A grammar of Ashéninka (Ucayali-Pajonal)

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2. Phonology

Ashéninka has a small phonological inventory, but its study has some difficulties due to complicated allophonic relations, several morphophonemic alternations and phonological processes, and a highly complex stress pattern, all of which are treated in this chapter. Sections 2.1 and 2.2 show the phonological inventory of vowels and consonants, respectively, and describe all phonemes with their particularities. Section 2.3, Phonotactics, describes the syllable and word structure. Section 2.4 gives an overview of the orthographies that have been used for Ashéninka and presents the one used in this thesis. Section 2.5 is devoted to stress, which is not contrastive and has a complex pattern. Section 2.6 describes some abbreviations used by speakers when speaking and the special phonetic features of ideophones. Section 2.7, Morphophonology, deals with the phonological alterations that some morphemes undergo when they are combined with other morphemes.

2.1. Vowels

This section is divided into three subsections. Section 2.1.1 describes the vowels of the language. Section 2.1.2 presents some minimal pairs by comparing words that differ only in one vowel: firstly, with words for which the difference lies only in the length of the vowel; secondly, when the difference is between vowels with a certain similarity. Section 2.1.3 deals with vowel combinations in diphthongs and hiatus.

2.1.1. Vowel inventory

Ashéninka has the typical four Campan vowels, which can be short or long, as illustrated in Table 2. The difference between short and long vowels cannot be heard as clearly as in English or German, so I needed to ask the consultants often if a vowel was short or long. In some cases, even they hesitated, which shows that the difference between a short and a long vowel may be fuzzy, although stress can make it easier to recognise them in some cases.

Table 2. Ashéninka vowels

	Front	Central	Back
Close	i iː		
Mid	e eː		o oː
Open		a aː	

/o/ is usually realized as [o], but also as [ʊ] or [u] in some phonetic environments. Most recorded examples occur after /p/:

/poˈkaːntsʰi/ ‘come’ [pʊˈkaːntsʰɨ̥] /poˈmaniɾo/ ‘hide it!’ [puˈmaniɾo]

/ˈpoja/ ‘eat!’ [ˈpʊja] /ˈpowa/ ‘you eat’ [ˈpu.a]

Another instance in my corpus is /niˈʃinco/ ‘my daughter’ [niˈʃincʊ], where the raising is probably caused by the preceding palatal consonant.

/e/ is always realized as [e]. Similar realizations must be considered to belong to the phoneme /i/.

/i/ has a special status when compared to the other vowels. It has a very broad range of phonetic realization, which encompasses [i], [ɪ], [ɨ], [ɘ] and [e]. After /ʦ/, /i/ is regularly realized in a range between [ɨ] and [ɘ], which makes the contrast /ʦi/-/ʦʰi/ clearer –however, the difference is still difficult to recognise for a speaker of a Western European language as me. The rest of the realizations occur in free choice with a tendency to pronounce [ɪ], except after /ɾ/, where [i] is the most frequent realization. Also, after /t/ there is a tendency to pronounce a raised [e]. The wide range of /i/ can be observed in the spelling, since literate or semiliterate speakers can write the same word with <e> or <i> and say that it does not matter how you write it or if you pronounce *i* or *e* in a Spanish-like way. On the contrary, a vowel can be clearly identified as /e/ because a speaker will say that the pronunciation [i] is wrong.

However, the unique position of /i/ regarding the other vowels is due to restrictions regarding the consonants that they can accompany, which are all in the alveolo-palatal area: /i/ cannot occur after /tʰ/, /c/ or /ʧʰ/, and is the only vowel that occurs after /ʦ/ and /ʦʰ/. This fact leads to the question of whether some of these consonants are allophones, which is discussed in Section 2.2.5.

Another peculiarity of /i/ is that it is often devoiced in unstressed syllables (e.g. /oˈhaiteki/ [oˈhaitekɨ̥] ‘tomorrow’, /noˈpawati/ [noˈpawatɨ̥] ‘my father’), and not only

after voiceless consonants (e.g. /noˈɲeːɾi/ [noˈɲeːɾɻ̊] ‘I see him’). This devoicing results in a total deletion after /ʃ/ and /tsʰ/ (e.g. /ˈeːnitatsi/ [ˈeːnitatsʰ] ‘there is’, /ˈpaːʃini/ [ˈpaːʃni] ‘another’). This feature is described in more detail in Section 2.3.1.

/a/ is regularly realized as [a], although it can be weakened to [ɐ] in final unstressed syllables.

Every vowel has a short and a long version, and the long version attracts stress (see Section 2.5, on stress).

2.1.2. Minimal pairs

These are some minimal pairs that contrast short and long vowels:

/o/-/oː/	/ˈimoː/	‘his hole’	/ˈimo/	‘kind of larva’
	/noˈtonki/	‘my bone/I shoot’	/noˈtoːnki/	‘I grind’
/e/-/eː/	/kenˈtaki/	‘he hunted with bow’	/ˈkeːntaki/	‘it itches’
/i/-/iː/	/ˈpito/	‘night monkey’	/ˈpiːto/	‘your head’
	/piˈtsiːki/	‘you’re hungry’	/ˈpiːtsiki/	‘your foot’
/a/-/aː/	/ˈhataki/	‘he/she left’	/ˈhaːtaki/	‘it broke down’
	/ˈhaka/	‘here’	/ˈhaːka/	‘full’
	/piˈtʰawi/	‘your vagina’	/piˈtʰaːwi/	‘you are scared’

Other minimal pairs differentiating vowels that can show a certain similarity are as follows:

/a/-/o/	/ˈpawa/	‘father (vocative)’	/ˈpowa/	‘you eat’
	/ˈpaːki/	‘you have taken’	/ˈpoːki/	‘jump!’
	/ˈpaki/	‘answer!’	/ˈpoki/	‘your eye’
/a/-/e/	/iˈkamaki/	‘he has died’	/iˈkemaki/	‘he has heard’
/e/-/i/	/peˈɾantsi/	‘idle’	/piˈɾatsi/	‘domestic animal’

2.1.3. Diphthongs and hiatus

Ashéninka traditional orthography includes a frequent diphthong spelled <ae>, which can be realized in several ways: [ae], [ai], [æi], [ei] and [oe], with [æi] being the most frequent. I have often heard [oe] as a realization of /ae/ with the plural enclitic /paeni/ ([ˈpoeni]), but I have also heard it as [ˈpæini]. Therefore, it seems that the choice of

one of the possible realizations is quite free, although the tendency to pronounce [oe] after /p/ seems natural because of this consonant's labial character. This diphthong can also become the long vowel [eː], and I even have an instance where it becomes [ɛ] (/ɾoˈwae/, [ɾoˈwɛ] 'he eats us'), which is a very atypical phonological word due to the stress in the last syllable.

There is only one other diphthong: /oe/, much less frequent than /ae/. This diphthong appears when the 3rd person feminine prefix /o/ or the 1st person prefix /no/ precede a stem starting with /e/ (e.g. /ˈoemi/ 'her husband', /ˈnoeta/ 'my name is'). It can also occur inside lexical stems (e.g. /ˈɾoetakiɾi/ 'he serves them a drink', where /oe/ is the stem of the verb 'serve a drink').

The diphthongs [ei], [oi] and [ai] appear as a realization of a vowel plus /ji/: /ˈmejiɾi/ [ˈmeiɾi] 'squirrel', /iˈkaːtejini/ [iˈkaːteini] 'all of them', /noˈkoji/ [noˈkoi] 'I want', /koˈmajiɾi/ [koˈmaiɾi] 'tambaqui'. A diphthong [ei] can also be uttered as a realization of the long vowel /eː/ (/piˈheːki/ [piˈheiki] 'you live/stay in a place'). The same sequence of vowel plus /ji/ that can cause a diphthong can also cause a hiatus, so that the former examples can be pronounced as [ˈme.iɾi], [iˈkaːte.ini], [noˈko.i], [koˈma.iɾi]. Therefore, a word as /koˈmajiɾi/ can be pronounced as [koˈma.iɾi] (the most common), [koˈmaiɾi] (when speaking faster) or [koˈmajiɾi] (practically restricted to dictating).

Two vowels can form a hiatus by weakening and deletion of glides. /w/ can become much weakened and even deleted between /o/ and /a/, so that a hiatus is formed (e.g. /i.kowa.kowawitaˈkaɾi/ [i.ko.a.ko.aβ̞itaˈkaɾi] 'he is repeatedly searching him in vain'; /okoˈwani/ [okoˈanę] 'she wants'). This deletion does not always occur, given that the degree of weakening varies in different speakers and depends on the speed of the utterance. The glide /j/ can also become weakened and deleted to form the sequence /V.i/ described in the preceding paragraph. This hiatus always occurs with the malefactive suffix /heːmpi/ (see Section 6.7.14). Two examples are /noˈkantaˈheːmpiˈakimi/ 'I tell you something and it finishes badly' and /noˈheːkaˈheːmpiˈaka/ 'I live in a place and have problems'.

2.2. Consonants

The Ashéninka consonants are listed in Table 3. The corresponding grapheme used in the orthography is given between angle brackets when it is different from the IPA sign.

A feature without phonological relevance is that some consonants can be geminated, always after a short vowel. The recorded examples are /ˈmapi/ [ˈmapːi] ‘stone’, /ˈkito/ [ˈkitːo] ‘caridean shrimp’, /heˈtaɾi/ [heˈtːaɾi] ‘armoured catfish’, /haˈte/ [haˈtːe] ‘he left’, /haˈta/ [haˈtːa] ‘I’m leaving’, /ˈhaka/ [ˈhakːa] ‘here’, /ˈhani/ [ˈhanːi] ‘bee’, /ˈana/ [ˈanːa] ‘genipap’, /ˈhapo/ [ˈhapːo] (ideophone). The examples are very scarce to posit which one can be geminated and which not since most of them are recorded only once. However, I have heard the very frequent /ˈhaka/ ‘here’ and the somewhat frequent /ˈmapi/ ‘stone’ without gemination, so it seems that this feature can occur in free variation.

Table 3. Ashéninka consonants

	Bilabial	Dental	Alveolar	Post-alveolar	Palatal	Velar	Glottal
Plosive	p pʲ <py>		t tʰ <th>		c <ty>	k kʲ <ky>	
Nasal	m mʲ <my>		n		ɲ <ñ>		
Tap or flap			ɾ <r> ɾʲ <ry>				
Fricative				ʃ <sh>			h hʲ <hy>
Affricate			ʦ <tz> ʦʰ <ts>	ʧʰ <ch>			
Approximant	w/β̞ <w> β̞ʲ <wy>				j <y>	ɰ <g>	

2.2.1. Plosives

The distribution of the stops suggests the existence of a typical system with three points of articulation in bilabial, alveolar and velar position with palatalization and with the development of a palatal stop from a former palatalized alveolar stop. The difference between /pʲ/ and /kʲ/on the one hand and /c/ on the other hand can be clearly heard in that the two components of /pʲ/ and /kʲ/ (stop plus palatalization) can be heard, but, in the case of /c/, only one consonant with no separable element can be heard, and

this causes this phoneme to be misheard at first as an English or Spanish /ʧ/. When one becomes more familiar with the language, the difference between /c/ and /ʧʰ/ becomes more evident and is reinforced through the aspiration of the latter. Younger speakers tend to fuse both sounds in a Spanish-like [ʧ], but the difference is very clear in older speakers.

To this possible original system of the three typical points of articulation with palatalization, there is the addition of /tʰ/, which historically derives from */ʦ/, a diachronic development that can be clearly observed when compared with the Alto Perené and Tambo-Ene varieties of the Ashé-Ashá group and also with the other Campan languages, as is shown by Michael (2011:7). An important restriction of /tʰ/ is that it never occurs before /i/. The diachronic development /ʦ/>/tʰ/ occurred only with /a/, /e/ and /o/, but, for /i/, the shift was /ʦi/>/ʦʰi/, which is shared by Northern Ashé-Ashá (see Section 1.2.2 for divisions of the Ashé-Ashá cluster). Also the palatal stop /c/ cannot occur before /i/.

