“A comparative study on switch-reference markers in three Panoan languages”

by

Mark Oosterbaan
s1167642

BA Linguistics, University of Leiden, 2014

A thesis submitted in total fulfilment of the requirements for the degree of BA Linguistics

Word count: 9,301

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Chapter 1: Introduction

§1.1 Foreword

In their book "The Amazonian Languages", Aikhenvald and Dixon (Dixon and Aikhenvald 1999: Introduction) state that "[t]he Amazon Basin is arguably both the least-known and the most complex linguistic region in the world today." In this thesis I will look at three languages that are spoken in the Amazon Basin and are part of the same language family: the Panoan language family. By doing so I hope to contribute to the linguistc knowledge of this fascinating region. Now that enough linguistic data has been collected, it is time to compare the data and research specific topics of the grammar. In this thesis the grammatical category called 'switch-reference' will be studied. This system tracks the referentiality of grammatical core arguments on an interclausal level and has been discovered to exist in languages all over the world "[e]ver since William Jacobson coined the term […]." (Sparing-Chávez 2012: 11).

The Panoan languages I have decided to study are the following: Kashibo-Kakataibo, Shipibo-Konibo and Matses. It is for multiple reasons that I have decided to choose these three languages. First of all, there is enough information to be found about these languages since they are all described elaborately in a high-quality descriptive grammar (cf. Fleck 2013: 'Priorities for future research'). Using data from a good descriptive grammar is even more important in my case because this study is based solely on data gained from grammars and not on my own research or fieldwork since this is simply not feasible for a bachelor thesis.

Secondly, since these three languages represent different branches of the same language family (cf. §1.2 and §7.2), I feel that comparing these languages is the best way of getting an idea of what switch-reference looks like in distinct branches of the Panoan language family. Although a comparative study on three langauges is not big enough of a scope to make justifiable statements about the language family as a whole, I feel that this study should function as a preliminary look into this complex system and is in a good place to be expanded in a later study.

Thirdly, as will be discussed in §1.2, two of these languages (Kashibo-Kakataibo and Shipibo-Konibo) are very similar in some aspects (cf. Zariquiey 2011), possibly due to their intense contact. As the rest of the thesis will show, they also have two switch-reference systems that are much more alike to each other than to the Matses switch-reference system. This goes to prove that language contact can presumably influence even the most complex grammatical systems even though languages are from different branches of the same language family.

Fourthly, Zariquiey (2011: 10) states that "[…] there is general agreement that Kashibo-Kakaitabo represents an independent subgroup within the Pano family, and this fact makes this language highly important for any attempt to reconstruct any area of the Proto-Pano grammar." This in my opinion is another good argument for including Kashibo-Kakataibo in this comparative study.

Fifthly, the complexity of the switch-reference systems shows a typologically interesting phenomenon: the system seems to be getting more complex diachronically. As Zariquiey (2011: 573) notes, "[…] we find differences among Pano languages with regard to the number, the form and the meaning of other switch-reference markers. This suggests that the Proto-Pano suffixes were combined with distinct forms in diverse ways in different Pano languages." In other words: the switch-reference system in Panoan languages increase in

complexity over the years because parts of the original Proto-Pano paradigm (cf. Valenzuela 2003: Chapter 20) are combined with other morphemes to create a very complex system.

§1.2 Ethnographic information

The Panoan language family consists of approximately 32 languages, of which only 18 are still spoken (Fleck 2013). Valenzuela (2003: 40) mentions that "[t]he Panoan population has been estimated at circa 40,000 people, with around 30,000 living in Peru, 7,700 in Brazil, and 700 in Bolivia (Erikson et alia 1994:4-5)". The location and the amount of speakers of the three languages I am comparing for this study is summarised in table 1 below.

Language	**Location**	**Number of speakers**	**Classification**
Kashibo-Kakataibo	Peruvian districts of Huánuco and Ucayali (Zariquiey 2011: 1)	3,000 - 3,500 in 2007 (Zariquiey 2011: 60)	Mainline branch > B-group Kashibo > dialect of Kashibo
Shipibo-Konibo	Peruvian districts of Huánuco, Ucayali and Loreto (Valenzuela 2003: 6)	30,000 in 1993 (Valenzuela 2003: 8)	Mainline branch > C-group Nawa > Chama subgroup > fused language of Shipibo and Konibo
Matses	Area around the Brazilian border with Peru and Colombia (Fleck: 2003: 2)	2,000 - 2,100 in 1998 (Matlock 2002)	Mayoruna branch > A-group Mayo > Matses subgroup

Table 1: Ethnographic information on the studied languages[1]

Although there seems to be a general agreement on the structure of Pano in the way that Fleck (2013) classifies it, placement of the Macro-Panoan language family on a larger scale is still debated. Greenberg (1987) classifies Macro-Panoan as part of the Ge-Pano-Carib phylum, but this classification is very controversial (cf. Dixon and Aikhenvald 1999 for objections against this classification).

It is important to note that Kashibo-Kakataibo and Shipibo-Konibo have significant linguistic similarities. According to Zariquiey (2011: 10), this is because of the fact that "Kashibo-Kakataibo has been in intensive contact with Shipibo-Konibo" (idem): the similarities might not be "due to inheritance, but rather to the high degree of contact between them." (idem) The data in §3 indeed show a lot of similarities between the two languages.

§1.3 Switch-reference in languages of the world

According to Haiman and Munro (1983: ix), "[c]anonical switch-reference is an inflectional category of the verb, which indicates whether or not its subject is identical with the subject of some other verb." In this thesis however, it will become clear that in the case of Panoan

[1] cf. §7.2 for more details on the classification

switch-reference systems, switch-reference not just indicates the referentiality of two subjects, but also of objects.

He further claims that "[c]haracterization of the notion "subject" is strictly syntactic, rather than semantic or pragmatic in most cases: it is not the agent of the topic whose identity is being traced (cf. Comrie, Gordon; Gordon & Munro, 1982)." (Haiman and Munro 1983: xi) This also seems to apply to Panoan languages, as will be explained in §2.2.

Switch-reference systems vary in complexity and can express a wide variety of additional meanings, like "temporal (dis)continuity, unexpectedness, mood, etc." (Van Gijn 2012: 113). In this study we will indeed see that besides the tracking of the core arguments, the use of certain switch-reference markers sometimes also gives information on grammatical categories such as evidentiality, temporal (dis)continuity and the type of verb.

Switch-reference systems seem to be very present in languages of the world and are found "in New Guinea, Australia and Africa" (Sparing-Chávez 2012: 11).

§1.4 Research goal

For this comparative study I am interested to see to what degree the switch-reference systems in the three Panoan languages I am studying function in a similar way and what the differences between these genetically related languages are. In order to do this, I will list all the paradigms of the three languages I have studied and create a large database of the markers found. On the side, I want to research how certain types of referentiality are expressed if a language lacks an explicit marker for that type. The ultimate goal of this thesis is to summarize the switch-reference system of three different languages of the same language family, demonstrate how divergent such languages can be and be a contributing to the growing number of comparative studies on Amazonian linguistics.

§1.5 About the thesis' structure

For the examples in this thesis, I will be using the original orthography that the author has decided to use in his/her grammar. In appendix 3 (§7.3), I will list the three different orthographies that have been used by Zariquiey (2011), Valenzuela (2003) and Fleck (2003) in order to more easily demonstrate the strong phonological resemblance in the case of some switch-reference markers. In most cases, I have decided to use six lines for the gloss of each example, following this format:

Language name (omitted if the same as the previous example)
Original text, broken into morphemes
Original gloss
Adapted gloss
Translation
Source of the example

In Chapter 4 however, more lines will be used in order to fully depict the structure of some example sentences.

The switch-reference marker that is being discussed will be made bold in all the example sentences, together with the dependent clause in the translation it refers to.

§2 Switch-reference in Panoan languages

§2.1 General overview

In order to describe the differences and similarities between the switch-reference systems in the three Panoan languages I have studied, I will first describe how switch-reference as a system works in these languages. I will begin by sketching the outline of general tendencies of the switch-reference systems in these three Panoan languages to give a background. Then I will resort to describing the systems separately in Chapter 3. Note that I will use the term 'switch-reference' for the system as a whole and not just different-argument referentiality.

The basic structure of a prototypical switch-reference sentence in Panoan is clear: it is composed of two clauses with one being the matrix clause and one being the dependent clause. It is possible and quite common to have more dependent clauses for the same matrix clause. Zariquiey (2011: 563-571) argues that in Kashibo-Kakataibo there is a difference in the target of dependent clauses: converbs target other dependent clauses or the matrix clause, but switch-reference clauses can only target the matrix clause (further discussed in Chapter 4).

§2.2 Referentiality of the arguments

Switch-reference clauses in Panoan languages track the referentiality of the three core arguments S, A and O[2] in syntactically related clauses. In short, they mark whether argument X in clause 1 agrees with argument Y in clause 2 (co-referentiality or same-reference marking) or not (non-referentiality or different-reference marking). Because the examples of switch-reference in most cases cover a dependent clause and a matrix clause, I will refer to clause 1 and clause 2 with 'dependent clause' and 'matrix clause' from now on. As mentioned in §1.3, switch-reference systems world-wide express referentiality and pivots of different types and can encode a wide variety of elements. According to Valenzuela (2003: 427-428) the Shipibo-Konibo system tracks subject referentiality as a grammatical role instead of a semantic referentiality or topic referentiality. The pivot of the switch-reference system is thus a pivot of grammatical subject/object instead of one of a semantic subject or a pivot of topic. Although there are no comparable examples like Valenzuela gives to be found in the grammars of Kashibo-Kakataibo (Zariquiey 2011) or Matses (Fleck 2003), there is no reason to think this is any different for these languages and that all three languages track referentiality of the grammatical subject and object.

We can distinguish four major categories of referentiality used in these three Panoan languages. In the following paragraphs they are accompanied by an example sentence in English to give a notion of the type of referentiality. They are the following:

1) Same-Subject referentiality: the subject of the dependent clause is co-referential with the subject of the matrix clause, i.e. they refer to the same thing or person.

