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A grammatical description of Shiwiar

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Chapter 2

The Shiwiar Language

This chapter introduces the Shiwiar language. Section 2.1 is an outline of the most pervasive grammatical categories and structures found in Shiwiar, presented from a typological perspective. Areas of Shiwiar grammar which are cross-linguistically salient, rare or unique are highlighted throughout. The next two sections place Shiwiar in its wider historical and areal context. Section 2.2 describes the relationship between Shiwiar and its linguistic relatives, the four other Chicham languages. It also presents a summary of existing work on Chicham languages to date. Languages which are not related to Shiwiar but are spoken in the vicinity and have been in contact with Chicham languages are covered in §2.3. Section 2.4 discusses contact between Shiwiar and Spanish. Orthographic conventions are laid out in §2.5, including some of the historical and political considerations that are tied in with orthography and prescription.

2.1. Typological overview

The Shiwiar language is spoken in an area between the northeastern foothills of the Andes Mountains and the northwestern edge of the Amazon Basin. Like many languages spoken in this intermediate region (see van Gijn 2014), Shiwiar exhibits typological features that are typical of both Andean and Amazonian languages.

Shiwiar has 14 consonants and 8 vowels (four vowel qualities and an oral/nasal distinction). From a global typological perspective this is a relatively small phoneme inventory, but it is not unusual for languages of the area (cf. Maddieson 2013a; Maddieson 2013b). The consonants consist of three oral and three nasal stops, two affricates, three fricatives, two glides and an alveolar tap. The presence of a palatal nasal and a preponderance of fricatives compared to affricates have been flagged as Andean features (Dixon & Aikhenvald 1999: 9; Torero 2002: 523), but the presence of a single liquid phoneme, a central high vowel and contrastive vowel nasalisation have been said to be typical of Amazonian languages (Dixon & Aikhenvald 1999: 8).

There are abundant phonological and morphophonological alternations in Shiwiar, most often involving syncope/apocope, postnasal voicing of stops and palatalisation. As a result of these phonological processes, most morphemes in the language have numerous allomorphs whose distribution is determined by particular prosodic and phonotactic factors. A further result of these processes is that Shiwiar has gone from having mostly open CV syllables historically to allowing complex consonant clusters and codas synchronically. This is highly reminiscent of central Andean languages, in particular Aymaran (Adelaar 2012: 601).

There are two open word classes: verbs and nouns. Adjectives are a semi-open class with only a limited number of underived adjectives, but with the option of deriving new adjectives from verbs. Other word classes, all closed and with relatively few members, include pronouns, adverbs, numerals, quantifiers, discourse particles and interjections. A final closed word class which is nevertheless made up of numerous members consists of ideophones. Payne (2001: 596) suggests that ideophones are characteristic for languages of the Amazon.

Shiwiar is a highly synthetic language, like most Andean and Amazonian languages (van Gijn 2014: 111). Shiwiar morphology is mostly agglutinating but fusion (especially as a result of phonological assimilation) is common within the verbal morphology. Shiwiar morphology is templatic and largely suffixing (in verbs) and encliticising (in nouns). A similarly strong preference for suffixation has been said to be characteristic of Andean languages (Torero 2002: 526). Interestingly, the only exception to this suffixing/encliticising pattern in Shiwiar is a single verbal causative prefix in the form of a vowel, which has been identified by Payne (1990a: 78) as a widespread form in Amazonian languages and may well have been a product of morphological borrowing.

Shiwiar is both head and dependent marking. Core arguments are indexed on the verb and grammatical relations are expressed on nouns by means of case marking. It has strict nominative-accusative alignment, like in most Andean languages (Torero 2002: 529). Nominal objects are case-marked differentially: first and second person objects are always marked with so-called object case; third person objects are only marked with object case if the clauses have a first person singular or third person subject. This is a typologically rare type of differential object marking, referred to as a global split (Silverstein 1976: 178) or scenario-conditioned differential object marking (Witzlack-Makarevich & Seržant 2018: 12) because it is conditioned by characteristics of both the subject and the object.

The preferred constituent order is predicate-final. SOV order is the norm, but it can be manipulated in both main and subordinate clauses for information structural reasons. This is the same pattern found in many Andean languages (Torero 2002: 526).

Nouns fall into two possession classes: obligatorily and non-obligatorily possessed nouns. The former is the more limited set and is mostly made up of kinship terms. Cross-cutting that distinction, Shiwiar nouns can also be divided into an alienable and an inalienable class, each of which is marked with different possessive morphemes. Inalienably possessed nouns mostly include body parts and kinship terms. The existence of these two possession classes is characteristic for many languages of the Americas (Bickel & Nichols 2013; Nichols & Bickel 2013).

Shiwiar has a very small class of numerals. Although there has been recent elaboration through Spanish loans and innovations, the only native numerals that are used regularly in natural speech correspond to 'one', 'two' and 'three'. Having a limited set of numerals has been identified as a typically Amazonian trait (Dixon & Aikhenvald 1999: 9).

Finite verbs in Shiwiar are obligatorily marked for aspect, tense, person, number and mood. Aspectual categories include perfective, imperfective and durative. There are many synthetic tenses: four past tenses and two future tenses in addition to an unmarked tense which is interpreted as either present or perfect. A large class of mood markers can be divided into four mood types: indicative, interrogative, imperative and exclamative. These elaborate paradigms of TAM morphology are commonly found in other Amazonian languages (where the marking is often optional), but they are perhaps more reminiscent of those found in neighbouring Andean languages where TAM marking is also obligatory (Dixon & Aikhenvald 1999: 9–10).

The predicative use of nominalisations is widespread as a subordination strategy: participant nominalisations are used for relative clauses and event nominalisations are used for complement clauses. This is a common trait of many South American languages (van Gijn, Haude & Muysken 2011: 10–13).

Clause chaining is pervasive in Shiwiar, and a complex system of switch-reference is used. While this is also a common clause linking strategy in a large number of South American languages (van Gijn 2016), Shiwiar switch-reference is typologically rare in that it not only can track subjects but other arguments as well.

2.2. The Chicham (Jivaroan) languages

Shiwiar belongs to the Chicham language family. This is a group of closely related varieties spoken along the border between Ecuador and Peru by five distinct ethno-political² groups. There is widespread mutual intelligibility,

² The use of this term intends to reflect the fact that the five different Chicham-speaking groups are both ethnically distinct (particularly in the sense that their

especially between geographically contiguous populations (Overall 2017a: 22; Stark 1985: 177). For this reason, the Chicham languages are best thought of as a dialect continuum. Nevertheless, speakers feel very strongly about the differences between the five varieties, and in this work the Chicham languages will be presented as five discrete languages, each corresponding to one of the five ethnic groups that speak them. **Table 2.1** lists all five languages by their most conventional English name, and includes their autonyms, their Spanish names, the area in which they are spoken, as well as estimates of the number of speakers based on the latest census data.