The velar stop /k/ frequently undergoes lenition in different degrees. It is typically voiced after /n/ (e.g. /katsʰinˈkaːɾi/ [katsʰinˈgaːɾi] ‘Chicosa’ [place name]). A typical ending as /ki/ can be elided until a total deletion of /k/. An example is in the word /iʃiˈtowanaki/ ‘he has gone out’, where the ending can be pronounced as [aki], [agi], [aɯi] or [ai], depending on the speed and the care with which the speaker is speaking. This results in [g] and [ɯ] being allophones of /k/ –although /ɯ/ has phonemic status on its own, as is described in Section 2.2.6. As for the other plosives, I have not heard them becoming voiced. /k/ can become palatalized before /e/ in free variation. One instance is in /noˈkemi/ ‘I listen to you’, which can be realized as [noˈkʲemi] or [noˈkemi].

2.2.2. Nasals

The four nasals occurring at the syllable onset (/m/, /mʲ/, /n/, /ɲ/) offer little discussion, differently from the nasals at the coda, which have been described in the Campanist literature as an unspecified nasal that takes the point of articulation of the following consonant and has been usually represented with *N* (e.g. in David Payne 1981, 1983*b*; García 1997; Michael 2008; Swift 2008; Lawrence 2013; Mihas 2015*a*). Michael

(2008) gives two arguments in favour of the consideration of this phoneme as an unspecified nasal in Nanti. The first one is that:

> "in cases in which the underspecified nasal and the voiceless stop are heteromorphemic […], we find that there is simply no basis for preferring one nasal over another as an underlying form, since the underspecified nasal always place-assimilates to the following voiceless stop. Moreover, if a voiceless stop is unavailable to provide place features, the underspecified nasal simply deletes." (Michael 2008:223-24)

This argument is also adduced by Lawrence (2013:9). Michael's (2008:224) second argument is that, when the nasal and the following stop are tautomorphemic, if the nasal were considered as having a specific place of articulation, a phoneme /ŋ/ should be posited when the stop is velar, but such phone does not exist in Nanti in another position different from a coda before a voiceless stop.

Payne (1981:164-165) gives the example of a native speaker of the Apurucayali variety who wrote this unspecified nasal with <n> or <m> independently of its realization. Thus, he argues that speakers do not identify this consonant as having a specific place of articulation.

In the case of UP Ashéninka, Michael's first argument does not hold because he refers to the pan-Campan irrealis nasal prefix, but this prefix has totally disappeared in UP Ashéninka, as will be shown in Section 6.1. Michael's second argument could be applied to UP Ashéninka, given that, as in Nanti, a phoneme /ŋ/ does not exist. Payne's example shows that speakers do not have a specific nasal in mind, but just an unspecified nasal.

Nevertheless, I prefer to avoid considering an unspecified nasal for UP Ashéninka. One of the main arguments, Michael's first one, does not hold because of the loss of the irrealis nasal prefix. Regarding the other argument (inexistence of a phoneme /ŋ/), the same could be said for Spanish, where a word as *banco* 'bank' is pronounced [ˈbaŋko], and for almost all languages, since the restriction that says that a nasal must adopt the place of articulation of the following non-coronal plosive is practically universal (Mohanan 1993:63). Payne's argument of a native speaker writing <m> or <n> independently of the following stop is no wonder, since the same happens in Spanish with children learning to write and poor-literate adults, so that

there is a rule for children that says that <m> goes before <b> and <p>, which shows that it is necessary to know the orthographic rule in order to write the correct letter.

Therefore, I acknowledge that it may be necessary to use the unspecified nasal in other Campan languages for the reasons given above, but I will not use it in UP Asháninka mainly because of the big difference of having lost the irrealis nasal prefix. Thus, [ŋk] will be written <nk>; [nt], <nt>; [mp], <mp>, and [ɲc], <nty>. The last sequence could be written as <ñty>, but I prefer to respect the Asháninka orthography in this case.

The nasals /m/, /mʲ/, /n/ and /ɲ/ suggest a historical development similar to the one I commented on for stops: in the same way that a phoneme */tʲ/ may have resulted in the present /c/, a phoneme */nʲ/ might be the origin of /ɲ/.

2.2.3. Taps or flaps

The only liquid phoneme is the tap /ɾ/, which is practically always realized as such. Even younger speakers, whose speech is influenced by Spanish, do not tend to pronounce word-initial /ɾ/ as Spanish does, with the vibrant [r]. The only exception occurs in the sequences /ʃiɾ/ and /tsʰiɾ/, which are often realized [ʃt] and [tsʰt], respectively (e.g. /ʃiˈɾampaɾi/ [ˈʃtampaɾi] ‘man’, /tsʰiˈɾeniɾi/ [tsʰˈteniɾi] ‘night’).

/ɾ/ is subject to changes between /a/ and /o/. In /a_a/ position, it changes to /ɯ/ or /w/, and in /o_a/ and /a_o/ position, it becomes /w/ (see sections 2.7.1 and 2.7.5, respectively). It has almost disappeared in /o_o/ position, where it has become /oː/. Actually, I have in my texts only one instance of the sequence /oɾo/ (/oˈɣʰeːnkam**o**ˈ**ɾo**kiˈtaki/ ‘it is black and hollow’), where the sequence /moˈɾo/ means ‘hollow’. However, when this sequence is uttered with the stress on /mo/, /ɾ/ is deleted (e.g. /oˈ**mo**ː/ ‘its gap/hollow space’). These words show a change in the language that caused the deletion of /ɾ/ in the sequence */oɾo/ except when /ɾo/ is stressed. In other Campan languages, /ɾ/ does not occur at the beginning of a word (Payne 1980:119 for several Ashé-Ashá varieties; Kindberg 1980:232 for Asháninka; Snell 2011:405-06 for Matsigenka; Mihas 2015*a*:50 for Alto Perené [30]) but is very frequent in

[30]Kindberg (1980), Payne (1980) and Snell (2011) are dictionaries that lack words starting with *r*, with the exception of three entries in Payne 1980.

Ucayali-Pajonal. Actually, /ɾ/ is the 3rd person masculine prefix before a vowel-initial stem (e.g. /ɾiˈjaːʦi/ ‘he goes’).

The lateral liquid /l/ is sometimes used in Spanish loans, so that the town Atalaya is sometimes pronounced [ataˈlaja] and other times [ataˈɾaja]. A Spanish loan with /l/ in my corpus is *bicicleta* ‘bicycle’, pronounced [bisiˈkleta].

2.2.4. Fricatives

The only fricatives in UP Ashéninka are /ʃ/, /h/ and /hʲ/. The most remarkable feature concerning the Ashéninka fricatives is the absence of /s/. Michael (2008:3-4) states that a shift /si/>/ʃi/ occurred in all Campan languages except Nomatsigenga, and UP Ashéninka underwent another shift /s/>/h/ in all environments. This last shift has resulted in the total loss of /s/ in the language, which can occur only in Spanish loans as *bicicleta* [bisiˈkleta] ‘bicycle’ or *zapatos* [saˈpatos] ‘shoes’. Both shifts could lead to think that /h/ cannot occur before /i/, given that no sequence */si/ existed undergoing a shift */si/>/hi/, but /h/ was already present in the language before the shift /s/>/h/ took place, as its presence in other Campan languages shows (e.g. Payne 1981:59 for Apurucayali, Mihas 2015*a*:44 for Alto Perené). Therefore, /h/ can occur before all vowels in UP Ashéninka, the same as the other fricative, /ʃ/, which can also occur before all vowels.

2.2.5. Affricates

The affricates pose a big challenge for the interpretation of allophony. The affricates /ʦ/ and /ʦʰ/ can occur only before /i/, but /ʧʰ/ cannot occur before /i/. To this, we have to add the features of the stops /tʰ/ and /c/, described in Section 2.2.1, which cannot occur before /i/ either. These restrictions could lead us to think that the alveolar affricates /ʦ/ and /ʦʰ/ are allophones of other phonemes, but the problem is that there are three phonemes (/tʰ/, /c/ and /ʧʰ/) that do not occur before /i/, so that they cannot be paired straightforwardly. However, some facts can be adduced so as to posit a sound proposal for this question.

Some affixes change their form depending on whether the verb is I-class or A-class, and they can be a good clue to determine the allophonic relations. The

progressive suffix is /aca/ in A-class verbs and /atsi/ in I-class verbs (e.g. /ˈnow**a**ˈ**ca**wo/ ‘I’m eating it’, /pipoˈk**atsi**/ ‘you’re coming’), so this fact is an indication of the allophony of /c/ and /ts/. The two participle suffixes are imperfective /atʃʰa/ (A-class) and /atsʰi/ (I-class) (e.g. /ˈi:t**atʃʰa**ɾi/ ‘those that are called’, /ˈʃekit**atsʰi**/ ‘there are many’), and perfective /e:ntʃʰa/ (A-class) and /e:ntsʰi/ (I-class) (e.g. /iˈɾa:n**e:ntʃʰa**/ ‘what is cried’, /ˌhe:kaiˈt**e:ntsʰi**/ ‘all who live there’), so the participles are a good indicator of the allophony of /tʃʰ/ and /tsʰ/. Another alternation between these two sounds occurs with the diminutive /aniki/: when it is attached to /ˈe:ntsʰi/ ‘child’, the result is /enˈtʃʰaniki/, where /tsʰ/ shifts to /tʃʰ/ when the following vowel changes from /i/ to /a/.

With this double pairing, we would have /tʰ/ with no allophone before /i/. We have seen in Section 2.2.1 that /tʰ/ derives synchronically from /ts/. According to Michael (2011:7-8), /ts/ evolved to /tʰ/ before /a/ and /o/, to /tʃ/ before /e/ and to /tsʰ/ before /i/. However, UP Ashéninka admits the sequence /tʰe/, but the examination of some words with this sequence reveals that its occurrence does not contradict Michael’s proposal. I have only two words with /tʰe/ in my corpus: /kaˈme:tʰeni/ ‘good’ and /ˌna:ˈtʰejani/ ‘they are playing’. In both cases, the sequence /tʰe/ is formed by adding a suffix to a root with /tʰa/ (/kaˈme:tʰa/ ‘well’ and /ɲa:tʰa/ ‘play’). Until encountering these sequences, I had thought that the sequence /tʰe/ did not exist, so I expressed my surprise to a speaker when I discovered one of these sequences and she gave me some words: /noˈtʰenkiɾi/ ‘I don’t believe him’, /βi̥ˈtʰenkaka/ ‘it’s in a row’, /piˈtʰeja/ ‘you’re lying’. All these stems with /tʰe/ have cognates in Payne’s (1980) dictionary, which shows words from the Yuruá-Ucayali,[31] Apurucayali and Pichis varieties: “thainc-” /tʰaink/ ‘mock’, “ovithainc-” /oβi̥tʰaink/ ‘put in a row’, “thaiy-” /tʰaij/ ‘lie’. A clear correspondence /tʰe/-/tʰai/ can be observed in these stems, which shows that /tʰe/ is a development of UP Ashéninka that appeared when /tʰ/ occurred only with /a/ and /o/, which is still the case in other varieties. Therefore, according to Michael (2011:7-8), /ts/ evolved to /tʰ/ before /a/ and /o/ and to /tsʰ/ before /i/, which is a good reason to consider that /tʰ/ and /tsʰ/ are allophones.

[31] This dictionary says that some words are spoken in the Ucayali variety, which I call *Yuruá-Ucayali* or simply *Yuruá*.

Based on these arguments, it is reasonable to consider that /ʦ/ is an allophone of /c/ and /ʦʰ/ is an allophone of both /ʧʰ/ and /tʰ/, with the two alveolar affricates occurring only before /i/. The three proposed allophonic pairs meet the typical conditions of being in complementary distribution and having phonetic similarity (Trask 1996: 16, 81, 271). There is no doubt of the complementary distribution because the two alveolar affricates occur only before /i/, while the other three phonemes occur only before the other vowels. As for phonetic similarity, Trask (1996:271) says that "this notion is difficult to make explicit", but "one approach is to demand that such segments should share more phonetic features with each other than either does with any other segment". /ʦ/ and /ʦʰ/ share more phonetic features with each other than with any other segment. Putting this relation aside, since they are in contrastive distribution (Trask 1996:93), /ʧʰ/ is the phoneme that shares most features with /ʦʰ/ (affricate, aspirated, and in a close place of articulation). After this, /tʰ/ shares most features with /ʦʰ/ (alveolar and aspirated). A different matter is the relation of /ʦ/ with /c/, given that the first is affricate and alveolar and the second is plosive and palatal. /ʦ/ has more features in common with /t/ (alveolar and unaspirated), but these two are in contrastive distribution. /ʦ/ and /c/ have a different but adjacent place of articulation. Therefore, I will consider that a broad phonetic similarity exists. Denying this would imply being too strict with the condition indicated above, which should not be taken too strictly because phonetic similarity, in Trask's words, is "difficult to make explicit". All in all, we can consider that all sounds under discussion share phonetic similarity because all are plosive or affricate and their place of articulation is in areas next to each other (alveolar, postalveolar or palatal).

