The Etymology of Kallawaya

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Abstract

In this present paper, the etymological composition of Kallawaya, a mixed and secret language of Bolivia, will be discussed. I will argue that the lexicon of Kallawaya is more heterogeneous than has been assumed so far. In particular, the role of the allegedly main lexifier language Pukina will be critically re-assessed and I will suggest that only a minor part of the Kallawaya lexicon can be related to Pukina. The issues of secrecy and intentional borrowing will also be addressed.

Keywords

Kallawaya – mixed and secret language – etymology – Pukina

1 Introduction

This paper is concerned with a re-evaluation of the etymological composition of the mixed and secret Kallawaya language. Particular attention is paid to its alleged main lexifier, Pukina. I propose that the Kallawaya lexicon is etymologically more heterogeneous than has been claimed so far (Stark, 1972: 206).

Kallawaya is spoken in the Bolivian highlands, north-east of Lake Titicaca in the provinces of Bautista Saavedra and Muñecas, department of La Paz (Fernández Juárez, 1998: 16; Fig. 1). It has been claimed that the language is used only by male initiated herbalists during healing ceremonies (Oblitas Poblete, 1968: 16; Stark, 1972: 199), although recent research suggests that the use of Kallawaya is less secret than assumed so far (Callahan, 2011: 102–103; Hannß, 2014a: 45). The Kallawaya herbalists are known as itinerant healers, travelling widely throughout the Andean region and beyond (Muysken, 2009: 148–149, among others; Section 2).
As is characteristic for mixed languages, Kallawaya shows a “lexicon-grammar split” (Matras, 2009: 290; also Bakker and Mous, 1994: 5). The lexicon and grammar of mixed languages come from two (or more) languages that are genetically not related. While the grammar of Kallawaya is largely provided by a southern Quechua variety, Quechua Ayacuchano or Quechua Cuzqueño (Quechua II varieties), the lexicon of Kallawaya is said to be based on extinct Pukina (Soria Lens, 1951: 35; Stark, 1972: 206; Girault, 1989: 10). The lexicon-grammar split of Kallawaya is demonstrated in Example (1), where the lexical elements are of attested Pukina origin (with the exception of itila, which is etymologically opaque), while the grammatical elements are from Quechua.1

(1) nist ika-tʃka-ni komu-ntin sokei-ta
    I carry-prog-1st all-soc medicine-do
wane itila-pi
new capacho-LOC

‘I am carrying all the medicine in a new capacho (traditional bag Kh).’ (Mondaca, 1987, n/p)

Based on a survey of the 200-word Swadesh List, Stark (1972: 206) notes that “70% of the vocabulary of Callahuaya is from Pukina, 14% from Quechua, 14% from Aymara, and 2% from Uru-Chipaya” (Sections 2 to 3.2). The author thus identifies Pukina, Quechua, and Aymara as the major lexifier languages of Kallawaya, while Uru-Chipaya is a minor lexifier language of Kallawaya. According to Velupillai (2015: 6, emphasis in the original), a “lexifier language is that language from which a contact language derives the bulk of its lexicon”. With respect to Kallawaya, this means that Kallawaya is the contact language, which has borrowed its lexicon from Pukina, Quechua, Aymara, and Uru-Chipaya. In the course of the present paper, I will argue that Stark’s statement on 70% of Pukina in the Kallawaya lexicon is somewhat problematic and cannot be upheld. Furthermore, I will show that other languages, especially Spanish, have also provided for the Kallawaya lexicon (Section 4).

The present number of Kallawaya speakers is uncertain and while Muysken (2009: 147) points out that it is not clear whether Kallawaya is still spoken today, Anderson and Harrison (2007) give a number of up to 200 remaining speakers. However, it is clear that the use of Kallawaya is decreasing and the

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1 The following abbreviations are used in the present paper: do = direct object; loc = locative; prog = progressive; soc = sociative; 1st = first person. Spelling variants are indicated by a tilde (˘), as, for instance, in Kallawaya laka–lakta ‘molar’.
language must be regarded as severely endangered (Adelaar, 2007: 19). The native language of the Kallawaya herbalists is Quechua, although most are able to communicate in Aymara as well (Soria Lens, 1951: 35; Oblitas Poblete, 1968: 16; among others). Naturally, Spanish is becoming increasingly important. Kallawaya is acquired only as a second language, presumably in the context of becoming a healer (Adelaar and Muysken, 2004: 356).

Although it is evident that Aymara, Quechua and Pukina have a number of linguistic structures in common and share part of their historical development, the actual origin and spread of Aymara and Quechua over much of the Andes is not quite as clear. Accordingly, there are several and often contrasting hypotheses about the origin and subsequent distribution of Aymara and Quechua. What is quite undisputed is that Quechua and Aymara were in contact at an early stage of their development, referred to as pre-Proto-Quechua and pre-Proto-Aymara (Heggarty and Beresford-Jones, 2012: 61; Cerrón-Palomino, 2013a: 305). Convergence led to a certain typological similarity between the pre-Proto-forms of both languages, whereby pre-Proto-Aymara served as a model for pre-Proto-Quechua. This similarity is still reflected today in many parallel structures, such as, for instance, the agglutinating nature of Quechua and Aymara or the formation of possessive phrases and subordinate clauses (Cerrón-Palomino, 1994: 70, 147). Furthermore, the languages share about 20% of their respective core vocabulary, which, according to Adelaar and Muysken (2004: 35), can actually be traced back to Proto-forms of Quechua and Aymara (see Section 4, on core vocabulary). Estimations of when this convergence happened differ widely: while Heggarty and Beresford-Jones (2012: 4, 61) propose that convergence of pre-Proto-Aymara and pre-Proto-Quechua occurred between 3000 and 2200 BP, i.e. roughly between 900 and 200 B.C., Cerrón-Palomino (2013a: 306) suggests a much later date of 600 to 800 A.D. Quite interestingly, it is suggested that the Incas had spoken Aymara before they switched to Quechua, the nowadays famous ‘language of the Incas’ (Heggarty and Beresford-Jones, 2012: 68; Cerrón-Palomino, 2013a: 310, 313).

There is considerably less debate on the origin and development of Pukina, probably because so little is known of this language. However, it is associated with the Empire of Tiawanaku (Adelaar and van de Kerke, 2009: 126), which flourished between 650 and 1050 A.D. (Isbell, 2012: 220) and whose centre was located at Lake Titicaca. In his work on Pukina toponymy, Mossel (2009: 49–51; also Adelaar and Muysken, 2004: 350; among others) concludes that there is evidence for Pukina having been spoken in parts of Peru (Arequipa–Moquega–Tacna, but also along a line Arequipa–Cuzco–Carabaya) and in large areas of Bolivia, here especially the region around Lake Titicaca, but also on

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2 Note that this is the region where Kallawaya was to develop.
the Bolivian high plateau, the *Altiplano*. Mossel (2009: 49) emphasises the existence of Pukina toponymy at the north-eastern side of Lake Titicaca (Fig. 1).² After the fall of the Tiawanaku Empire in the 11th century, Pukina remained an influential language, although it came under increasing influence from Aymara and later also Quechua. Its lasting importance is testified by its status as one of the so-called *lenguas generales*, i.e. general languages, of the Spanish colonies (Adelaar and van de Kerke, 2009: 125) as well as by linguistic imprints the Pukina language left in Aymara and Quechua in the form of institutional and ceremonial terminology (Cerrón-Palomino, 2012, 2013a, b; see below).

In contrast to Pukina, neither Quechua nor Aymara originated around Lake Titicaca or the *Altiplano*, but both languages have their origin in the central Andes of Peru (Adelaar and Muysken, 2004: 35). As mentioned above, depending on what hypothesis is adopted, the time frame for the spread of Aymara and Quechua throughout the Andes differs notably. What the different hypotheses agree upon, however, is that the dispersal of Aymara occurred before that of Quechua. After the fall of the Tiawanaku Empire an Aymara-speaking population reached Lake Titicaca and the neighbouring southern *Altiplano*. This must have been a relatively recent development. Cerrón-Palomino (2013a: 312) proposes that the arrival of Aymara speakers at Lake Titicaca and the *Altiplano* took place as late as the 12th or 13th century. Of the languages under consideration here, Quechua, then, was the last to reach the *Altiplano*, well after Aymara had been implemented. The spread of Quechua into hitherto Aymara-speaking areas was fuelled first by the Inca conquest and later by Spanish missionaries, who preached in Quechua (Cerrón-Palomino, 2013a: 327).

Thus, Quechua, Aymara and Pukina have a long and intertwined history, which is also attested in a considerable number of mutual borrowings. However, while Quechua and Aymara are still widely used today, Pukina became extinct in the 19th century without being properly documented (Adelaar and van de Kerke, 2009: 125–126). The only data of substance we have are those collected by fray Jerónimo de Oré (1607; Grasserie, 1894). These consist of Christian texts which were translated into a number of indigenous languages, among them Pukina (Adelaar and van de Kerke, 2009: 126). It almost goes without saying that these data are somewhat problematic, because first, the Pukina texts appear to be a mere (and in cases less elaborate) translation of the Quechua equivalent (Adelaar and van de Kerke, 2009: 127). Second, Christian texts introduce concepts like ‘sin’, for instance, the Quechua meaning of which was different from that of Spanish. An adequate translation, both culturally and linguistically speaking, must therefore frequently have failed and, furthermore, the resulting texts are often artificial to some degree. Torero (2002: 448–456; 1965)
extracted 263 Pukina lexical bases from the texts of Oré and these form the Pukina corpus we have. These 263 Pukina bases identified by Torero are also used as the Pukina corpus in the present study. Pukina is genetically not related to either Quechua or Aymara.