Compared to other Amazonian languages, Chicham languages are strikingly healthy in terms of language vitality. All five Chicham languages are still spoken across all generations and they are often used as the primary language within native communities. Although bilingualism with Spanish is widespread, it is interesting to note that Chicham is one of the few language families in northwest Amazonia that is not being rapidly displaced by Spanish or Quechuan (Wise 1999: 341).

2.2.1. Historical development and ethnonyms

It is not clear how long the current five ethnic divisions have existed or how long they have lived in their current territories. Gnerre (1975) suggests on the basis of toponymic evidence in Spanish colonial documents that the geographic distribution of Chicham groups in the 16th century extended further west into the Andes mountains and perhaps not as far to the east into the Amazon basin. Chicham-speaking groups were historically referred to by many different “tribal” names based on the hydronym of the river or stream on which they lived or the name of local leaders (Overall 2017a: 23). Some of the ethnonyms mentioned in the literature – but no longer in use today – are Antipa (Shu), Arapico (Shu), Bolona/Bolono (Shu), Bracamoro (Shu), Canelo (Shi), Gualaquiza/Gualakisa (Shu), Maca/Makas (Shu), Miasel, Pinday/Pintuk (Shi), Samora (Shu) and Upano (Shu) (see de Castellví & Espinosa 1958: 139; Loukotka 1968: 157–158; Mason 1950: 223; Steward & Métraux 1948: 618). The abbreviations after the group name indicate the current Chicham group that inhabits those river basins today. Judging by the years in which the five modern-day ethnonyms began to appear in the literature, it seems that the nation- and identity-building processes that resulted in the formation of the five current groups started in the late 18th century, possibly as a result of missionary influence. After the war between Ecuador and Peru in the 1940s, ethnic divisions amongst the Chicham people were also shaped by the international border between those two countries (see Peña 2015: 2).

members identify as belonging to different ethnicities) and politically distinct (in the sense that they are considered different indigenous nations by the Ecuadorean and Peruvian governments).

Language	ISO 639-3/ Glottocode	Autonym	Spanish name(s)	Country (province/region) ^(a)	Approximate speaker number ^(b)
Achuar	acu/ achu1248 ^(c)	<i>achuar chicham</i>	<i>achuar; achual</i> (Peru)	Ecuador (Morona-Santiago, Pastaza); Peru (Loreto)	13,500 in Ecuador; 10,900 in Peru
Aguaruna	agr/ agua1253	<i>iinia chicham</i>	<i>aguaruna; awajún</i>	Peru (Amazonas, Loreto, San Martín, Cajamarca)	55,400
Shiwiar (Mayna^(d))	acu/ achu1248 ^(c)	<i>shiwiar chicham</i>	<i>shiwiar; jibaro</i> ^(e) (Peru); <i>mayna</i> (Peru)	Ecuador (Pastaza); Peru (Loreto)	1,000 in Ecuador; 200 in Peru
Shuar	jiv/ shua1257	<i>shuar chicham</i>	<i>shuar</i>	Ecuador (Morona-Santiago, Pastaza, Zamora-Chinipe, Orellana, Sucumbíos, Guayas)	62,000
Wampis (Huambisa)	hub/ huam1247	<i>iina chicham, wampis chicham</i>	<i>huambisa, wampis</i>	Peru (Amazonas, Loreto)	10,200

Table 2.1. The Chicham languages

^(a) The locations of the different speech communities were taken from census data (INEC 2010; INEI 2009; Ministerio de Educación 2013) and further confirmed by examining language maps provided by the Ecuadorean Institute for Amazonian Regional Ecodevelopment (Instituto para el Ecodeesarrollo Regional Amazónico – ECORAE).

^(b) Speaker numbers were taken from the latest Ecuadorean and Peruvian censuses and rounded to the nearest hundred (INEC 2010; INEI 2009). Note that the Ecuadorean census asked specifically whether a person spoke an indigenous language, whereas the Peruvian census asked for ethnic self-identification. This means that the Peruvian speaker numbers could differ from those reported here.

^(c) Note that ISO 639-3 and Glottocode do not distinguish between Shiwiar and Achuar.

^(d) See section 3.4 for a discussion on the use of this term.

^(e) This term is offensive in Ecuador and has fallen out of use as an ethnonym.

The proto-Chicham autonym can be reconstructed as **jívar*. This is supported by the fact that four of the modern-day Chicham autonyms are cognates of this word: *juár* in Shuar, *atjuár* (a contraction of *atjúsuar* 'people of the moriche palm') in Achuar, and *jíw'ar* in Shiwiar. *juár wampís*, or simply *juár*, is also a common autonym amongst the Wampis (Peña 2015: 22). The corresponding cognate in Aguaruna, *jíwáñ*, means 'enemy' (Overall 2017a: 23), a semantic change which is not surprising given the feuding that long existed between the Chicham groups (see §3.3.6).

In English, the Chicham people have traditionally been referred to as Jivaroans (and the languages as Jivaroan languages), based on the Spanish word *jívaro* (also spelled *jíbaro*). In an etymological sense, this term is apt because it originates from a hispanised form of the Chicham autonym: Spanish colonial chroniclers recorded **jívar* as *Xíbaro* or *Gíbaro* (Gnerre 1973; Harner 1984: xv), and this was eventually borrowed into English from Spanish. However, the Spanish word *jívaro/jíbaro* has since acquired negative and insulting overtones in various dialects of Spanish, so local linguists have been shifting away from it at the request of Chicham speakers. In some Ecuadorean circles, the term *aents* (which means 'person' in most Chicham varieties) has emerged as a replacement to *jívaro/jíbaro*, but this term does not seem to have been taken on by other linguists or by the speech communities themselves to refer to the languages. Most recently, the term *chicham* ('language') was suggested by Shuar linguist Tuntiak Katan Jua to denote the language family (Katan Jua 2011). This proposal has been met with favourable reactions from native speakers and linguists alike, so the language family will be henceforth referred to exclusively as Chicham in this work.

2.2.2. Internal relations within the Chicham family

Chicham languages are closely related. This is especially true for neighbouring varieties: Achuar and Shiwiar have often been classed together as a single language in the literature (see for example Fast Mowitz, Warkentin de Fast & Fast Warkentin 2008). The high degree of mutual intelligibility between contiguous Chicham varieties has led scholars to describe the language family as a dialect continuum (Gnerre 2010) or as a "language area" with emergent languages (Kaufman 1990: 42).