According to the arguments given above, I consider /ʦ/ and /c/ allophones, and /ʦʰ/ an allophone of both /ʧʰ/ and /tʰ/. It would seem logical to represent only one of the two allophones in the phoneme table, and the choice of which allophone of each pairing should be represented should be based on which sound appears in most environments and most cases. In this case, the two alveolar affricates occur only with one vowel, while the other sounds occur with the three other vowels, which would leave the alveolar affricates out of the table. However, the alveolar affricates happen to be by far the most frequent in the language: in my collection of texts, /ʦi/ occurs

492 times, /tsʰi/ 336 times, /c/ 69 times (/ca/ 56, /co/ 5, /ce/ 8), /tʰ/ 190 times (/tʰa/ 130, /tʰo/ 56, /tʰe/ 4), and /ʧʰ/ 61 times (/ʧʰa/ 43, /ʧʰo/ 4, /ʧʰe/ 14). In Section 2.2.2, I commented on the pan-Campan unspecified nasal and Payne's (1981:164-65) account of his experience with a native speaker writing this nasal. In Section 2.2.6, I explain that [β̞] is an allophone of /w/ occurring before /i/. This phoneme is always written <w> in the Ashéninka orthography and, if a speaker were told to write its different occurrences differently, probably the result would be the same as with Payne's informant. However, in the case of the affricates, the Ashéninka orthography clearly differentiates /ʦ/ <tz>, /c/ <ty>, /tsʰ/ <ts>, /ʧʰ/ <ch> and /tʰ/ <th>. I have worked mainly with literate speakers and they have never made any mistake confounding <tz> with <ty>, nor <ts> with <ch> or <th>. Therefore, in spite of the allophonic character that results from the application of the phonological theory, the allophonic relation does not exist from the point of view of a speaker, given that they differentiate very clearly all these sounds, while they do not perceive any difference between clearer allophones (e.g. unspecified nasal and /w/). The features of this group of phonemes coincide with those described by Kiparsky (2015:574) for what he calls *quasi-phonemes*: they are not phonemes because they are not contrastive, but they are distinctive, i.e. they are "perceptually salient". The complementary distributions of the five phones treated here make them non-contrastive, but the fact that the speakers recognise them and differentiate them when writing means that a speaker perceives them as distinct from each other. Therefore, I consider that these allophones have the character of quasi-phonemes because they have the features described by Kiparsky (2015), and that is why I have included them all in the phoneme table.

Another feature that deserves some comment is the aspiration of /ʧʰ/. This phoneme has no unaspirated counterpart, but its closest phoneme in terms of sound similarity is /c/. Actually, younger speakers tend to merge both phonemes in a more Spanish-like /ʧ/, and the aspiration by speakers less influenced by Spanish helps to perceive the difference between /c/ and /ʧʰ/. Although the lack of an unaspirated counterpart might make the representation of the aspiration unnecessary, I have deemed it more appropriate to show it because it is clearly audible in speakers less influenced by Spanish.

2.2.6. Approximants

UP Ashéninka has four non-liquid approximants: /w/, /j/ and /ɯ̨/.

A matter of discussion is whether /ɯ̨/ is an approximant or the fricative /ɣ/. Actually, the difference is just how close the tongue approaches the velum, and it can vary from speaker to speaker, and even in the same speaker at different moments. So probably, the question of whether it is an approximant or a fricative would make more sense if two contrastive sounds (approximant and fricative) existed in the language. Payne's dictionary (1980:8) says that it is fricative, but Payne's Apurucayali grammar (1981:59) considers it a velar glide, while this or a similar sound does not exist in Mihas' Alto Perené (2015*a*:44). Although the question whether it is approximant or fricative may be of minor importance, this phoneme has to be in some place in the consonants table, and I have decided to consider it an approximant because of the reasons explained below. Moreover, the study of this question yields interesting results about the particular nature of approximants in Ashéninka.

A first observation is that /ɯ̨/ occurs very seldom; it is the least common of all Ashéninka phonemes. I have 34 occurrences in my text corpus, and all but 3 are in /a_a/ position, the 3 exceptions being /aɯ̨e/. I comment on the different occurrences below.

One occurrence of /ɯ̨/ has a cognate in another Ashé-Ashá language in a word with /ɾ/ instead of /ɯ̨/: /inˈkaɯ̨anki/ 'before' has in Kindberg's (1980:41) Asháninka dictionary the cognate "incaranqui" /inkaɾanki/, Sp. *antes* 'before'. The same cognate exists in Caquinte with the form /inˈkahaɾanki/ (Zachary O'Hagan p.c. 2018).

/ɯ̨/ also appears in many cases as a realization of the medial demonstrative enclitic /ɾa/. The clearest case is in the paradigm /ˈhaka/ 'here', /ˈhaɯ̨a/ 'there', /ˈhanta/ 'yonder'. Another instance is in the 3rd person cataphoric demonstratives /ˈɾowaɯ̨a/ (f.) and /ˈɾiraɯ̨a/ (m.). These examples show that /ɾ/ becomes /ɯ̨/ in /a_a/ position. Actually, the only instances of the sequence /aɾa/ in my texts are /kamaˈɾampi/ 'ayahuasca', and the Spanish loans /kaˈɾatsʰi/, from *carachama* 'armored catfish', and the verbal root /taɾah/, from *tarrafa*, 'casting net'. The /aɾa/ sequence in /kamaˈɾampi/ without velarization may be due to the stress on /ɾa/. While

there are two more instances of /aˈɾa/ with velarization in my texts (/iˌʦinaˈɯaeɾo/ ‘he raises it again’ and /ˌhaˈɯaɾi/ ‘short-eared dog’), the stress in /kamaˈɾampi/ is more prominent, given that there is no secondary stress, it is composed of only one morpheme (differently from /iˌʦinaˈɯaeɾo/) and is longer than /ˌhaˈɯaɾi/, which might also be pronounced /haˈɯaɾi/ in relaxed speech.

Another instance of /ɯ/ is a realization of /j/ in /aɯatʰaˈɾekitʰo/ ‘our testicles (incl.)’, where the word for ‘testicle’ is /jatʰaˈɾekitʰo/ and /a/ is an inclusive prefix. However, there are some words with the sequence /aja/ (e.g. /paˈjanʦi/ ‘banana’), and I was told that /ajatʰaˈɾekitʰo/ is also right. The contrast /aɯa/-/aja/ is clearly shown in an elicitation with the verb ‘cry’, whose 1st person realis form is /niˈɾaɯa/, while its irrealis counterpart is /niˈɾaja/.

Another occurrence of /ɯ/ is in /ɦonˈkaɯaɾi/ ‘tinamou’, whose cognates Apurucayali “soncaari” /sonˈkaːɾi/ and Yuruá-Ucayali “soncagari” /sonˈkaɣaɾi/ appear in Payne’s (1980:122) dictionary. The tendency to delete /ɯ/ so that the sequence /aɯa/ becomes /aː/ is not only present in other varieties, but also exists in younger speakers of UP Ashéninka; therefore, this phoneme is probably going to disappear in the next generations.

The only instances of the sequence /ɯe/ in my corpus are in the verbal root /aɯenka/ ‘fly in circles’, with a possible cognate in Asháninka “jeonc” /ɦeonk/, with the same meaning (Kindberg 1980:38), and in /ˈɾirakaˈɯeijakiˈɾini/ ‘the one who has invited them’, where /ɯe/ is the link between the causative suffix /akaɯ/ and the plural /eij/ –this is the only instance of this causative with the form /akaɯ/, other instances have the form /aka/.

The examples above show that /ɯ/ is an infrequent sound and the outcome of /ɾ/ in /a_a/ position, but also that its contrastive quality remains effective, most clearly in the opposition /niˈɾaɯa/-/niˈɾaja/ ‘I cry’ (realis-irrealis). This phoneme is restricted in most cases to the sequence /aɯa/, but my examples with /aɯe/ show that it can also occur in other environments.

A good reason to consider this phoneme an approximant instead of a fricative is its soft pronunciation and its tendency to disappear mentioned above; but the main reason to consider it an approximant is that it has a feature shared by the other

approximants in the language (/w/ and /j/), which is not shared by the other phonemes: /ɯ/ occurs in most cases as the realization of other phonemes –or as a fossilization of this realization. The two other approximants also occur frequently as the realization of other phonemes. /ɾ/ changes to /w/ in /a_o/ and /o_a/ positions. Also /p/ becomes /w/ in most cases after the pronominal prefixes. /k/ becomes /j/ after the pronominal possessive prefixes. /j/ is used to form the irrealis form of a few verbs in which the realis form is with /ɯ/ (/niˈɾaɯa/-/niˈɾaja/ 'I cry' realis-irrealis) or /w/ (/ˈnowa/-/ˈnoja/ 'I eat' realis-irrealis), and this total substitution of a phoneme with /j/ in the irrealis form never occurs in roots ending in a non-approximant consonant. The features described above are only shared by the approximants. Some of these alternations are described more in detail in Section 2.7, on morphophonology.

Furthermore, in spite of the oppositions between realis and irrealis forms mentioned above with /ɯ/ and /j/, respectively, it seems that there is a certain lack of contrast between the three approximants. The double form /aɯatʰaˈɾekitʰo/-/ajatʰaˈɾekitʰo/ 'our testicles (incl.)' mentioned above shows that /ɯ/ and /j/ are interchangeable in this case without a change in meaning. I became aware of this feature during an elicitation session in which a speaker uttered /aˈpapakoˌwoni/ 'five' and said that the letter between the two instances of <o> was <g>,[32] while he uttered an unambiguous /w/, and he also produced /aˈpapaˌkoːni/ as a valid form. This implies that /ɯ/ and /j/ in the first case and /ɯ/ and /w/ in the second one may have no contrastive value in some cases, and even may have no contrastive value between them and a vowel lengthening (e.g. /aˈpapaˌkoːni/). These features of Ashéninka approximants may pose interesting questions for phonological theory.

/w/ is always realized as [β̞] before /i/. Mihas (2015*a*:50) says that this realization also occurs before /e/ in Alto Perené. In my text corpus, there are 34 realizations as [we] (23 of them with the frequent /ˈmaːweni/ 'all') and 14 as [β̞e] (2 with the benefactive suffix [β̞ent], 6 with the specifier suffix [β̞eː], 3 with the exclamative enclitic [β̞eː], 1 with the verbal stem [paʃiβ̞ent] 'be ashamed' and 2 with the verbal stem [tʰaːβ̞e] 'have bad luck because of being cursed'). The vowel preceding /we/ does

[32] /o/ is written <o> and /ɯ/ is written <g>. The orthography used in this thesis is explained in Section 2.4.

not influence the two different realizations, given that both occur after /a/, /o/ and /i/, while I have no instance of */ewe/ in my corpus. Therefore, the realization as [we] or [β̥e] appears to be morphologically conditioned. Before /a/ and /o/, /w/ is always realized as [w]. For the palatalized counterpart of /w/, I have only two examples in my corpus and both are realized as [β̥ʲ]

2.2.7. Minimal pairs

Some minimal pairs between similar consonants are the following:

/t/-/tʰ/	/taˈkitsʰi/	‘rubbish’	/tʰaˈkitsʰi/	‘waist’
	/iˈtonkakiɾo/	‘he shot her’	/iˈtʰonkakiɾo/	‘he finished it’
	/noˈtotiɾo/	‘I’ll cut it’	/noˈtʰotiɾo/	‘I’ll suck it’
	/ˈteːjaːntsʰi/	‘take (infinitive)’	/ˈtʰeːjaːntsʰi/	‘lie (noun)’
/t/-/c/	/taˈkitsʰi/	‘rubbish’	/caˈkitsʰi/	‘ant’
/ts/-/tsʰ/	/tsiˈweɾi/	‘fat fish’	/tsʰiˈweɾi/	‘a bit of water is falling down’
	/ˈetsi/	‘armadillo’	/ˈetsʰi/	kind of tree
	/tsinˈkaki/	‘she/he is crushing masato’	/tsʰinˈkaki/	‘the tree has a lot of fruits’
	/tsiˈɾoːtsi/	kind of palm tree	/tsʰiˈɾoːtsi/	‘yellow-rumped cacique’
/ʧʰ/-/c/	/noˈʧʰeː/	‘my thorn’	/noˈceː/	‘I fall down’
	/noˈʧʰowi/	‘my worm/sting’	/noˈcomi/	‘my son’
	/ˈʧʰaːnaɾi/	‘big jaguar’	/ˈcaːnaki/	‘he/she fainted’

/m/-/n/-/ɲ/	/noˈmaːtsi/	‘I’m sleeping’	/noˈnaːtsi/	‘I’m chewing’	/noˈɲaːtsi/	‘I’m seeing’
	/ˈnone/	‘my louse’	/ˈnoŋe/	‘I see’		

2.3. Phonotactics

Trask (1996:277) defines *phonotactics* as “the set of constraints of the possible sequences of consonant and vowel phonemes within a word, a morpheme or a

syllable". This definition encompasses the description of the ways in which vowels and consonants can form a syllable and the ways in which these syllables can form phonological words.

