4.1 Linguistic connections between the Altiplano region and the Amazonian lowlands

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Introduction

Linguistic evidence points to sporadic but occasionally intense past contacts between the Bolivian and Peruvian Altiplano, on the one hand, and the adjacent eastern slopes of the Andes and the Amazonian lowlands, on the other. In colonial and late precolonial (Inca) times there was an influx of loanwords (especially cultural, trade and administrative terms) from highland languages into the eastern slopes and lowland regions; for earlier periods, however, a more balanced interchange can be discerned. In this chapter we present evidence of such early influence from Amazonian and eastern slopes languages upon languages spoken in the highlands. Particular attention will be given to the Puquina language, which appears to have played an important role in the area dominated by the Tiahuanaco civilization centred on the Bolivian Altiplano (c. AD 500–1100).

Divided between the modern states of Bolivia and Peru, the Altiplano exhibits a relatively straightforward picture so far as the distribution of its two major indigenous language groups, Aymara and Quechua, is concerned. Both are widely distributed and used by considerable numbers of speakers. Aymara (or Southern Aymara, following the terminology in Cerrón-Palomino 2000) is mainly spoken immediately southwards and eastwards of Lake Titicaca, including on the outskirts of the de facto Bolivian capital La Paz and the environs of the archaeological site of Tiahuanaco. Quechua, in some of its southern varieties (Puno Quechua and northern Bolivian Quechua, both belonging to the Quechua IIC branch in the dialect classification of Torero 1964), is found along the western side of the lake and on the islands of Taquile and Amantaní. Around the northern shores of Lake Titicaca, the two languages find themselves in competition, although the province of Huancané in Peru and the lakeshores in Bolivia are predominantly Aymara-speaking (Albó 1995).
From convincing linguistic and historical data, as we shall shortly see, it is clear that in spite of their present dominance the Aymara and Quechua language families do not have a very long history in the Altiplano. Their origin lies further north, in central Peru, from where they must have spread south-eastwards sometime between the Late Intermediate Period and the Independence Era (c. AD 1300 to 1800). Initially, Aymara spread throughout much of the Bolivian highlands, replacing local languages that had been spoken there since earlier periods (Bouysse-Cassagne 1975; Torero 1987, 2002, 386–8; Cerrón-Palomino 2000, 294 and 2013, 311–12; Adelaar and Muysken 2004, 263–4). Quechua became generalized here more recently still, and may have owed part of its success to its eventual adoption by ethnic groups who had initially managed to defend their linguistic identity against the impact of Aymarization. Nevertheless, it may be a mistake to assume that the arrival of Aymara- and Quechua-speaking groups corresponded to separate consecutive demographic incursions. More likely, the Aymara- and Quechua-speaking communities were linked by traditional kinship ties and political bonds harking back to the time when they shared the same geographical space in central Peru, and the division between the two language communities may have been accentuated by a difference in economic activities such as agriculture and (agro)pastoralism (cf. Urton 2012).

The conclusion that the introduction of Aymara and Quechua on the Altiplano was a relatively recent event is based on the observation that the internal linguistic differentiation of both language families is limited and shallow within this region, but much wider outside it. A longer presence in the area would predict that a more fundamental dialectal diversity would have emerged here. On a different level, both language families share a complex history of intense language contact, often referred to as ‘convergence’, which may have occurred in a geographical setting where the two ancestor languages co-existed in a dominant position without the significant presence or interaction of other languages (cf. Adelaar 2012b; Muysken 2012b). A location in the central Peruvian highlands somewhere between Ayacucho and Huaraz, including the upper reaches of some valleys on the Pacific versant of the Andes, would meet such conditions, rather than the Altiplano region, where remnants of non-related pre-existent languages are clearly discernible.