Various subgrouping proposals have been made for the Chicham family (Campbell 1997: 185; Corbera Mori 1994: 21; de Castellví & Espinosa 1958: 139–140; Gnerre 2010; Loukotka 1968: 157–158; McQuown 1955; Stark 1985: 176; Wise 1999: 309). Most of them can be condensed into the visual representation found in **Figure 2.1**. These proposals acknowledge the close relationship of Achuar and Shiwiar by grouping them as a single language. They also accurately distinguish Aguaruna from the other four more closely related languages (often labelled the "Shuar subgroup"). However, the assumption of these models is that the divergent phonological patterns found

in Aguaruna are conservative retentions inherited directly from Proto-Chicham and that the Shuar subgroup underwent shared phonological innovation. Specifically, Payne (1978: 46) suggests that Aguaruna retained a hypothesised velar nasal proto-phoneme */*ŋ/* which was innovated to */r/* in the languages of the Shuar subgroup. However, Overall (2008) points out the opposite is true: it is in fact Aguaruna which has undergone phonological innovation by losing the rhotic, whereas the */r/* found in the other four languages is a shared retention.. He therefore calls into question the validity of the family tree as shown in **Figure 2.1** and argues that there is no evidence to support internal subgrouping.

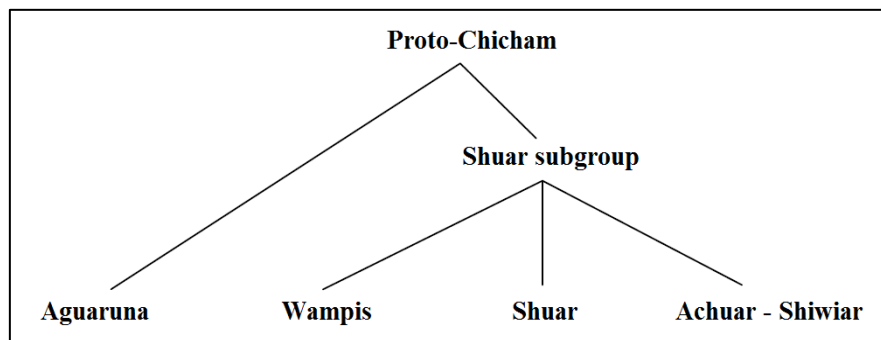


Figure 2.1. Problematic cladistic diagram of internal relations within the Chicham family (adapted from Overall 2007: 5; Stark 1985: 176)

Despite the problems in establishing cladistic subgroupings in the traditional way (based solely on lexical comparisons and phonological innovations), there does seem to be broad impressionistic consensus in the literature about the degree of relatedness of the five Chicham languages. As stated above, there is ample evidence that Aguaruna is the most divergent of the five. The other four languages form a dialect continuum where Wampis and Shuar, on the one hand, and Achuar and Shiwiar, on the other hand, are particularly closely related. Aguaruna and Wampis share some traits that the other languages do not, for example the lack of palatalisation of consonants after a front high vowel in Aguaruna and in younger Wampis speakers, although this feature is pervasive across the rest of the family. Finally, it has been observed that some lexical items are shared between Shiwiar and Aguaruna, even though they are not found in other languages including Achuar (Fast Mowitz, Warkentin de Fast & Fast Warkentin 2008: 12). **Figure 2.2** shows a non-cladistic representation of the internal relations within the Chicham language family, where the thickness of a line is proportional to the degree of relatedness between the languages.

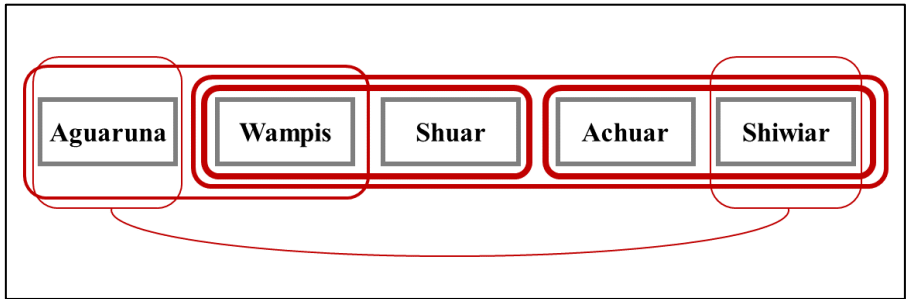


Figure 2.2. Internal relations within the Chicham language family

There are dictionaries and grammatical descriptions available for all Chicham languages except Shiwiar. In recent years, comprehensive grammars based on natural speech data have become available for Aguaruna (Overall 2017a) and Wampis (Peña 2015), as well as a detailed sketch grammar for Shuar (Saad 2014). Table 2.1 is a list of existing literature on Chicham languages. Previous work on Shiwiar is listed in §4.1.

Language	Reference	Topic
Achuar	Fast & Fast 1981	Pedagogical grammar
	Fast Mowitz 1975a	Morphology and syntax
	Fast Mowitz 1975b	Ideophones
	Fast Mowitz 1975c	Phonology
	Fast Mowitz, Warkentin de Fast & Fast Warkentin 2008	Dictionary
Aguaruna	Berlin & O'Neill 1981	Sound symbolism
	Corbera Mori 1978	Phonology
	Corbera Mori 1994	Grammar
	Fast & Larson 1974	Pedagogical grammar
	Larsen 1963	Morphology and syntax
	Larsen 2008	Dictionary
	Lee 1995	Nasality
	Overall 2007	Comprehensive grammar

Table 2.2. Literature on Chicham languages

Language	Reference	Topic
Aguaruna	Overall 2008	Phonology
	Overall 2009	Clause linking
	Overall 2014a	Clause chaining
	Overall 2014b	Nominalisations
	Overall 2016	Switch-reference
	Overall 2017a	Comprehensive grammar
	Overall 2017b	Commands
	Payne 1978	Nasality
	Payne 1989	Prosody
	Payne 1990b	Accent
	Pike & Larson 1964	Phonology
	Uwarai Yagkug, Paz Suikai & Regan 1998	Dictionary
	Wipio Deicat, Antunce Segundo & Jakway 1996	Dictionary
Shuar	Gnerre 2010	Grammar
	Pellizaro 1969	Grammar
	Pellizaro & Náwech 2005	Dictionary
	Saad 2014	Grammar
	Turner 1958a	Phonology
	Turner 1958b	Grammar
	Turner 1992	Grammar
Wampis	Beasley & Pike 1957	Phonology
	Berlin & O'Neill 1981	Sound symbolism
	Corbera Mori 1980	Word list
	Jakway 1987	Dictionary
	Larson 1957	Word list
	Peña 2015	Comprehensive grammar

Table 2.2. (cont.) Literature on Chicham languages

2.2.3. Genetic links to other languages

A number of possible historical links between the Chicham family and neighbouring languages have been suggested in the literature. Greenberg (1960; 1987) postulated a genetic grouping between Chicham languages and Kandozi-Chapra. Payne (1981) also claimed on the basis of shared lexical items that Kandozi-Chapra is related to Chicham languages, but he later retracted that claim (Payne 1990a: 84). Beuchat and Rivet (1909), on the other hand, list possible lexical similarities between Chicham languages and Arawak languages, leading a number of other scholars to make similar claims (de Castellví & Espinosa 1958; Gnerre 2010; Mason 1950). Finally, Kaufman (1990) claims that there is lexical support for a link between Chicham languages and Kawapanan languages.

