr>
<td>head cabeza</td>
<td>kashki</td>
<td>kashki -ch=shana-ye</td>
<td>u- kash =shana</td>
<td>kashki -ch=shana-kana</td>
<td></td>
</tr>
<tr>
<td>forehead frente</td>
<td>tolo</td>
<td>tolo -ch=shana</td>
<td>u- tolo =shana</td>
<td>tolo -ch=shana-kana</td>
<td></td>
</tr>
<tr>
<td>hair cabello</td>
<td>shenu</td>
<td>shenu -ch=shana-ye</td>
<td>u- shen =shana-ye</td>
<td>shenu -ch=shana-kana</td>
<td></td>
</tr>
<tr>
<td>jaw mandíbula</td>
<td>upta</td>
<td>pta -ch=shana-ye</td>
<td>u- pta =shana-ye</td>
<td>pta -ch=shana-kana</td>
<td></td>
</tr>
<tr>
<td>beard barba</td>
<td>shu’na</td>
<td>shu’na -ch=shana</td>
<td>u- shu’na =shana</td>
<td>shu’na -ch=shana-kana</td>
<td></td>
</tr>
<tr>
<td>neck cuello</td>
<td>chano</td>
<td>chano -ch=shana</td>
<td>u- chano =shana</td>
<td>chano -ch=shana-kana</td>
<td></td>
</tr>
<tr>
<td>chest pecho</td>
<td>tu’lu</td>
<td>tu’lu -ch=shana</td>
<td>u- tul =shana</td>
<td>tu’lu -ch=shana-kana</td>
<td></td>
</tr>
<tr>
<td>breast seno</td>
<td>teni</td>
<td>teni -ch=shana-ye</td>
<td>u- ten =shana</td>
<td>teni -ch=shana-kana</td>
<td></td>
</tr>
<tr>
<td>back espalda</td>
<td>tusna</td>
<td>tusna -ch=shana-ye</td>
<td>u- tusna =shana-ye</td>
<td>tusna -ch=shana-kana</td>
<td></td>
</tr>
<tr>
<td>shoulder hombro</td>
<td>a’wajko</td>
<td>a’wajko -ch=shana-ye</td>
<td>w-a’wajko =shana</td>
<td>a’wajko -ch=shana-kana</td>
<td></td>
</tr>
<tr>
<td>arm brazo</td>
<td>tinawa</td>
<td>tinawa -ch=shana-ye</td>
<td>u- tinawa =shana</td>
<td>tinawa -ch=shana-kana</td>
<td></td>
</tr>
<tr>
<td>fingernail uña</td>
<td>shto</td>
<td>shto -ch=shana(-ye)</td>
<td>u- shto =shana</td>
<td>shto -ch=shana-kana</td>
<td></td>
</tr>
<tr>
<td>water agua</td>
<td>unija</td>
<td>unija</td>
<td>w-unija -le =shana</td>
<td>unija -le =shana-kana</td>
<td></td>
</tr>
<tr>
<td>lake lago</td>
<td>sa’pu</td>
<td>sa’p =shana-ye</td>
<td>u- sa’pu -ne=shana</td>
<td>sa’p =shana-kana</td>
<td></td>
</tr>
<tr>
<td>fire candela</td>
<td>kachji</td>
<td>kachji -ch=shana-ye</td>
<td>u- kach =shana-ye</td>
<td>kachji -ch=shana-kana</td>
<td></td>
</tr>
<tr>
<td>smoke humo</td>
<td>kawsa</td>
<td>kawsa</td>
<td>u- kawsa -ne=shana-ye</td>
<td>kawsa =shana-kana</td>
<td></td>
</tr>
<tr>
<td>wind viento</td>
<td>timili</td>
<td>timili -ch=shana(-ye)</td>
<td>u- timili =shana-ye</td>
<td>timili =shana-kana</td>
<td></td>
</tr>
<tr>
<td>star estrella</td>
<td>katepulu</td>
<td>katepulu</td>
<td>u- katepulu -ne=shana-ye</td>
<td>katepulu =shana-kana</td>
<td></td>
</tr>
<tr>
<td>stone piedra</td>
<td>chana</td>
<td>chana -ch=shana-ye</td>
<td>u- chana -ne=shana-ye</td>
<td>chana =shana-kana</td>
<td></td>
</tr>
<tr>
<td>hammock hamaca</td>
<td>shnake</td>
<td>shnake -ch=shana-ye</td>
<td>u- shnake =shana</td>
<td>shnake -ch=shana-kana</td>
<td></td>
</tr>
<tr>
<td>capuchin monkey (mono) machin</td>
<td>kilko</td>
<td>kilko</td>
<td>u- kilko -ne=shana-ye</td>
<td>kilko =shana-kana</td>
<td></td>
</tr>
</tbody>
</table>

|   | N | N(-ABS)=LOC(-?) | 1SG-N(-POSS)=LOC(-?) | N(-ABS)=LOC-PL | 1SG-N(-POSS)=LOC-PL |
Acknowledgements

For very helpful discussion of these data I am grateful to Alexandra (Sasha) Aikhenvald, Brenda Boerger, Michael Boutin, Lilían Guerrero, Paul Kroeger, and Fernando O. de Carvalho.

References


Terhart, Lena. 2015. Paunaka strategies of loan verb integration. In Muriel Jorge, Coraline Pradeau, and Jane Wottawa, editors. *Actes des 18e Recontres Jeunes Chercheurs en Sciences du Langage*. <hal-01495083>. [https://hal-univ-paris3.archives-ouvertes.fr/hal-01495083](https://hal-univ-paris3.archives-ouvertes.fr/hal-01495083).