2.3.1. Syllable structure

The syllable structure of UP Ashéninka is (C)V(V)(N). Therefore, the minimal syllable is formed by a single vowel. The second optional vowel can form a diphthong or a long vowel. The nasal (N) has to be followed by a stop or an affricate that is the onset of the following syllable, and this nasal takes the place of articulation of this stop or affricate (see Section 2.2.2 for discussion of how to consider this nasal).

Although this nasal is the only consonant that can occur in the coda at a phonological level, the systematic deletion of /i/ after /ʃ/ and /ʦʰ/ causes that these consonants actually occur in the coda as the phonetic realization of the syllables /ʃi/ and /ʦʰi/. Examples of both are /okaˈmaʃitaka/ [okaˈmaʃtaka] 'they (fruits) have dried', and /teˈkaʦʰi/ [teˈkaʦʰ] 'there isn't'. This deletion occurs practically always. A general exception is when /n/ precedes /ʦʰ/ and /ʦʰi/ in the last syllable of a word (e.g. /ˈɲaːnʦʰi/ [ˈɲaːnʦʰɪ] 'language'). When /i/ is in the middle of a word after /nʦʰ/, it is sometimes deleted (e.g. /ˈontsʰiɾokaˈpaːkaɾi/ [ˈontsʰɾokaˈpaːkaɾi] 'she has approached him') and sometimes not (e.g. /wanaˈwontsʰiˈpaeni/ [wanaˈwontsʰɪˈpæɪni] 'meals').

/i/ is deleted after /ʃ/ and /ʦʰ/ not only in the middle or the end of a word, but also at the beginning, which results in the clusters [ʦʰk] (e.g. /ʦʰika/ [ʦʰka], multifunctional *wh*-word), [ʦʰt] (e.g. /ʦʰiˈɾeniɾi/ [ʦʰˈteniɾi] 'night') and [ʃt] (e.g. /ʃiˈɾampaɾi/ [ˈʃtampaɾi] 'man'). In the two latter, the /i/-deletion triggers a realization of /ɾ/ as [t].

The consonants that occur in my text corpus with and without /i/-deletion after /ʃi/ and /ʦʰi/ are as follows:

– After /ʃi/ with /i/-deletion: /p/, /t/, /c/, /k/, /n/, /ɲ/, /ɾ/, /ʦ/ and /w/, i.e. all except the palatalized, the aspirates (including /h/), /ɯ/, /m/, /ʃ/ and /j/.

– After /ʃi/ without /i/-deletion: /m/ (/ˈʃima/ 'fish'), /ɾʲ/ (/oˈkeŋkiʃiˌɾʲa/ 'she thinks') and /j/ (/oˈʃijawo/ 'it is similar to it').

– After /ʦʰi/ with /i/-deletion: /p/, /t/, /tʰ/, /k/, /ʦ/, /m/, /ɾ/ and /w/.

– After /tsʰi/ without /i/-deletion: /n/ (/tsʰiˈnani/ ‘woman’) and /j/ (/mantsʰiˈjaɾi/ ‘sick man’).

Regarding the consonants not included in this list, I have no instance of them occurring after /ʃi/ or /tsʰi/.

Payne (1981:166-67) explains the same process of /i/-deletion for Apurucayali and says that one of his informants uttered this deleted /i/ only when he repeated a word syllable by syllable, and he always wrote the <i>. I had roughly the same experience: /i/ was only uttered when a consultant was dictating me a word slowly during a transcription session, in which the consultant and I were listening to a recording, they dictated the words to me and I noted them down. The fact is that this deleted /i/ is never pronounced when the language is used in a natural manner, yet every speaker knows that it is there.

Some of the restrictions of the consonants were treated in the corresponding sections (affricates in Section 2.2.5 and /ɯ̨/ in Section 2.2.6). Since /ɯ̨/ can only occur in /a_a/ or /a_e/ positions, obviously it cannot occur word-initially. All other consonants have occurrences in word-initial position in my text corpus except /mʲ/. However, I have occurrences of this phoneme only with the verbal stem /ʃemʲ/ ‘crush’ and two words with the root /tomi/ ‘son’: /itoˈmʲeɾiki/ ‘his little sons’ and /itoˈmʲaite/ ‘his sons’. Therefore, this phoneme appears to be infrequent, with the result that a word starting with it may be very difficult to find.

The structure indicated above implies that the only possible consonant clusters at the phonological level are formed by the nasal in the coda plus a stop or an affricate at the onset of the following syllable. At the phonetic level, the /i/-deletion explained above can result in the onset consonant clusters (N)tsʰC and ʃC –I have found no example of a nasal before ʃC.

2.3.2. Word structure

My consideration of what is a word in UP Ashéninka will be based on the criterion given by Mithun:

> “Words may be identified in several ways, some useful cross-linguistically, others more language-specific. The best criterion is usually the judgement of native speakers.

> Whether or not they have given much thought to grammar, speakers of most languages can repeat a sentence word-by-word by confidence, pausing between words. […] Speakers are usually aware of the meaning of whole words, but they are often not conscious of the meanings of individual morphemes nor of the boundaries between the morphemes." (Mithun 1999:38)

Since I have been working mainly with literate speakers, Mithun's way of identifying words is very suitable for my work with Ashéninka because literate speakers have often tackled the task of dividing their speech into words and there are practically no differences between different speakers in the identification of words. Actually, the morphological structure of some long verbs offers no doubt regarding the word limit, and there are very few cases where a doubt might arise in other word classes.

Words in Ashéninka tend to be long. Monosyllabic words are very rare: only the affirmative and negative particles, /heː/ 'yes' and /teː/ 'no', used in response to a polar question, are frequently used monosyllables. Apart from these, some other monosyllables are /ʃaː/ 'anteater', /hoː/ 'sloth', /tʰoː/ 'owl', /ʧʰaː/, *wh*-word used only in the Gran Pajonal. Some ideophones are monosyllables: /poː/ 'place on the floor', /ʃaːo/ 'liquid falling', /cao/ 'hit with a stone'. There are probably more monosyllables, but there is no doubt that they are very scarce. As can be seen from these examples, all monosyllables have a long vowel, so a word with only one mora is impossible in Ashéninka. I have found only one exception: /ʃo/, a word used as an imperative to say 'look' while pointing to the place where the speaker wants the listener to look. However, this word seems to be a kind of interjection. Also /heː/ 'yes' and /teː/ 'no' can be pronounced with a short /e/.

A verb with affixes and clitics can be very long. My longest example has 11 syllables: /ipiˈcaːnkaˈcenkarikitaˌnaka/ 'he throws himself head first and spread-legged'. I have one word with 10 syllables and two with 9, but verbs with 8 syllables are quite common. Verbs cannot occur without affixes, but nouns frequently occur without affixes or clitics, and these nouns can have up to 5 syllables (e.g. /jatʰaˈɾekitʰo/ 'testicle'), although most nouns have 3 syllables (e.g. /aˈʦiɾi/ 'person') and there are many with 2 syllables (e.g. /ˈʃima/ 'fish'). The nominal morphology is much more limited than the verbal one, so that nouns tend to be much shorter than verbs.

The tendency of words to be long may have a relation with the small phonological inventory, given that homophones may occur more often with a small phonological inventory, but less often if words are longer. In this way, possible ambiguities that might be caused by the small phonological inventory are avoided.

2.4. Orthography

The Ashéninka official alphabet was approved on the 30th April 2019 by Resolution no. 199 of the Ministry of Education of Peru as a result of a long struggle by indigenous organizations with seat in Atalaya (namely CORPIAA, Coordinadora de Pueblos Indígenas AIDESEP-Atalaya; OIRA, Organización Indígena de Atalaya; and URPIA, Unión Regional de Pueblos Indígenas de Atalaya) and the university UCSS-Nopoki in Atalaya. When I arrived the first time in Atalaya in 2015, everyone was complaining because of the situation created by the existence of only one standard for the whole Ashé-Ashá area based on the Tambo-Ene (Asháninka) variety, which is linguistically the furthest from Ucayali-Pajonal Ashéninka (see Pedrós 2018:18; Section 1.2.2 of this thesis). The newly approved alphabet has also been accepted in the Pichis area. One of my consultants was present at the workshop held in Puerto Bermúdez, the biggest town in the Pichis Valley, and told me that people there recognised themselves as Ashéninka, although there had been a tradition of calling themselves *Asháninka* in the past (see Pedrós 2018:8-10 for details). When I asked him how the people in the Pichis Valley would write words that they pronounce with /s/ and the Ashéninka from the Gran Pajonal and the Ucayali pronounce with /h/, he told me that each one would adapt the alphabet to their needs, and the approved alphabet actually includes <s> (the phoneme /s/ does not exist in UP Ashéninka). I have no idea how this diversity will be reflected in schoolbooks.

So now, there are two alphabets for the whole Ashé-Ashá linguistic area, i.e. two standards: one based on Asháninka and another one based on UP Ashéninka, which should allow variations such as the aforementioned /s/-/h/ (this is the isogloss that I use to divide Ashéninka from Northern Ashé-Ashá; see Pedrós 2018:11). The names used by the Ministry of Education for both standards are *Asháninka* and *Ashéninka*, respectively. The normalization process and the production of schoolbooks of

Asheninka was foreseen when I visited Atalaya in October 2019. I was informed by phone in October 2021 that the schoolbooks were still being prepared, but later, in July 2022, I was told that they were already in use in the schools of the Asheninka communities

In this thesis, I follow the official alphabet with the only exception of the representation of the phoneme /h/, which in the alphabet is written with <j> and I write with <h>. In a thesis written in English and directed to an international audience, I find that using <j> can only cause confusion, above all if some example is used for a more general work, such as a typological one in which examples from several languages are used. The letter <j> has the value /x/ or /h/ only in Spanish and some indigenous languages in Spanish-speaking countries, so many people from outside the Spanish-speaking world would tend to read <j> as [ʤ], [j] or similarly.

The different Ashe-Asha varieties were firstly written in works of the ILV. David Payne's Asheninka dictionary (1980) writes /k/ in a Spanish-like way, i.e. with <c> before <a> and <o>, and with <qu> before <e> and <i>. However, in his Apurucayali grammar, Payne (1981) uses <k> in all cases for the phoneme /k/, as well as in its Spanish version (Payne, Payne & Sánchez 1982). But Judith Payne's (1989) textbook again uses <c> and <qu>. Later works of the Paynes, such as Payne & Payne (2005), use <k>. Payne's dictionary (1980) uses <v> for /w/, although he changes to <w̄> in his Apurucayali grammar (Payne 1981). <v> is still used in Judith Payne's textbook (1989) and Payne & Payne (2005), but David Payne (2001) uses <w> in a book chapter. Also the more modern Mihas' grammar of Alto Perené (2015*a*) uses <v> for the phoneme /w/, realized [w] and [β̞]. One of my informants told me that <v> was replaced by <w> some time ago because the use of <v> was very Spanish-based and <w> represents better the Asheninka pronunciation: [β̞] before /i/ and sometimes before /e/, and [w] in the other cases, so that [w] is much more frequent than [β̞].