Although there are indeed some lexical and morphological similarities between the aforementioned languages and the Chicham family, it has not been robustly shown that they are indicative of a common origin. In all cases, the lexical and morphological similarities could well be ascribed to language contact (see §2.3). In this work, it will be assumed that Chicham languages are not related to any other extant languages of South America. This is in line with the classifications by Tessmann (1930), McQuown (1955), Loukotka (1968) and Campbell (2012), all of whom consider Chicham languages to be an isolated grouping.

A special note should be made about Palta (also known as Xoroca), Malacato and Bracamoro (also known as Pacamuru), all of which are extinct languages of southern Ecuador and northern Peru which have also been linked to Chicham languages in much of the literature (Adelaar & Muysken 2004: 396–397; de Castellví & Espinosa 1958: 139–140; Loukotka 1968: 157; Mason 1950: 223; McQuown 1955; Steward & Métraux 1948: 618; Torero 2002: 284–287). Four Palta words were documented in Jiménez de la Espada (1965: 143). They are compared with possible Chicham cognates in **Table 2.3**.

The three possible cognate sets laid out in the table below are interesting, but they are not enough evidence to posit a genetic relationship between the Chicham family and Palta, as they may be the result of chance similarity or lexical borrowing. However, there are further indications that Palta may have been a Chicham language. Gnerre (1975) explores anthroponymic and toponymic clues from 16th century Spanish chronicles and concludes that Palta people and place names are highly reminiscent of Chicham ones. For example, many Palta toponyms end in *-nama*, which resembles the locative case marker in Chicham languages (=n(a)m(a) in Shiwiar). Furthermore, there seems to be a Chicham substrate in the Spanish of southern Ecuador and northern Peru where Palta was historically spoken. The local Spanish name for a common lancehead snake (*Bothrops atrox*) is *macanche*; the snake is called *makántj* in Shiwiar.

Palta		Chicham		Notes
Word	Meaning	Possible cognate	Meaning	
<yumé>	'water'	<i>júmi</i>	'water'	Note that <y> corresponds to [j] in Spanish. This cognate correspondence was first suggested by Rivet (1912: 135–136).
<let>	'firewood'			No corresponding Chicham cognates suggested in the literature.
<xeme>	'corn'	<i>śáa</i>	'corn'	Note that <x> often represents [ʃ] in the Spanish colonial literature. This cognate correspondence is suggested by Loukotka (1968: 158).
<capal>	'fire'	<i>kapáut</i> (Ag)	'burn'	This cognate correspondence is suggested by Torero (2002: 284).

Table 2.3. Palta words compared with possible Chicham cognates

2.3. Contact with unrelated indigenous languages

The north-western Amazon basin, where Chicham languages are spoken, is an area of great ethnic and linguistic diversity. Speakers of Chicham languages have long lived in close proximity to speakers of a number of unrelated language families, including Quechuan, Zaparoan, Kawapanan, Kandozi-Chapra and Taushiro (the last two being isolates rather than families). The relationships between these ethnic groups can be characterised as relatively egalitarian, and cultural practices such as exogamy (see §3.3.7) suggest that there is a history of deep conventionalised interaction between at least some of those groups. Epps and Michael (2017) describe very similar situations for other contact zones in Amazonia, and they point out that these conditions clearly favour cultural and linguistic diffusion. The degree to which the aforementioned languages have influenced each other is still unclear as there have been few systematic comparative studies of languages

of this particular region in northwest Amazonia. Nevertheless, there are some lexical and morphological similarities between Chicham languages and their neighbours which may be the result of language contact. I will discuss them in this section.

2.3.1. Lexical loans

I have only identified a small number of loanwords in Shiwiar from other indigenous languages.³ This might seem surprising at first sight, given that Shiwiar people are multilingual and are in regular contact with speakers of different languages. However, the low levels of lexical borrowing in Shiwiar are probably related to the fact that there are strong cultural prohibitions against language mixing and code-switching between Shiwiar and other indigenous languages (see §3.6). It is likely that over time speakers of Shiwiar would have monitored their lexicon to avoid loanwords from neighbouring languages in order to keep the language “pure”. This is highly reminiscent of what has been described for other areas of Amazonia, including the Vaupés, Putumayo-Caquetá and Upper Xingu regions, where low levels of lexical borrowing have also been explained by alluding to local cultural norms that strongly disfavour language mixing (Epps & Michael 2017).

Although there are few indigenous loanwords in Shiwiar overall, the borrowings that *are* present in the language seem to cluster in clear semantic domains: loanwords in Shiwiar are overwhelmingly terms for animals. It is interesting to note that many of the loanwords in Shiwiar are in fact *Wanderwörter*, words which have diffused across many Amazonian languages (cf. Haynie et al. 2018). This is once again remarkably similar to what has been found in other Amazonian contact areas. For example, in the languages of the Vaupés region borrowings are disproportionately found in the domains of flora-fauna and material/ritual culture, including many *Wanderwörter* (Epps & Michael 2017: 939–940). Epps and Michael further suggest that the high numbers of *Wanderwörter* in the Vaupés offer the impression that if a lexical item is to be borrowed, it is likely to be diffused widely. The data from Shiwiar appears to support this hypothesis.

Of all the words that I have identified as possible loanwords in Shiwiar, the vast majority are shared exclusively with Kandozi-Chapra, a language isolate spoken to the southwest of Shiwiar by some 3,000 people (Wise 1999: 310). Payne (1981) incorrectly identified many of these shared words as evidence that Kandozi-Chapra and Chicham languages are genetically related. However, since no other evidence of further shared inherited material between the two language groups has been identified, these shared

³ Many of the loanwords I list here were brought to my attention through a lexical comparative database compiled by Pattie Epps and colleagues (Epps n.d.).

words are better analysed as borrowings. **Table 2.4** is a list of lexical items found in both Shiwiar and Kandozi-Chapra.