#'While he_i is walking down the street, he_i eats a banana.'
S_1 A_1
($S_1 = A_1$)

[2] I will adhere to common practice by abbreviating the subject of an intransitive verb as S, the subject of a transitive verb as A and the object of a transitive verb as O.

or preferably

'While (he$_i$ is) walking down the street, he$_i$ eats a banana.'[3]
S_1 A_2
($S_1 = A_2$)

2) Subject > Object referentiality: the subject of the dependent clause is co-referential with the object of the matrix clause. In some cases in Kashibo-Kakataibo, Subject > Object markers can also express that the object of the dependent clause is co-referential with the object of the matrix clause.

'While he$_i$ is walking down the street, she calls him$_i$.'
S_1 A_2 O_2
($S_1 = O_2$)

3) Object > Subject referentiality: the object of the dependent clause is co-referential with the subject of the matrix clause.

'While she calls him$_i$, he$_i$ is walking down the street.'
A_1 O_1 S_2
($O_1 = S_2$)

4) Different-Argument referentiality: there are no co-referential core arguments shared between the dependent and the matrix clause.

'While he is walking down the street, she eats a banana.'
S_1 A_1 O_1
($S_1 \neq A_1$) & ($S_1 \neq O_1$)

§2.3 Transitivity of the verb

Another defining feature of these switch-reference systems is the fact that the transitivity of the matrix verb is important in choosing the correct switch-reference marker. The paradigm for Object > Subject referentiality in Kashibo-Kakataibo for instance consists of four markers (i.e. *-kë*x, *-këx=bi, -këxun*, and *-këxun=bi*), with the former two being used when the main verb is intransitive and with the latter two being used when the main verb is transitive.

[3] Ellipsis of the personal pronoun and the conjugated verb 'to be' is common in English sentences like this. Gerunds with ellipsis of these elements in dependent clauses in English imply that the subject of the dependent clause is co-referential with the subject of the matrix clause. Sentence (2) could therefore not be written as *'While walking$_i$ down the street, she$_j$ shouts at him$_i$.', because the implied subject of 'walking' would then refer to the object of the matrix clause.

The transitivity of the dependent verb, however, does not seem to matter. The form of the switch-reference marker is the same for a dependent clause with an S argument as it for one with an A argument.[4] There are just two cases where this does not seem to be true.

Firstly, there is a marker in Matses (i.e. *-nuc* (until:S>O) “until") that only occurs with intransitive verbs in the dependent clause, thus requiring an S and not an A as the subject argument. It is important to note however that in all the examples Fleck gives for this marker, the dependent verb receiving the marker is the intransitive verb *ic-* "to be". I suspect that the S-only criterion for this marker is due to it only occuring with this specific intransitive verb, rather than it being an exception to the rule.

Secondly, there are two Kashibo-Kakataibo markers that are distinguished based on the dependent verb transitivity: *-këbë* (DS/A/O(SE.INTR)) and *-këbëtan* (DS/A/O(SE.TRAN)). Both are derived from "the nominaliser *-kë* and the case marker *=bë(tan)*" (Zariquiey 2011: 573). This latter morpheme *=bë(tan)* has two allomorphs depending on the transitivity of the verb to which it is an adjunct (a form of participant agreement, which is common in Panoan languages). *=bë* is used in cases where the governing verb is intransitive and *=bëtan* is used in cases where the governing verb is transitive. This pattern corresponds to the transitivity distinction when *=bë(tan)* is used as part of the switch-reference markers *-këbë* and *-këbëtan* and can thus be explained as being a consequence of the origin of the two markers. Zariquiey even argues that these kinds of markers should not be called true switch-reference markers, because they are a type of nominalisation, which does not produce dependent clauses. Since a switch-reference system inherently requires a dependent and a matrix clause, nominalisations do not fulfil this requirement. Further research is needed to rightfully categorize these markers as either switch-reference markers or nominalisations.

§2.4 Finiteness of the verb

Verbs in dependent switch-reference clauses generally are non-finite, i.e. not marked for "the crucial aspectual/illocutionary force morphology found in finite declarative verbs." (Valenzuela 2003: 414). The switch-referenced verb however can receive a set of limited morphology such as markers of reciprocity, the middle voice and other morphemes without a change to the degree of finiteness of the verb. Exceptions to this tendency are some different-reference marking constructions in Shipibo-Konibo where the aspect markers *-ai* (INC) and *-ke* (CMPL) may be employed, making the verbs more finite than non-marked standard ones. *-ai* and *-ke* express a difference in temporal structure with the former expressing that the two events are overlapping and the latter expressing that the event in the dependent clause happened before the event in the matrix clause, corresponding to their original functions as aspect markers. In addition, there is one example in Fleck’s grammar where the durative aspect marking affix *-bud* is used in combination with a switch-reference marker, as shown in sentence (1).

[4] Of course, intransitive clauses (with an S argument) cannot have an O argument and thus cannot receive Object > Subject referentiality markers.

Matses

(1)	*uënes-bud-sho*	*matses-n*	*tabote*	*dë-bed-quid.*
	die-Dur-when:S/A/O>O	Matses-Erg	torch	tip-tap.away.ashes-Hab
	die-DUR-S/A/O>O	Matses-ERG	torch	tip-tap.away.ashes-HAB

"As the torch starts to die out, Matses tap away the ashes from the tip."

(Fleck 2003: 1101)

Because the temporal relation between the matrix clause and the dependent clause is included in the choice of the switch-reference marker, there is never a need to express further temporal information on the switch-referenced verb e.g. in the form of a tense marker.

§2.5 Position of the switch-reference marker and the verb

Dependent switch-reference clauses are obligatorily verb-final and since the verb always bears the switch-reference marker in these languages, the switch-reference marker is generally the final element of the dependent clause. There are a couple of cases however where clitics or evidentiality suffixes follow the switch-reference marker. A good example of this is the clitic *=bi* "same" in Kashibo-Kakataibo that is used with Object > Subject referentiality markers to change the temporal relation from previous to simultaneous. Compare the next two Kashibo-Kakataibo sentences where the only difference is the clitic *=bi*.

Kashibo-Kakataibo

(2)	*Juan-nën*	*Pedro*	*më-këxun*	*ka*	*policia*
	Juan=ERG	Pedro.ABS	beat.up-O>A(PE)	NAR.3p	police.ABS
	Juan-ERG	Pedro.ABS	beat.up-O>A(PE)	NAR.3P	police.ABS

kwën-a-x-a
call-PERF-3p-non.prox
call-PERF-3P-NON.PROX
"After Juan beat up Pedro$_j$, he$_j$ called the police."

(Zariquiey 2011: 587)

(3)	*Juan-nën*	*Pedro*	*më-këxun=bi*	*ka*	*policia*
	Juan=ERG	Pedro.ABS	beat.up-O>A(PE)=same	NAR.3p	police.ABS
	Juan-ERG	Pedro.ABS	beat.up-O>A(PE)=same	NAR.3P	police.ABS

kwën-a-x-a
call-PERF-3p-non.prox
call-PERF-3P-NON.PROX
"At the same time that Juan beat up Pedro$_j$, he$_j$ called the police."

(Zariquiey 2011: 587)

Note that the 'he' in the matrix clause of sentence (2) and (3) corresponds to 'Pedro' in the dependent clause (as marked with a subscript 'j'), since the markers express a referentiality of the O in the dependent clause with the A in the matrix clause.

§2.6 Temporal relations

Besides tracking whether there are co-referential arguments and what arguments they are, switch-reference constructions in these Panoan languages also express the temporal relation between the dependent and matrix clause in three different ways. Table 2 shows these temporal relations.

Temporal Relation		Rough Translation
previous	the event in the dependent clause precedes the event in the matrix clause	"after [dependent clause], [matrix clause]"
simultaneous	the event in the dependent clause happens simultaneously with the event in the matrix clause	"while [dependent clause], [matrix clause]"
posterior	the event in the dependent clause follows the event in the matrix clause	"before [dependent clause], [matrix clause]" "in order to [dependent clause], [matrix clause]"

Table 2: The three-way distinction of temporal relations in Panoan languages

Besides this three-way distinction, a lot of constructions have other temporal meanings and uses, such as the Shipibo-Konibo marker *-nontian* (DS/A(SE.ENC)), which not only expresses that the arguments in the dependent and matrix clause are non-referential and that the temporal relation is simultaneous, but also that one of the events is taking place in the duration of the other one, with the lengthier one encompassing the shorter event.

§2.7 Additional meanings

Switch-reference clauses can express a wide range of meanings based on the context and the type of markers used. Examples of this include the following: posterior markers in all three languages often bearing a purpositive meaning ("in order to..."); some switch-reference markers such as Kashibo-Kakataibo *-ax* (S/A>S) and *-xun* (S/A>A) conveying cause-effect conditional meanings ("if..., then…") and the full paradigm of Matses simultaneous markers sometimes being used in concessive ("although...") or additive senses ("... and ...").

Chapter 3: The paradigms

In this chapter the switch-reference systems of the three languages I have studied will be explained and summarised in a table.

§3.1 Kashibo-Kakataibo

Kashibo-Kakataibo has a complex switch-reference system, with a total of twenty-one markers[5].

The different switch-reference markers of Kashibo-Kakataibo can be seen in table 3. The table also shows the choice of the marker based on the different parameters as discussed before in Chapter 2. The markers of Kashibo-Kakataibo will then be discussed by the different types of referentiality.

Same-Subject Referentiality				
	Dependent Clause	**Matrix Clause**	**Temporal Value**	**Gloss**
-tankëx	S/A	S	previous	S/A>S(PE)
-i	S/A	S	simultaneous	S/A>S(SE)
-nux	S/A	S	posterior	S/A>S(POE)
-ax	S/A	S	previous/simultaneous	S/A>S
-tankëxun	S/A	A	previous	S/A>A(PE)
-kin	S/A	A	simultaneous	S/A>A(SE)
-nuxun	S/A	A	posterior	S/A>A(POE)
-xun	S/A	A	previous/simultaneous	S/A>A
-tanan	S/A	S/A	simultaneous	S/A>S/A(SE)
-anan	SS/(1)DO		simultaneous	S/A>S/A(SE).1DO
Subject > Object Referentiality				
	Dependent Clause	**Matrix Clause**	**Temporal Value**	**Gloss**
-këtian	S/A/O	O	previous	S/A/O>O(PE)
-ia	S/A/O	O	simultaneous	S/A/O>O(SE)

[5] Three of these twenty-one markers are arguably grammaticalised nominalisations using the nominaliser *-kë* (Zariquiey 2011: 573-574).