It is important to remark that some orthographic features were first used in Payne's dictionary (1980) and have been kept in use by everyone since then. These include the differentiation of /ʦ/ and /ʦʰ/ through <tz> and <ts>, respectively; the differentiation of /ɕ/ and /ʧʰ/ through <ty> and <ch> (Payne [1981:59] actually considers that these phonemes in Apurucayali are /ʃ/ and /ʧʰ/, so that the difference

should lie in the aspiration), and the use of double letters for the long vowels (e.g. <aa> for /aː/).

Table 4 shows the orthography used in this thesis. Moreover, an acute accent is used to denote a word's primary stress or stresses, and a grave accent denotes a secondary stress. It must be taken into account that it is difficult to distinguish primary from secondary stresses, so that the classification of a stress as primary or secondary is always questionable. However, it is much easier to recognise which syllables are stressed. Paroxytones with only one stress bear no accent.

Table 4. Correspondence between phonemes and graphemes used in this thesis

/a/ <a>	/e/ <e>	/i/ <i>	/o/ <o>		
/aː/ <aa>	/eː/ <ee>	/iː/ <ii>	/oː/ <oo>		
/p/ <p>	/c/ <ty>	/mʲ/ <my>	/ɾʲ/ <ry>	/ʦ/ <tz>	/j/ <y>
/pʲ/ <py>	/k/ <k>	/n/ <n>	/ʃ/ <sh>	/ʦʰ/ <ts>	/ɯ̨/ <g>
/t/ <t>	/kʲ/ <ky>	/ɲ/ <ñ>	/h/ <h>	/ʧʰ/ <ch>	
/tʰ/ <th>	/m/ <m>	/ɾ/ <r>	/hʲ/ <hy>	/w/ <w>	

The reality status opposition (see Section 6.1) is realized through affrication or palatalization of the phoneme preceding the reality status suffix. The affrication is written in the glosses as <zi>, representing the affrication of a preceding /t/ plus /i/. The palatalization is written as <ya>, which represents the palatalization of a preceding consonant plus /a/. In this way, <t-zi> represents /ʦi/, and the separation indicates that the affrication implies that the reality status suffix is realis; <C-ya> represents [palatalization]+/a/, and the separation indicates that the palatalization implies that the reality status suffix is irrealis. Although separating a phoneme in the glosses may seem strange, I think that this is the best way to represent the expression of reality status through affrication and palatalization.

In the following sections, I will use the orthography presented in Table 4 instead of the phonological transcription used in the previous sections.

2.5. Stress

The first important feature to remark is that stress is non-phonemic, just as in the other Campan languages. From this starting point, the work for a linguist is to research whether the stress follows some sort of pattern. After a short time working with the language, I started to develop the ability to intuitively predict the stress placement in words, so that I realized that I was intuitively learning some pattern. Based on my fieldwork experience, my clear impression is that there are certain patterns; yet they cannot be formulated in terms of rules, but rather in terms of tendencies, i.e. there are stress patterns that are not rigidly applied and can be violated, so that a word may have the tendency to have the stress in a given position, but this position can change without sounding strange to a speaker. As an example, in the tale TSJ, the word *méyiri* 'squirrel' is uttered most times as *meiri*, with a diphthong in the first syllable, but the same speaker who narrates the story also pronounces it once as *meyiri* and once as *meirí*[33].

Payne, Payne & Sánchez (1982:185-95) describe the stress patterns for Apurucayali and Mihas (2015*a*:56-58) for Alto Perené. Payne, Payne & Sánchez's patterns are very similar to those found out in my research, but not identical (e.g. *kimítaka* 'perhaps' in Payne, Payne & Sánchez [1982:189] vs *kímitaka* 'it seems' in my data). Regarding Mihas' patterns, they are quite different from mine, above all in disyllabic words. More detailed insights into the stress patterns are given by Crowhurst & Michael (2005) for Nanti, the Campan language geographically remotest from Ashéninka, and by Judith Payne (1991).[34] Payne refers to the language as "asheninca", but she does not mention which Ashé-Ashá variety is described. Other

[33] As is explained in Section 2.4, words with only one stress are marked with an acute accent on the stressed syllable, except the paroxytones, which bear no accent. In words with more than one stress, acute accents indicate a primary stress, and grave accents, a secondary stress. It must be taken into account that stress is clearly audible, but it is difficult to differ primary from secondary stresses. Therefore, the differentiation between primary and secondary stresses must be considered tentative and is based on my hearing. I considered the possibility of using Praat to analyse stress, but then I realized that, in order to research patterns, it was more important to compare a high number of words with different lengths than to analyse intensity charts, even more so considering the clear audibility of stress.

[34] This is the Spanish version of the English Payne (1990). Here I refer to the Spanish version because it is the one that I have.

works from Judith Payne treat Pichis and Alto Perené, but her phoneme table (p. 10) shows no /tʰ/ nor /tsʰ/, while both exist in Pichis and only /tsʰ/ in Alto Perené. Actually, the only Ashé-Ashá variety to which this phoneme table can correspond is Tambo-Ene (aka Asháninka), as well as a word as /ˈotsiti/ 'dog' (p. 22), which, in any other Ashé-Ashá variety, would be /ˈotsʰitsi/. Maybe this work is based on the speech of some Asháninka island in the Pichis Valley, such as Nevati (see Pedrós 2018:9). Be that as it may, both Judith Payne (1991) and Crowhurst & Michael (2005) describe a similar but somewhat different system, which basically consists in that words can have several stresses governed by an iambic feet structure, but the stress rules set by this structure are overridden by other parameters such as vowel quantity and quality, avoidance of stress in contiguous syllables and others, all of which result in a very complex system that allows J. Payne (1991) to write 27 pages and Crowhurst & Michael 48 on the subject. The stress system in UP Ashéninka is also similar but not identical to those described by these authors, but a detailed analysis like theirs is well beyond the goals of this thesis, so I try to write here an outline of the tendencies or loose rules that govern the stress placement and a more detailed insight is left for future research.

For this research, I made a list of 163 words with more than one syllable from four fragments of four different tales, stories and conversations (22 with two syllables, 42 with three, 30 with four, 38 with five, 20 with six, 6 with seven, 3 with eight, 1 with nine and 1 with ten). I noted down the stress placement as it was uttered in the stories, but also as it was during the transcription session if there was any difference, i.e. when a consultant listened to the recording with me and dictated to me what was being uttered. In a few words, there is a difference in the stress placement between the uttering in the story and the speaker's slow dictation, but only in 19 words. Moreover, in 8 words that occur more than once in the stories, I found a difference in stress placement between the different occurrences in the uttered stories. This list proved useful for comparison, to which I have to add my fieldwork experience. The conclusions are described below.

The section is divided into subsections that group words according to their number of syllables: the first section studies di-, tri- and tetrasyllabic words; the

second section, penta- and hexasyllabic words; and the last one, longer words. These three groupings are based on similar features shared by the words studied in each subsection.

2.5.1. Disyllabic, trisyllabic and tetrasyllabic words

Words with two, three and four syllables have in common that the stress is quite regular. It can be described by saying that, in bi- and trisyllabic words, the stress is on the penultimate, and, in tetrasyllabic words, it is on the antepenultimate; putting it in other words, in tri- and tetrasyllabic words, the stress falls on the second syllable, and, in disyllabic words, on the first syllable. This feature accords with J. Payne (1991) and Crowhurst & Michael (2005) in that the last syllable is extrametrical and the stress falls on the second syllable of each disyllabic foot, so that this stressed syllable is the second in tri- and tetrasyllabic words and, in disyllabic words, only the first one can be stressed because the last is extrametrical. Some examples of this regular pattern unaltered by other factors are in (5) grouped in columns by number of syllables.

(5)

ari	Multifunctional word	*irika* (m.)	‘this’	*tsikárika*	Interrogative
rowa	‘that one’ (f.)	*manitzi*	‘jaguar’	*achárini*	‘our grandfather’
thame	Hortative	*rowawo*	‘he eats her’	*kashékari*	‘jaguar’
haka	‘here’	*irowa*	‘this’ (f.)	*oshíyaka*	‘she run’
tziho	‘black vulture’	*ohaki*	‘she whips *masato*’	*piyótina*	‘guess who I am’

Exceptions to this regular pattern are caused in the first place by the existence of bimoraic syllables, which appear to be the strongest stress attractor. Even in disyllabic words, I have an instance of a word stressed on the last syllable because it is a diphthong: *rowáe* ‘he eats us’. Bimoraic syllables are also described as strong stress attractors in J. Payne (1991:16-19) and Crowhurst & Michael (2005:55-56), but not specifically in disyllabic words.

Also in trisyllabic words, bimoraic syllables change the regular stress pattern (e.g. *róotaki* 'that is', *páerani* 'long ago', the interrogative *íitaka*), but I have no example of a bimoraic last syllable in a trisyllabic word, which is no wonder because bimoraic last syllables are quite rare. (C)VN syllables, which are considered heavier than (C)V syllables by J. Payne (1991:11) and Crowhurst & Michael (2005:56-57), do not change the regular stress pattern (e.g. *antaki* 'she does', *antami* 'forest', *antawo* 'big, f.'): in these three examples, the first syllable is VN, but the stress remains on the second syllable.

A specific case are the cataphoric demonstratives *rówaga* (f.) and *ríraga* (m.). /ɾ/ is not allowed at the beginning of a word in other Campan languages, in which initial /i/ normally appears in cognates of words with word-initial /ɾ/ in UP Ashéninka. This /i/ remains in UP Ashéninka only in the plain demonstratives, whose equivalents to *rówaga* and *ríraga* are the medial *irowa* and *irira*. Therefore, there is little doubt that *rówaga* and *ríraga* derive from **irówaga* and **iríraga*. The initial /i/ was deleted, but the stress remained in the same place, which created this departure from the typical stress pattern in trisyllabic words, which exists in many more words with initial /ɾ/, as is shown below with longer words.

Some trisyllabic words show a strange pattern with two stresses: in my sample, *rìníro* 'his mother' and *hàgári* 'short-eared dog'. Regarding *rìníro*, this is the way the consultant uttered it in the transcription session, but it was uttered *riniro* by the speaker who told the story. Kin terms appear to show higher variability in stress placement; actually, when I was researching kin terms, this word was uttered *ríniro* (see Table 17 in Section 4.1.4). Regarding *hàgári*, the particularity of this word is that it would probably be pronounced *haari* by a younger speaker (the speaker who uttered *hàgári* was 66 years old at the time of recording).

In tetrasyllabic words, some words show two stress placements (10 out of 30 in the sample). When there is only one stress, the rule of the stressed bimoraic syllable applies (e.g. *iroñaaka* 'now', *raréetyawo* 'he didn't arrive at it', *íitarikya* 'why'). In words with no bimoraic syllable, the second syllable is regularly stressed independently of which vowels form the word (interrogative *tsikárika*, *kashékari* 'jaguar', *oshíyaka* 'she ran', *piyótina* 'guess who I am').

Words with two stresses start to show some features that also occur with words with more syllables. In this way, *ròkíkirà* 'in his eyes' (pronounced *rokíkirà* by the consultant in the transcription session), bears a secondary stress on the last syllable because it is the medial demonstrative enclitic *=ra*.[35] The second syllable tends to be stressed even in a word with a bimoraic third syllable as *otápìiki* 'behind her' (this word bears the locative enclitic *=ki*, but the existence of a bimoraic syllable before it prevents it from being stressed).

Some words with a bimoraic first syllable have a secondary stress on the third (*káakitàki* 'he arrived', *náakatàki* 'I am'), but *ráawàkiro* (uttered in the story) vs *ráawakìro* (by consultant during transcription). This difference shows another feature: /i/ tends to attract stress less than the other vowels, which J. Payne (1991:19-21) and Crowhurst & Michael (2005:52-55) describe. This feature also appears in words with no bimoraic syllable, as *páminìro* 'look at them', where the stress is not on the expected second syllable because of the pre-eminence of /a/ vs /i/. However, another occurrence with stress on the first syllable (*hápokana* 'he jumps') shows another tendency also attested in a few longer words: it seems that syllables with /a/ attract stress more than others, above all in first syllables, so that syllables with /a/ should be considered heavier than syllables with the other vowels. Therefore, in *páminìro*, there would be two tendencies attracting the stress to the first syllable.