Languages of the Altiplano before the introduction of Aymara and Quechua: Uru-Chipaya and Puquina

The only local languages that have partly survived the incursion of Aymara- and Quechua-speaking groups until today belong to the Uru-Chipaya language family (also referred to as Uruquilla in historical sources). The Chipaya language is still actively spoken in Santa Ana de Chipaya, a community in the Bolivian province of Carangas near the Chilean border (Cerrón-Palomino 2006; Cerrón-Palomino and Ballón Aguirre 2011). Remnants of the Uru-Chipaya family are also
found among the Uru lake dwellers on the south-eastern shores of Lake Titicaca, although no fluent speakers remain (Hannss 2009). The Uru-Chipaya languages clearly exhibit an earlier linguistic layer than that represented by Aymara and Quechua. However, there is no certainty as to the exact extent of the past distribution of Uru-Chipaya over the area (see Figure 4.1.1). Historical documentation suggests that these languages were also spoken in present-day Peru, in Zepita on the southern shore of Lake Titicaca (cf. Torero 1987) and until the early twentieth century in the locality of Ch’imu, near Puno (Cerrón-Palomino et al. 2016). Although the speakers of Uru-Chipaya have often been associated with a distinct subsistence lifestyle of fishing and foraging in the lakes and watercourses of the Altiplano, not likely to have been able to support large populations, there is no

Figure 4.1.1  Map showing the minimal historical distribution of the Puquina and Uru language lineages at the end of the sixteenth century; also shown are the nearest contemporary languages of the Arawak family, and the surviving Chipaya language within the Uru family. © Willem F.H. Adelaar and Paul Heggarty.
reason to assume that they could not have occupied a relatively larger, agrarian domain before they were displaced or assimilated by Aymara speakers. The presence in Uru-Chipaya of agrarian and agro-pastoral vocabulary not derived from either Quechua or Aymara points in such a direction (cf. Cerrón-Palomino and Ballón Aguirre 2011).

A language that certainly did occupy an important position in the Altiplano before the arrival of Aymara and Quechua speakers was Puquina. During the early colonial period Puquina was considered to be one of the three ‘General Languages’ of the Peruvian (ex-Inca) domain (Bouysse-Cassagne 1975, 321). It rapidly became obsolescent and disappeared towards the end of the nineteenth century, although the exact date and circumstances of its eventual extinction are not known. According to colonial accounts, the Puquina language had been codified in a grammar written at the end of the sixteenth century by the Jesuit priest Alonso de Bárzana. Sadly, no copies of this grammar have survived, and the Puquina language remains inadequately documented (cf. Torero 1987, 2002, 408–56; Adelaar and Van de Kerke 2009; Cerrón-Palomino 2013, 59–82).

The only surviving Puquina texts of any significance are included in a manual of religious instruction with versions in several different languages: the Rituale seu Manuale Peruanum, published by Luis Jerónimo de Oré in 1607. The Puquina version of the texts in this manuscript is roughly a translation of the Quechua texts in the same publication and in many respects is of poor quality. It is inconsistently spelt and contains several remarkable errors of translation, which call into question the linguistic skills and proficiency in Quechua of the translator (cf. Adelaar and Van de Kerke 2009, 127). Some sections of the Puquina texts do not seem to match the Quechua and Spanish versions and are therefore difficult to analyse or even translate. Nevertheless, some of the characteristics of the Puquina language can be reconstructed on the basis of Oré’s Puquina texts, although the resulting picture remains frustratingly incomplete and fragmentary.

The exact distribution of the Puquina language in the period of early European contact is difficult to assess. A colonial document, published by Bouysse-Cassagne (1975) and referred to as the Copia de curatos by Torero (1987) in a detailed analysis of its contents, contains an inventory of locations in upper Peru (today Bolivia) that required missionary guidance in the Puquina language. It suggests that around AD 1600, Puquina-speaking territory was highly fragmented and comprised specific areas along the north-western, northern and eastern shores of Lake Titicaca, as well as a limited area between present-day Sucre and Potosí. Puquina was furthermore spoken on the islands beyond the Bay of Puno (Amantaní, Taquile), north-east of Lake Titicaca in the provinces of Larecaja and Umasuyos (Torero 1987, 345), and in an area south-east of the city of Arequipa extending into the Peruvian departments of Moquegua and Tacna and possibly parts of northern Chile (see Figure 4.1.1). Many of these areas are now Aymara or Quechua-speaking, suggesting that Puquina speakers shifted to these languages in late Inca times and thereafter, during the Spanish colonial occupation.
Historical accounts, attributed to the Inca and their descendants concerning their relations with the Colla, whose capital Hatuncanlla was located near the modern town of Juliaca (cf. Julien 1983), contain passages that suggest a Puquina identity for the Colla people (Cabello Valboa 1586/1951, Guamán Poma de Ayala 1615/1936). In spite of an alleged antagonism between the Puquina- and Aymara-speaking peoples, the Aymara language of the Altiplano includes a number of Puquina loanwords that suggest that the language of the Aymara-speaking communities of the Altiplano was influenced by a Puquina substratum. Examples include Aymara *imilla* ‘girl’, associated with the Puquina word for ‘mother’ 〈*imi〉3; *layqa* ‘witch’ from Puquina 〈*reega*〉; and possibly also *k*iti ‘who’ from Puquina 〈*qui*〉 ‘what’ followed by the Aymara interrogative affix *ti*. It follows that the Puquina linguistic community may very well have constituted a geographical continuum covering large stretches of the Altiplano before it was occupied by languages originating in central Peru.