Object > Subject Referentiality				
	Dependent Clause	**Matrix Clause**	**Temporal Value**	**Gloss**
-këx	O	S	previous	O>S(PE)
-këx=bi	O	S	simultaneous	O>S(SE)
-këxun	O	A	previous	O>A(PE)
-këxun=bi	O	A	simultaneous	O>A(SE)
Different-Argument Referentiality				
	Dependent Clause	**Matrix Clause**	**Temporal Value**	**Gloss**
-nun	DS		posterior	DS/A(POE)
-an	DS/A/O		previous	DS/A/O(PE)
-këbë	DS/A/O		simultaneous	DS/A/O(SE.INTR)
-këbëtan	DS/A/O		simultaneous	DS/A/O(SE.TRAN)
-mainun	DS/A/O		simultaneous	DS/A/O(SE.DUR)

Table 3: The switch-reference markers of Kashibo-Kakataibo

§3.1.1 Kashibo-Kakataibo: Same-Subject referentiality

Kashibo-Kakataibo has an elaborate paradigm for Same-Subject referentiality, with ten different markers. Six of these (*-tankëx*, *-i*, *-nux*, *-tankëxun*, *-kin* and *-nuxun*) are regular markers used to express that the subjects of the dependent clause and the matrix clause co-refer and based on the marker express a temporal relation between the two clauses: previous (*-tankëx*/*-tankëxun*), simultaneous (*-i*/*-kin*) or posterior (*-nux*/*-nuxun*). *-tankëx, -i* and *-nux* are used when the subject of the matrix clause is an S argument and *-tankëxun*, *-kin* and *-nuxun* when it is an A argument. As described in §2.7, the posterior markers *-nux* and *-nuxun* often bear a purpositive meaning. These six markers are demonstrated in sentences (4) - (9).

Kashibo-Kakataibo

(4)	*u-ru-**tankëx***	*ka*	*Pucallpa=nu=ax*	*atsin-**tankëx***	*anu*
	come-up-**S/A>S(PE)**	NAR.3p	Pucallpa=LOC=PA:S	enter-**S/A>S(PE)**	there
	come-up-**S/A>S(PE)**	NAR.3P	Pucallpa=LOC=PA.S	enter-**S/A>S(PE)**	there

u-akë-x-a
come-REM.PAST-3p-non.prox
come-REM.PAST-3P-NON.PROX
"**Coming up**, **entering from Pucallpa**, they came there."

(Zariquiey 2011: 320)

(5) *a* *buan-**i*** *ka* *kwan-akë-x-a*
that.O bring-**S/A>S(SE)** NAR.3p go-REM.PAST-3p-non.prox
that.O bring-**S/A>S(SE)** NAR.3P go-REM.PAST-3P-NON.PROX
"**Bringing that**, they went."

(Zariquiey 2011: 575)

(6) *tanu* *rërëka-**nux*** *tsoot-but-akë-x-a*
palm.worm.ABS spill-**S/A>S(POE)** live-down(INTR)-REM.PAST-3p-non.prox
palm.worm.ABS spill-**S/A>S(POE)** live-down(INTR)-REM.PAST-3P-NON.PROX

bai *ʿipasu*
path at.side.of
path at.side.of
"He sat down at the border of the path **to spill palm worms**."

(Zariquiey 2011: 230)

(7) *rët-**tankëxun*** *kaisa* [...] *xanu=n* *chaxu*
kill-**S/A>A(PE)** NAR.REP.3p woman=ERG deer.ABS
kill-**S/A>A(PE)** NAR.REP.3P [...] woman=ERG deer.ABS

rakan-akë-x-ín
lay.down-REM.PAST-3p-prox
lay.down-REM.PAST-3P-PROX
"It is said that, **after killing it**, [...] the woman laid down the deer."

(Zariquiey 2011: 313)

(8) *ʿa-pun-**kin*** *kaisa* *bëtsi* *ñantan* *ʿux-**kin***
do.same.day-**S/A>A(SE)** NAR.REP.3p other afternoon sleep-**S/A>A(SE)**
do.same.day-**S/A>A(SE)** NAR.REP.3P other afternoon sleep-**S/A>A(SE)**

ʿa-akë-x-ín
do-REM.PAST-3p-prox
do-REM.PAST-3P-PROX
"It is said that, **doing it early**, **sleeping for another afternoon**, he did it."

(Zariquiey 2011: 578)

(9) *naë* *ʿa-**nuxun*** *kananuna* *me=pain* *bari-i-n*
garden.ABS do-**S/A>A(POE)** NAR.1pl land.ABS=first look.for-IMPF-1/2p
garden.ABS do-**S/A>A(POE)** NAR.1PL land.ABS=first look.for-IMPF-1/2P
"**In order to make a garden**, first we look for a piece of land."

(Zariquiey 2011: 579)

-*tanan* does not differentiate between an S or an A argument in the matrix clause and is used in both cases, with no difference in meaning with the six markers that have just been discussed. -*tanan* is demonstrated in sentence (10).

(10) *pi-**tanan*** *kana* *xëa-a-n*
eat-**S/A>S/A(SE)** NAR.1sg drink-PERF-1/2p
eat-**S/A>S/A(SE)** NAR.1SG drink-PERF-1/2P
"**Eating**, I drank."

(Zariquiey 2011: 580)

-anan is quite similar in use to *-tanan* in that it also used with a dependent and matrix clause with simultaneous events and co-referential subjects. In contrary to *-tanan* however, *-anan* also indicates that one of the objects in the dependent and matrix clause is non-referential. In the case of ditransitive verbs, only one of the two arguments is non-referential, like in sentence (11) where *ʿatsa* "manioc" is used as an O in both the dependent and matrix clause, but the other objects (*uni* "man" versus *xanu* "woman") are non-referential.

(11) *ʿatsa* *uni* *ʿinan-**anan*** *kana* *ʿatsa*
manioc.ABS man.ABS give-**S/A>S/A(SE)** NAR.1sg manioc.ABS
manioc.ABS man.ABS give-**S/A>S/A(SE).1DO** NAR.1SG manioc.ABS

xanu *ʿpi-mi-a-n*
woman.ABS eat-CAUS-PERF-1/2p
woman.ABS eat-CAUS-PERF-1/2P
"**I gave manioc to the man** while feeding the women with it."

(Zariquiey 2011: 581)

The last two markers (*-ax* and *-xun*) are a bit different from the other markers, since they both are able to express two kinds of temporal relations: previous and simultaneous. Furthermore, they have a extended semantic range, also expressing cause-effect conditionals, as can be seen in sentences (12) and (13).

(12) *pi-**ax*** *kana* *ʿabat-i-n*
eat-**S/A>S** NAR.1sg run-IMPF-1/2p
eat-**S/A>S** NAR.1SG run-IMPF-1/2P
"**(After) eating**, I run."
"**If I eat**, I run."

(Zariquiey 2011: 576)

(13) *pi-**xun*** *kana* *xëa-i-n*
eat-**S/A>A** NAR.1sg drink-PERF-1/2p
eat-**S/A>A** NAR.1SG drink-PERF-1/2P
"**(After) eating**, I drink."
"**If I eat**, I drink."

(Zariquiey 2011: 578)

§3.1.2 Kashibo-Kakataibo: Subject > Object referentiality

Another type of switch-reference markers that Kashibo-Kakataibo uses are the Subject > Object referentiality markers. These two markers (*-këtian* and *-ia*) are employed to indicate that the subject or the object of the dependent clause is co-referential with the object of the matrix clause. Note that there is no posterior marker to mark this type of referentiality. The co-referential argument of a dependent clause with *-këtian* cannot be explicitly mentioned in this dependent clause. Zariquiey points out that this restriction is "share[d] with nominalisations in attributive function" and that "this restriction, which is not found with any other form in the switch-reference paradigm, is a definitional feature of participant nominalisations ... and could be evidence for analysing the constructions with *-këtian* as nominalisations." (Zariquiey 2011: 584). While *-këtian* is used for a previous relation, *-ia* is used for a simultaneous relation. The use of these two markers can be seen in sentences (14) and (15).

(14)	*Pedro-nën*	*më-**këtian***	*kana*	*Juan*	*Lima=nu*
	Pedro.ABS	beat-up-**S/A/O>O(PE)**	NAR.1sg	Juan.ABS	Lima=LOC
	Pedro.ABS	beat.up-**S/A/O>O(PE)**	NAR.1SG	Juan.ABS	Lima=LOC

xu-a-n
send-PERF-1/2p
send-PERF-1/2P
"**After Pedro beat him$_j$ up**, I sent Juan$_j$ to Lima." (O>O)

(Zariquiey 2011: 584)

(15)	*kwan-ru*	*kwan-ru-**ia***	*kaisa*	*ka-akë-x-ín*
	go-up	go-up-**S/A/O>O(SE)**	NAR.REP.3p	say-REM.PAST-3p-prox
	go-up	go-up-**S/A/O>O(SE)**	NAR.REP.3P	say-REM.PAST-3P-PROX

"It is said that, **when (he) was going up**, (the man) said (something) to him." (S>O)

(Zariquiey 2011: 583)

§3.1.3 Kashibo-Kakataibo: Object > Subject referentiality

The third type is Object > Subject referentiality, where the object of the dependent clause is co-referential with the subject of the matrix clause. Just like the two Subject > Object markers discussed in §3.1.2, there is no posterior counterpart. In order to express Object > Subject referentiality, four markers are used: *-kë*x*, -këxun*, *-këx=bi* and *-këxun=bi*. The latter two are derived from the former two by adding the clitic *=bi* "same", changing the temporal relation to a simultaneous one. In some cases, this type of referentiality has a concessive semantic stretch, like in sentence (18). Sentences (16) - (19) show the use of these markers.

(16) *Juan-nën* *Pedro* *më-**këx*** *ka* *Lima=nu*
Juan=ERG Pedro.ABS beat.up-**O>S(PE)** NAR.3p Lima=LOC
Juan-ERG Pedro.ABS beat.up-**O>S(PE)** NAR.3P Lima=LOC

kwon-a-x-a
go-PERF-3p-non.prox
go-PERF-3P-NON.PROX
"**After Juan beat up Pedro**, Pedro went to Lima."