Before proceeding to a description of the Kallawaya corpus and database, I will briefly outline the phonological systems of Kallawaya, southern Quechua, Aymara and Pukina. The latter distinguished at least four vowels, although the phonemic status of [o] and [u] is not entirely certain (Torero, 2002: 416; Adelaar and van de Kerke, 2009: 128–129). Moreover, vowel length is phonemic in Pukina (Adelaar and van de Kerke, 2009: 128–129). In contrast, Southern Quechua and Aymara have a three-vowel system with [a], [i], and [u] being phonemic; but while vowel length is distinctive in Aymara, it is non-phonemic in southern Quechua varieties (Adelaar and Muysken, 2004: 270; Plaza Martínez, 2009: 221). Although the existence of aspirated and glottalised stops and affricates has been questioned for Pukina (Adelaar and van de Kerke, 2009: 130), recent onomastic and toponymic research suggests that Pukina has indeed series of aspirated and glottalised stops and affricates (Cerrón-Palomino, 2013b: 39–40), a feature shared with Aymara and Quechua Cuzqueño (Adelaar and Muysken, 2004: 271; Plaza Martínez, 2009: 222; on glottalisation and aspiration in Aymara and Quechua Cuzqueño). Furthermore, Pukina has consonant clusters, involving [s], which often occur in word-initial position (Adelaar and van de Kerke, 2009: 128). Such consonant clusters do not exist in Quechua, Aymara and Kallawaya and are therefore regularly simplified in Kallawaya. In general, the Kallawaya herbalists’ phonological system is closer to Quechua than to Pukina (Stark, 1972: 206; Muysken, 1997: 432). Although some Kallawaya words contain long vowels, [e] and/or [o], the distinction between short and long variants and [i, e] and [o, u] does not seem to be systematic. Accordingly, the phonemic status of [e] and [o] as well as that of vowel length cannot be considered established for Kallawaya. However, the extent to which an individual Kallawaya speaker distinguishes vowel length and three vs. five vowels possibly also depends on the speaker’s personal degree of Quechua interference.

The paper is organised as follows. In Section 2, I will present the Kallawaya database and corpus as well as the methodology used in approaching the Kallawaya lexical data. The etymological composition of Kallawaya and a critical evaluation of the role of the lexifier Pukina will be provided in Sections 3 to 3.2. In Section 4, I will discuss the issues of intentional borrowing and secrecy with respect to Ese Ejja and Kunza. Finally, a summary and my conclusions are provided in Section 5.
Kallawaya Database, Corpus and Methodology

The Kallawaya language has been documented for only about 30 years with documentation starting in the early 1950s and reaching a moderate peak in the 1960s and 1970s before documentation stopped around 1980 and the language was considered to be on its way to extinction (Muysken, 2009: 147, Section 1). Despite this short span of time and – what is more – despite the fact that Kallawaya is a secret language, an astonishing amount of lexical data could be collected. However, we do not have any recordings of ritual texts, songs, or prayers in Kallawaya (Rösing, 2008).

Table 1 provides an overview of the linguistic sources on Kallawaya. With the exception of Ponce Sanjinés (n/d) and Anderson and Harrison

| Author and date of publication | Year(s) of field work | Type of material                                      |
|-------------------------------|-----------------------|-------------------------------------------------------|
| Ponce Sanjinés (n/d)          | ?                     | unpublished field notes, approximately 50 words       |
| Mondaca (1987)                | ?                     | 19 phrases, approximately 130 words, grammatical observations |
| Soria Lens (1951)             | ca. 1950              | approximately 50 words                                 |
| Oblitas Poblete (1968)        | 1950 and later        | about 15 phrases, approximately 12,000 words, grammatical observations |
| Stark (1972)                  | ca. 1970              | approximately 130 words, grammatical analysis         |
| Girault (1984)                | 1956–1965             | plant names and description of their use              |
| Gifford and Lancaster (ca. 1988) | 1982         | general observations, 10 words                        |
| Girault (1989)                | 1956–1974             | about 50 phrases, approximately 4,500 words, grammatical observations, some recordings |
| Torero (2002)                 | 1966                  | field notes                                          |
| Anderson, Harrison (2007)     | 2007                  | audio recordings                                     |
| Total                         |                       | approx. 84 phrases, approx. 17,190 words              |
The etymology of Kallawaya (2007), these sources also form the database of Kallawaya for the present paper.3

The brief article by Soria Lens merits mentioning, as he was the first to suggest a relationship between Kallawaya and Pukina (Soria Lens, 1951: 35). Soria Lens’ observation that the Kallawaya lexicon is actually based on Pukina served as a ‘kick-off’ for later studies (Muysken, 1994, 1997, 2009; Torero, 2002, among others), such as Stark (1972). She was the first researcher to provide a structural analysis of Kallawaya by describing its phoneme inventory (1972: 200–206) as well as grammatical elements (1972: 208–218). Her etymological survey of Kallawaya, based on the 200-word Swadesh List, is also the first systematic approach to the etymology of Kallawaya (Sections 1 and 3 to 3.2).

The number of 17,190 lexical items as given in Table 1 refers to all word forms of the Kallawaya corpus (again with the exception of Ponce Sanjinés, n/d and Anderson and Harrison, 2007), including compositional, derivational, and inflectional forms. In order to reduce this number and to arrive at what can be called lexical bases, all compounded, derived, and inflected forms were deleted from the corpus. An item was considered to be compounded, derived, or inflected on morphological grounds. Semantics are an additional indication of morphological relatedness. Consider the lexical items in (2a) to (2g):

(2)  
\[a. \text{thami ‘night’}\\
b. \text{thami-x ‘overnight, nights’}\\
c. \text{thami-pi-x ‘nocturne’}\\
d. \text{thami-ku-x ‘dark’}\\
e. \text{thami-tʃi-x ‘darkness’}\\
f. \text{thami-tʃi-ku-na ‘darken’}\\
g. \text{phati thami ‘midnight’}\\
\](Girault, 1989: 58, 66)

It is clear that the entries (2b) through (2f) are morphologically and semantically derived from (2a) thami ‘night’. Accordingly, they were deleted from the corpus, which then contains only (2a) thami ‘night’. Example (2g) is a compound, consisting of the elements phati~pathi ‘middle’ and thami ‘night’. Such compounds do not receive entries on their own, but instead are split up into their components, where thami ‘night’ receives an entry and phati~pathi ‘middle’ another one. Thus, examples (2a) to (2g) were boiled down to two entries:

3 The publicly available data by Anderson and Harrison (2007) consist of four sample recordings, adding up to approximately one minute in length. As these data do not contribute to an etymological investigation of Kallawaya, they are not considered in the present study.
one for \textit{tʰami} ‘night’ and one for \textit{pʰati-pʰi} ‘middle’. Accordingly, the number of 17,190 words was reduced to 2,289 lexical bases (for a similar approach to the Kallawaya data of Oblitas Poblete, 1968, see Aguilo, 1991).

‘Lexical base’ is a cover term for both roots and stems, whose application to Kallawaya is sometimes difficult. Thus, for instance, the first part of the Kallawaya form \textit{isna} ‘go, to travel’ is clearly based on Pukina \textit{es} ‘go’, but the origin and possible meaning of the second element \textit{-na} is entirely unknown. If the notions of root and stem were applied, the question would be whether Kallawaya \textit{isna} was a root rather than a stem. If it were interpreted as a stem, the subsequent question would then be how to analyse the element \textit{*-na}. Such questions cannot be answered clearly or with certainty when it comes to the kind of data we have for Kallawaya. In order to avoid arbitrary and in some cases even wrong decisions, I therefore decided to leave aside the terms ‘root’ and ‘stem’ here and to instead use the label ‘lexical base’ for lexical items for which a meaningful subdivision is not possible on the basis of the available data.

In order to assess the etymological composition of the Kallawaya lexicon, an etymological comparison was carried out involving the following languages (Fig. 1 shows their geographic distribution):\footnote{Spanish, Quechua, and Aymara are not indicated in Fig. 1 because they are omnipresent in the Andes.}

- Quechua
- Aymara
- Pukina
- Uru-Chipaya
- Kunza
- Leko
- Mosetén
- Takana proper
- Araona
- Cavineña
- Ese Ejja
- Ignaciano
- Trinitario
- Spanish

The languages used for the etymological comparison were chosen for different reasons. In the case of Quechua, Aymara, Pukina, and Uru-Chipaya it is already known (Stark, 1972: 206) that they form part of the Kallawaya lexicon. Quechua and Aymara are the present-day dominant languages of the Andes. Quechua is used mainly in Peru, but also found in Bolivia, notably in the Kallawayas’ home area north-east of Lake Titicaca as well as around the Bolivian cities of Cochabamba and Sucre. Aymara is prevalent in Bolivia and virtually spoken all over the Bolivian \textit{Altiplano}. Uru-Chipaya is an isolated language family of the western Bolivian highland. Uru was spoken on the southern shores of Lake Titicaca, but became extinct around 1950 (Hannß, 2008: 1), while Chipaya of Lake Coipasa is still in use today. As ethnohistorical literature frequently emphasises the role of the Kallawaya herbalists as intermediaries between the
highland and lowland areas (Renard Casevitz et al., 1988: 30, 177, 183; Alexiades and Peluso, 2009: 224; Dudley, 2009: 146–147; Eriksen, 2011: 71, 78–79, 82, 240, 245; among others; Section 1), scrutinising the Kallawaya corpus for borrowings from these lowland languages is justified. Leko, Mosetén, the Takanan languages Araona, Cavineña, Ese Ejja, and Takana proper as well as the Arawakan Mojo languages Ignaciano and Trinitario have so far not been considered for comprehensive etymological studies on Kallawaya (but see Muysken, 1997: 427, 443–446), but were chosen here for their relative geographical vicinity to the Kallawaya-speaking area. While Leko and Mosetén are found right at the Andean foothills, the Takanan languages stretch into the lowland Bení region of Bolivia. The Arawakan Mojo languages Ignaciano and Trinitario are used along the Mamoré River, also in the Bolivian lowlands (Adelaar and Muysken, 2004: 414). Spanish was included because it is ubiquitous, and in preparing the Kallawaya data it was already obvious that Kallawaya contains a considerable degree of Spanish. Finally, Kunza is neither close to the Kallawaya-speaking region, nor is it particularly ubiquitous. The isolated Kunza language is or was spoken on the Chilean northern Pacific coast, although there is evidence that it was once also used in neighbouring parts of Argentina and in south-western Bolivia (Adelaar and Muysken, 2004: 376). It is not quite clear to what extent
Kunza is still in use today, but the dictionary compiled by Vilte Vilte (2004) suggests that knowledge of Kunza is not altogether gone. While the etymological investigation of Leko, Mosetén, and the Arawakan Mojo languages yielded no results, it turned out that Kallawaya contains a small number of words from the Takanan Ese Eja language as well as from Kunza. However, these items are probably on quite a different par than the results obtained from the etymological investigation of Quechua, Aymara, Uru-Chipaya and Pukina (Section 4). I would also like to emphasise that this list of languages is probably not exhaustive and that Kallawaya may contain words from other and so far unidentified languages.