In *ròmaryáaka* 'they have laid down (someone)' and *nèwatyéero* 'my niece (female possessor)', the two morae in the third syllable attract stress, but force a secondary stress on the first syllable, so that it seems that the first disyllabic foot cannot remain unstressed, although there is the frequent *iroñaaka*, where the absence of stress on /i/ may be caused by its being a weaker vowel. Similarly, in *áawyanèro*, the stress in the first syllable, attracted by its two morae, demands that another syllable in the word receives a secondary stress. In this way, the tendency seems to be to avoid unstressed disyllabic feet.

[35] Some enclitics at the end of the word (namely enclitic demonstratives, conditional *=rika*, locative *=ki*, plural *=paeni* and exclamative *=wee*) tend to have a secondary stress, as well as the possessive suffixes *-ti* and *-ni*

In the tetrasyllable *káarimáita* ‘but it isn’t’, the counter-expectative enclitic *=maita* attracts a primary stress, so that the word has two primary stresses, and the same happens in *téemáita*, the other word with *=maita* in my corpus. Actually, we may speak here of two phonological words that form a grammatical word because *=maita* cannot occur without a host.

2.5.2. Pentasyllabic and hexasyllabic words

Penta- and hexasyllabic words with no bimoraic syllable show an identical general pattern with a primary stress on the second syllable and a secondary stress on the fourth, which accords with the iambic foot pattern described by Crowhurst & Michael (2005:50-52) for Nanti and by J. Payne (1991:13-16) probably for Asháninka. Some examples are in (6), with pentasyllabic words in the first column and hexasyllabic in the second.

(6)

okématzìri	‘she’s hearing him’	*iyátharèkitho*	‘his testicle’
okántakìri	‘she says to him’	*ikántanàkiro*	‘he said to her’
pishíntothòri	‘your niece’	*ithónkitàkiro*	‘he finished only her’
rowáwakàwo	‘he eats her’	*iráyitàtsiri*	‘the one who is dinking’
atákiràkya	‘it is enough’	*ikántawàkiri*	‘they say to him at his arrival’

This general pattern can be disrupted very frequently for different reasons. In pentasyllabic words, in some cases, when the fourth syllable is with /i/, the stress is on the third (e.g. *ikántètziro* ‘they call it’, *okántàkiro* ‘she says to her’), and, in some cases, the stress placement in the narrative (*iyótàkiro* ‘she knows it’, *itháatàkiri* ‘the one who tweets’) is different from the one by the transcribing consultant (*iyótakìro*, *itháatakìri*), which shows the already mentioned lack of rigid patterns.

As in the shorter words, a bimoraic syllable attracts stress (e.g. pentasyllabic *róoperotàki* ‘that really is’, *ñáakotàkiri* ‘he found it’, *kìtamáataki* ‘it became white’; hexasyllabic *ráatsimiyàkiri* ‘he sucks him to cure him’). This last word also starts with /ɾ/, which was mentioned in the previous Section 2.5.1 as a reason for the first syllable to be stressed due to the deletion of a former initial */i/. The pentasyllabic *róyitakàwo*

'he eats only her' and *ràwihántaka* 'so he passes by' also have initial /ɾ/, but another reason for the stress on the first syllable is that /i/ is the vowel of the second. However, *rowáwakàwo* 'he eats her' has an initial /ɾ/ and the stress is on the second syllable, which may be caused by the tendency of syllables with /a/ to attract stress, already mentioned above. The stress attracted by a bimoraic syllable can be even on the last syllable, as in *otháwinatakàe* 'it has cursed us'.

There are different departures from the general pattern, and they may be due to different reasons. In *kímiwitàka* 'it is similar, but it isn't', the stress on the first syllable may be caused by the dropped subject suffix. In *okántakañà* 'it has happened', this is the only instance with the mirative suffix *-ña*, but it seems that it attracts stress. If more instances were available, it is possible that this marker could be identified as an enclitic, and we have seen in Section 1.2.5 that some enclitics attract a secondary stress. In *ótsipahàto* 'another type', we have to take into account the pronunciation [ˈotsʰpaˌhatːo], so that the underlying /i/ after /tsʰ/ is deleted, which superficially deducts one syllable from the word. The same deletion happens with /i/ after /ʃ/ (see Section 2.3.1), as with the hexasyllabic *oshitóimotzìri* 'it turned out (well, badly) for him', pronounced [oʃˈtoimoˌtsɨɾi] in the narrative, but [oʃˈtojimoˌtsɨɾi] by the transcribing consultant when pronouncing it more slowly. Another hexasyllabic instance of /i/-deletion is *iréiyatsirini* [iˈɾeijatsʰɾini] 'those who are drinking' vs the more careful pronunciation *iréiyatsirìni* [iˈɾeijatsʰɪˌɾini], where /i/ is not deleted after /tsʰ/ and thus a secondary stress is added.

There are a few pentasyllabic words with only one stress: *ikántakota* 'it is about', *iñáakirika* 'where he saw it', *okaméethatzi* 'it is good'. In the two first cases, these words very probably can be uttered with the general pattern, i.e. *ikántakòta* and *iñáakirìka*, and the difference between the two versions may be very difficult to recognise, given that it is a question of intensity and there is no precise boundary. In the case of *okaméethatzi*, the third bimoraic syllable attracts stress and, since it is in the middle of the word having just two syllables at its right and left, there is no prosodic need for a secondary stress, i.e. the word can be more easily pronounced this way than with a secondary stress.

Some hexasyllabic words with a short /a/ in the first syllable show the same tendency mentioned above with the tetrasyllabic *hápokana*: the stress is attracted to the first syllable in *rámatawitzìri* 'he cheated him', *kàmapiyótaki* 'they have dried in piles' and *ráwihàntanàka* 'then he passes by'. In the two words with initial /ɾ/, a further reason to attract the stress may be the diachronic reduction of initial */iɾ/ to /ɾ/ experienced in UP Ashéninka, as is mentioned in Section 2.7.7, but, in *kàmapiyótaki*, it seems that there is the tendency of a first syllable with /a/ to attract stress, as in *hápokana*. Also in *ròwamantyáriri* 'in order to kill him', the initial reduction from */iɾ/ to /ɾ/ appears to cause the stress to fall on the first syllable.

2.5.3. Longer words

In the sample used for this section, the longest word has ten syllables (*ikìmitakáantawitakàwo* 'because he has made it seem what wasn't real'). This is the only decasyllabic word in my whole corpus, and I have two with eleven syllables: *ipityàankatyénkarikitanàka* 'he throws himself spread-legged' and *nokàwirinkáshitawakirìita* 'I'm going to grate (genipap) for him for his arrival in spite of him'. With so few examples, it is practically impossible to research stress patterns for words that long. In the sample, there are 6 heptasyllabic, 3 octosyllabic and 1 enneasyllabic words, much less than shorter words (there are 20 hexasyllabic words, which shows a sharp diminution from hexa- to heptasyllabic words).

These longer words show all the tendencies described above. In the sample used for this section, in words with no syllable with special stress attracting features, the iambic foot pattern described by Crowhurst & Michael (2005:50-52) and J. Payne (1991:13-16) exists only in *ikyénkithàtakòta* 'they tell about'. This pattern also appears modified by some stress attracting feature in *mántsyaritàtsiri* 'the one who is ill' (uttered in the narrative) or *mántsiyàritàtsiri* (uttered by the transcribing consultant) (/a/ in the first syllable attracts stress and /i/ in the second repels it), *pòshiñáanikitàki* 'it is tasty' (the bimoraic syllable attracts stress and /i/ in the second syllable is deleted [ˌpoʃˈɲaːnikiˌtaki]), and *ráatsimiyapàkiri* [ˈɾaːtsʰmijaˌpakiɾi] (the bimoraic syllable attracts stress and /i/ is deleted after /tsʰ/). However, some words clearly deviate from the iambic foot pattern, namely those that have only two stresses in hepta- and

octosyllabic words or three stresses in ennea- and decasyllabic words, while the iambic foot pattern would require more stresses in such long words. These are illustrated in (7).

(7) *rámatawitakìri* 'he cheated him'
othómpitanàkira 'she carried him in *aparina*'[36]
ishèmyakotáshitawo 'he was crushing on it'
rámatawitakitzìri 'he cheated him for a while'
akyénkithàtakotakìri / akènkithátakotakìri 'what we have told about him'
ikìmitakáantawitakàwo 'because he has made it seem what wasn't'

In (7), there are 6 words taken from a group of 11 with more than six syllables – 9 if we remove 2 heptasyllabic words that undergo /i/-deletion and thus become superficially hexasyllabic–, which shows that the iambic foot pattern described by J. Payne (1991:13-16) and Crowhurst & Michael (2005:50-52) does not operate in longer words in UP Ashéninka. Instead, we can observe some of the tendencies mentioned in the previous section, such as the pre-eminence of bimoraic syllables to attract stress more strongly than any other tendency, or the first syllable with initial /ɾ/ attracting stress.

In 3 of the words in (7), we can also observe the tendency of the stress to take the position immediately before the 3rd person object suffixes *-ri* (m.) and *-ro* (f., realized *-wo* after /a/). In these words (*rámatawitakìri*, *rámatawitakitzìri* and *ikìmitakáantawitakàwo*), a primary stress is placed according to the aforesaid tendencies and a second one appears immediately before the object suffix at the end of the word.

In *ishèmyakotáshitawo* [iˌʃemʲakoˈtaʃtawo], which also bears an object suffix, it seems that the /i/-deletion in /ʃì/ strongly attracts stress on the preceding syllable. These two tendencies do not seem to operate in shorter words, with some exceptions, as the hexasyllabic words *rámatawitzìri* 'he cheated him', where the reason for the stress on the penultimate seems to be its position immediately before the object suffix; and *okamáshitaka* [okaˈmaʃtaka] 'they have dried out', where the /i/-deletion in /ʃì/

[36] *Aparina* is the local Spanish name for a cloth that is used to carry small children on one's body.

appears to attract the only stress in the word. In pentasyllabic words, the tendency to place the stress in the syllable preceding the object suffix may account for the aforementioned pairs *iyótàkiro/iyótakìro* 'she knows it' and *itháatàkiri/itháatakìri* 'the one who tweets', although, in this case, *-ri* is a relative suffix.

2.5.4. Summary

Ashéninka stress placement is non-phonemic and is governed by tendencies or loose rules rather than by rigid rules, which allows a certain degree of optionality. This subsection presents an outline of these tendencies without trying to strictly establish their pre-eminence, as more detailed works as Crowhurst & Michael (2005) for Nanti and J. Payne (1991) probably for Asháninka do. A more in-depth study of the stress patterns is beyond the goals of this thesis and is left for future research. The discovered tendencies are listed below:

1. Bimoraic syllables are the strongest stress attractors. All bimoraic syllables have a primary or at least a secondary stress, even final syllables, of which there are very few bimoraic.
2. Crowhurst & Michael (2005:50-52) for Nanti and J. Payne (1991:13-16) for Asháninka show a similar general stress pattern with iambic disyllabic feet in which the second syllable of each foot is stressed, and the last syllable is considered extrametrical. Both works describe a series of features that override this structure. In UP Ashéninka, this structure is best reflected in words with less than seven syllables, while it fails to occur regularly in longer words (see points 3 and 8 of this list).
3. Di-, tri- and tetrasyllabic words have the most regular stress pattern: di- and trisyllabic words are stressed on the penultimate and tetrasyllabic on the antepenultimate; putting it in other words, disyllabic words are stressed on the first syllable and tri- and tetrasyllabic on the second.
4. (C)VN syllables do not appear to be heavier than (C)V, differently from the findings of Crowhurst & Michael (2005:56-57) for Nanti and of J. Payne (1991:11) for Asháninka.
5. Words starting with /ɾ/ tend to attract stress to the first syllable, probably due to the diachronic reduction of an initial */iɾ/>/ɾ/ without change of the stress placement.