(Zariquiey 2011: 586)

(17) *Juan-nën* *Pedro* *më-**këxun*** *ka* *policia*
Juan=ERG Pedro.ABS beat.up-**O>A(PE)** NAR.3p police.ABS
Juan-ERG Pedro.ABS beat.up-**O>A(PE)** NAR.3P police.ABS

kwën-a-x-a
call-PERF-3p-non.prox
call-PERF-3P-NON.PROX
"**After Juan beat up Pedro**$_j$, he$_j$ called the police."

(Zariquiey 2011: 587)

(18) *ʿa-**këx=bi*** *kaisa* *uisaibi* *ʿi-a=a* *ʿikën*
do-**O>S(PE)=same** NAR.REP.3p nothing be-NOM=NEG be.3p
do-**O>S(SE)** NAR.REP.3P nothing be-NOM=NEG be.3P
"**Even though he did all this**, nothing happened to him."

(Zariquiey 2011: 765)

(19) *Juan-nën* *Pedro* *më-**këxun=bi*** *ka* *policia*
Juan=ERG Pedro.ABS beat.up-**O>A=same** NAR.3p police.ABS
Juan-ERG Pedro.ABS beat.up-**O>A(SE)** NAR.3P police.ABS

kwën-a-x-a
call-PERF-3p-non.prox
call-PERF-3P-NON.PROX
"**At the same time that Juan beat up Pedro**$_j$, he$_j$ called the police."

(Zariquiey 2011: 587)

§3.1.4 Kashibo-Kakataibo: Different-Argument referentiality

The final type is Different-Argument referentiality. Five markers are used for this type of referentiality: *-an*, *-këbë*, *-këbëtan*, *-mainun* and *-nun*. These markers are used to indicate that the arguments in the dependent clause are non-referential with the arguments in the matrix clause. *-an* refers to a dependent clause with an event previous to the matrix clause and non-referential arguments, like in sentence (20).

(20) *tsót-**an**=bi* *kaisa* *chuminbut-këbë=bi*
sit.down-**PE.DS/A/O**=same NAR.REP.3p become.thin-when(DS/A/O.INTR)=same
sit.down-**DS/A/O(PE)**=same NAR.REP.3P become.thin-DS/A/O(SE.INTR)=same

ishmin *buan-akë-x-ín*
condor.ABS bring-REM.PAST-3p-prox
condor.ABS bring-REM.PAST-3P-PROX
"It is said that, **after he sat down**, getting very thin, the condor brought (the things he promised)."

(Zariquiey 2011: 590)

-këbë and *-këbëtan* are used when the arguments in the dependent and the matrix clause are non-referential and the events in both clauses happen simultaneously. *-këbë* is used when the verb in the dependent clause is intransitive and *-këbëtan* when the verb in the dependent clause is transitive (as explained in §2.3). The event in the dependent clause can also be said to be punctual, contrary to *-mainun*. Sentences (21) and (22) show the use of these two markers.

(21) *ain* *xanu* *buan-**këbë**=bi* *kaisa* *a*
3sg.GEN woman.ABS bring-**DS/A/O(SE.INTR)**=same NAR.REP.3p that.O
3SG.POSS woman.ABS bring-**DS/A/O(SE.INTR)**=same NAR.REP.3P that.O

ka-tika-bian-i *uni* *a=x* *kwan-akë-x-ín*
back-follow-going(TRA)-S/A>S(SE) person that=S go-REM.PAST-3p-prox
back-follow-going(TRAN)-S/A>S(SE) person that=S go-REM.PAST-3P-PROX
"It is said that, **when he brought his wife**, the other men went behind, following them."

(Zariquiey 2011: 589)

(22) *sinan-**këbëtan**=bi* *kaisa* *bëtsi* *uni=n*
think-**DS/A/O(SE.TRAN)**=same NAR.REP.3p other person=ERG
think-**DS/A/O(SE.TRAN)**=same NAR.REP.3P other person=ERG

sinan-akë-x-a
think-REM.PAST-3p-non.prox
think-REM.PAST-3P-NON.PROX
"It is said that, **at the same moment when they thought (something)**, other men thought (something else) as well."

(Zariquiey 2011: 588)

-mainun is identical in use to *-këbë* and *-këbëtan*, but indicates that the event in dependent clause is durative and thus can be translated with "while". Sentence (23) shows the use of *-mainun.*

(23) *ʿatsa* *ta-mënió-**mainun*** *xai=kama*
manioc.ABS foot-clean-**DS/A/O(SE.DUR)** sugar.cane=PLU.ABS
manioc.ABS foot-clean-**DS/A/O(SE.DUR)** sugar.cane=PL.ABS

*ta-mënió-**mainun*** *ka* *ënu* *tsóˀ*
foot-clean-**DS/A/O(SE.DUR)** NAR here seat.down.IMP
foot-clean-**DS/A/O(SE.DUR)** NAR here sit.down.IMP
"Sit here, **while I clean the grass, clean the manioc and clean the sugar cane**."
(Zariquiey 2011: 589)

The last marker *-nun* has a more elaborate use since there are no specialized markers for posterior events for Subject > Object or Object > Subject referentiality. *-nun* expresses that only the subjects of the dependent and matrix clause are non-referential, contrary to the other markers in this section, which express that the objects are non-referential as well. As with other posterior markers, *-nun* oftentimes has a purpositive meaning. Sentence (24) shows the use of *-nun*.

(24) *bëtsi* *nëtë=n* *mi* *ka-**nun*** *kamina* *kwan-ti* *ʿain*
other day=TEMP you say-**DS/A(POE)** NAR.2p go-NOM be.1/2p
other day=TEMP you say-**DS/A(POE)** NAR.2P go-NOM be.1/2P
"You will go **in order for (him) to talk to you on another day**." (O >S)
(Zariquiey 2011: 591)

§3.2 Shipibo-Konibo

Shipibo-Konibo has a slightly less elaborate system than Kashibo-Kakataibo, with 16 different markers. These markers can be seen in table 4, sorted by type of referentiality.

Same-Subject Referentiality				
	Dependent Clause	**Matrix Clause**	**Temporal Value**	**Gloss**
-ax	S/A	S	previous	S/A>S(PE)
-i	S/A	S	simultaneous	S/A>S(SE)
-nox	S/A	S	posterior	S/A>S(POE)
-xon	S/A	A	previous	S/A>A(PE)
-kin	S/A	A	simultaneous	S/A>A(SE)
-noxon	S/A	A	posterior	S/A>A(POE)
-ta(a)nan	S/A	S/A	previous	S/A>S/A(PE)
-anan	S/A	S/A	simultaneous	S/A>S/A(SE)
Object > Subject Referentiality				
	Dependent Clause	**Matrix Clause**	**Temporal Value**	**Gloss**
-a	O	S/A	previous	O>S/A(PE)
Different-Argument Referentiality				
	Dependent clause	**Matrix clause**	**Temporal value**	**Gloss**
-ken	DS/A		previous	DS/A(PE)
-ketian	DS/A		previous	DS/A(PE.IMM)
-ain	DS/A		simultaneous	DS/A(SE)
-aitian	DS/A		simultaneous	DS/A(SE.IMM)
-nontian	DS/A		simultaneous	DS/A(SE.ENC)
-non	DS/A		posterior	DS/A(POE)

Table 4: The switch-reference markers of Shipibo-Konibo

§3.2.1 Shipibo-Konibo: Same-Subject referentiality

Shipibo-Konibo has 8 markers for indicating that the subject of a dependent clause is co-referential with the subject of a matrix clause. *-ax*, *-i*, *-nox*, *-xon*, *-kin* and *-noxon* are used to indicate that the subject of the dependent clause is co-referential with the subject of the matrix clause with a temporal relation based on the marker: previous (*-ax/-xon*), simultaneous (*-i*/ *-kin*) or posterior (*-nox*/*-noxon*). The use of these markers can be seen in sentences (25) - (30).

Just like in Kashibo-Kakataibo, the posterior paradigm often implies a purpositive meaning, as can be seen in sentence (27) and (30).

Shipibo-Konibo

(25)	... *bachi*	*meran*	*jiki-**ax***	*Ashi*	*manó-res-a*	*iki*
	mosquito.net	inside	enter-**PSSS**	Ashi:ABS	disappear-just-PP2	AUX
	mosquito.net	inside	enter-**S/A>S(PE)**	Ashi.ABS	disappear-just-PP2	AUX

moa	*ka-**ax***
already	go-**PSSS**
already	go-**S/A>S(PE)**

"... Ashi **entered into the mosquito net** and disappeared, **after leaving (for the upper world)**."

(Valenzuela 2003: 415)

(26)	*Jaino-a-ki*	*ja*	*mawá*	*raka-t-a-bi,*
	there:LOC-ABL-HSY2	that	dead	lying.position-MID-PP2:ABS-EM
	there.LOC-ABL-HSY2	that	dead	lying.position-MID-PP2.ABS-EMPH

*papiake-beiran-**i***	*jo-a*	*iki*	*bene-shaman.*
carry.on.the.back-VEN2-**SSSS**	come-PP2	AUX	happy-INTENS
carry.on.the.back-VEN2-**S/A>S(SE)**	come-PP2	AUX	happy-INTENS

"Without delay, **(the Deer) put the dead (Jaguar) on its back** and went back home feeling very happy."

(Valenzuela 2003: 416)

(27)	*E-a-ra*	*ka-ai,*	*oa*	*joni-bo*	*osan-**nox***
	I-ABS-EV	go-INC	DIST	person-PL:ABS	laugh.at-**FSSS**
	1SG-ABS-EV	go-INC	DIST	person-PL.ABS	laugh.at-**S/A>S(POE)**

"I will go **in order to laugh at those people**."

(Valenzuela 2003: 417)

(28)	*Ja-tian*	*jawen*	*bene-n*	*raté-**xon***	*ino*
	that-TEMP	POS3	husband-ERG	get.scared:MID-**PSSA**	jaguar:ABS
	that-TEMP	3SG.POSS	husband-ERG	get.scared.MID-**S/A>A(PE)**	jaguar.ABS

to'	*a-ke*
ONOM:shooting	do.T-CMPL
ONOM:shooting	do(TRAN)-COMP

"**Then her husband got scared** and shot the jaguar."

(Valenzuela 2003: 427)

(29) *Ikaxbi-kan* *ja* *pishta-nko* *chiban-res-kan-ai* *oa*
however-*kan* that *fiesta*-LOC follow-just-PL-INC DIST
however-*kan* that *fiesta*-LOC follow-just-PL-INC DIST

iná-bo *tsaka-**kin***.
domesticated.animal-PL:ABS shoot.w/arrow-**SSSA**
domesticated.animal-PL.ABS shoot.w/arrow-**S/A>A(SE)**
"However, the other participants at the fiesta continued (it), **sacrificing the domesticated animals**."