For the languages considered in the etymological investigation, a number of resources were used. The Kallawaya data were taken from the sources listed in Table 1. For Quechua, I used the dictionaries of Lira (1944) as well as that of the Academia Mayor de la Lengua Quechua (2005), and Gonzalez Holguín (1952 [1608]), while for Aymara, I consulted Lucca (1983) and Bertonio (2011 [1612]). The Pukina lexical items for the etymological comparison are taken from Torero (2002: 448–456). The paper by Adelaar and van de Kerke (2009) as well as the work of Mossel (2009) are also used where Pukina is concerned. The Uru data are based on Hannß (2008), while for Chipaya I referred to the dictionary by Cerrón-Palomino and Ballón Aguirre (2011). Leko data are taken from Lafone Quevedo (1905), Montaño Aragon (1989), and van de Kerke (2000, 2002, 2006). For Mosetén, I relied on Bibolotti (1917) as well as on the Intercontinental Dictionary Series (IDS, Key and Comrie, n/d). The data on Araona, Cavineña, and Ese Eja were also taken from the IDS, with additional information from Emkow (2006), Guillaume (2008), and Vuillermet (2012). The major part of the data on Takana proper is based on Ottaviano and Ottaviano (1989) as well as on the IDS and to a smaller part on Montaño Aragon (1987). Lexical information on the Arawakan languages Ignaciano and Trinitario was provided by the IDS. Finally, the Kunza data were also retrieved from the IDS as well as from the dictionary Kunza – Español / Español – Kunza (Vilte Vilte, 2004). Note that, if available, I used colonial and/or (early) post-colonial dictionaries alongside modern works for the etymological investigation. The use of (post)colonial dictionaries is meant to detect possible archaisms in Kallawaya. However, colonial or even early post-colonial dictionaries are not always available for every language under consideration here, as is the case for Uru-Chipaya. In such cases, I necessarily have to limit my research to modern works on the language in question.

In attributing a Kallawaya item to the languages of the etymological comparison, it is in most cases fairly clear which language provided which word. In the case of e.g. Kallawaya *urpu* ‘vat’, it is obvious that this is based on Quechua
urpu ‘great barrel with a wide mouth and a narrow neck’. However, sometimes a word is identical in Quechua and Aymara so that it is impossible to determine which language Kallawaya adopted the item from. This is the case for e.g. Kallawaya apa ‘to transport’ which is identical in Quechua, apa ‘carry, to transport’, and in Aymara, apa ‘carry, to transport’. For such cases, I use the label Quechua-Aymara. Another difficulty arises when it comes to shared borrowings, words that appear in Kallawaya and two or more languages, for instance, Kallawaya lokʔosti ‘passionflower’, Quechua ʎuqosti ‘passionflower’, and Kunza loxotʃi ‘chicory’. The question in such cases is which language passed the respective term to Kallawaya and in answering that question, formal and semantic criteria are used. In our example here, Kallawaya lokʔosti ‘passionflower’ formally, but in particular semantically, resembles the Quechua item more than it does the Kunza word. Furthermore, a general assumption underlying such shared borrowings is that it is more likely that Quechua and Aymara, being the dominant languages of the Andes, are the source of a borrowing rather than that Kunza, for example, has donated to Quechua or Aymara. Accordingly, such Kallawaya items are categorised as borrowings from Quechua or Aymara rather than from Kunza. Picking up the example of ‘passionflower’ from above, it is assumed that it was Quechua that provided the term for both Kallawaya and Kunza and as a consequence, Kallawaya lokʔosti ‘passionflower’ is marked as coming from Quechua.5 Similar considerations apply to the categorisation of Pukina shared borrowings. Unless linguistic evidence points to the contrary, I follow Torero (2002: 448–456) in classifying borrowings shared between Pukina, Kallawaya, Quechua, Aymara, etc. as coming to Kallawaya from Pukina.

3 The Etymological Composition of Kallawaya

In the following, I will present and discuss the etymological composition of the Kallawaya lexicon. I will first provide an overview of the impact Quechua, Aymara, Uru-Chipaya and Spanish have on Kallawaya, before turning to a detailed discussion and evaluation of the Pukina data. The results of the etymological comparison are provided in Table 2:6

5 In the particular case of ‘passionflower’, further evidence for the Quechua origin comes from the observation that chicory is non-native in South America (Tropicos, n/d). Kunza speakers thus probably semantically re-interpreted the Quechua word to refer to this new species.

6 The Kallawaya lexical data are online available at: https://lac.uni-koeln.de/en/kallawaya/ (Hannß, 2014b).
Table 2: The etymological composition of Kallawaya

| Language          | Lexical bases of Kallawaya (in numbers and %) |
|-------------------|-----------------------------------------------|
| Aymara            | 296 12.93%                                    |
| Quechua           | 307 13.41%                                    |
| Quechua-Aymara    | 165 7.21%                                     |
| Spanish           | 150 6.55%                                     |
| Pukina            | 117 5.11%                                     |
| Uru-Chipaya       | 26 1.14%                                      |
| Kunza             | 7 0.31%                                       |
| Takanan languages | 3 0.13%                                       |
| Total known etymology | 1,071    46.79%                     |
| Total unknown etymology | 1,218    53.21%                     |
| Total             | 2,289 100%                                    |

3.1 Quechua, Aymara, Spanish, Uru-Chipaya

Among the languages under consideration, Quechua and Aymara are clearly the main lexifier languages of Kallawaya, each contributing around 13% to the lexicon. Together, Quechua and Aymara provide about one third of the Kallawaya lexicon (i.e. 33.55%). My findings are thus in accordance with Stark (1972: 206), who suggests that 14% of Kallawaya are provided by Quechua and Aymara each. Note that I speak of ‘Quechua borrowings’ in Kallawaya. Kallawaya is not identical to Quechua, since there are lexical, but also grammatical differences between these two languages. Kallawaya cannot be considered genetically related to Quechua and is thus best seen as a language separate from Quechua (Matras and Bakker, 2003: 14; Matras, 2009: 288).

However, the herbalists’ native Quechua has a perceptible phonological influence on borrowings in Kallawaya. Vowel raising and the simplification of consonant clusters are the most common phonological interferences observable in Kallawaya borrowings. Thus, Pukina words in Kallawaya are regularly affected by the simplification of consonant clusters. This is evidenced by Kallawaya piʎ ‘four’, from Pukina sper ‘four’ (Adelaar and van de Kerke, 2009: 128). The word-initial consonant cluster of Pukina is simplified in Kallawaya by deleting the initial alveolar fricative [s], while the word-final vibrant [r] undergoes lambdacisation in Kallawaya. Furthermore, Pukina [e] has been raised to [i]. Vowel raising is observable in Kallawaya ratu ‘moment, a while’, from Spanish rato ‘moment, a while’ or in Kallawaya xuja ‘speak, say’ from Pukina xoʎa ‘speak, say’. Lastly, Kallawaya regularly displays “vowel fluctuation” (Adelaar
and Muysken, 2004: 198), which is frequently attested for root-final [i] and [a] in Quechua. However, in Kallawaya, vowel fluctuation virtually affects all vowels, as shown in Kallawaya kʔere–keri–qeri ‘belly, stomach’ from Pukina geru ‘belly’. Here, Pukina final [u] becomes [i]–[e] in Kallawaya.

Spanish loanwords entered Kallawaya through Quechua, Aymara, and/or through direct relations the herbalists had with the Spanish-speaking world. Among the borrowings from Spanish are the usual suspects, the names for the days of the week, for instance, but also quite surprisingly many botanical designations, such as laurel ‘laurel’ (Section 4). It is thus remarkable that Spanish is not mentioned by Stark (1972), although with almost 7% loanwords it belongs to the more prominent lexifier languages of Kallawaya. I propose that this has to do with the restriction of Stark’s computation to the core vocabulary as given in the Swadesh List (Stark, 1972: 206). Spanish is as good as absent from the core vocabulary of Kallawaya: at best, two items are of Spanish origin. These are the Spanish demonstrative pronoun ese ‘that’ and Spanish cuerda ‘rope, string’. Note, however, that ‘that’ and ‘rope, string’ can also be expressed by the alternative terms of kʰistu–kistu–kʰitus–kistus ‘that’ and kotka ‘rope, string’. The first is based on Pukina ki ‘what? who? which? how?’ (no. 31 in Appendix 1), but has undergone aymarization by adding the Aymara focus markers -ti and -sa, which can be used in questions and negations (Porterie-Gutiérrez, 1988: 315, 317). The above mentioned Kallawaya item kʰistu and its variants result from subsequent metathesis of *ki-ti-s(a). The second Kallawaya term kotka ‘rope, string’ is probably related to Chipaya qʊhtʃ ‘rope, string’ and/or to Chipaya khotʃ ‘loosen strings of a textile on a loom’ (Cerrón-Palomino and Ballón Aguirre, 2011: 112, 144).7 In addition, the many, very specific botanical names found in the Kallawaya lexicon are not captured by the Swadesh List, which is most likely the reason why the 6.55% of Spanish are not reflected in Stark’s original analysis. This shows that one has to consider the entirety of the Kallawaya lexicon in order to assess its etymological composition.