Part of the Puquina vocabulary has also been preserved in a professional secret language practised by the so-called Callahuaya (or Kallawaya in contemporary spelling) healers, who are established in a number of native communities near the Bolivian provincial capital Charazani (north of Lake Titicaca, not far from the border with Peru), and whose daily language is a local variety of Quechua (see Chapter 1.4). Although the Callahuaya vocabulary is partly of Puquina origin, its grammatical form and structure mainly coincide with that of Quechua. The lexical database of the Puquina language is limited to some two hundred words, and unfortunately it is not possible to safely expand that by drawing on data from Callahuaya (of which we have a vocabulary several times larger), because the latter has also assimilated lexical elements from heterogeneous sources, many of which can no longer be identified. Furthermore, the formation of the Callahuaya language may date to the colonial period or even the early Independence period, when Puquina was already moribund and when probably only fragments of its lexicon could still be remembered. It stands to reason that at least some Callahuaya lexical items were adopted from hitherto unidentified sources after Puquina itself had disappeared.

Nonetheless, there are cases in which Callahuaya words of possible Puquina origin are found in place names, which do make it possible to establish lexical equivalences between the two languages with a reasonable degree of accuracy. For instance, the Callahuaya word for ‘water’, *mimi*, may have been identical to the word for ‘water’ in Puquina because it is found in toponyms such as *mimilaque*, the name of a river in the Moquegua area, which must have been Puquina-speaking until colonial times (see below). On the other hand, no word for ‘water’ was recorded in the written sources for Puquina, and there is no absolute proof that *mimi* did indeed refer to ‘water’ in Puquina (rather than to ‘river’ or ‘marsh’, for instance).

As illustrated in the above example, toponymy can be an important source for obtaining additional data on Puquina. Typical Puquina place names may end in -<baya>, -<coa> (‘sanctuary’) or -<laque>, and other endings proper to that language.
Even though the meanings of some of these endings remain obscure, such place names can provide an indication of Puquina’s geographical distribution during the final stages of its existence. As indicated above, there is an area with an exceptionally dense concentration of Puquina toponyms in the Peruvian department of Moquegua, which also harbours a number of archaeological sites in which typical Tiahuanaco artefacts have been found. These findings indicate that Moquegua was an area of intense colonization for the Tiahuanaco socio-political entity during the Middle Horizon (c. AD 750–1100), while the local toponymy strongly suggests that Puquina was the language used in these Tiahuanaco colonies. It therefore makes sense to assume that Puquina was one of the principal languages in use in Tiahuanaco, notwithstanding the fact that the present-day population there speaks Aymara. Today’s communities in Moquegua are divided between speakers of Aymara, Quechua and Spanish.

Puquina toponymy is also to be found on the islands of Amantaní and Taquile in Lake Titicaca, on the peninsula of Capachica on the western shore, and, in general, in areas west and north of the lake. In most of these places Puquina has been replaced by Quechua, and occasionally also by Aymara. Notwithstanding the presence of so many Puquina placenames in the Titicaca basin, it remains difficult to reconstruct the exact linguistic distribution of Puquina as it once must have existed.