(Valenzuela 2003: 416)

(30) *Ono* *xeki* *ak-í-ra* *boan-kan-ke*
DIST corn:ABS do.T-SSSS-EV go.n.SG:PST1-PL-CMPL
DIST corn.ABS do(TRAN)-S/A>S(SE) go.NON.SG.PAST1-PL-COMP

*joa-**noxon***.
cook-**FSSA**
cook-**S/A>A(POE)**
"They went (to the chacra) earlier today to harvest corn **in order to cook it**."

(Valenzuela 2003: 417)

-ta(a)nan is neutral in that it is used with both intransitive and transitive verbs in the matrix clause and thus with both an S and an A argument. Besides indicating a previous relation between the dependent and the matrix clause, it also expresses a sense of immediateness in contrary to *-ax* and *-xon.* Sentence (31) shows the use of *-ta(a)nan*.

(31) *Jato* *a-**taanan**-ki* *ik-á* *iki* *moa* *Chicíporo*
3p:ABS do.T-**PSS**-HSY2 do.I-PP2 AUX already Canary
3PL.ABS do(TRAN)-**S/A>S/A(PE)**-HSY2 do(INTR)-PP2 AUX already Canary

Ainbo-ki *manot-a* *iki.*
Woman:ABS-HSY2 disappear-PP2 AUX
Woman.ABS-HSY2 disappear-PP2 AUX
"**After telling them that**, the Canary Woman disappeared."

(Valenzuela 2003: 418)

-anan, just like *-ta(a)nan*, is used in conjunction with a subject in the dependent clause, but expresses that the event in the dependent clause happens simultaneously with the event in the matrix clause. Sentence (32) shows the use of *-anan*.

(32) *No-a* *tsini-ai* *no-n* *chitonti-a-bi,* *kikin-i*
1p-ABS play-INC 1p-GEN *pampanilla*-PROP-EM extremely-S
1PL-ABS play-INC 1PL-GEN *pampanilla*-PROP-EMPH extremely-S

nishi-n *chi-nexeet-**anan***.
rope-INST BUTTOCKS-tie:mid-**SSS**
rope-INST buttocks-tie.MID-**S/A>S/A(SE)**
"We play (soccer) wearing our *pampanillas*, **tying them very tightly with a rope**."
(Valenzuela 2003: 419)

§3.2.2 Shipibo-Konibo: Subject > Object referentiality

As will be explained further in bulletpoint 3) of §5.2, Shipibo-Konibo does not have a separate paradigm for expressing a co-reference between the S argument of the dependent clause and an O argument of the matrix clause, but instead uses the Different-Argument paradigm (explained further in §3.2.4).

§3.2.3 Shipibo-Konibo: Object > Subject referentiality

There is just one marker that is used to denote Object > Subject referentiality: *-a*. It expresses a previous relation between the dependent and the matrix clause and that the O argument of the dependent clause is co-referential with the subject of the matrix clause. Sentence (33) shows the use of *-a*.

(33) *Ja-n* *rao-n-**a**-ra* *e-a* *ka-wan-ke.*
3-ERG medicine-TRNZ-**PO>S/A**-EV 1-ABS go-PST1-CMPL
3SG-ERG medicine-TRNZ-**O>S/A(PE)**-EV 1SG-ABS go-PAST1-COMP
"**(S)he treated me with plant medicine** and I left."
(Valenzuela 2003: 424)

§3.2.4 Shipibo-Konibo: Different-Argument referentiality

The paradigm for Different-Argument referentiality is quite sizeable with six different markers: *-ken*, *-ketian*, *-ain*, *-aitian*, *-nontian* and *-non*. The first four are composed of an aspect marker (the incompletive marker *-ke* versus the completive marker *-ai*) in addition to an oblique marker (the temporal marker *-tian* versus the oblique case marker *-n*). They are used to indicate that the subject is non-referential with the subject of the matrix clause. In addition, they express that the object of the dependent clause is non-referential with the subject of the matrix clause. In accordance to their aspectual function, *-ken* and *-ketian* are used for a previous relation and *-ain* and *-aitian* are used for a simultaneous one. "The selection of *-tian* over *-n* usually but not necessarily implies that the event in the matrix clause took place immediately after the event in the reference-marked clause." (Valenzuela 2003: 420) The use of these four markers can be seen in sentences (34) - (37).

(34) *Xeta* *joxo-bicho* *i-**ke-n**-ki* *osan-kati-kan-ai.*
tooth white-only do.I-**P-DS**-HSY2 laugh.at-PST4-PL-INC
tooth white-only do(INTR)-**DS/A(PE)**-HSY2[6] laugh.at-PAST4-PL-INC
"**If one had the teeth just white**, then people would laugh at one."
(Valenzuela 2003: 420)

(35) *Pikó-**ke-tian**-bi* *no-a* *ani* *a-kan-ai...*
take.out:MID-**P-DS**-EM 1p-ABS big do.T-PL-INC
take.out.MID-**DS/A(PE.IMM)**-EMPH 1PL-ABS big do(TRAN)-PL-INC
"**From the moment we are born**, they (our parents) take care of us..."
(Valenzuela 2003: 420)

(36) *Ja-ska-r[a]-**ai-n*** *peo-kot-ax-kaya-ki* *i-káti-kan-ai*
that-SIML-*ra*-**S-DS** begin-MID-PSSS-CONTRST-HSY2 do.I-PST4-PL-INC
that-SIML-*ra*-**DS/A(SE)** begin-MID-S/A>S(PE)-CONTRST-HSY2 do(INTR)-PAST4-PL-INC

Shipibo-bo *betan* *Kashibo-bo-ki* *rete-anan-i.*[7]
Shipibo-PL and Kashibo-PL-HSY2 kill-REC-SSSS
Shipibo-PL and Kashibo-PL-HSY2 kill-REC-S/A>S(SE)
"It is said that because of this the Shipibo began to kill the Kashibo."
(Valenzuela 2003: 3)

(37) *Jene-n* *rete-**ai-tian**-ra* *ainbo* *sai*
flowing.water-ERG kill-**S-DS**-EV woman:ABS ONOM:cry.out.for.help
flowing.water-ERG kill-**DS/A(SE.IMM)**-EV woman.ABS ONOM:cry.out.for.help

ik-ai.
do.I-INC
do.(INTR)-INC
"**Since she$_i$ was drowning**, the woman$_j$ cried out for help."
(Valenzuela 2003: 425)

-*nontian* is used to express that the subject of the dependent clause is non-referential with the subject of the matrix clause with a simultaneous relation. In contrary to -*ain* and -*aitian* however, it also indicates that one of the two events is encompassed by the other event with a

[6] For my own gloss (the third line) I group the aspectual and the oblique marker together: *i-ken-ki* (do(INT)-DS/A(PE)-HSY2). I will do the same throughout the document. Because of this, there is one hyphen less in the third line than in the original sentence and gloss.

[7] This particular sentence is an special case because it is the only sentence containing the switch-reference marker -*ain* in the grammar. Although *ja-ska-r[a]* does not seem to be a verb, the aspect marker -*ai* can still be used. I have decided to still use this sentence as a way of exemplifying the switch-reference marker -*ain*.

[8] The *Ani Xeati* (from *ani* 'big' and *xeati* 'drink') used to be the most important event in Shipibo society, requiring months of preparations. During the event, which lasted several days up to several weeks, competitions were held, accompanied by other festivities, including the consumption of alcoholic drinks and animal sacrifices (cf. Valenzuela 2003: 16).

longer duration. This can be seen in sentence (38), where the *Ani Xeati*[8] took place during the life of the speaker's parents (the longer event).

(38) *Ja Ani Xeati ik-á iki Kanaria jema-nko ja-tian nokon*
that *Ani Xeati* do.I-PP2 AUX Kanaria village-LOC that-TEMP POS1
that *Ani Xeati* do(INTR)-PP2 AUX Kanaria village-LOC that-TEMP 1SG.POSS

*ani-bo ja-pari-**nontian**.*
parent-PL:ABS exist-yet-**SDS**
parent-PL.ABS exist-yet-**DS/A(SE.ENC)**
"That *Ani Xeati* took place in Kanaria vilage, **at that time my parents were still alive**."
(Valenzuela 2003: 422)

The final marker *-non* is used to indicate that the subject of the dependent clause is non-referential with the subject of the matrix clause with a posterior relation. This marker is often combined with the auxiliary verb *ik-* (do.I) followed by a Same-Subject marker with a previous relation (either *-ax* or *-xon*). As Valenzuela notices: "[t]his is the only different-subject construction exhibiting participant agreement." (Valenzuela 2003: 424). Just like other posterior markers, *-non* can imply a purpositive meaning. Sentence (39) shows the use of *-non* and gives an example of the combination with *-ik*.

(39) *Ja-shoko-bo onan-ma-kin no-a ani a iki,*
that-DIM-PL:ABS know-CAUS-SSSA 1p-ABS big do.t:PP2 AUX
that-DIM-PL.ABS know-CAUS-S/A>A(SE) 1PL-ABS big do(TRAN).PP2 AUX

*no-n tita ke-ská-ribi no-a i-**non** i-xon.*
1p-GEN mother SIML-also 1p-ABS do.I-**FDS** do.I-PSSA
1PL-GEN mother SIML-also 1PL-ABS do(INTR)-**DS/A(POE)** do(INTR)-S/A>A(PE)
"Our mother raised us teaching us those little things, **so that we become like her too.**"
(Valenzuela 2003: 423)

§3.3 Matses

Matses has a switch-reference system of twenty-one different markers with a lot of semantic nuances amongst them. Fleck (2003) doesn't describe the markers of Matses as being switch-reference markers, but because they track the referentiality of the three core arguments (S, A and O) with different temporal relations, I have analysed the paradigm of what Fleck calls "adverbial clauses" as very similar - if not identical - to the switch-reference systems described in Zariquiey (2011) and Valenzuela (2003). Because Fleck (2003) categorizes the markers by semantic domain rather than type of referentiality, I have changed his arrangement to one corresponding to the grammars of Zariquiey and Valenzuela. The original meaning given to a marker by Fleck can still be seen in the second line of the gloss. Table 5 shows the switch-reference paradigm of Matses. After table 5, the switch-reference system will be discussed by type of referentiality.