The percentage of Uru-Chipaya items attested in the present study amounts to 1.14% (i.e. 26 lexical items; Table 2). This is generally in accordance with Stark (1972: 206), who suggests that 2% of Kallawaya are from Uru-Chipaya. The numerical difference between her findings and my own may be explained by shared borrowings, relating to Pukina. Uru-Chipaya items in Kallawaya that trace back to Pukina are classified as Pukina rather than as Uru-Chipaya in the present investigation (Section 2). Thus, lexical similarities between, for

7 The transcription of a palatal affricate by Cerrón-Palomino and Ballón Aguirre (2011: 144) is [č]. However, in the present paper a palatal affricate is represented as [tʃ] and the transcription of Cerrón-Palomino and Ballón Aguirre is accordingly adapted.
instance, Kallawaya *kapi*~*khapi*~*kjhapi*~*qapi* ‘three’ and Uru-Chipaya *tfep*~*tfhep*~*tfhepu* ‘three’ are best described as shared borrowings, going back to Pukina *kappa*~*qappa* ‘three’ (no. 14 in Appendix 1). That Kallawaya borrowed from Pukina and not from Uru-Chipaya is suggested by the greater phonological similarity between the Pukina and Kallawaya items. Consequently, Kallawaya *kapi*~*khapi*~*kjhapi*~*qapi* ‘three’ is classified as coming from Pukina, not from Uru-Chipaya. Unfortunately, in most cases, it must remain elusive whether the Kallawaya and Uru-Chipaya expressions give testimony to language contacts between these speech communities or whether they are shared borrowings because the respective Pukina term is unknown. However, some items are proof of direct contact between Kallawaya and Uru-Chipaya. Apart from nos. 14 and 15 in Table 3, there is Kallawaya *khi*~*khi*: ‘say, speak’, from Uru *ki* ‘say, speak’ and/or Chipaya *khi* ‘say, advise, recommend’. These items are clearly different from Pukina *ure* ‘say, tell’, *a* ‘say, desire’, and *xuła* ‘say, speak’ and are thus not shared borrowings relating to Pukina. Furthermore, *ki* and *khi* are cognates in closely related Uru and Chipaya. This suggests that this lexical form had its origin in this language family and further that the direction of borrowing was from Uru or Chipaya into Kallawaya. The aspiration of the word-initial velar stop of Kallawaya *khi*~*khi*: points to Chipaya as the donor language rather than Uru. A similar case is Kallawaya *mixe*~*mixi* ‘hurt, illness, disease, injury’, which phonologically and semantically resembles Uru *misi* ‘to hurt’ and Chipaya *miš* ‘to hurt’. The Kallawaya and Uru-Chipaya expressions are again clearly distinct from Pukina *putra* ‘to hurt’ and *kitʃu* ‘to hurt, sadden’, which once more suggests that Kallawaya borrowed *mixe*~*mixi* from Uru-Chipaya. Note, however, that the change from the alveolar or retroflex fricative of Uru-Chipaya to the velar fricative of Kallawaya appears to be somewhat unmotivated.

As mentioned above, there are more instances of lexical similarity between Kallawaya and Uru-Chipaya, such as Kallawaya *asi* ‘difficult’ and Chipaya *aši* ‘difficult’ or Kallawaya *itoxlo* ‘skull’ and Chipaya *tʃoxlu* ‘skull’. Since the respective Pukina term is unknown, it is has to remain uncertain whether such cases are evidence of direct contacts between Uru-Chipaya and Kallawaya or whether they are shared borrowings of an unrecorded Pukina item. However, I would like to emphasise that the geographic vicinity of Kallawaya and Uru-Chipaya makes language contacts between these groups a likely scenario.

### 3.2 Pukina

Of the 263 known Pukina words, Torero (2002: 446) suggests 108 matches between Pukina and Kallawaya. However, I identified 117 Pukina items in Kallawaya, 93 of which are also on Torero’s original list (2002: 448–456; Appendix 1). The difference between the number of 108 Pukina-Kallawaya matches
suggested by Torero (ibid.) and the number of 93 matches proposed here lies in the etymological re-classification of 15 Kallawaya items (Table 3). I propose that these 15 Kallawaya words have been introduced to Kallawaya through Quechua, Aymara and Uru because their phonological form and/or semantic content points to an origin in Quechua, Aymara, and Uru rather than Pukina. Accordingly, I do not classify these 15 Kallawaya items as matches between Pukina and Kallawaya, but rather as loanwords from Quechua, Aymara, and Uru.

Table 3  Etymological re-classification of Kallawaya items

| Kallawaya       | Probable source language                      | Pukina\(^8\) |
|-----------------|-----------------------------------------------|---------------|
| xonax ‘day’     | xunaq ‘day’ (Quechua I)                       | runa–luna ‘day’ |
| mio k\(^k\)oxa–mio k\(^k\)usi ‘hallucination’ | mio ‘poisonous herbs’ (Quechua)               | mikstu ‘poison’ |
| aru ‘function; speak’ | aru ‘word, diction’ (Aymara)               | ure ‘say, relate’ |
| tʃɁaxi ‘to pound, crush, destroy’ | tʃɁaxe ‘to pound, crush, destroy’ (Aymara) | tʃauqi ‘hit, punish’ |
| tʃixtʃi ‘be afraid, fright’ | *tʃuktʃu (Quechua) | skaʎi–sqaʎi ‘be afraid’ |
| tʃinqi ‘female genitals’ | tʃenke ‘vulva, vagina’ (Aymara) | tʃinqi ‘making love between women’ |
| kamin ‘illness, sick, ill’ | kɁami ‘toothache’ (Aymara) | sqama ‘get ill’ |
| atawaɁpa ‘hen, chicken’ | atawaɁpa ‘hen, chicken’ (Aymara) | xatawaɁpa ‘hen, chicken’ |
| xanax patʃa ‘sky, heaven’ | xanaq patʃa ‘sky, heaven’ (Quechua) | xaniqui ‘high’ |
| mutɁu ‘butt’ | mutɁu ‘mutilated, snap, shatter’ (Quechua) | mutʃu ‘suffer’ |
| sapa ‘each’ | sapa ‘each’ (Quechua) | sapa ‘unique, only’ |
| suمكان ‘minor’ | suمكان ‘minor’ (Quechua) | suka–suqa ‘minor’ |

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8 According to Torero (2002: 448–456).
Table 3: Etymological re-classification of Kallawaya items (cont.)

| Kallawaya | Probable source language | Pukina⁸ |
|-----------|--------------------------|---------|
| 13 waja 'ascend, descend, run, exit' | wajoka 'go down, come down' (Aymara) | wasu 'descend, go down' |
| 14 iku 'leave' | çik~ik 'leave, abandon' (Uru) | (a) ekʰika~ekʰiqa 'abandon, remove' |
|           |                           | (b) ekʰiɲa 'leave, remove' |
| 15 kʰowi~kɁowi 'tear' | kʰaw~kʰawi 'tear' (Uru) | kare~qare 'to cry' |

The form mikstu 'poison' (no. 2) is classified by Torero (2002: 452) as Pukina. However, it is more likely that mikstu is an early loanword from Spanish mixto 'mixed', borrowed into Pukina. What seems clear, though, is that the Kallawaya expression mio kʰoxa~mio kʰusi 'hallucination' is based on Quechua mio 'poisonous herbs' rather than on Spanish or Pukina. Accordingly, the Kallawaya item is categorised as coming from Quechua here. Similar considerations apply to Kallawaya iku 'leave'. The Uru form çik~ik 'leave, abandon' (no. 14) on which the Kallawaya form is based, derives most likely from Pukina ekʰika~ekʰiqa 'abandon, remove' and ekʰiɲa 'leave, remove' (with a probable base *ekʰi or *ek). However, the Kallawaya item is formally closer to the Uru form, suggesting that it is adopted from Uru rather than from Pukina. That iku (no. 14) but also kʰowi~kɁowi (no. 15) were borrowed from Uru into Kallawaya is suggested by the observation that closely related Chipaya has ek 'leave, abandon' and qax 'tears'. Note further that according to Adelaar and Muysken (2004: 352), Pukina suka~suqa 'minor' (no. 12) is a borrowing from Quechua or Aymara.

In the course of the etymological investigation, I identified 24 additional Pukina-Kallawaya shared borrowings which were not recognised by Torero (Appendix 2). However, most of these are shared not only by Pukina and Kallawaya, but also by Quechua and/or Aymara. This is the case, for instance, with Kallawaya usi 'house, building, local', from Pukina isu 'house', which is probably also reflected in Quechua as wasi 'house' (no. 21 in Appendix 2). In five cases it appears that one of these two languages was the source of the Kallawaya item in question rather than Pukina (nos. 2, 15, 19, 22, 23 in Appendix 2). Similarly to the Kallawaya expressions listed in Table 3, the phonological form and/or the semantic content of these five Kallawaya words point to an origin in Quechua and/or Aymara. In other cases, where a word is shared by
Kallawaya, Pukina, Quechua, and/or Aymara, I follow the approach outlined in Section 2 by classifying such Kallawaya items as coming from Pukina. Two out of the 24 additional Pukina-Kallawaya matches recognised in my etymological investigation are shared only by Pukina and Kallawaya: these are Kallawaya ko~kho~khu~kjho~ku~qho ‘to walk, walk, go, march, travel’ from Pukina qu ‘go, descend’ (no. 8 in Appendix 2) and Kallawaya tutin ‘seven’ from Pukina stu ‘seven’ (no. 18 in Appendix 2).

In brief, the 117 Pukina-Kallawaya matches I identified are composed of 93 items already recognised by Torero (2002: 448–456) and 24 mostly shared borrowings I found in addition. Table 4 shows how many other languages these 117 Pukina-Kallawaya lexical matches are shared with. The label ‘Several languages’ refers to instances where a Pukina lexical item occurs in a number of languages, such as Kallawaya, Quechua, Aymara, and Uru, for instance.

As shown in Table 4, of the 117 Pukina items recognised in the present study, 50 (i.e. 42.74%) are shared exclusively between Pukina and Kallawaya. This is by and large in accordance with Torero’s findings (2002: 446), who suggests that of his 108 lexical matches between Kallawaya and Pukina, 41.1% are shared only by Pukina and Kallawaya. Moreover, it suggests that among the etymologically opaque part of Kallawaya (Table 2) there may be more unrecorded and hence unknown Pukina words. However, linguistically speaking, this is impossible to prove because Kallawaya words without an identifiable etymology could originate from languages not considered in the present study. Besides, as Kallawaya is also a secret language, we have to consider the possibility that some of these etymologically opaque Kallawaya items may be coined words, without any traceable etymology whatsoever (Section 4).

| Language            | No. of words | In %  |
|---------------------|--------------|-------|
| Aymara              | 5            | 4.27% |
| Quechua             | 16           | 13.68%|
| Quechua-Aymara      | 22           | 18.80%|
| Uru-Chipaya         | 13           | 11.11%|
| Takanan languages   | 1            | 0.85% |
| Several languages   | 10           | 8.55% |
| Kallawaya only      | 50           | 42.74%|
| Total               | 117          | 100%  |
In principle, these results support Stark’s claim (1972: 206; Section 1), but while there is a strong Pukina presence in Kallawaya, it is not nearly as high as suggested by Stark (ibid.). In contrast to what she claims, not 70% of the Kallawaya lexicon consist of Pukina, but only 5.11% of the Kallawaya lexical bases can be related to Pukina (Table 2). Thus, the majority of the Kallawaya lexicon is not, as put by Stark (ibid.) “predominantly from Pukina”, but has no known etymology (yet). There are several reasons why my results with respect to Pukina differ notably from those of Stark. One probable reason is that Stark apparently subsumes words without a traceable etymology under the label of Pukina. The 200-word Swadesh List Stark uses is not published along with her article and it therefore has to remain uncertain to what degree she actually counts etymologically unidentified words as Pukina. However, my own survey of a 207-word version of the Swadesh List shows that 14.93% of the Swadesh List tokens have a Pukina equivalent, while 38.51% are etymologically opaque. Together, these items make up 53.44% of the Swadesh List. While we may be thus approaching her estimate, ultimately Stark’s number of 70% of Pukina in the Kallawaya lexicon remains inexplicable. However, as outlined above, classifying etymologically opaque Kallawaya items as Pukina is no feasible manner of approaching the Kallawaya lexicon. Furthermore, the present study includes Spanish in the etymological investigation and its contribution to the etymological composition of Kallawaya necessarily reduces the number of items considered as being potentially Pukina. Closely related to this is the last reason for the difference between Stark’s results on Pukina and the ones provided here. The present study is based on a more comprehensive Kallawaya database than Stark’s investigation. While the Kallawaya database used for my research consists of words from all available sources on Kallawaya, summing up to 2,289 lexical bases (Table 2), Stark (1972: 206) works with the 200-word Swadesh List. As outlined above, the core vocabulary of Kallawaya contains hardly any items from Spanish. This shows that one has to take into consideration the entire Kallawaya lexicon in order to capture the etymological complexity of Kallawaya.