Shiwiar	Kandozi-Chapra ⁴	Notes
<i>áju</i> 'yes, OK (affirmative feedback)'	<i>ájó</i> 'very well' (Tuggy 2008: 3)	
<i>ampúf</i> 'owl'	<i>ampoja</i> 'owl' (Tuggy 2008: 1)	Apocope in Shiwiar.
<i>aúnts</i> 'Spix's guan (<i>Penelope jacquacu</i>)'	<i>karontsi</i> 'guan' (Tuggy 2008: 23)	Loss of intervocalic /r/ in Shiwiar.
<i>hñntjam</i> 'bat'	<i>ntjómira</i> 'bat' (Tuggy 2008: 38)	Apocope in Shiwiar.
<i>jájã</i> 'type of rodent'	<i>yaníayá</i> 'jungle rat' (Tuggy 2008: 108)	Nasalisation in Shiwiar.
<i>kawáu</i> 'blue-and-yellow macaw (<i>Ara ararauna</i>)'	<i>kawaaro</i> 'macaw' (Tuggy 2008: 25)	Loss of intervocalic /r/ in Shiwiar.
<i>kunám</i> 'squirrel'	<i>konampi</i> 'squirrel' (Tuggy 2008: 31)	Apocope in Shiwiar.
<i>kúru</i> 'bicolored-spined porcupine (<i>Coendou bicolor</i>)'	<i>koro</i> 'bicolored-spined porcupine' (Tuggy 2008: 32)	
<i>mantju</i> 'mosquito'	<i>mantšo</i> 'mosquito' (Tuggy 2008: 45)	
<i>máfu</i> 'Salvin's curassow (<i>Mitu salvini</i>)'	<i>mafo</i> 'curassow' (Tuggy 2008: 45)	
<i>míik</i> ¹ 'common bean (<i>Phaseolus vulgaris</i>)'	<i>miika</i> 'common bean' (Tuggy 2008: 47)	Apocope in Shiwiar.
<i>muúk</i> 'head'	<i>mootjo</i> 'head' (Tuggy 2008: 48)	Apocope in Shiwiar.
<i>pamá</i> 'tapir (<i>Tapirus terrestris</i>)'	<i>pamara</i> 'tapir' (Tuggy 2008: 58)	Loss of intervocalic /r/ in Shiwiar.

Table 2.4. Shared vocabulary in Shiwiar and Kandozi-Chapra

⁴ I have adapted the transcription of Kandozi-Chapra words from their source so that they are spelt phonemically here. The translations into English are mine.

Shiwiar	Kandozi-Chapra	Notes
<i>suŋkírurum</i> 'eel'	<i>saŋkíramá</i> 'eel' (Tuggy 2008: 67)	Apocope in Shiwiar.
<i>súsu</i> 'beard'	<i>sosi</i> 'beard' (Tuggy 2008: 70)	
<i>súunti</i> 'iguana'	<i>sóntari</i> 'iguana' (Tuggy 2008: 69)	Loss of intervocalic /r/ in Shiwiar.
<i>furúk</i> 'cockroach'	<i>forota</i> 'cockroach' (Tuggy 2008: 73)	Apocope in Shiwiar. <i>fuut</i> in other Chicham languages (Larson 2008: 63; Pellizaro & Náwech 2005: 382).
<i>túnta</i> 'container made out of a calabash'	<i>tóntó</i> 'calabash' (Tuggy 2008: 82)	
<i>tsías</i> 'poison'	<i>tspasa</i> 'poison' (Tuggy 2008: 92)	Apocope in Shiwiar.
<i>wáã</i> 'hole'	<i>waatfo</i> 'hole' (Tuggy 2008: 93)	Apocope in Shiwiar.
<i>wakán</i> 'spirit'	<i>kaniisi</i> 'spirit' (Tuggy 2008: 21)	Apocope in Shiwiar. Likely of Kandozi-Chapra origin, as <i>wa-</i> is a 3 rd person possession prefix in Kandozi-Chapra (Tuggy 2008: 239)
<i>witŋiŋ</i> 'small squirrel'	<i>ptŋiŋko</i> 'black squirrel' (Tuggy 2008: 60)	Apocope in Shiwiar.
<i>uwifín</i> 'shaman'	<i>wifinó</i> 'shaman' (Tuggy 2008: 104)	Likely of Chicham origin, as it is morphologically complex in Shiwiar: <i>uwif-ín</i> (cure-AG.NMLZ).
<i>uŋkúmi</i> 'capybara (<i>Hydrochoerus hydrochaeris</i>)'	<i>ŋkómijá</i> 'capybara' (Tuggy 2008: 9)	Apocope in Shiwiar. Not commonly used in Shiwiar; <i>kapiwár</i> (also a loan, see Table 2.6) is often used instead.

Table 2.4. (cont.) Shared vocabulary in Shiwiar and Kandozi-Chapra

For most of these words, it is unclear what the directionality of the borrowing is. It may be tempting to assume that Kandozi-Chapra is the source language because many of the Shiwiar words have undergone loss of intervocalic /r/ or apocope. However, these phonological processes are recent and attested in the native vocabulary of Shiwiar as well (see §5.2.1), so they are not indicative of directionality in loans. Given that most of the words in **Table 2.4** have regular cognates across the entire Chicham language family, it is possible that these are in fact mostly Chicham loans into Kandozi-Chapra. Alternatively, they could be Kandozi-Chapra loans into Proto-Chicham, or the words could have diffused across the Chicham language family over time.

As discussed above, in addition to vocabulary shared exclusively with Kandozi-Chapra, Shiwiar also has loanwords which have been borrowed across many language families in northern South America. A number of these so-called *Wanderwörter* are listed in **Table 2.5**. Although it is still unclear to what degree colonial languages like Spanish mediated the spreading of some of these words, it is important to note that pre-Columbian trade networks likely played a much more central role in establishing cultural diffusion practices between language groups which then facilitated the dissemination of *Wanderwörter*. The phonological forms of many *Wanderwörter* suggest that even words which are ultimately of Spanish origin, like *plátano* 'banana', may have been diffused via indigenous languages (for example via Quechuan *palanta* 'banana') rather than borrowed directly from Spanish.

Shiwiar word	Families with probable cognates	Selected sources for sample cognates
<i>atáf</i> 'chicken'	Barbacoan, Kandozi-Chapra, Kawapanan, Panoan, Quechuan	(Huber & Beed 1992: 137; Jakway Todd 1975: 145,245; Landerman 2008: 14; Tuggy 2008: 36)
<i>jáhi</i> 'chaliponga (<i>Diplopterys cabrerana</i>)'	Cariban, Kamsá, Quechuan, Tukanoan, Zaparoan	(Beier et al. 2011: 51; Huber & Beed 1992: 173; Jakway Todd 1975: 303)
<i>kánu</i> 'canoe'	Barbacoan, Cariban, Chibchan, Kamsá, Kandozi-Chapra, Quechuan, Zaparoan	(Beier et al. 2011: 21; Huber & Beed 1992: 90; Landerman 2008: 16; Tuggy 2008: 21)
<i>kuíf</i> 'pineapple (<i>Ananas comosus</i>)'	Boran, Kandozi-Chapra	(Thiesen & Thiesen 2008:94; Tuggy 2008:32)