The Arawak ‘connection’ with Puquina

Fortunately, the linguistic affiliation of Puquina is not entirely opaque, unlike that of other Andean languages or language families (including Aymara and Quechua). In some of its formal and structural features, Puquina exhibits significant similarities with languages of the Arawak family, which is distributed over large parts of lowland South America. In other structural or typological aspects, it resembles more characteristically Andean languages such as Quechua. In other words, Puquina has the appearance of a linguistic hybrid, a combination of both Amazonian and Andean characteristics.

The Arawak characteristics in Puquina are detectable most notably in its nominal morphology (that is, the internal structure of noun-based words). Both in structure and in form this is rather similar to the nominal morphology of Arawak languages spoken in the lowlands of Bolivia and southern Peru. Since this type of morphology is also characteristic of the Arawak family in general and is not otherwise found in the Andes, a possible Arawak connection offers the most likely explanation (see also Torero 1992, 177–8). As in many Arawak languages, personal possession in Puquina (my, your, his/her) is indicated by means of proclitic (prefix-like) elements that function as possessive pronouns in particular grammatical contexts (1) and are related in form to the corresponding personal pronouns (2):

\[\text{(1) } \text{no} \quad \text{‘my’} \quad \text{po} \quad \text{‘your’} \quad \text{chu}^5 \quad \text{‘his/her’}\]
These forms can be compared to elements with similar functions in Arawak languages of the neighbouring lowlands. The similarities are striking. In Baure, an Arawak language spoken in the Mojos region in the Bolivian lowlands, singular personal possession is also indicated by means of proclitic elements (Danielsen 2007, 317–19). Except for the feminine 3rd person possessive (‘her’), these elements show affinity with corresponding Puquina forms (3). The corresponding personal pronouns are formed on the basis of the same roots, by adding an element -ti’ (4).

Another Arawak language of the lowlands adjacent to the Altiplano, Iñapari, of Madre de Dios in the southern Peruvian Amazon, uses possessive prefixes to express personal reference (Parker 1995). These are also partly similar in form to the Puquina personal pronouns and proclitic forms. The Iñapari form that is closest to the Puquina 3rd person pronoun is the feminine 3rd person possessive prefix ru-, which formally corresponds with its masculine equivalent ro- in Baure (probably due to a functional metathesis in the latter language). 7

While acknowledging some variation in the vowels, the n-/p- pattern for 1st and 2nd person singular is typical of the Arawak language family and is not found in any Andean language besides Puquina. This pronominal pattern is widely distributed within the Arawak family, so the connection need not come necessarily from one of the Arawak languages spoken in the lowlands immediately adjacent to Puquina, but also conceivably from a geographically more distant Arawak language. It should be observed that the distinction between masculine and feminine gender in the 3rd person is not found in Puquina, from where it may have disappeared under the areal pressure of Andean languages which predominantly lack grammatical gender. 8

For a fuller perspective, though, it is important to acknowledge that in other respects, Puquina exhibits no particularly close parallels with the Arawak languages, whether those of the adjacent lowlands or further afield. Other than for the suffix referring to 2nd person subject <-pi> (~ <-ui>), which can be identified with the corresponding pronoun of Arawak origin (see above), the general structure of finite verbs, for example, is suffixing and agglutinative in Puquina, as in the Andean languages Aymara and Quechua. Another typically Andean feature of the Puquina language is the use of an inverse marker, to change a personal reference suffix from marking the subject to marking the object (6, 7).
In example (6), the function of the inverse suffix -s- is to indicate that the personal reference affix <-c> [k] refers to a (direct or indirect) object ‘me’, rather than to the subject of the verb ‘I’ as it normally does. Likewise in (7), the inverse suffix -s-changes <-pi> ‘you’ from the subject to the object of the verb.

Meanwhile, in example (6), the identity of the subject remains undetermined and has to be inferred from the context. This use of inverse markers in the personal reference system is also found in Andean languages such as Quechua and Mapudungun (cf. Adelaar 2009). It may have been adopted by Puquina under the areal pressure of one of its neighbouring languages. Compare the use of Puquina <-s- > to that of the Quechua inverse marker -su-, which has a similar function as <-s- > in Puquina (8, 9).