4 Intentional Borrowing and Secrecy: Kunza and Ese Ejja

In what follows, I will discuss borrowings from Kunza and the Takanan Ese Ejja language in Kallawaya. I argue that these Kunza and Ese Ejja words in Kallawaya are due to a conscious process of borrowing that serves to enhance secrecy of Kallawaya. As such, they are different from the Quechua, Aymara, Uru-Chipaya and Pukina items presented so far. First, I will give a brief overview of the issue
of intentional change and how it relates to the matter of secrecy, before turning to a description of the Kunza and Ese Ejja instances in question.

Mixed languages develop from a situation of advanced bilingualism within a speech community (Matras, 2000: 80; Matras and Bakker, 2003: 1; among others). The formation of mixed languages is often associated with an element of consciousness and deliberateness, as it is expressed in the “hypothesis of a conscious creation of mixed languages” (Matras and Bakker, 2003: 13). Within the context of bilingualism and deliberateness, Matras (2009: 310–311) suggests a scale of “creative strategies in bilingual settings” (Matras, 2009: 310) that ranges from non-conscious structures that are said to have no special effect on the discourse (such as loanwords that are not recognised as such any more) to conscious patterns of linguistic behaviour which create a special effect on the discourse (in the sense that they may have a particular stylistic impact, as is the case with e.g. selected and rarely used loanwords). Lexical insertions and speech manipulations are located at the conscious end of the scale. In themselves, lexical insertions do not need to have anything to do with secrecy, as is the case with e.g. Media Lengua, spoken in Central Ecuador and combining Spanish lexical bases with a Quechua grammar (Bakker and Muysken, 2009: 235–236). Although Media Lengua relies heavily on lexical insertions from Spanish, it is not a secret language (Bakker and Muysken, 2009: 237). Equally, Ma’a, a mixed language of north-eastern Tanzania, has a Bantu grammar, but a Cushitic lexicon, in which we find insertions from Maasai (Nilotic) and another southern Cushitic language, Gorwaa (Mous, 2003: 213; Bakker and Muysken, 2009: 238). Still, Ma’a is not a secret language. However, lexical insertions lend themselves well to ensure incomprehensibility of speech and, accordingly, are frequently used in secret languages (Mous, 2003: 214). Examples from the literature include, among others, Jenisch, a secret language used by itinerant workers in southwest Germany, Switzerland and Austria (Matras, 2009: 291–292). The core of the Jenisch lexicon derives from Rotwelsch, but also includes words from Hebrew and Romani, alongside coined expressions (Matras, 2009: 292). Similarly, the argot of Egyptian entertainers contains words from Romani and Italian (van Nieuwkerk, 1998: 33). An interesting case with respect to Kallawaya is Shelta, the secret language of Irish Travellers, whose grammar derives from English, while its lexicon is in principle based on Irish, but shows considerable modifications and many etymologically opaque words (Grant, 1994: 123–124). Regarding etymologically untraceable words, Shelta is quite similar to Kallawaya, though probably for different historical reasons. In sum, inserting words from (a) language(s) unknown in the speakers’ speech community is done consciously and deliberately, often aiming at maintaining secrecy.
In Kallawaya, we find two types of lexical resources unknown in the herbalists’ native Quechua speech community: Pukina words on the one hand and Kunza and Ese Ejja words on the other hand. Pukina items are unintelligible to non-Kallawaya speakers because the language is extinct today, whereas Kunza and Ese Ejja are spoken in areas geographically remote from the Andes and are thus usually unknown within the Andean region. However, while Pukina, Kunza and Ese Ejja serve the same purpose, i.e. maintaining secrecy, there is a quantitative and, above all, a qualitative difference between them. Pukina words in Kallawaya (as well as Aymara, Quechua and Uru-Chipaya items) can be interpreted as the by-product of a natural language change and culture contact phenomenon, whereas Kunza and Ese Ejja items in Kallawaya were quite intentionally borrowed for the sake of secrecy. That is, the process that led to the borrowing of Kunza and Ese Ejja words into Kallawaya is fundamentally different from the lexifying process observed with Pukina, Aymara, Quechua and Uru-Chipaya in Kallawaya. Kunza and Ese Ejja items in Kallawaya are devoid of historicity.

In this context, I would like to point briefly to the many Spanish botanical denominations in the Kallawaya lexicon (Section 3.1). As pointed out by Soria Lens (1951: 32), the Kallawaya herbalists do not reveal the names of the medicinal plants employed during their ceremonies. Use of a Spanish name, understood throughout the Spanish-speaking Andes, might then be interpreted as a diversion, protecting potentially secret Kallawaya plant names. This is then another means of maintaining secrecy, albeit quite the opposite of borrowing words from unknown languages.

The scenario of deliberately adopting words from languages spoken far away from the Kallawayas’ native region may explain why we find only very few instances of Kunza in Kallawaya. The Kunza terms to be discussed in the following are unrelated to Quechua, Aymara and Pukina. This largely rules out the possibility that lexical similarities between Kunza and Kallawaya are actually shared borrowings that trace back to one of the dominant Andean languages, as is the case with e.g. Kallawaya $ləqɔsti$ ‘passionflower’ and Kunza $loxətʃi$ ‘chicory’, which both derive from Quechua $ʎuqosti$ ‘passionflower’ (Section 2). Thus, in cases where a Kunza word in Kallawaya bears no similarity to Quechua, Aymara or Pukina, Kunza as the providing language for Kallawaya is the most plausible explanation.

One such instance is Kallawaya $laxmə$ ‘horse’ from Kunza $loxma$ ‘dog’ (Matthias Pache p.c.). There is no Quechua or Aymara word that can be related to the Kallawaya expression and the Pukina term for ‘dog’ is $qunsi$, which is reflected in Kallawaya as $komsi$~$qomsi$ ‘dog’. It is likely that Kallawaya speakers semantically re-interpreted the Kunza word in order to refer to an animal that
was otherwise alien to South America and for which no native designation existed. Similar processes are documented for other indigenous languages as well. Mochica, for instance, semantically re-interpreted the word for ‘llama’, col–kox, to refer to ‘horse’ (Adelaar and Muysken, 2004: 334). Another example is Kallawaya suwi ‘arm, hand, finger’, borrowed from Kunza suí ‘hand, finger’. Again, Kallawaya suwi is not a loanword from Quechua or Aymara and as Pukina has muqa ‘hand’, this, too, is clearly different from the Kallawaya term. Note that Pukina muqa is not attested in the Kallawaya corpus, the only Kallawaya word for referring to ‘hand, arm’ is suwi. Lastly, there is Kunza lali ‘intestines, guts’, which may have given rise to Kallawaya lali ‘shortage’ and lali-ku-y ‘hunger’, possibly by way of semantic extension, where the Kunza expression has been re-interpreted to refer to the sound and/or feeling of empty guts in Kallawaya. However, as the Pukina terms for ‘hunger’ and ‘intestines, guts’ are not recorded, the Kallawaya and Kunza expressions could in theory also be shared borrowings that trace back to Pukina.

The number of Ese Ejja words in Kallawaya is equally scarce and there are only three instances found. The Ese Ejja items presented in the following have cognates in other Takanan languages. This strongly suggests that the items in question originate in the Takanan language family and were borrowed by Kallawaya, Ese Ejja being the providing language. One example is Kallawaya tfaxu ‘bronchial tube, lung, trachea, windpipe’, possibly from Ese Ejja e-ʃaho ‘lung’. The prefix e- of Ese Ejja e-ʃaho occurs frequently on body part terms and is obligatory in the citation form, but otherwise is dropped in derivational processes, incorporation, juxtaposition, and in possessive phrases (Vuillermet, 2012: 299–300). This may account for its non-realisation in Kallawaya, as it is possible that Kallawaya speakers never came across the e-inflected form at all, because body parts are usually referred to within possessive phrases. Alternatively, Kallawaya speakers recognised the e-prefix as grammatical material and deleted it upon borrowing. The post-alveolar fricative [ʃ] is attested for Ese Ejja (Vuillermet, 2012: 165, 167), but non-existent in southern Quechua varieties (Adelaar and Muysken, 2004: 202). As the Kallawaya phonological system largely resembles that of southern Quechua, [ʃ] is absent from Kallawaya as well. This explains the change from Ese Ejja [ʃ] to [tf] in Kallawaya. Similarly, the glottal fricative [h] of Ese Ejja is not attested for Kallawaya and, accordingly,

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9 Cognates in other Takanan languages are e-hasa in Cavineña, e-data in Takana proper, and e-fa* in the Peruvian variety of Ese Ejja, Warayo (spelled as “Huarayo”; Key, 1968: 5). Girard (1971: 84) lists e-sa-ta ‘lung’ for Takana proper, e-xa-sa with the same meaning for Cavineña and e-fa-ho ‘lung’ for Ese Ejja and e-fa* ‘lung’ for Warayo. Girard (ibid.) suggests *xa as the proto-form.
is realised as [x] in Kallawaya. Lastly, the Kallawaya item also shows glottalisation of the word-initial palatal affricate and vowel raising from Ese Ejja [o] to [u] in Kallawaya.