Table 2.5. *Wanderwörter* in Shiwiar

Shiwiar word	Families with probable cognates	Selected sources for sample cognates
<i>kúju</i> 'blue-throated piping guan (<i>Pipile cumanensis</i>)'	Arawak, Guahiban, Tukanoan	(Huber & Beed 1992: 136)
<i>kútʃi</i> 'pig'	Candoshi, Quechuan, Zaparoan	(Beier et al. 2011: 24; Landerman 2008: 18; Tuggy 2008: 29)
<i>paántam</i> 'banana (<i>Musa × paradisiaca</i>)'	Arawak, Barbacoan, Guahiban, Kandozi-Chapra, Kawapanan, Quechuan	(Huber & Beed 1992: 174; Jakway Todd 1975: 153; Landerman 2008: 35; Tuggy 2008: 59)
<i>páni</i> 'piranha (<i>Serrasalmuus</i> sp.)'	Cariban, Kandozi-Chapra, Quechuan	(Landerman 2008: 35; Meira 1999: 697; Tuggy 2008: 58)
<i>sáãsa</i> 'hoatzin (<i>Opisthocomus hoazin</i>)'	Cofán, Kandozi-Chapra, Quechuan, Wao	(Orr D. & de Pearson 1979: 12–13; Tuggy 2008: 67)
<i>tímʷu</i> 'fish poison (<i>Lonchocarpus nicou</i>)'	Kandozi-Chapra, Tupian	(Souza Mello 2000: 197; Tuggy 2008: 81)
<i>túntui</i> 'signal drum'	Kawapanan, Tikuna-Juri, Tukanoan, Tupian, Urarina	(Anderson & Anderson 2016:224; Huber & Beed 1992: 188; Jakway Todd 1975: 155,314; Vallejos Yopán & Amías Murayari 2015: 198)
<i>tsukaŋká</i> 'white-throated toucan (<i>Ramphastos tucanus</i>)'	Quechuan, Tupian	(Landerman 2008: 45; Souza Mello 2000: 198)
<i>ĩfúu</i> 'silvery woolly monkey (<i>Lagothrix poeppigii</i>)'	Kandozi-Chapra, Quechuan	(Landerman 2008: 24; Tuggy 2008: 15)
<i>wiákuʃ</i> 'outsider, white person'	Arawak, Kandozi-Chapra, Quechuan	(Academia Mayor de la Lengua Quechua 2005: 257; Snell 1998: 267; Tuggy 2008: 104)

Table 2.5. (cont.) *Wanderwörter* in Shiwiar

Table 2.6 is a small list of localised loanwords which only seem to be shared between Shiwiar and one other neighbouring language family (excluding Kandozi-Chapra).

Shiwiar word	Likely source family	Notes
<i>jāwǎǎ</i> 'dog, jaguar'	Tupian (Souza Mello 2000: 167)	
<i>kapiwár</i> 'capybara (<i>Hydrochoerus hydrochaeris</i>)'	Tupian (Souza Mello 2000: 171)	There is a less frequent synonymous Shiwiar word: <i>uṅkúmi</i> (possibly a loan as well, see Table 2.4)
<i>kúri</i> 'gold'	Quechuan (e.g. Landerman 2008: 19)	
<i>kútʃa</i> 'lake'	Quechuan (e.g. Landerman 2008: 18)	There is a less frequent synonymous Shiwiar word: <i>mamús</i>
<i>papáih</i> 'papaya (<i>Carica papaya</i>)'	Arawak (Campbell 1997: 11)	
<i>ǰáa</i> 'maize (<i>Zea mays</i>)'	Quechuan (e.g. Landerman 2008: 44)	

Table 2.6. Other localised lexical borrowings in Shiwiar

Finally, another lexical contact phenomenon that is found in Shiwiar is the calquing of place names. For example, the river that is generally referred to as the *Río Shiona* ('Shiona River') in Spanish is called *shiona yaku* ('river of the açai palm') in Northern Pastaza Kichwa (a Quechuan language of the area), and it is called *sakí íntsa* (also 'river of the açai palm') in Shiwiar. The calquing of place and river names has been described for other Amazonian contact areas as well (Epps & Michael 2017: 940).

2.3.2. Borrowed morphology

Although it is beyond the scope of this work to explore all possible cases of morphological borrowing in Shiwiar, there are three morphemes which are similar enough in function and form to morphemes in neighbouring languages to be considered a possible result of language contact. The first is the Shiwiar topic enclitic =*k(a)* (see §6.6.2 and §7.12.2). It is highly reminiscent of the Quechuan (-*qa* ~ -*ka* ~ -*ga*) and Aymaran (-*χa* ~ -*qa*) topic marker (Adelaar & Muysken 2004). Like in Quechuan and Aymaran languages, this Shiwiar enclitic appears in topicalised noun phrases, but it is also used to

mark the protasis in a conditional clause. Compare the uses of this topic marker in Shiwiar in examples (2.1) and (2.2) to the use of the analogous marker in Quechuan languages in examples (2.3) and (2.4).⁵

- (2.1) *víjpa nukúrka hujuijtsánam puhúvit'ai.*
wí=n'a nukú-i=ka hujuin'tsá=nam
 1SG=OBJ(P) mother-1SG.P=TOP Juyuintsa=LOC
puhú=it'i-a-i.
 live+S.NMLZ=COP-3.S-DECL
 'My mother lives in Juyuintsa.'
 'Mi madre vive en Juyuintsa.'
 (T03-S03S14-02.wav; 00:13-00:15)
- (2.2) *ámi awímbrajtj wakírakmika; amíka nungá taútmit'a.*
ámi awí-m-ra-tin^j wakír-a-k-mí=ka;
 2SG save-REFL-PFV-AS.NMLZ want-IPFV-SIM-2SG.SS=TOP
amí=ka nungá taú-t-m-i-t'a.
 2SG=TOP ground+LOC dig-APPL-REFL-PFV-2SG.S=IMP
 'If you want to save yourself, dig yourself into the ground!'
 'Si te quieres salvar, ¡cávate en la tierra!'
 (T01-S02-04.wav; 01:35-01:39)
- (2.3) *kaj jan-qa ajakutjū-man ri-n.*
 this road-TOP Ayacucho-ALL go-3.S
 'This road goes to Ayacucho.'
 (AYACUCHO QUECHUA (QUECHUAN); Adelaar & Muysken 2004:215)
- (2.4) *mana tjiwaku pla:nu-nji-ta aspi-pti-n-qa*
 not blackbird map-1PL.INCL-ACC erase-DS-3.S-TOP
tapu-m limaq ka-n-man ka-ra.
 Tapo-AFF Lima COP-3.SUB-POT COP-3.S.PST
 'If the blackbird had not erased our map, Tapo would have been Lima.'
 (TARMA QUECHUA (QUECHUAN); Adelaar & Muysken 2004:225)

A second morpheme that resembles other morphological structures in the region is one of the Shiwiar applicative markers, *-t(u)* (see §8.2.2). Wise (2002) noted that some Kawapanan, Zaparoan and Peba-Yaguan languages have applicative suffixes in the form of *-tV* which serve very similar secondary functions in addition to their primary function of adding a core argument to a verb. These secondary functions include adding locative arguments to a verb and deriving nouns into intransitive verbs. The Shiwiar

⁵ I have adapted the transcription of the Quechuan examples from their source so that they are spelt phonemically here. I have also adapted the glossing to be in line with the glossing conventions used in this dissertation.

applicative suffix *-t(u)* is used for all those purposes as well, and has a very comparable phonological form.