To return to characteristics that appear to connect Puquina to the Arawak languages, we could mention that a suffix derived from a free pronoun (in this case, 2nd person -pi) can directly be attached to the past participle of a verb (marked with the ending <-s)-so> [so], without the insertion of a verb ‘to be’. The resulting form refers to a permanent condition of the subject. Note that the pronominal suffix -pi appears in its weakened form <-u(i)> [wi] (10). This situation – in which a pronominal affix with subject function is directly attached to a nominal form without the intermediary of a verb ‘to be’ (or any device replacing it) – is common in the Arawak languages but unusual in Andean languages.11
This picture would not be complete unless complemented by lexical evidence connecting Puquina to the Arawak language family. Unfortunately, there are very few Puquina words that can effectively be used to this end, given the limited nature of the Puquina lexicon that has been preserved. Since the only source consists of religious instructions, most of the basic vocabulary required to identify possible relatedness to other language families is missing. This small amount of vocabulary moreover have to be systematically compared to a wide array of Arawak languages, none of which has emerged so far as particularly close to Puquina. In the absence of any established link between Puquina and a specific subgroup of the Arawak family, the possibility remains that any similarities discovered are due to chance. Nonetheless, some interesting lexical parallels have emerged, such as words for ‘sun’ and ‘moon’ that are widespread across languages of the Arawak family and seem to correlate with words for ‘day’ and ‘night’ in Puquina. Compare, for instance, Puquina <camen ~gamen> ‘day’ with Waura kambi ‘sun’, and Puquina <quisin> ‘night’ with Waura keši ‘moon’ (data from Torero 1987 and Payne 1991). For several more suggestions see Torero (1992, 177–8).

So in sum, what are the origins of Puquina, and what is the exact nature of its connection with Arawak? In linguistics, this question is normally seen in terms of a standard opposition set out here already in Chapter 1.2 by Heggarty. That is, are Puquina and Arawak related to each other within a deep language family, diverging out of a common original language lineage? Or are they entirely separate lineages with independent origins, but which came into powerful contact with each other, such that Puquina converged to a significant extent on some of the structures of Arawak languages? In fact, the Puquina case is one that is difficult to resolve definitively in such clear-cut terms, given how limited are the data that survive on Puquina, and that they contain conflicting indications in support of one analysis or the other. Or rather, as foreshadowed above, the data presented here seem to point to a third, hybrid analysis, of what is effectively a ‘merger’ between two language types: an Andean type reminiscent of Aymara and Quechua, and an Amazonian lowland type that can be identified with the Arawak language family. This is consistent with a scenario in which an Amazonian group migrated to the Altiplano highlands, where an earlier population of Andean background would have been assimilated or displaced. For the time being, it is not possible to assign a date to this assumed Arawak incursion into the Altiplano, but considering that Puquina was almost certainly connected with the Tiahuanaco civilization, it would have occurred before AD 500 at the latest.
Linguistic parallels between Uru-Chipaya and the adjacent Amazonian lowlands

In addition to the Arawak influence on Puquina, lexical similarities have been found between Uru-Chipaya and several linguistic isolates (languages not identifiably related to any others) spoken in the Bolivian lowlands to the north and north-east of the Altiplano. Puquina does not seem to play a role in these lexical connections, although this impression may be due to its poor state of documentation.

To look at a few examples of such loanwords, a characteristic term that appears in Uru-Chipaya and several lowland languages is a word for ‘maize’ (cf. Adelaar 1987). It appears as *tara* in Chipaya (Métraux 1936), as *tyârâʔ* in Mosetén (Sakel 2004, 145), as *ta* in Leco (Kerke 2009, 290), and as *ta* or *tay* in Apolîsta, an extinct Arawak language (Créqui-Montfort and Rivet 1913). Possibly related forms are found in Itonama, Movima and (Arawak) Trinitario (Pache et al. 2016). Note that although the Aymara and Quechua terms for ‘maize’ are very different, an etymological relation of Uru-Chipaya *tara* with Quechua *sara* cannot be totally excluded (cf. Métraux 1936).