Another likely instance of Kallawaya-Takanan relations is Kallawaya pʔa ‘believe’ and Ese Ejja ba ‘know’. Both terms are clearly unrelated to Pukina sisqa ‘know’, which is reflected in Kallawaya as seka–seqa ‘know’.10 Devoicing of the voiced bilabial stop [b] of Ese Ejja in Kallawaya is due to the lack of this sound in Kallawaya. Again, we find glottalisation of the word-initial [p] in Kallawaya.

Finally, there is Kallawaya tɁipi from Ese Ejja tepe–tipi ‘calabash’, where ‘calabash’ probably refers to those fruits whose dried skin is used as a container, drinking vessel, or, as is the case here, as a plate.11 The meaning of ‘plate’ in Kallawaya is thus a semantic re-interpretation of Ese Ejja ‘calabash’. As in the preceding examples, there is glottalisation of [p] in Kallawaya.

All in all, there are only very few instances of Kunza and Ese Ejja in Kallawaya (Table 2). It is the more remarkable that among those instances we find a large amount of body part terms. These are considered to form part of the core vocabulary of a language. The notion of core vocabulary is closely related to the so-called Swadesh List, i.e. those approximately 200 words that Swadesh (1952: 455), when compiling the list, described as “relatively neutral in their cultural implications”. The vocabulary thus collected is (largely) culturally independent, containing words that can be expected to be present in any language, regardless of its cultural background, such as body parts, numerals, etc. Based on this, Swadesh (ibid.) draws the conclusion that this culturally independent vocabulary is more resistant to change than other and culturally more determined parts of the lexicon. However, although such lexical items are considered relatively stable and less prone to borrowing, they can be borrowed. One example comes from the above cited Media Lengua, where “almost all Quechua words, including all core vocabulary, have been replaced” (Bakker and Muysken, 2009: 236; emphasis in the original). However, borrowing of core vocabulary usually happens in situations of massive contact (Thomason, 2001: 70), but such a scenario is not supported by the low number of Kunza and Ese Ejja words in Kallawaya. This lends further support to the suggestion that Kunza and Ese Ejja words were intentionally borrowed by Kallawaya speakers for reasons of secrecy.

10 Takanan cognates of Ese Ejja ba ‘know’ are Araona ba ‘believe, know’ and ba-mewe ‘know’, Cavineña bawe-d’a ‘know’, and Takana proper a, ba-we, and/or boe ‘know’ (Key and Comrie, n/d).

11 Cognates of Ese Ejja tepe–tipi are ðepe ‘plate’ in Takanan proper, sepe ‘plate’ in Araona, and tepe ‘cup, basin’ in Warayo (Girard, 1971: 137).
Another notable observation is that all instances of Takanan items in Kallawaya seem to come from Ese Ejja, while other Takanan languages apparently did not contribute to the Kallawaya lexicon. This is the more remarkable because so far it was thought that Ese Ejja-speaking groups hardly had any contact to the Andean world at all (Alexiades and Peluso, 2009: 225; Vuillermet, 2012: 49). Today, Ese Ejja is found between the towns of Concepción and Riberalta, in the east of the Bolivian lowlands, as well as in parts of lowland Peru (Fig. 1). Thus, it is furthest away from the Andean area, at least with respect to the Bolivian Takanan languages (Vuillermet, 2012: 39, after: Grinevald and Bert, 2010: 504). However, following Alexiades and Peluso (2009: 223, Fig. 10.1), Ese Ejja was traditionally used west of Araona- and C.-speaking groups. According to the authors (Alexiades and Peluso, 2009: 225–230), the present-day location of Ese Ejja-speaking groups results from several migration movements that ultimately led (or pushed) the Ese Ejja people further downriver, into the eastern Bolivian lowlands. That is, before these re-settlements, Ese Ejja-speaking groups lived further to the west and thus closer to the Andean foothills, which probably explains why borrowings from Ese Ejja prevail in the Kallawaya lexicon.

5 Summary and Conclusions

From the preceding discussion, two major conclusions can be drawn. The first is that Stark’s claim (1972) on the etymological composition of Kallawaya cannot be upheld and a critical re-examination of her findings appears necessary. This also entails a discussion of Torero’s classification (2002) of Pukina items in Kallawaya. Second, it has been proposed that Kunza and Ese Ejja lexical items were intentionally borrowed into Kallawaya for reasons of secrecy.

The etymological investigation of Kallawaya shows that the lexicon of this mixed language is more heterogeneous than was assumed in previous studies, notably the one by Stark (1972). Her statement that 70% of Kallawaya come from Pukina (Stark, 1972: 206) is critically re-evaluated in the present paper. I have suggested that not 70% of Kallawaya come from Pukina, as proposed by Stark, but that of the 2,289 lexical bases in the Kallawaya lexicon only 5.11% are based on Pukina. The majority of the Kallawaya lexical items remains etymologically opaque and cannot be subsumed under the label ‘Pukina’. Thus, while the present study confirms that Pukina had an impact on the lexicon of Kallawaya, it is not as substantial as suggested by Stark. Moreover, in the course of the investigation, it became evident that the number of 108 lexical
matches suggested by Torero (2002: 446, 448–456) also calls for a re-assessment. I propose that of the 108 matches as suggested by Torero 15 Kallawaya items are actually borrowings from Quechua, Aymara and Uru (Table 3). Furthermore, I identified 24 additional lexical matches between Pukina and Kallawaya, which are not recognised as such by Torero. Among these additional matches, two are shared exclusively between Pukina and Kallawaya. The overall number of Pukina-Kallawaya lexical matches suggested here amounts to 117 items. Appendix 1 assembles the 93 items of my research that coincide with Torero’s findings, whereas Appendix 2 lists the 24 additional matches I propose.

While re-evaluating the etymological composition of Kallawaya it turned out that the Kallawaya lexicon also contains a small number of words from Kunza and the Takanan Ese Ejja language. In this paper it is proposed that these Kunza and Ese Ejja borrowings are qualitatively and quantitatively different from the Pukina, Quechua, Aymara and Uru-Chipaya items attested in Kallawaya. Albeit only a small number of Ese Ejja and Kunza words are found in the Kallawaya lexicon, they include surprisingly many body part terms. Such items are considered to belong to the core vocabulary of a language and as such are expected to be borrowed only in situations of substantial language contact. Such a situation, however, is not corroborated by the low number of Kunza and Ese Ejja words in Kallawaya. Following this line of argumentation, I suggest that Kallawaya speakers consciously borrowed Kunza and Ese Ejja words as a means to enhance the secrecy of their ritual language. As such, the Kunza and Ese Ejja lexical items in Kallawaya are distinct from those contributed by other lexifier languages, whose impact on the Kallawaya lexicon is due to prolonged language contact and language change.

The findings of the present paper thus show that Kallawaya is an etymologically complex creation, whose lexicon reflects several borrowing practices and their respective intensity.

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Appendix 1 ‘93 lexical matches between Pukina and Kallawayu, coinciding with Torero (2002: 448–456)’

Abbreviations

| Sources | Languages |
|---------|-----------|
| G1      | Girault, 1984 | A Aymara | P Pukina |
| G2      | Girault, 1989 | A, B Aymara (Bertonio, 1612) | Q Quechua |
| Mond    | Mondaca 1987  | Ar Araona | Q, H Quechua (González Holguín, 1608) |
| OP      | Oblitas Poblete, 1968 | Ca Cavineña | U Uru |
| S       | Stark, 1972   | Ch Chipaya | U-Ch Uru-Chipaya |
| SL      | Soria Lens, 1951 | EE Ese Ejja |
| T       | Torero, 2002  | sur. southern Aymara |
| No. | Kallawaya lexical bases | Meaning in Kallawaya | Source(s) | Form and meaning in Pukina¹ | Shared with ...² |
|-----|------------------------|----------------------|-----------|----------------------------|-----------------|
| 1.  | apasa                  | daughter-in-law      | OP        | apisa (P): a certain relative | aʃa~asuna (U): daughter-in-law |
| 2.  | ata                    | inquire, consult, investigate, ask, interrogate | G2, Mond, OP | ata (P): ask | asa (U): ask |
| 3.  | atα-si                 | wife, woman, female  | S₁, S, G2, Mond, OP | atα-ku~ata-qu (P): woman, wife | ata-lo (U): mother |
| 4.  | atfa~atfe~xatfa        | be, evidence, exist, to function, have, make, evidence, exist, be in the habit of doing s.th., succeed, live | S, G2, Mond, T, OP | qfa (P): be, exist, be of use | xata (U): female |
| 5.  | aʷka                   | enemy                | OP        | aʷka (P): enemy | aʷqa (Q): enemy |
| 6.  | axna~axne~axni         | abandon, to pass, leave, distribute, forget, loose | G2, OP | akru~aqru (P): leave, abandon |  |
| 7.  | etka~etqa              | brave, wild, vigorous, fury, bravery, hostile, inclement, anger, bad, set against, perverse, rage, ill feeling, strictness, serious, severe | OP | ento (P): bad |  |
| 8.  | exο~exe~xexo           | to end, complete, finalise, terminate | S, G2, OP | xu (P): to end, conclude | eka~eksa (U): to finish |