Finally, a Chicham morpheme that has already been flagged in previous literature as a widespread grammatical structure in South America is the causative prefix in the form of a single vowel (Payne 1990a: 78). This causative marker is found in many Amazonian language families, including Arawak (*a-*, *i-*, *e-* or *o-*), Arawan (*a-*) and Harakmbut (*a-*). There is a highly reminiscent causative prefix in Shiwiar with the form *a-*, *i-*, *e-* or *u-* (see §8.2.1). The case of this morpheme is particularly noteworthy because this causative is the only prefix in Shiwiar; every other morpheme in the language is either a suffix or an enclitic. This raises the question of whether this prefix might have entered the language through contact, perhaps by means of analogy.

Although none of these shared morphological forms have been conclusively shown to have arisen through contact, the fact that there are form and meaning correspondences in the morphology of Shiwiar and neighbouring languages suggests this may be a promising area for future research on morphological borrowing.

2.3.3. Syntactic and semantic borrowing

One area of Shiwiar syntax and semantics where there are clear parallels with neighbouring languages is the predicative use of nominalisations, especially when they are combined with copulas. The Shiwiar agentive nominaliser *-(i)n'(u)* derives a noun from a verb which means 'a person who does X' (where 'does X' stands for the verb), e.g. *nakúr-in'* (play-AG.NMLZ) means 'player' (see §8.11.1). However, when that nominalisation is combined with a copula it becomes a predicate with habitual semantics, like in (2.5). In Salasaka Kichwa (a Quechuan variety spoken in central Ecuador), an analogous syntactic structure exists with the same semantics, as shown in (2.6).⁶

- (2.5) *tʃuú utʃiríh'ãĩ nakúrip ármiaji.*
tʃuú utʃi-ríʔ=h'ãĩ nakúr-in'
 woolly.monkey+GEN child-1PL/2PL/3.P=COM play-AG.NMLZ
á-r-mia-ji.
 COP-PL-DIST.PST-3.S+DECL
 'They used to play with the woolly monkey babies.'
 'Sabían jugar con los bebés de los chorongos.'
 (T01-S02-04.wav; 00:33-00:37)

⁶ I have adapted the transcription of the Salasaka Kichwa examples from their source so that they are spelt phonemically here. I have also adapted the glossing to be in line with the glossing conventions used in this dissertation.

- (2.6) *jamu-k ka-ni.*
 come-AG.NMLZ COP-1SG.S
 'I usually come.'
 (SALASAKA KICHWA (QUECHUAN); Muysken 2011:141)

Furthermore, the Shiwiar action/state nominaliser *-t(i)nⁱ(u)* derives a nominal citation form for a verb which names the activity or state that corresponds with that verb, e.g. *puhu-s-tinⁱ* (live-PFV-AS.NMLZ) means 'to live' or 'life' (see §8.11.3). However, once again, when that nominalisation is combined with a copula it becomes a predicate with deontic semantics, like in (2.7). Like before, there is a perfectly analogous structure in Salasaka Kichwa which has the same semantics, as shown in (2.8).⁷

- (2.7) *jamáikⁱa nungá puhustⁱnuitⁱmi tamá nú.*
jamái=kⁱa nunká puhu-s-tinⁱ=itⁱ-mi
 now=TOP ground+LOC live-PFV-AS.NMLZ=COP-2SG.S+DECL
t-a-má nú
 say-IPFV-NSBJ>SBJ ANA
 "'Now you have to live on the ground," he said.'
 "'Ahora tienes que vivir en la tierra" dijo él.'
 (T01-S03-01.wav; 08:43-08:46)
- (2.8) *ri-na ga-ni.*
 go-AS.NMLZ COP-1SG.S
 'I have to go.'
 (SALASAKA KICHWA (QUECHUAN); Muysken 2011:143)

It is possible that these syntactic and semantic similarities arose in Chicham and Quechuan languages by chance, but given what is known about grammatical convergence in other contact areas in Amazonia, it would not be surprising if these structures have been shaped to some degree by shared regional discourse practices and language contact.

2.4. Contact with Spanish

Shiwiar speakers have only been in regular contact with Spanish for a few decades. In Shiwiar communities, Spanish still only plays a minimal role (see §3.6 for more information about language use). Nevertheless, the situation is rapidly changing as younger members of the Shiwiar community are

⁷ I have adapted the transcription of the Salasaka Kichwa examples from their source so that they are spelt phonemically here. I have also adapted the glossing to be in line with the glossing conventions used in this dissertation.

increasingly integrating into the mainstream Spanish-speaking culture of Ecuador. With the exception of older community members, almost everyone in the Shiwiar Nation is now to some degree proficient in Spanish. It should be noted however that the variety of Spanish spoken by most Shiwiar people is an emerging dialect with its own distinctive characteristics, yet still fully intelligible with other Spanish dialects.

Interestingly, although Spanish has been in contact with Shiwiar for a much shorter time than neighbouring indigenous languages, Shiwiar speakers frequently code-switch into Spanish, whereas they almost never code-switch into Kichwa. This means that it is not unusual to hear Spanish words or phrases embedded within Shiwiar utterances. Many Shiwiar people see this as a negative development, and speakers who worked with me on transcribing recordings of Shiwiar discourse often wanted to correct or delete cases of code-switching that appeared in the corpus.

So far, the main influence that Spanish has had on Shiwiar is at the lexical level, and especially with regards to words relating to Western Ecuadorean culture and electronic/digital technology. However, similarly to what has been described for other Chicham languages (Overall 2017a: 32), it is difficult to decide whether a particular Spanish word or phrase in Shiwiar is a true loanword or simply an impromptu case of code-switching. In addition to the lexicon, there is also an area of syntax that may be undergoing contact-induced change. The preferred strategy in Shiwiar for clause combining is either through clause-chaining and switch-reference or simple parataxis, but in careful and planned speech many Shiwiar speakers have begun co-ordinating clauses with Spanish conjunctions, especially *pero* 'but'. A more in-depth study of this kind of incipient contact-induced change would be a fruitful enterprise, but it will not be covered within the scope of this work.

2.5. Orthography

Shiwiar has only recently become a written language and there is no universally accepted orthography. Although 80% of Shiwiar people are now literate (NASHIE 2012: 57), most of them do not regularly read or write in Shiwiar. Consequently, there is a high degree of orthographic variation, both across and within individuals. Despite this variability, two standards have been emerging: one that takes into account phonetic/allophonic variation and makes use of various Spanish orthography conventions (labelled here as the “Phonetic Orthography”), and one that is more phonemic and less reliant on Spanish conventions (labelled here as the “Phonemic Orthography”). Both are based on the Roman alphabet. For ease of presentation, the two orthographies will be portrayed in this section as if they were codified standards, but it is important to keep in mind that there is still no generalised consensus on spelling norms amongst the Shiwiar community. As such, the

orthographic rules laid out here should not be interpreted prescriptively, but rather as illustrative examples of how some Shiwiar texts have been written.