Same-Subject Referentiality				
	Dependent Clause	**Matrix Clause**	**Temporal Value**	**Gloss**
-ash	S/A	S	previous	S/A>S(PE)
-tanec	S/A	S	previous	S/A>S(PE.ADJA)
-anec	S/A	S	previous	S/A>S(PE.LOCO)
-ec	S/A	S	simultaneous	S/A>S(SE)
-nush	S/A	S	posterior	S/A>S(POE)
-nuec	S/A	S	posterior	S/A>S(POE.FRUS)
-ec	S/A	S	posterior	S/A>S(POE.LOC)
-shun	S/A	A	previous	S/A>A(PE)
-tanquin	S/A	A	previous	S/A>A(PE.ADJA)
-anquin	S/A	A	previous	S/A>A(PE.LOCO)
-quin	S/A	A	simultaneous	S/A>A(SE)
-en	S/A	A	simultaneous	S/A>A(SE.ARCH)
-nuen	S/A	A	posterior	S/A>A(POE.FRUS)
-nun	S/A	S/A	posterior	S/A>S/A(POE)
Subject > Object Referentiality				
	Dependent Clause	**Matrix Clause**	**Temporal Value**	**Gloss**
-sho	S/A/O	O	previous/simultaneous	S/A/O>O
-nuc	S	O	posterior	S>O

Table 5: The switch-reference markers of Matses

Object > Subject Referentiality				
	Dependent Clause	**Matrix Clause**	**Temporal Value**	**Gloss**
-ac	O	S/A	previous/ simultaneous	O>S/A
Different-Argument Referentiality				
	Dependent clause	**Matrix clause**	**Temporal value**	**Gloss**
-an	DS/A/O		previous	DS/A/O(PE.INF)
-bon	DS/A/O		previous	DS/A/O(PE.EXP)
-nuc	DS/A/O		simultaneous	DS/A/O(SE)
-teno	DS/A/O		posterior	DS/A/O(POE)

Table 5 (cont.): The switch-reference markers of Matses

§3.3.1 Matses: Same-Subject referentiality

Matses has fourteen different markers which indicate that the subject of the dependent clause is co-referential with the subject of the matrix clause. When the event in the dependent clause precedes the event in the matrix clause, *-ash/-shun*, *-tanec/-tanquin* or *-anec/-anquin* is used. The left member of each pair represents the marker used when the matrix clause has an S argument; the right one when the matrix clause has an A argument. *-anec* and *-anquin* are only used with locomotive verbs in the matrix clause: verbs that indicate a spatial displacement of the subject. Lastly, *-anec* and *-tanec/-tanquin* cannot be used in combination with the verbal segment *-tan* 'go'. They also express different temporal informati on about the dependent clause in relation to the matrix clause:

-ash/-shun	prior of two sequentially-ordered episodes, adjacent or with intervening time periods
-tanec/-tanquin	prior of two temporally adjacent sequential episodes
-anec/-anquin	prior of two sequentially-ordered parts of the same episode

(Fleck 2003: 1093)

Examples of these 6 markers can be seen in sentences (40) - (45).

Matses

(40) *podqued-ua-**ash*** *capu-quid* *tambis* *ne-e-c*
path-Vzr:make-**after:S/A>S** locomote-Agt.Nzr paca be-Npast-Indic
path-VBZR.MAKE-**S/A>S(PE)** locomote-NOM.AGENT paca be-NON.PAST-IND
"Pacas are ones that walk around **after making paths**."

(Fleck 2003: 1096)

(41) *sedunte-n* *nënë* *saued-**tanec*** *dëniad-quid* *matses*
snuff.tube-Loc tobacco put.in-**after:S/A>S** blow.tobacco.snuff-Hab Matses
snuff.tube-LOC tobacco put.in-**S/A>S(PE.ADJA)** blow.tobacco.snuff-HAB Matses
"**After putting tobacco snuff in the tube**, Matses blow it up each other's noses."
(Fleck 2003: 1096)

(42) *chimu-**anec*** *shuinte* *dectato-ua-quid* *aocbidi*
defecate-**after:S/A>S** two.toed.sloth climb.up-again-Hab also
defecate-**S/A>S(PE.LOCO)** two.toed.sloth climb.up-again-HAB also
"**After it defecates**, the two-toed sloth climbs up again."
(Fleck 2003: 1094)

(43) *nes-tan-**shun*** *pe-o-sh*
bathe-go-**after:S/A>A** eat-Past-3
bathe-go-**S/A>A(PE)** eat-PAST-3P
"After going to bathe, he ate."
(Fleck 2003: 1095)

(44) *nes-**tanquin*** *pe-o-sh*
bathe-**after:S/A>A** eat-Past-3
bathe-**S/A>A(PE.ADJA)** eat-PAST-3P
"**After bathing**, he ate."
(Fleck 2003: 1095)

(45) *anseme-**anquin*** *bë-o-sh*
fish-**after:S/A>A** bring-Past-3
fish-**S/A>A(PE.LOCOO)** bring-PAST-3P
"**After fishing**, he brought (the fish)."
(Fleck 2003: 1094)

To express that the event in the dependent clause happens simultaneously to the event in the matrix clause, three different markers can be used: *-ec*, *-quin* and *-en.* While *-ec* is used when the matrix clause contains an S argument, *-quin* and *-en* are used when it contains an A argument. *-en* is said to be more archaic and "is judged to be "old people's speech" with most verbs" (Fleck 2003: 1080), but is obligatorily used when the dependent verb ends in /ka/. Sentences (46) - (48) show the use of these three markers.

(46) *aid* *che-**ec*** *tabad-onda-sh*
that.one eat.unchewed-**while:S/A>S** stand:Pl-Dist.Past-3
that.one eat.unchewed-**S/A>S(SE)** stand.PL-DIST.PAST-3P
"They stayed there **eating those**."
(Fleck 2003: 1088)

(47) *shëcuë-ua-ban-**quin*** *ud-quid* *matses-n*
hole-Vzr:make-Iter-**while:S/A>A** dig.in-Hab Matses-Erg
hole-VBZR.MAKE-ITER-**S/A>A(SE)** dig.in-HAB Matses-ERG
"Matses dig into them, **perforating them**."

(Fleck 2003: 1088)

(48) *saued-shun* *pia* *dabi-quid* *matses-n* *oesnid*
put.in-after:S/A>A arrow.cane fletch-Hab Matses-Erg curassow
put.in-S/A>A(PE) arrow.cane fletch-HAB Matses-ERG curassow

podo *da-bitacca-**en***
feather shaft-stick-**while:S/A>A**
feather shaft-stick-**S/A>A(SE.ARCH)**
"After storing the arrow cane, Matses fletch them **by sticking curassow feathers on the shaft**."

(Fleck 2003: 1080)

The final five markers of the Same-Subject referentiality paradigm are *-nush*, *-nuec*, *-ec*, *-nuen* and *-nun*. Although Fleck specifies them as markers with the semantic range of 'purpose', I have opted to classify them as posterior markers instead. There are three reasons for me to classify them this way: 1) posterior markers in Kashibo-Kakataibo and Shipibo-Konibo often have a purpositive meaning as well; 2) Fleck notes that "all of these purpose clause constructions have secondary 'before' meanings" (2003: 1110), which is the standard translation of a posterior construction; 3) there is a phonological similarity between these Matses markers and the posterior markers in Kashibo-Kakataibo and Shipibo-Konibo. An example of this is the Matses *-nush* (Purp:S/A>S) compared to Kashibo-Kakataibo *-nux* (S/A>S(POE)) and Shipibo-Konibo *-nox* (FSSS).

While *-nush*, *-nun* and *-ec* are primarily used to express purpose, "the suffixes *-nuec* and *-nuen* might be better described as marking 'intention' rather than 'purpose', since they either specify that the purpose clause event did not occur or that its occurrence is improbable." (Fleck 2003: 1111) I therefore have decided to gloss these two markers as frustrative.

-ec generally is used with matrix verbs that express locomotion. This *-ec* can be distinguished from the *-ec* (while:S/A>S) seen in sentence (46) since the temporal information is different and the *-ec* as seen in sentence (46) *can* occur with non-locomotive verbs. *-ec* indicates a referentiality between the subject of the dependent clause with the S argument of the matrix clause; *-nuen* indicates a referentiality between the subject of the dependent clause with the A argument of the matrix clause and *-nun* indicates a referentiality between the subject of the dependent clause with the subject of the matrix clause. Sentence (49) - (53) show the use of these five markers.

(49) *nes-nu* *matas-ad-**nush***
bathe-Intent:1 cut.hair-Pass-**Purp:S/A>S**
bathe-INTENT.1SG cut.hair-PASS-**S/A>S(POE)**
"I'm going to bathe **before getting my hair cut** (so the barber won't be offended)."

(Fleck 2003: 1113)

(50) *ompod-o-bi* *mibi* *dacto-**nuec***
hide-Past-1S 2Abs scare-**Purp:S/A>S**
hide-PAST-1SG 2SG.ABS scare-**S/A>S(POE.FRUS)**
"I hid **intending to scare you**." (but you saw me/but you didn't come by)
(Fleck 2003: 1115)

(51) *ambo* *tied* *dëd-**ec*** *nid-onda-sh*
there swidden chop-**Purp:S/A>S** go-Dist.Past-3
there swidden chop-**S/A>S(POE.LOC)** go-DIST.PAST-3P
"They went **to make swiddens there**."
(Fleck 2003: 1111)

(52) *matses* *bed-**nuen*** *nadanca* *nadanca-quid-quio* *bëdi-dapa*
Matses grab-**Purp:S/A>A** (redup=Distr) pursue-Agt.Nzr-Aug jaguar-large
Matses grab-**S/A>A(POE.FRUS)** REDUP pursue-NOM.AGENT-AUG jaguar-large

ne-e-c
be-Npast-Indic
be-NON.PAST-IND
"The jaguar is one that follows people **in order to (or, 'with intention to') catch them**."
(Fleck 2003: 1116)

(53) *piucquid* *bed-**nun*** *chonoad-o-bi*
money get-**Purp:S/A>S/A** work-Past-1S
money get-**S/A>S/A(POE)** work-PAST-1SG.S
"I worked **in order to make money**." (suggests speaker has already been paid)
(Fleck 2003: 1115)

§3.3.2 Matses: Subject > Object referentiality

Matses uses two different markers to indicate that the subject of the dependent clause is co-referential with the object of the matrix clause: *-sho* and *-nuc*. In the case of *-sho*, it is also used to indicate that the object of the dependent clause is co-referential with the object of the matrix clause or to no argument in particular, like in sentence (54). Fleck (2003: 1100) describes this marker as having the meaning of "when", "while", "as" or "(right) after", but I have decided to categorize it as being able to express both a previous or simultaneous relation to make it fit into this comparative study. Sentence (54) and (55) show the uses of this marker.