¹ Based on: Torero (2002: 448–456).
² Based in part on: Torero (2002: 448–456).
| No. | Kallaway lexical bases | Meaning in Kallaway | Source(s) | Form and meaning in Pukina | Shared with ... |
|------|------------------------|---------------------|-----------|----------------------------|----------------|
| 9.   | *iki-li*–*iki-le*       | father, friend (fig.), brother, papa | SL, S, G2, Mond, OP | *iki-uki* (P): father, mister |                         |
| 10.  | *isna*                 | go, travel          | SL, S, G2, OP | *es* (P): go                |                         |
| 11.  | *iti*–*iti*-xiti       | take, seize, hold up, possess, take root, take effect, to touch | OP, SL, G2 | *iti* (P): receive, take possession |                         |
| 12.  | *kaman*–*qaman*        | day, time           | OP, G2, S | *kamen* (P): day            | *kamparmanani* (Q, H): be very stiff, cold or loose colour |
| 13.  | *kambru*–*kampro*–*qambro* | coloured, red, blood | S, OP, G1, G2, Mond | *qam* (P): blood          |                         |
| 14.  | *kapi*–*kʰapi*–*kʰapi*-qapi | three               | OP, S, G2, SL, Mond | *kappa*–*qappa* (P): three | *tʃep*–*tʃep*–*tʃepu* (U-Ch): three |
| 15.  | *kara*–*qara*         | nourish, feed, sustain | T | *qara* (P): nourish, feed, sustain | *qara* (Q): nourish, feed |
| 16.  | *karu*                | river               | G2 | *kʷara* (P): river         | *para* (Q): rain       |
| 17.  | *katu*                | place               | OP | *qatu* (P): market         | *qʷatu* (Q): market, shop, store |
| 18.  | *katu*                | interior, deep      | T, OP | *kattu* (P): interior     | *kʰatu* (A): market |
| 19.  | *kaxa*–*kʰaxa*        | owe, charge, to cost, account, debt, lend | G2, OP | *kaxa*-qaxa (P): debt       | *kax–kaxa* (U): debt(s) |
|      |                        |                     |           |                            | *qax–qaxa* (Ch): debt  |
| 20. | kea~qea | baby, rearing, female, son, infant, offspring | G2, OP | kiu~qiu (P): son |
| 21. | kena-k\text{\textsum}ena-k\text{\textsum}ena | money, coin, nickel, pecuniary, silver, riches | OP, SL, G2 | sqana (P): silver |
| 22. | komsi~qomsi | dog, bitch | OP, S | qunsi (P): dog |
| 23. | komu-kumu-kuni it\text{\textsum}i | all, total | OP, S, G2, Mond | kama (P): all |
| 24. | kuma | dwell | G2 | kuma (P): dwell, sit |
| 25. | k\text{\textsum}asa~k\text{\textsum}asa~q\text{\textsum}asa | face | G2 | qufan (P): face |
| 26. | k\text{\textsum}atu~k\text{\textsum}atu~k\text{\textsum}ata~k\text{\textsum}ato | high, enormous, great, big, ten | SL, G2, Mond, OP, S | atut (P): great, big |
| 27. | k\text{\textsum}axe~k\text{\textsum}axe | in vain, free | OP, G2 | qasi (P): in vain |
| 28. | k\text{\textsum}ere~k\text{\textsum}eri~k\text{\textsum}eri | belly, stomach | Mond, SL, S, G2, OP | geru (P): belly, abdomen |
| 29. | k\text{\textsum}usla | delight | OP | kaf\text{\textsum}i (P): happy, fortunate |
| No. | Kallaway lexical bases | Meaning in Kallaway | Source(s) | Form and meaning in Pukina | Shared with ... |
|-----|------------------------|---------------------|-----------|-----------------------------|----------------|
| 30. | kʰata–kʰatana–qe:na | agree, understand, obedience, permit, want, sympathise | SL, G2, OP | kata–qata (P): hear, listen | kas (Ch): obey |
| 31. | kʰi–kʰiʔi and kʰistu–kʰistu–kʰitus–kʰistus | be; what, how, then, through, in, for, by; that | S, OP, G2, T | ki (P): what? who? which? how? | kʰiti (A): who?³ |
| 32. | kʰi–ki: | now, today, recent(ly) | G2, OP | ka~qa: (P): now | kʰi (Ch): be, occur |
| 33. | kʰoaxa–kʰoaxa–kʰura | watch, see, guard | G2, SL, S | qoxa (P): see, watch | qʰawa (Q): watch |
| 34. | la:xa–laxa | man, male | SL, S, G2, Mond, OP | rako–raxo (P): male |
| 35. | lili ko:n | testicle(s) | OP | qun (P): penis |
| 36. | láːle ke: | imagine, logical, meditate, notion, think, sense | G2, OP | kiʔiːa (P): think, remember |
| 37. | ɾutʃka–ɾotʃka–ɾuka–ixotʃka | live together, coitus, fornicate, immoral | OP, G2 | roske–rosqe (P): fornicate |
| 38. | mata–matʃi | to clean | T | mata–mati (P): to clean, clean, tidy |
| 39. | matʃa–matʃe | lineage, caste, compatriot, relations | G2, OP | mati (P): fellow man |
| 40. | meː–miː–mil | people, individual, person, courtier | Mond, G2, OP, S | men (P): man, people, indigenous |

³ See also Adelaar and van de Kerke (2009:142).
| No. | Word(s)          | Meaning(s)                                      | Classes | Notes |
|-----|------------------|-------------------------------------------------|---------|-------|
| 41. | *mexa*           | lie down, sleep                                 | G2, Mond, sl, S | *mixa* (P): fornicate *miqa laik* (A, B): fornicate |
| 42. | *mili–mili*      | mother, mum                                     | sl, S, G2, op, Mond | *imi–umi* (P): mother, madam |
| 43. | *mini–mini:*     | name, to name                                    | S, G2, op | *men* (P): name |
| 44. | *moxsa*          | meeting, gathering of people                     | T       | *muqqa* (P): assemble, gather |
| 45. | *nisi–nitfi*     | I, me                                           | sl, S, G2, Mond, op, T | *ni* (P): I |
| 46. | *okha–uka*       | buy, sell, to transfer, bankruptcy, realise, realization, pay ransom for, to deal, | op, Mond, sl, S G2, sl | *uka* (P): buy |
| 47. | *okolo–oko–oqo*  | moon, month                                     | G2, op, S | *uqe* (P): moon |
| 48. | *oxa*            | eat, food, nourish, feed                         | sl, S, G2, Mond, op | *uqqa* (P): eat |
| 49. | *paka*           | to hide                                         | T       | *paka* (P): to hide |
|      |                  |                                                 |         | *paka* (Q): to hide, protect, shield from view |
| 50. | *pakas*          | field, small farm, estate, region, land         | op, S, G1, G2 | *pakas* (P): land, world |
| 51. | *pik*            | forward, before, previous, first                | op, G2  | *pesk–pesq* (P): first |
| 52. | *pil–pili–pi忧虑* | four                                            | S, G2, Mond, op, sl | *sper* (P): four |
| 53. | *pipi*           | meat, flesh, muscle                              | G1, G2, op | *pip* (P): meat, flesh, body |
| No. | Kallawaya lexical bases | Meaning in Kallawaya | Source(s) | Form and meaning in Pukina | Shared with ... |
|-----|------------------------|----------------------|-----------|-----------------------------|----------------|
| 54. | pitfa                  | to clean             | T         | pitfa (P): to clean         | pitfa (Q): to sweep, clean   |
|     |                        |                      |           |                             | pitfa (A): cleaning by sweeping |
|     |                        |                      |           |                             | kotfo (Q): singer, troubadour |
|     |                        |                      |           |                             | kotfo (A): religious canticle |
| 55. | qʔotfo                 | sing verses          | T         | qutfu (P): sing verses      |                             |
| 56. | qʰos                   | night                | T         | kisin (P): night            |                             |
| 57. | raka-raxka-taxra       | to work, work, labour, to practice | G2, OP, S | taqqa (P): to work | laiq (A): sorcerer, wizard |
| 58. | rekʔa–reka             | wizard, captivate    | G2, OP    | re:qa (P): sorcerer, wizard | laiq (A): sorcerer, wizard |
|     |                        |                      |           |                             | laiq (Ch): sorcerer, wizard  |
| 59. | rex–rej                | field, small farm, land | G2, OP    | re (P): field, small farm, land |                             |
| 60. | ruʔin                  | a person that becomes a relative and settles oneself in that place (i.e. in the house) | T         | ruʔin (P): a certain relative |                             |
| 61. | saʷ                    | heart, breast        | SL, G2, OP, S | seʔe (P): heart |                             |
| 62. | saxa–saqa              | fence in, close, lock in, wall up | G2, OP, T | saka–saqa (P): to hide |                             |
| 63. | seka–seqa              | learn, find out about s.th., know | S, G2, OP | sisqa (P): know | fʃʃ (U): know |
|     |                        |                      |           |                             | sis (Ch): know |
64. sexo  
friend, sharecropper, comrade, caste, colleague, compatriot, companion  
G2, Mond, OP, qu (P): brother  
SL
65. soke–sokei–soqʔe  
cure, drug, medicine, remedy  
G2, OP, Mond  
soqnu (P): potion, brew
66. soː–soː–suː–suː–sujo  
two  
OP, Mond, S, G2, SL  
so (P): two
67. teka–tʰeka  
to dream  
G2, OP  
taxa (P): to dream
68. too mi–tʰu mi–tʰuː mi  
young, strapping lad or big girl, groom, adolescent, new-born or very young child  
Mond, OP, SL, G2  
tu: (P): young, single  
toː–toːwi (U): child of less than three years, young  
tuṭu layka (A sur.): great sorcerer
69. tutu  
great, big, a thousand, creator, monarch  
SL, G2, Mond, OP  
tutu (P): great, big  
tutu layka (A sur.): great sorcerer
70. tfama  
joy, happiness, happy, applause, entertainment, enthusiasm, celebrate, celebration, jubilation, congratulations, recreation  
OP, G2  
the (P): amuse oneself  
tfama (Q): congratulations, joy, happiness  
71. tfani  
ration, portion  
OP  
the (P): price, value  
tfani (Q): price, costs (commercial value)  
tfani (A): value, price  
tʃeq (Ch): scrutinise  
tʃeqʔi (Ch): sleep, rheum
72. tfex–tfexe–tfex mi  
eye(s)  
S, G2, OP, Mond  
ʃeqi–ʃeqi (P): eye
| No. | Kallawayá lexical bases | Meaning in Kallawayá | Source(s) | Form and meaning in Pukina | Shared with ... |
|-----|-------------------------|----------------------|-----------|---------------------------|-----------------|
| 73. | tʃi~tʃija               | star                 | OP, S     | tʃina (P): star           | intiʃiña (Q): radiance, sparkle, gleam, radiance and sparkling of the sun catatʃiña (A): stars of the Milky Way |
| 74. | tʃi~tʃui~tʃi:           | you (sg. and pl.)    | SL, G2, Mond, S, OP | tʃi (P): he, she, they, their | kun (U): you (interrogative) tʃai (Q): that |
| 75. | tʃa                       | ado, fuss, shout, lament | OP | tʃa (P): cry out, demand | tfəokho (A): beating, stabbing with a stick tfɔxri~tfəoxri (A): wound, beat, bruise |
| 76. | tʃəɔxna~tʃəɔxna~tʃəɔxɲa~tʃuxna | to crush, smack, punish, to fight, hit, to hit, to beat, to punch | G2, OP, S | tʃuqna (P): offend | |
| 77. | tʃʔoqo                  | to drink             | T         | uqqu (P): to drink        | |
| 78. | uksi~uxsi               | (an)other, one       | SL, Mond, OP, S, G2 | xuksto (P): (an)other, one | xuk (Q): one |
| 79. | uʔi                     | to find, come across | G2, OP   | uʔi (P): to reach, catch up with, achieve | |
| 80. | **unantʃa** | to guide | T | **unantʃa** (P): to announce, mark, recognise | **unantʃa** (Q): symbol, sign, mark, badge | **unantʃa** (A): mark |
| 81. | **upa** | to kiss | G2, OP | **upaiki** (P): invoke, adore | **upaiku** (Q, H): adore, beg, revere, to honour, worship or kiss one's hands |
| 82. | **utan** | field, small farm, land | G2 | **uta** (P): field, small farm, land | **upa** (Q): wash the face, wash the face of another person |
| 83. | **uwatʃa** | wash one's face | T | **uwatʃa** (P): wash oneself | **upʰa** (Q): wash the face of another person |
| 84. | **wana** | affirm, get ready, prepare | G2, OP, Mond | **wani** (P): correct, modify | **wana** (Q): learn from ones' mistakes, to correct, modify, regret, repent |
| 85. | **wani–wana–wane** | new, brand-new | G2, OP, Mond | **wanakawanaqa** (P): new | **wana** (A): to correct, modify, learn from ones' mistakes |
| 86. | **waxsi** | no particular translation given | OP | **wakna** (P): others | **xoq** (Q): other, another |
| 87. | **xaka–xakana–xakaʔana** | to cause, provoke, subsist, to start, life, live | OP | **xaka** (P): live | **xaka** (A): exist, live, life |
| No. | Kallaway lexical bases | Meaning in Kallawayya | Source(s) | Form and meaning in Pukina | Shared with ... |
|-----|------------------------|-----------------------|-----------|---------------------------|----------------|
| 88. | xala~xaʎa              | end, die, perish, lie down | S, G2, O, P | xala (P): die             | aja (Q): deceased |
| 89. | xata~xatʔa             | caress, desire, to like, enjoy, aspire to, want | S, G2, Mond, O, P | xata (P): desire, want    |                |
| 90. | xe:~xeto~xuitu~xiʔiri~khe: | llama                 | O, P, Mond, S, G1, G2 | xe (P): llama              |                |
| 91. | xekʰa~xeka~xeqa~xija~xiana | to grasp, to reach, give, donate, provide, send, to burden, offering, obtain, to supply, distribute, deliver, serve | Mond, G2, O, P, S, G1, G2 | hiqqi (P): give          | jeka (EE): arrive, to reach |
| 92. | xotfa~xutfa~kʰotfa     | ten                    | G2, Mond, O, P | skata~sqata (P): ten      |                |
| 93. | xuja                   | chat, verse, say, speak, speech, language, modulate, narrate, word, tell, to report, report | O, P, G2, S | xoCa (P): speak, say      |                |
Appendix 2 ‘Lexical matches between Pukina and Kallawaya, not recognised by Torero (2002: 448–456)’