6. Enclitics and the possessive suffixes tend to have a secondary stress, namely the demonstrative enclitics, the conditional *=rika*, the locative *=ki*, the plural *=paeni*, the exclamative *=wee* and the possessive *-ni* and *-ti*. The counter-expectative enclitic *=maita* has a primary stress, so that the two only words on which it occurs in my corpus, the negators *téemáita* and *káarimáita*, should be considered each a grammatical word that consists of two phonological words.
7. /i/ attracts stress less than the other vowels and /a/ appears to attract stress more than the other vowels, so that, in terms of vocalic quality, /a/-syllables are the heaviest and /i/-syllables the weakest. The higher weight of /a/ appears to act more strongly on the first syllable of a word.
8. Penta- and hexasyllabic words show a general stress pattern with a primary stress on the second syllable and a secondary stress on the fourth.
9. Disyllabic feet tend to be stressed, although this tendency is much weaker in longer words.
10. Syllables preceding the 3rd person object suffixes *-ro* (f., realized /wo/ after /a/) and *-ri* (m.), as well as the relative suffix *-ri*, appear to attract stress, above all in longer words.
11. The deletion of /i/ in /ʃi/ and /tsʰi/, which creates a coda /ʃ/ or /tsʰ/, respectively, in the preceding syllable, appears to attract stress on this syllable with a coda in longer words.

2.6. Abbreviated words and special features of ideophones

This short section gives some information about two phonetic features of the language that must be reported but can hardly be included in any of the more typical sections of this chapter.

Some words can be strongly abbreviated, i.e. they are shortened through deletion of roughly half of the last part of the word. I have only five examples in my corpus: *róohatzi* ‘then’ is abbreviated to *rooha*, *iroñaaka* ‘now’ is abbreviated to *iró*, *nokantzi* ‘I say’ to *noká*, *okantzi* ‘she says’ to *oká*, and *ikantzi* ‘he says’ to *iká*. The last one is remarkable because *iká* is used when someone hears something and asks their interlocutor to be silent so as to listen to that sound and recognise it (e.g. hearing an

animal sound in the jungle). Therefore, the meaning is clearly different from the full form. In the other four, there is no change in meaning, which makes an important difference. The five examples are frequent words, as probably other existing abbreviations also must be, so that their frequent use has led to shorten them in some cases without a loss in understanding by the listener. In my corpus, *nokά* and *okά* occur in a conversation (CCPC), but the other three in stories (*rooha* in SCS, and *irό* and *ikά* in SFW). Thus, they cannot be ascribed only to casual speech.

Ideophones show special phonetic features alien to the language, such as a high tone, creaky voice or non-nasal consonants at the coda. These features are described in detail in the section devoted to ideophones (Section 3.10).

2.7. Morphophonology

Trask's (1996:228-29) first entry for "morphophonology" is "the description of morphophonemic alternations", whereas "morphophonemic alternation" is defined as "an alternation between phonemes in a particular position in a particular morpheme in varying contexts". This is the feature that is going to be treated in this section, i.e. the changes that phonemes undergo in morphemes when they combine with other morphemes, changes that take place next to the morpheme boundary. Other phonetic changes that imply different realizations of phonemes but are independent of morpheme combinations have been treated in the previous sections (e.g. /i/-deletion after /ʃ/ and /tsʰ/, which occurs equally inside morphemes and next to their boundary).

2.7.1. /ɾ/>/w/ in positions /a_o/ and /o_a/

The most frequent morphophonemic alternation is a shift /ɾ/>/w/ in positions /a_o/ and /o_a/. This often repeated occurrence could suggest that the same would happen in position /o_o/, but a former sequence */oɾo/ evolved to /oː/ in UP Ashéninka when the first /o/ was stressed (see Section 2.2.3 for details). In my corpus, there is only one occurrence of the sequence /owo/: *pówonto* (bird known in local Spanish as *porotuango* 'quail'), which Payne's dictionary (1980:107) lists as *pooronto* in the Pichis variety mentioning that the Ashéninka word is a loan from *porotuango*. The fact of being a loan, which might be recent, may explain the exception. Also, if

*/oɾo/>/oː/ in UP Ashéninka, we may expect that */oːɾo/, attested in Pichis in Payne's dictionary, would result /owo/ in UP Ashéninka due to the impossible sequences */oːo/ or */ooː/.

The sequence /awo/ occurs very often when the 3rd person feminine suffix *-ro* follows *a*. This suffix can cross-reference the object (8) or indicate the gender of an adjective (9). The second line of the glosses shows the underlying form *-ro*.

(8) Namétawo.
n–ame–t–a–ro
1S–get.used–&–REA–3F.O
'I get used to it' (CMH)

(9) antawo
anta–ro
big–F
'big (feminine)' (TSJ, CAM, CTK)

The shift /oɾa/>/owa/ occurs with the medial enclitic *=ra*, specifically in the feminine demonstrative *irowa* (i–ro=ra, DEM–F=MED, 'that') and its reduced form *rowa*, which is a very frequent filler.

2.7.2. /p/>/w/ in possessed nouns

In alienable nous starting with /p/, there is a change /p/>/w/ when a possessive prefix is used. The only examples from my text corpus are (10) and (11), while (12) and (13) are elicited examples.

(10) iwírintoti
i–pirinto–ti
3M–frog–POSS
'his frog' (FS)

(11) owyaare
o–pyaare
3F–masato
'her *masato*' (SFW)

(12) nowántyoni
no–pantyo–ni
1–duck–POSS
'my duck'

(13) nowítsini
no–pitsi–ni
1–honey–POSS
'my honey'

Payne (1981:6-7) describes this feature in Apurucayali and says that it occurs with a possessive prefix before a noun starting with /p/, but that inalienable nouns are an exception since they do not undergo this lenition, and that this makes a difference with the Alto Perené variety, where the lenition takes place in all nouns, which is confirmed by Mihas (2015*a*:69-70). The difference indicated by Payne between Apurucayali and Alto Perené forms an isogloss that is depicted in Map 4 with the example *nopori-nowori* (no-pori, 1-leg, 'my leg'): this isogloss separates the Tambo-Ene and Alto Perené varieties (*nowori*) from the rest (*nopori*) of the Ashé-Ashá complex.

However, example (11) above shows that there are some exceptions to this rule, or maybe the rule does not apply in this case because the lenited phoneme is actually /pʲ/ instead of /p/ (the non-possessed form is *pyáarentsi* '*masato*'). This is the only word in my corpus starting with /pʲ/ and the only exception to the rule of non-lenition in inalienable nouns. Since the group of inalienable nouns is limited, *pyáarentsi* is likely the only one starting with /pʲ/. In this case, we would have a rule with only one case, i.e., that/pʲ/ is lenited in both alienable and inalienable nouns. Another inalienable noun starting with /pʲ/ should appear to know the rule's validity.

An example of non-lenition with an alienable noun is in *nopáapati* (no-paapa-ti, 1-father-POSS, 'my father'). However, *paapa* is a Spanish loan and this word is morphologically alienable because it bears the possessive suffix, but the more genuine Ashéninka word, *niri* (n-iri, 1-father, 'my father') is inalienable, as practically all kinship terms are. This example shows that newly incorporated words do not undergo lenition independently of their alienability status.

Mihas (2015*a*:70) says that this lenition occurs in verbal stems after a causative prefix, which is also the case in my example (14), where the stem *-pari-* 'fall' is realized as /waɾi/:

(14) Rowáriyàkiro.
r–o–pari–ak–i–ro
3M.S–CAUS–fall–PFV–FRS–3F.O
'He has caused it to fall.' (PV)

2.7.3. /k/>/j/, /k/>/w/ and /k/-deletion

/k/ becomes /j/ at the beginning of a noun after a possessive prefix independently of the noun's alienability status. Two examples are in (15) (inalienable) and (16) (alienable).

(15) noyémpita
no–kempita
1–ear
'my ear'

(16) noyémini
no–kemi–ni
1–pumpkin–POSS
'my pumpkin'

/k/ can also become /w/ instead of /j/ in position /o_a/, i.e. with the possessive prefixes *no-* (1st person) and *o-* (3rd person f.) (e.g. *nowániri*, no-kaniri, 1-manioc, 'my manioc'), but the form *noyániri* is also used. I have also registered this change

with the causative prefix *o-* and the root *-kam-* ‘die’, so that the stem *-owam-* means ‘kill’. Therefore, it might occur in more verbs with the root starting with /k/ when the causative prefix *o-* is used.

A third development of /k/ after a possessive prefix is that it can be totally deleted when /i/ follows /k/. With the prefixes *no-* (1st person) and *o-* (3rd person f.), the diphthong /oe/ is formed, as in (17) and (19); with the prefixes *pi-* (2nd person) and *i-* (3rd person m.), the long vowel /iː/ is formed, as in (18) and (20).

(17) nóepatsiti
no–kipatsi–ti
1–land–POSS
‘my land’

(18) píipatsiti
pi–kipatsi–ti
2–land–POSS
‘your land’

(19) nóeshiti
no–kishiri–ti
1–comb–POSS
‘my comb’

(20) píishiti
pi–kishiri–ti
2–comb–POSS
‘your comb’

Spanish loans also undergo the shift /k/>/j/. Two examples from my text corpus are with the loans *comunidad* ‘community’ (21) and *cocina* ‘kitchen’(22).

(21) noyomunidáatekì
no–*comunidad*–ti=ki
1–community–POSS=LOC
‘in my indigenous community’ (CTK)

(22) iyoshinate
i–koshina–ti
3M–kitchen–POSS
‘his kitchen’ (SCFF)

2.7.4. Alternations depending on reality status (/w/-/j/ and /ɯ/-/j/), and in stems ending in *w* (/wi/>/ji/) and in *g* (/ɯi/>/ji/, /aɯa/>/aː/)

The three alternations described in this section have in common that they affect the approximants, which is related to the description of approximants in Section 2.2.6.

An alternation /w/-/j/ exists in the verbal root *-ow-* ‘eat’. This alternation forms the opposition realis-irrealis shown in (23) and (24). A similar alternation exists between /ɯ/ (25) and /j/ (26) in the root *-irag-* ‘weep’.

(23) Nowa.
n–ow–a
1S–eat–REA
‘I eat (realis).’

(24) Noya.
n–ow–ya
1S–eat–IRR
‘I eat (irrealis).’

(25) Niraga.
n–irag–a
1S–weep–REA
'I weep (realis).'

(26) Niraya.
n–irag–ya
1S–weep–IRR
'I weep (irrealis).'

In stems ending in /w/, this approximant is /j/ when /i/ follows the stem, as in (27), while the stem ends in /w/ when /a/ follows it, as in (28). Both examples show this feature with the root *-kow-/-koy-* 'want'.

(27) Pikoyi…
pi–kow–i
2S–want–FRS
'You want…' (CCPC)

(28) …nokówakotzimìri.
no–kow–ako–t–zi–mi–ri
1S–want–APPL–&–REA–2O–REL
'…what I want with you.' (CMH)

Payne (1989:154-56) describes for Pichis some verbs whose stems end in /ɯ/, which can be elided or changed to /j/. These changes also apply to UP Ashéninka. In (29), /ɯ/ is elided and the root links with the following suffix to yield /a:/. In (30), /ɯ/ is replaced by /j/ due to forming a syllable with /i/.

(29) …piráanaka…
p–irag–an–ak–a
2S–weep–ABL–PFV–REA
'You wept.' (CMH)

(30) …notayiro.
no–tag–i–ro
1S–burn–FRS–3F.O
'I burn it.' (CMM)

A good question for the two last alternations described above would be what happens when a vowel different from /a/ or /i/ follows the stem, but the fact is that every suffix starts with /a/, /i/ or a consonant, so there is no case where /e/ or /o/ follows the stem. In both alternations, /w/ or /ɯ/ are used to represent the stem because they are used in the infinitive form (e.g. *kowaantsi*, *iragaantsi*, *tagaantsi*). The different approximants (/w/, /j/, /ɯ/) and the vowel lengthening at the root coda derive from a proto-Campan */g/ (Lev Michael p.c. 2022).

2.7.5. /ɾ/>/ɯ/ and /ɾ/>/w/ in /a_a/ position

/ɾ/ changes to /ɯ/ in /a_a/ position. This change is clearly observable synchronically in the medial demonstrative enclitic *=ra* in *haga* (ha=ra, LOC=MED, 'there'), which forms a locative paradigm with *haka* 'here' and *hanta* 'yonder'. In these three words, *ha=* is a locative particle that acquires proximal, medial or distal value depending on the attached enclitic.