The use of one or the other orthography is a potentially contentious matter (see Kohlberger 2016). The Phonemic Orthography is very similar to the orthographies developed for other Chicham languages, so it is resentfully perceived by some members of the community as a weakening of Shiwiar identity in favour of a pan-Chicham identity. The Phonetic Orthography on the other hand distinguishes Shiwiar from the other Chicham languages, but it is heavily reliant on Spanish orthographic peculiarities, which is interpreted by some as unnecessary and colonialist. Furthermore, the Phonemic Orthography was developed by missionaries and the Phonetic Orthography is advocated by individual Shiwiar leaders, so the choice of one or the other orthography may also be representative of religious or political allegiances.

For these reasons I will remain impartial as to which orthography should be used. In this work, all Shiwiar examples that originate in spoken language are represented phonemically in IPA. Examples that are taken from written sources are kept as they are spelt in the original, but they are complemented by a phonemic transcription in IPA as well. For a more detailed overview of the coding conventions in this work, see §1.6.

The Phonemic Orthography is best exemplified in Fast Mowitz, Warkentin de Fast and Fast Warkentin (2008) while the Phonetic Orthography is best exemplified in Vargas Canus and Tsetsekip (2002). **Table 2.7** summarises the conventions for both orthographies. The main differences are the following:

- (a) The Phonetic Orthography represents the allophonic voicing of stops after nasals, whereas the Phonemic Orthography does not.
- (b) The Phonetic Orthography follows the Spanish convention of inserting a silent orthographic <u> between <g> and <i> and between <g> and <e> to represent the phonetic sequence [gi] and [gi] respectively.
- (c) The Phonetic Orthography also follows the Spanish convention of using a diaeresis to indicate that a <u> between <g> and <i> is actually pronounced. In other words, <güi> represents the phonetic sequence [gui].
- (d) All Shiwiar consonants except /r, s, ʃ, tʃ, ts, j, ɲ/ undergo palatalisation when they are preceded by an /i/. Because of the largely predictable nature of palatalisation, the Phonemic Orthography does not mark it. The Phonetic Orthography marks it with an <i> after the palatalised consonant, unless the consonant is word-final (in which case the palatalisation goes unmarked). The Phonetic Orthography additionally uses the Spanish grapheme <ñ>

to represent a palatalised dental nasal /nⁱ/, whereas the Phonemic Orthography does not distinguish it from /n/.

- (e) In the Phonemic Orthography a velar nasal /ŋ/ is always spelt as <ng>. In the Phonetic Orthography, it is only spelt as <ng> if the nasal is word-final. Otherwise it is just spelt as <n>. (Note however that a velar nasal is always followed by a velar stop word-internally.)
- (f) Nasalisation is marked in the Phonemic Orthography by underlining the nasal vowel. It is not marked in the Phonetic Orthography.
- (g) Accent is always marked in the Phonemic Orthography by means of an acute diacritic, whereas it is only marked in the Phonetic Orthography (also by an acute diacritic) if the accent is word-final.

Phoneme	Conditioning	Corresponding Grapheme		Example (A= Phonetic Orthography; B = Phonemic Orthography)
		Phonetic Orthography	Phonemic Orthography	
p	after nasal	b	p	A: <i>pamba</i> B: <i>pámpa</i>
	elsewhere		p	/pámpa/ [pámpa] 'sandstone'
t	after nasal	d	t	A: <i>tundup</i> B: <i>tuntúp</i>
	elsewhere		t	/tuntúp/ [tundúp] 'back'
k	after nasal	g	k	A: <i>nunga</i> B: <i>núnga</i>
	after nasal, before <e/i>	gu	k	/núnga/ [núnga] 'ground'
	elsewhere		k	A: <i>kengué</i> B: <i>kengké</i> /kɪŋkɛ/ [kɪŋgɛ] 'Indian yam'
ts			ts	A: <i>tsapa</i> B: <i>tsápa</i> /tsápa/ [tsápa] 'calabash'
ʈʂ			ch	A: <i>chuu</i> B: <i>chiúu</i> /ʈʂúu/ [ʈʂúu] 'silvery woolly monkey'
s			s	A: <i>saké</i> B: <i>saké</i> /sakɛ/ [sakɛ] 'açai palm'
ʃ			sh	A: <i>shaa</i> B: <i>sháa</i> /ʃaa/ [ʃaa] 'maize'

Table 2.7. Orthographic conventions

Phoneme	Conditioning	Corresponding Grapheme		Example (A= Phonetic Orthography; B = Phonemic Orthography)
		Phonetic Orthography	Phonemic Orthography	
h			j	A: <i>hapa</i> /hápa/ [hápa] 'red brocket' B: <i>hápa</i>
m			m	A: <i>mama</i> /máma/ [máma] 'manioc' B: <i>niáma</i>
n			n	A: <i>numi</i> /númi/ [númi] 'tree' B: <i>númi</i>
ŋ	word-internally	n	ng	A: <i>yanguipik</i> /jan'kip'ik-/ [jangipik-] 'collared peccary' B: <i>yanguipik</i>
	word-finally	nk	ng	A: <i>namank</i> /namán/ [namán] 'meat' B: <i>namáng</i>
n'		ñ	n	A: <i>ñiak</i> /in'ák/ [inák-] 'type of tree' B: <i>inák</i>
r			r	A: <i>charap</i> /tʃaráp/ [tʃaráp] 'Arrau turtle' B: <i>charáp</i>
w			w	A: <i>waa</i> /wáa/ [wáa] 'great tinamou' B: <i>wáa</i>

Table 2.7. (cont.) Orthographic conventions

Phoneme	Conditioning	Corresponding Grapheme		Example (A= Phonetic Orthography; B = Phonemic Orthography)
		Phonetic Orthography	Phonemic Orthography	
j			y	A: <i>yumi</i> B: <i>yúmi</i> /júmi/ [júmi] 'water'
a			a	A: <i>aja</i> B: <i>ája</i> /áha/ [áha] 'garden'
i			e	A: <i>esat</i> B: <i>esát</i> /isát/ [isát'] 'summer'
i			i	A: <i>ikiam</i> B: <i>íkiam</i> /íkiam/ [íkiam] 'forest'
u	between <g> and <i> elsewhere	ü u	(not applicable) u	A: <i>kungüim</i> B: <i>kunkuim</i> /kunjkuím/ [kunjkuím] 'yellow-footed tortoise'
(Nasalisation)		(not marked)	_(underlined)	A: <i>nasé</i> B: <i>nasé</i> /nasé/ [nasé] 'wind'
(Accent)	final vowel	'(acute accent)	'(acute accent)	A: <i>pamá</i> B: <i>pamá</i> /pamá/ [pamá] 'South American tapir'
	elsewhere	(not marked)	'(acute accent)	A: <i>máshu</i> B: <i>máshu</i> /máfu/ [máfu] 'Salvin's curassow'

Table 2.7. (cont.) Orthographic conventions