Abbreviations

| Sources | Languages |
|---------|-----------|
| G2      | Girault, 1989 A Aymara P Pukina |
| Mond    | Mondaca, 1987 A, B Aymara (Bertonio, 1612) Q Quechua |
| OP      | Oblitas Poblete, 1968 ch Chipaya Q, H Quechua (Gonzales Holguín, 1608) |
| S       | Stark, 1972 ee Ese Ejja |
| SL      | Soria Lens, 1951 |
| T       | Torero, 2002 |
| SL      | Soria Lens, 1951 |
| T       | Torero, 2002 |
| No. | Kallaway lexical bases | Meaning in Kallaway | Source(s) | Form and meaning in Pukina¹ | Shared with ...² |
|-----|------------------------|---------------------|-----------|----------------------------|-----------------|
| 1.  | atá | loss of liberty, privation | OP | *atta* (P): to judge, to sentence | *atamasi* (A): sue s.o. |
|     |      |                     |       | *atip* (Ch): gain competence, to win, slip out, to escape, evade | |
| 2.  | atí | possible | OP | *atipa* (P): be able to, have power | *ati* (Q): possibility |
|     |      |                     |       | *ati* (A): faculty, power to do s.th. | |
| 3.  | jaka | shamefaced, sorry, upset | OP | *ʎaki* (P): sadden, to regret | *ʎaki* (Q): sad, shamefaced, sorry, upset |
|     |      |                     |       | *ʎaki* (A): sadden | |
| 4.  | junapa | help, to help | G2, OP | *janapa* (P): to help, come to the aid of | *janapa* (Q): help, to help |
|     |      |                     |       | *janapa* (A): help | |
|     |      |                     |       | *janap* (Ch): to help | |
| 5.  | ka | be | G2 | *ka* (P): be, have | *kaq* (Q): that what exists |
|     |      |                     |       | *kanka* (A): be | |
|     |      |                     |       | *kan* (Ch): live | |
| 6.  | kaña | inaugurate, initiate, introduction, preface, begin, to start, origin | OP | *qaña* (P): begin, to start | *qaña* (Q): begin, to start |
|     |      |                     |       | *qaña* (A): begin, to start | |
|      |      |                     |       | *qaña* (Ch): begin, to start | |

¹ Based on: Torero (2002: 448–456).
² Based in part on: Torero (2002: 448–456).
| No. | Word | Meaning | Type | Example Use | Additional Notes |
|-----|-------|---------|------|-------------|-----------------|
| 7.  | kiki   | the same | G2   | kiki (P): the same | kikin (Q): the same, proper, identical |
|     |        |         |      |             | kiki (A): analogous, identical, similar, such |
| 8.  | ko–kʰo–ku–qʰo | to walk, walk, go, march, travel | OP, G2, Mond, SL, S | qu (P): go, descend |
| 9.  | kʰaya  | caya    | OP   | kaya–qaya (P): gold | kʰaya (Q): amulet |
|     |        |         |      |             | qa (U): silver, money |
|     |        |         |      |             | ʔaːʔ (Q): triumph, victory, advance, progress, expiry |
|     |        |         |      |             | ʔaːʔ (A): gain the lead, exceed, superior, advantage |
| 10. | ʔaːʔe–ʔaːʔi | good, fine, better, solace, calm, useful | Mond, OP, G2 | jaːʔi (P): exceed, surpass |
|     |        |         |      |             | ʔaːʔi (Q): triumph, victory, advance, progress, expiry |
|     |        |         |      |             | ʔaːʔi (A): gain the lead, exceed, superior, advantage |
| 11. | maːkku | condor, prince(ss), king | OP   | maku (P): chief or leader of an ayllo | maːkku (Q Bol.): young of the condor; superior, authority |
|     |        |         |      |             | maːkku (A): chief, noble, distinguished; king, mister |
| 12. | maːsi  | class, kind | G2, OP | maːsi (P): companion | maːsi (Q): colleague, partner, companion |
|     |        |         |      |             | maːsi (A): fellow man, the other people, the likes of X, of the same kind |
| 13. | maːfįa | get drunk | OP   | maːfįa (P): get drunk | maːfįa (Q): drunk, get drunk |
|     |        |         |      |             | maːfįa (A): drunkenness |
| No. | Kallaway lexical bases | Meaning in Kallaway | Source(s) | Form and meaning in Pukina | Shared with … |
|-----|------------------------|---------------------|------------|---------------------------|----------------|
| 14. | \(p^4\text{o}_k\text{o}^4-p^4\text{q}_k\text{o}^4-p^4\text{k}_o^4\) \(\sim p^4\text{o}_x\text{n}_i^4-p^4\text{o}_x\text{t}_f^4-p^4\text{o}_q^4\) | height, level, top, to fill, full, mature, quorum, filling, stuffing | OP, G2, S | \(pu\text{q}_a\) (P): full | \(p^4\text{o}_k\text{o}^4-p^4\text{q}_k\text{o}^4\) (A): full, filled, complete |
| 15. | sama–samar | to rest, breathe | G2 | sama (P): produce, cause; give birth | sama (Q): to rest, exhale |
| 16. | su\text{u} | foetus | G2, OP | su\text{u} (P): abort | su\text{u}n (Q): foetus |
| 17. | su | rob | G2 | su\text{a} (P): rob | su\text{a} (Q): rob |
| 18. | tutin | seven | SL | stu (P): seven | |
| 19. | t\text{a}_k\text{e}–t\text{a}_q\text{e}–t\text{a}_x\text{a} | to wash | OP, S | tax (P): to wash | t\text{a}_q\text{a} (Q): wash clothes, beating them with one’s hand |
| 20. | t\text{e}_x\text{a}–t\text{e}_k\text{a}–t\text{e}_k\text{a}–t\text{e}_x\text{a} \sim t\text{a}_x\text{a}–t\text{e}_x\text{a}–t\text{e}_x\text{a}–t\text{e}_x\text{a}–t\text{e}_x\text{a} | hundredth (part), to count, counting, calculation, enumerate, to number, number | G2, OP | t\text{f}_\text{i}_q\text{a} (P): real, true | t\text{f}_\text{e}_\text{q}_\text{a} (Q): real, true, certain |
|     |                                                       |                     |            | t\text{e}_\text{k}_\text{a} (A): for sure, certain, real, true |
|   |   |   |   |   |
|---|---|---|---|---|
| 21. | **usi** | house, building, local | SL, S, G2, Mond, OP | **isu** (P): house |
|   |   | eternity, perennial, perpetually | OP | **wasi** (Q): house |
| 22. | **wina** |   | OP | **wina** (P): always |
|   |   |   |   | **wina** (Q): eternity |
|   |   |   |   | **wina** (A): eternal, always, perpetually |
| 23. | **xirka** | to stop, to stem, head off | OP | **xarqa** (P): give up, remove, take off |
|   |   |   |   | **xarqa** (Q): stop s.o./s.th. running away, fleeing |
|   |   |   |   | **xarqa** (A, B): stop s.o./s.th. running away, fleeing |
| 24. | **xufa** | sin, to sin | G2, Mond, T, OP | **xufa** (P): sin |
|   |   |   |   | **xufa** (Q): sin, guilt, crime, fault, moral |
|   |   |   |   | **xufa** (A): crime, sin |