The word for dog, *paku*, is another case in point. It is found in (Uchumataqo) Uru and in Chipaya and with some variation in a range of lowland languages including Itonama, Movima and Trinitario (Pache et al. 2016). Surprisingly, such a non-cultural term as the word for ‘people’, ‘human being’, *suñi*, *šuñi* or *šoñi* (Cerrón-Palomino 2006, 68) has been recorded in the Uru-Chipayan languages, in Mosetén (*soñiʔ*, Sakel 2004, 167), and in Yuracaré (*šunñe*, Van Gijn 2006, 116). See Chapter 4.2, for a fuller exploration of the nature of any linguistic connections between Uru and the lowland languages.

These lexical similarities are significant because they appear to pre-date both the predominance of Puquina and the incursion of Aymara and Quechua. Instead, they may point to a relatively early stage of vertical interaction between highlands and lowlands. Alternatively, it is also possible that some of the lowland languages at issue, especially Leco and Mosetén, were originally spoken on the Altiplano but survived in the lowlands and on the eastern Andean slopes after being displaced by the successive incursions. Since we hardly have any reliable data on languages (other than Uru-Chipaya) spoken on the Altiplano before the generalization of Puquina and the penetration of Aymara and Quechua, such a scenario does not seem far-fetched. For the moment, it is safe to assume that the lexical similarities in question are due to borrowing, although it is difficult to determine in which direction such borrowing would have operated.

Other chapters within this book offer further, complementary perspectives from different disciplines in this same region of the Altiplano and the adjacent lowlands, not least on Uru-speaking populations and their origins. Chapter 4.3 by Prümers gives an archaeological perspective, while Chapters 3.2 by Santos and Chapter 3.3 by Barbieri both include genetic analyses of human population histories across this part of the Andes–Amazonia divide.
Conclusion

It appears from the above that Puquina, with its clear Amazonian admixture, is the best candidate for having been the language of official communication in Tiahuanaco. This does not mean, however, that it would have been the only language in use in the Middle Horizon Tiahuanaco realm. Other local languages may have been in use as well, such as Uru-Chipaya (Uruquilla)-related languages, possible modern lowland languages about to be displaced and probable extinct languages of which we have no knowledge or documentation at all. Furthermore, Tiahuanaco, as an influential religious centre of considerable cultural and political reach, likely hosted foreign residents as envoys, traders, religious specialists, artisans, and so on. There can be little doubt that representatives of ethnic groups located further north, likely to have been speakers of Quechua and Aymara, would have resided in Tiahuanaco for shorter or longer periods. So these languages would already have been more or less familiar to the Tiahuanaco people and leadership.

From a strictly linguistic viewpoint, then, we might distinguish three successive stages in the development of relationships between the Altiplano and Amazonia. First a stage of balanced interaction was reached between highlands and lowlands, involving local highland peoples, such as the Uru-Chipaya speakers, and several small ethnic groups settled in the eastern slopes of the Andes overlooking the Amazonian lowlands. In the second stage, an important influx of Amazonian (Arawak) cultural elements was instrumental in the genesis of Altiplano highland cultures, including Tiahuanaco, and the formation of the Puquina language. The final stage, after the demise of Tiahuanaco around AD 1100 (Janusek 2008), saw a massive incursion from the central Andes, unchecked by any significant resistance from local polities. This is confirmed by the limited dialectal diversification within modern Altiplano Aymara, indicative of how recent this central Andean incursion must have been. In this final stage, the linguistic interaction between the Altiplano and adjacent lowlands becomes predominantly unidirectional, from highlands to lowlands – as illustrated, for instance, by the borrowing of Aymara numerals into Tacanan languages such as Cavineña (cf. Marks 2012).

The scenario outlined above illustrates the importance of further systematic research of the local languages that still survive on the eastern slopes and foothills of the Andes adjacent to the Altiplano. These languages should not be approached as just a few more examples of Amazonian diversity but also, and primarily, from the perspective of a possible Andean background and history. This is not an easy task, given the dramatic loss of linguistic diversity among Andean societies from the time of Inca rule onwards, but it may serve as a useful working hypothesis that can contribute to linguistic reconstruction and to a better understanding of Andean–Amazonian interaction through the centuries.