Furthermore, /ɾ/ can change to /w/ in /a_a/ position when *-ra* is a temporal subordinator. This is a surprising feature that I checked with two different speakers and shows that the medial demonstrative enclitic *=ra* can have a locative subordinator function. In (31), the medial enclitic is attached to the verb with a locative subordinating function and the sequence /aɾa/ becomes /aɯą/; but, in (32), the temporal subordinator *-ra* is attached to the verb and /aɾa/ becomes /awa/.

(31) a. pikátziyaga
pi–katziy–a=ra
2S–stand–REA=MED
'where you stood'

b. pishiróntaga
pi–shiront–a=ra
2S–laugh–REA=MED
'where you laughed'

(32) a. pikátziyawa
pi–katziy–a–ra
2S–stand–REA–TEMP
'when you stood'

b. pishiróntawa
pi–shiront–a–ra
2S–laugh–REA–TEMP
'when you laughed'

The explanation for these two different morphophonemic alternations must lie in the diachronic developments of the language. Since /aɯą/ occurs in lexical roots where other Ashé-Ashá varieties have /aɾa/ (e.g. *inkáganki* vs Asháninka *inkáranki*), it is very likely that the shift /aɾa/>/aɯą/ is older and took place before *-ra* existed as a temporal subordinator. This may be the reason why the older forms with the medial *=ra* show the shift /aɾa/>/aɯą/ and verbs with the probably more modern temporal subordinator *-ra* show the shift /aɾa/>/awa/.

The changes described in the present and the preceding Section 2.7.4 enlighten what was said in Section 2.2.6 about the approximants: they appear to have a status different from other consonants in that they can be interchangeable depending on the phonetic context, and there can even be a free choice between them in cases as *nowániri/noyániri*.

2.7.6. Changes related to prefixes

The pronominal prefixes, used both as possessives and to cross-reference the subject, undergo changes according to the beginning of the stem to which they attach. The 1st person prefix *no-* is reduced to *n-* when the following stem starts with a vowel different from /e/ (33), (34). The same happens with the 2nd person prefix *pi-*, which is reduced to *p-* before a stem starting with a vowel different from /e/ (35), (36). The

3rd person masculine prefix *i-* changes to *r-* before a vowel different from /e/ (37), (38). The 3rd person feminine prefix *o-* is deleted before a vowel (39), (40). The inclusive prefix *a-* is also deleted before a vowel (41), (42), but can also cause the elision of the initial vowel of the following stem (43), (44). The 3rd person feminine prefix *o-* can also elide the initial vowel of the noun in a few inalienable nouns (45), (46). The 2nd person and 3rd person masculine prefixes (*pi-* and *i-*, respectively) cause the initial /e/ of a root to be fused with the prefix to yield /iː/ (47), (48). The causative prefix *o-* can elide the initial vowel of the verbal stem (49).

(33) Nówatyàwo.
n–ow–atya–ro
1S–eat–PROG–3F.O
'I'm eating it.' (TSJ)

(34) nowániki
n–owani=ki
1–chacra=LOC
'in my *chacra*' (CMH)

(35) …piyote…
p–iyo–t–i
2S–know–&–IRR
'…you know…' (CMH)

(36) powani
p–owani
2–chacra
'your *chacra*' (CCPC)

(37) Ròmpohákiro
r–ompoh–ak–i–ro
3M.S–hit–PFV–FRS–3F.O
'He hits it' (TSJ)

(38) raniri
r–aniri
3M–brother-in-law.MP
'his brother-in-law' (TSJ)

(39) …òntsirokapáakari…
Ø–ontsirok–apa–ak–a–ri
3F.S–approach–ALL–PFV–&–3M.O
'…she approaches him…' (TCS)

(40) owani
Ø–owani
3F–chacra
'Her *chacra*.' (CTK)

(41) …owàperowáetakya…
Ø–ow–a–pero–wae–t–ak–ya
INCL.S–eat–&–VER–DUR–&–PFV–IRR
'…we are really going to be eating…' (TSJ)

(42) ashi
Ø–ashi
INCL–POSS
'ours' (OS)

(43) ánkini
a–inki–ni
INCL–peanut–POSS
'our peanuts'

(44) ayáariri
a–iyáariri
INCL–brother.FP
'our brother'

(45) ohawo
o–ihawo
3F–grandmother
'her grandmother'

(46) okónkiri
o–ikónkiri
3F–father-in-law
'her father-in-law'

(47) piimi
pi–emi
2–husband
'your husband' (CMM)

(48) …íitaganki…
i–et–a=ranki
3M.S–be.called–REA=ABSE
'…he was called…' (FS)

(49) Noyíiteri.
n–o–ayiit–i–ri
1S–CAUS–get.down–IRR–3M.O
'I make them get down.' (SCS)

2.7.7. Epenthesis

A prominent feature in all Campan languages is the use of the epenthetic phonemes /t/ and /a/ when the union of morphemes does not satisfy the syllabic structure. Especially, /t/ occurs very often. In (50) there are two occurrences of the epenthetic /t/. The first one separates the stem from the plural suffix *-aiy* because the language does not admit the sequence */ʃe.ai/. The second one separates the distributive from the reality status suffix. Although, in this case, the language would admit /iː/, the confluence of a suffix ending in /i/ and another starting with /i/ does not yield /iː/, but an epenthetic /t/ is instead inserted.

(50) Roshètaitéroni
r–oshe–**t**–aiy–yi–**t**–i–ro–ni
3M.S–clean–&–PL–DISTR–&–IRR–3F.O–PL
'He's going to clean them.' (PV)

The other epenthetic segment, the vowel /a/, is less frequent. In (51), the phonotactics of the language allows the cluster /mp/ (e.g. the stem *-ompoh-* 'hit'), but not at the boundary of two morphemes; therefore, an epenthetic /a/ is inserted between the two verbal stems *-kam-* 'dry out' and *-piyo-* 'pile up'. In (52), the epenthetic /a/ avoids the sequence */kaemwi/, given that /m/ and /w/ cannot form a cluster.

(51) Kàmapiyótaki.
kam–**a**–piyo–t–ak–i
dry.out–&–pile.up–&–PFV–FRS
'A lot of them have dried out (fruits).' (CCPC)

(52) Ikáemawitàri…
i–kaem–a–wi–t–a–ri
3M.S–call–&–FRU–&–REA–3M.O
'He calls him in vain…' (FS)

Examples (50) and (51) show that both epenthetic segments not only avoid clusters impossible for the language, but also separate morphemes even when they would form a cluster that fits the phonotactic rules of the language.

When a morpheme ending in /a/ is followed by a morpheme starting with /a/, the epenthetic /t/ may be avoided. In this case, the long vowel /aː/ is formed at the boundary of both morphemes, as in (53), where the union of the stem *-ña-* 'see' and the habitual suffix *-apiint* yield /aː/ at their boundary.

(53) Tee noñàapíintziro hanta nonámpiki.
tee no–ñ**a–a**piint–zi–ro ha=nta no–nampi=ki
NEG.REA 1S–see–HAB–REA–3F LOC=DIST 1–community=LOC
'I don't see it normally in my community.' (CMH)

However, this /aː/ is not formed in every case where a morpheme with a coda in /a/ is followed by a morpheme with an onset in /a/. While examples as (54) could lead to think that the reason of the /t/-insertion is that there is already a long /a/ in the first linking element, examples as (55) refute this explanation. Actually, the explanation for the insertion or non-insertion of the epenthetic /t/ at morpheme boundaries with /a/ at both sides is not straightforward and would require a thorough study, which is beyond the goals of a general grammar like the present one. It might even be possible that the /t/-insertion in these cases is a free choice.

(54) …niyá**ata**naki…
n–iya**a–t–a**n–ak–i
1S–go–&–ABL–PFV–FRS
'…I'm going…' (CMH)

(55) Poh**áta**ki…
poh**a–t–a**k–i
be.cooked–&–PFV–FRS
'It is already cooked…' (SCS)

The consonantal epenthesis with /t/ breaks the formation of a hiatus disallowed for the Ashéninka phonotactics, but there is a remarkable exception where the hiatus is allowed: with the malefactive suffix *-heempiy*. Examples (56) and (57) are both from elicitations, but the hiatus /i.a/ was clearly uttered by the speaker: (56) was pronounced /noˌkantaˌheːmpiˈakimi/, and (57) /noˌheːkaˌheːmpiˈaka/. I write *-heempiy* with <y> because this is the best way to represent this hiatus with the Ashéninka orthography.

(56) Nokànta**hèempiy**ákimi.
no–kant–a–heempiy–ak–i–mi
1S–say–&–MAL–PFV–FRS–2O
'I said it to you and it went wrong.'

(57) Nohèekahèempiyáka.
no–heek–a–heempiy–ak–a
1S–live.in.a.place–&–MAL–PFV–REA
'I live in a place and have problems there.'

In Section 2.1.3, I describe the possible formation of hiatus in sequences /Vji/ or /ijV/, but the difference from *-heempiy* is that, with this suffix, the hiatus is always formed. Another exception to the non-hiatus constraint is in *iryániériki* in (62).

The consonantal epenthesis with /t/ can be palatalized to /c/ in order to signal the passage of parts of the day (it gets dark, it dawns). Since this palatalization expresses a meaning, it must be considered a morpheme and, consequently, is described in Section 6.7.10. An example is shown in (58).

(58) Otsirénityáanaki.
o–tsireni–t–y–an–ak–i
3F.S–get.dark–&–ATT–ABL–PFV–FRS
'It got dark.' (SCS)

Payne's multidialectal dictionary (1980:162) shows a suffix *-saimpy*, probably from Pichis, which is a cognate of UP Ashéninka *-heempiy*. The dictionary defines it as derivational with the meaning "imaginario" 'imaginary' and refers to the verb "quemasaimpyaantsi", defined in the dictionary as "escuchar una voz imaginaria" 'listen to an imaginary voice' (Payne 1980:109). If *-heempiy* evolved from *-saimpy*, this might be an explanation for the strange hiatus occurring only with this suffix.

Other Campan languages do not allow /ɾ/ in an initial position. These languages have /i/ before /ɾ/ in some words in which UP Ashéninka has initial /ɾ/ (e.g. UP Ashéninka *róotaki* vs *iróotaki* 'that is' in Payne's [1980:66] multidialectal dictionary). In UP Ashéninka, this epenthetic /i/ has been inherited only in the demonstratives.

2.7.8. Other morphophonological changes

In some cases, the enclitics *=ki* (locative) and *=ka* (proximal demonstrative) can cause a word with two syllables and two morae to lengthen its last vowel. The instances from my corpus are in (59). The frequent demonstratives *irika/iroka* 'this (m./f.)' do not have this feature, nor does *mapiki* (60). Therefore, I do not know how often this feature occurs. The examples are taken from my corpus and I did not enquire more through elicitation.

(59) a. nihaaki
niha=ki
water=LOC
'in the water' (FS)

b. haniika
hani=ka
wasp=PROX
'these wasps' (FS)

(60) mapiki
mapi=ki
stone=LOC
'on the stone' (TSJ)

The diminutive *-aniki* and the plural diminutive *-eriki* cause a palatalization of the preceding consonant, as can be seen in the two examples in (61). However, in my text corpus, I have the instance shown in (62), where, remarkably, a hiatus is formed (/iˈɾʲaniˈeɾiki/).

(61) a. eenchániki
eentsi–aniki
child–DIM
'little child' (FS)

b. itomyériki
i–tomi–eriki
3M–son–DIM.PL
'his little sons' (FS)

(62) iryániériki
i–rya–ni–eriki
M–small–ADJ–DIM.PL
'small children' (CMH)

At least two inalienable nouns delete in their non-possessed form a final /i/ existent in their possessed forms. They are *owaantsi* '*chacra*' and *ñaantsi* 'language' (1st person forms are *nowani* 'my *chacra*' and *noñaani* 'my language'), so that the alienator suffix *-tsi* replaces the final /i/. In *owaantsi*, the /a/ is long in contrast to the possessed form *nowani*. It is likely that there are no more nouns with this feature because inalienable nouns tend to be used frequently, so another one should have appeared in my fieldwork, but, of course, there may be more.