(54) *aid-bi* *matses-n* *tapun* *ac-quid* *cobisan* *tapun*
that.one-Emph Matses-Erg palm.root drink-Hab palm.species palm.root
that.one-EMPH Matses-ERG palm.root drink-HAB palm.species palm.root

chotac-n *ac-**sho*** *is-shun*
non-Indian-Erg drink-**when:S/A/O>O** see-after:S/A>A
non.indian-ERG drink-**S/A/O>O** see-S/A>A(PE)
"That one [the cobisan palm], Matses now drink [extract from] the roots, after having seen non-Indians **drink [extract from] cobisan palm roots**." (A/O>O)

(Fleck 2003: 1102)

(55) *puduen-**sho*** *achu* *camun-n* *tsiban-quid*
exit-**when:S/A/O>O** howler.monkey jaguar-Loc pursue-Hab
exit-**S/A/O>O** howler.monkey jaguar-LOC pursue-HAB
"**When (= right after) [the paca] exists [its burrow]**, the bush dogs [lit 'howler monkey dogs/cats] pursue it...." (S>O)

(Fleck 2003: 1101)

-nuc expresses a very specific meaning: "until". Since the event in the matrix clause always precedes the event in the dependent clause, I decided to interpret this marker as a posterior marker with a limited semantic range. As discussed in §2.3, *-nuc* seems to be only used with the verb *ic-* "to be" judging from the examples in Fleck's grammar. Sentence (56) shows the use of *-nuc*.

(56) *cuëma* *cuënu-mbo-shë* *ic-**nuc*** *cuda* *shëta* *cuëno-quid*
edge sharp-Aug-Aug be-**until:S>O** bamboo spearhead sharpen-Hab
edge sharp-AUG-AUG be-**S>O** bamboo spearhead sharpen-HAB
"They sharpen the spearhead **until it's edge is very sharp.**"

(Fleck 2003: 1108)

§3.3.3 Matses: Object > Subject referentiality

There is only one marker employed in Matses to indicate that the object of the dependent clause is co-referential with the subject of the matrix clause: *-ac*. The semantics and temporal notions of this marker are the same as *-sho*: "when", "while", "as" or "(right) after". Sentence (57) shows the use of *-ac*.

(57) *matses-n* *ëctan-**ac*** *chëshëid*
Matses-Erg imiatate.spider.monkey-**when:O>S/A** spider.monkey
Matses-ERG imitate.spider.monkey-**O>S/A** spider.monkey

ededque-quid
make.spider.monkey.vocalization-Hab
make.spider.monkey.vocalization-HAB
"**When (= right after) Matses imitate them**$_i$, spider monkeys$_i$ respond."

(Fleck 2003: 1105)

§3.3.4 Matses: Different-Argument referentiality

In Matses, there are four different markers that can be used to indicate that the core arguments of the dependent clause are non-referential with the matrix clause ones: *-an, -bon*, *-nuc* and *-teno*. *-an* and *-bon* are used to indicate a previous relation. The difference between the two is one of evidentiality: when *-an* is used, the speaker did not witness the event, but he infers the event from the context or other sources of information; when *-bon* is used, the speaker witnessed the event himself. Sentence (58) and (59) show the use of these two markers.

(58) *cun* *cucu* *nid-an* *nid-o-bi*
1Gen cross-uncle go-**after:Diff.Ref:Infer** go-Past-1S
1SG.POSS cross.uncle go-**DS/A/O(PE.INF)** go-PAST-1SG
"I left **after my uncle left**." (speaker did not see uncle leave)
(Fleck 2003: 392)

(59) *cun* *cucu* *nid-**bon*** *nid-o-bi*
1Gen cross-uncle go-**after:Diff.Ref:Exper** go-Past-1S
1SG.POSS cross.uncle go-**DS/A/O(PE.EXP)** go-PAST-1SG
"I left **after my uncle left**." (speaker saw uncle leave)
(Fleck 2003: 392)

-nuc indicates a simultaneous relation. Sentence (60) shows the use of this marker.

(60) *ue* *cho-**nuc*** *te-ash* *manua-e-c*
rain come-**while:Diff.Ref** cut-after:S/A>S keep.rain.off-Npast-Indic
rain come-**DS/A/O(SE)** cut-S/A>S(PE) keep.rain.off-NON.PAST-IND
"**When it rains [lit. 'when rain comes']**, after cutting it, [Matses] cover their heads [with a manëcte palm leaf]."
(Fleck 2003: 1089)

-teno indicates a posterior relation. In contrary to other posterior markers, this marker "can only marginally be considered to be able to imply purpose/reason..." (Fleck 2003: 1110). Sentence (61) shows the use of this marker.

(61) *ue* *cho-**teno*** *dascute* *bed-Ø*
rain come-**before:Diff.Ref** clothes grab-Imper
rain come-**DS/A/O(POE)** clothes grab-IMP
"Grab the clothes (i.e., bring in the drying laundry) **before it starts to rain**."
(Fleck 2003: 1109)

Chapter 4: Converbs versus switch-reference clauses

§4.1 Definition

In his grammar, Zariquiey (2011: 563-571) argues that there is a distinction to be made in Kashibo-Kakataibo between converbs and switch-reference clauses. According to Zariquiey, there are three main criteria that distinguish these two types of clauses. Besides these mainly syntactic criteria, "...converbs and switch-reference clause do not differ either in the form of the switch-reference markers, or in the potential syntactic complexity..." (Zariquiey 2011: 563). The criteria can be seen in table 6, taken from Zariquiey (2011: 564).

Criteria	Converbs	Switch-Reference Clauses
target	can modify either the main predicate or the adjacent (dependent) one	can only modify the main predicate of the sentence, even if it is not adjacent to it
position	do not have a fixed position, but cannot appear immediately before second position enclitics	appear as the first constituent of the clause, before the second position enclitics, producing a kind of clause chain
degree of embedding	are embedded into their matrix clause (i.e. the main clause or another dependent clause)	depend on the main clause, but are not (completely) embedded into it

Table 6: Differences between converbs and switch-reference clauses (cf. Zariquiey 2011: 564)

These criteria will now be discussed in separate subsections, also discussing to what degree this difference applies to Shipibo-Konibo and Matses. I have opted to add an extra first line to the example sentences, since the exact structure of the clauses is important for distinguishing between converbs and switch-reference clauses. I will be giving the structure of the sentence on the clause level in the same way that Zariquiey consistently glosses them.

§4.2 Target

In Kashibo-Kakataibo, converbs have more possible targets than switch-reference clauses: converbs can target both main predicates or adjacent and dependent predicates. Switch-reference clauses however can only target the main predicate of the sentence, even if that predicate is not adjacent to the switch-reference clause. Since only switch-reference clauses precede second position enclitics like *kana* in sentence (62), we know that *pi-tankëxun* is a switch-reference clause and not a converb. Because the switch-reference clause *pi-tankëxun* targets the dependent clause *xëa-i* in sentence (62), this sentence is ungrammatical:

Kashibo-Kakataibo

(62)	*[pitankëxun]	kana	[xëai]	ʿaban
	pi-tankëxun	*kana*	*xëa-i*	*ʿabat-a-n*
	eat-S/A>A(PE)	NAR.1sg	drink-S/A>S(SE)	run-PERF-1/2p
	eat-S/A>A(PE)	NAR.1SG	drink-S/A>S(SE)	run-PERF-1/2P

[9]

("drinking after eating, I ran")

(Zariquiey 2011: 565)

We know that *pi-tankëxun* has *xëa-* "to drink" as its target, because *-tankëxun* expresses that the subject of the dependent clause is co-referential with the A argument of the matrix clause. Because *'abat-* "to run" is an intransitive verb, we know that the transitive *xëa-* "to drink" must be the target. Since *pi-tankëxun* is a switch-reference clause, it cannot target a dependent clause like *xëa-i*, making sentence (62) ungrammatical. Sentence (63) shows the correct counterpart to sentence (62).

(63)	[pitankëx]	kana	[xëai]	ʿaban
	pi-tankëx	*kana*	*xëa-i*	*ʿabat-a-n*
	eat-S/A>S(PE)	NAR.1sg	drink-S/A>S(SE)	run-PERF-1/2p
	eat-S/A>S(PE)	NAR.1SG	drink-S/A>S(SE)	run-PERF-1/2P

"After eating, I ran drinking."

(Zariquiey 2011: 565)

In Shipibo-Konibo, there seems to be a distinction between the possible targets of dependent clauses as well. As sentence (64) shows, switch-reference constructions can target both dependent predicates (*Ono xeki ak-í-ra*) and main predicates (*boan-kan-ke*). This is visible, because of the form of the switch-reference markers *-i* and *-noxon*. Since *-i* (SSSS) indicates a co-reference between the subject of the dependent clause with an S argument, the transitive *joa-noxon* cannot be the target. *-noxon* (FSSA) however indicates a co-reference between the subject of the dependent clause with an A argument. The target of *joa-noxon* can therefore only be *ak-í-ra*. This makes for a complex syntactic structure, with *joa-noxon* skipping over the main predicate and targeting the proceeding dependent clause *ono xeki ak-í-ra*.

Shipibo-Konibo

(64)	*Ono*	*xeki*	*ak-í-ra*	*boan-kan-ke*	*joa-noxon*
	DIST	corn:ABS	do.T-SSSS-EV	go.n.SG:PST1-PL-CMPL	cook-FSSA
	DIST	corn.ABS	do(TRAN)-S/A>S(SE)-EV	go.NON.SG.PAST1-PL-COMP	cook-S/A>A(POE)

"They went (to the chacra) earlier today to harvest corn in order to cook it."

(Valenzuela 2003: 417)

[9] The arrows used by Zariquiey and subsequentely by me indicate what the target of the switch-reference construction is.

If we follow Zariquiey's definition, we could say that *ak-í-ra* can either be a converb or a switch-reference clause, but that *joa-noxon* can only be a converb, since it does not target the main predicate *boan-kan-ke* like switch-reference clauses always do.[10]

In Matses, dependent clauses can also target both dependent predicates and main predicates. This can be seen in sentence (65), where *tonca-sho* can only target *tantia-ash*, because *-sho* indicates a Subject > Object referentiality, implying that the targeted verb is transitive. Since *nique-* "run off" is intransitive, *tonca-sho* must be targeting *tantia-ash*. Furthermore, because there should always be a switch-reference clause targeting the matrix clause, we know that the target of *tantia-ash* must be *nique-ac*. *tonca-sho* should therefore be called a converb; *tantia-ash*, on the other hand, can be both a converb or a switch-reference clause, based on this specific feature of target.

Matses

(65)	*nique-ac*	*tonca-sho*	*tantia-ash*
	run.off-Narr.Past	shoot.gun-when:S/A/O>O	listen-after:S/A>S
	run.off-NAR.PAST	shoot.gun-S/A/O>O	listen-S/A>S(PE)

"They had run off after hearing them shoot/...hearing the gun shot."

(Fleck 2003: 1101)

Sentence (66) is even more complex, with three different switch-reference constructions with more obscure targets.

(66a)	*cuëte*	*bacuë*	*pe-ac-sho*	*is-shun*
	dicot.tree	fruit	eat-Infer-when:S/A/O>O	see-after:S/A>A
	dicot.tree	fruit	eat-INF-S/A/O>O	see-S/A>A(PE)

shubu-ua-shun	*cain-quid*	*matses-n*	*mëcueste*
blind-Vzr:make-after:S/A>A	wait-Hab	Matses-Erg	agouti
blind-VBZR.MAKE-S/A>A(PE)	wait-HAB	Matses-ERG	agouti

"After seeing that they have eaten fruit, they build a blind, and then Matses wait for the agouti."

(Fleck 2003: 1104)

(66b) *cuëte bacuë pe-ac-sho is-shun shubu-ua-shun cain-quid matses-n mëcueste*

[10] We will later see in §4.3 that *ak-í* is without a doubt a switch-reference clause, since it precedes the second position clitic *-ra*, something which only switch-reference clauses can do.

1) *pe-ac-sho* can only target *is-shun*, since *-sho* in this case indicates an object co-reference between two clauses and the O argument of *pe-ac-sho* (i.e. the dicot tree fruits) is non-referential with the O argument of *cain-quid* (i.e. the agouti): the Matses are not waiting for the fruits, but for the agouti. *pe-ac-sho* cannot target *shubu-ua-shun*, since the latter is an intransitive verb. *pe-ac-sho* can only be called a converb in the terminology of Zariquiey, since it targets a dependent clause.

2) *is-shun* can only target *cain-quid*, since *-shun* indicates that the subject of the dependent clause is co-referential with an A argument in another clause. *is-shun* cannot target *pe-ac-sho*, since the ones seeing something (i.e. the A argument of *is-* "to see") are not the same as the ones eating the fruits (i.e. the A argument of *pe-* "to eat"). The ones seeing something however, *are* the same as the ones waiting for the agouti (i.e. the A argument of *cain-* "to wait"). *is-shun* cannot target *shubu-ua-shun*, since the latter is an intransitive verb. *is-shun* can be both a converb or a switch-reference clause, since it targets the main predicate of the sentence.

3) *shubu-ua-shun* can target either *is-shun* and *cain-quid*. *-shun* indicates that the subject of the dependent clause is co-referential with an A argument in another clause and the subject of *shubu-ua-* "to make a blind" is the same as the subject of *is-* "to see" and *cain-* "to wait", both transitive verbs with an A argument. It cannot target *pe-ac-sho* however, since the A argument of that predicate is the agouti and not the Matses. *shubu-ua-shun* can be either just a converb (if it targets *is-shun*) or a switch-reference clause as well (if it targets *cain-quid*).

§4.3 Position

In Kashibo-Kakataibo clauses, second position enclitics are often employed to "... express register, mood, modality and evidentiality, mirativity, addressee's perspective and subject cross-reference." (Zariquiey 2011: 480) They are "... positionally-fixed elements that appear as the second constituent of the sentence" (Zariquiey 2011: 480) and function as an important way of telling whether a switch-reference construction is a converb or a switch-reference clause. "Every sentence in Kashibo-Kakataibo needs to carry a set of second position enclitics indicating its register, mood and subject cross-reference categories" (Zariquiey 2011: 483), the only exception being the imperative form in some cases. As table 6 shows, converbs do not have a fixed position, although they cannot directly proceed second position enclitics, contrary to switch-reference clauses which can only appear in this specific location of the sentence. Notice that converbs and switch-reference clauses can be combined to form a complex dependent clause, as in sentence (67).

Kashibo-Kakataibo

(67)	[[pitankëxun]$_{CV}$	xëai]$_{SRC}$	kana	ʿaban
	pi-tankëxun	*xëa-i*	*kana*	*ʿabat-a-n*
	eat-S/A>A(PE)	drink-S/A>S(SE)	NAR.1sg	run-PERF-1/2p
	eat-S/A>A(PE)	drink-S/A>S(SE)	NAR.1SG	run-PERF-1/2P
	"Drinking after eating, I ran."			

(Zariquiey 2011: 566)

Although Shipibo-Konibo has second position clitics (very similar, if not identical to second position enclitics in Kashibo-Kakataibo), I have observed that they are not obligatory in any

type of sentence and behave more freely than their Kashibo-Kakataibo counterparts. Therefore, making statement about switch-reference constructions is a lot more difficult in Shipibo-Konibo than in Kashibo-Kakataibo since two of three criteria on distinguishing between converbs and switch-reference clauses are very heavily reliant on the second position clitic.

According to the definition set by Zariquiey, *a-taanan* in sentence (68) should be considered a switch-reference clause because it precedes the second position clitic *-ki* and only switch-reference clauses can appear in this position.

Shipibo-Konibo

(68) [*Jato a-taanan*]$_{SRC}$*-ki* *ik-á* *iki* *moa* *Chichíporo*
3p:ABS do.T-PSS-HSY2 do.I-PP2 AUX already Canary
3PL.ABS do(TRAN)-S/A>S/A(PE)-HSY2 do(INTR)-PP2 AUX already Canary

Ainbo-ki *manot-a* *iki.*
Woman:ABS-HSY2 disappear-PP2 AUX
Woman.ABS-HSY2 disappear-PP2 AUX
"After telling them that, the Canary Woman disappeared."

(Valenzuela 2003: 418)

In sentence (69), we can see a clause structure that is very similar to the Kashibo-Kakataibo example in sentence (67). The converb *xeyó-non* of the dependent predicate *E-a xeyó-non* is combined with the periphrastic switch-referenced verb *ik-ax*. This complex switch-reference construction is directly followed by the second position clitic *-ra* and can thus be called a switch-reference clause in the terms of Zariquiey.

(69) [[(*E-a*) *xeyó-non*]$_{CV}$ (*ik-ax*)]$_{SRC}$*-ra* *e-a* *bewa-ke.*
1-ABS massage-FDS do.I-PSSS-EV 1-ABS sing-CMPL
1SG-ABS massage-DS/A(POE) do(INTR)-S/A>S(PE)-EV 1SG-ABS sing-COMP
"So that he massages me, I sang."

(Valenzuela 2003: 426)

We see a variation of the previous sentence in sentence (70). In this sentence, *Xeta-n chexa-a* is very likely to be a switch-reference clause and not a converb according to the terms of Zariquiey. The dependent predicate *Xeta-n chexa-a* directly proceeds the second position clitic *-ra*: something only switch-reference clauses can do. Because switch-reference clauses can only target a main predicate, we know that *chexa-a* targets the main predicate *rao-n-ke* and not the converb *chaka-xon*, although both options would be possible.

(70) [*Xeta-n* *chexa-a*]$_{SRC}$-*ra* [*rimon* *bero* *chaka-xon*]$_{CV}$
tooth-ERG ache-PO>S/A-EV lemon seed grind-PSSA
tooth-ERG ache-O>S/A(PE)-EV lemon seed grind-S/A>A(PE)

rao-n-ke.
medicine-TRNZ-CMPL
medicine-TRNZ-COMP
"Since I had a toothache, I ground lemon seeds and treated it."

(Valenzuela 2003: 428)

Because Matses does not seem to have second position enclitics like Kashibo-Kakataibo and Shipibo-Konibo do, it is impossible to make statements about the position of switch-reference constructions in their matrix clause.

§4.4 Degree of embedding

The last feature used by Zariquiey to distinguish between converbs and switch-reference clauses, is the degree of embedding of the dependent clause in the matrix clause. He argues that "...they are also different in terms of their degree of embedding and that switch-reference clauses can be seen as being less embedded than converbs" (Zariquiey 2011: 568). Zariquiey links this distinction to the difference in position between converbs and switch-reference clauses, as discussed in §4.3. "A first indication is that, [...], switch-reference clauses are the first constituent of the sentence, appearing before the second position enclitics and, thus, are not main clause-internal elements. Converbs, by contrast, can be seen as more embedded in the sense that they can appear within the clause they are dependent on." (Zariquiey 2011: 568). Switch-reference clauses, as mentioned in §4.2, can only target the main predicate and can skip over other dependent predicates. This, according to Zariquiey, suggests that switch-reference clauses are "... syntactic constituent of a higher level." (Zariquiey 2011: 568).

Zariquiey bases his last criterion of the degree of embedding primarily on the second one: the criterion of position. Since Shipibo-Konibo seems to work in a very similar way to Kashibo-Kakataibo when it comes to the position of converbs and switch-reference clauses, it is probable that the degree of embedding criterion applies to Shipibo-Konibo as well: switch-reference clauses precede second position clitics and are therefore not main clause-internal elements. Converbs however appear in whatever position in the clause, besides directly in front of the second position clitic.

Because Matses, as discussed in §4.3, does not have second position enclitics, there is little to say about the degree of embedding. Both converbs and switch-reference clauses can appear next to each other (cf. §4.2), and it is hard to make statements about their degree of embedding in the sentence.

Chapter 5: Similarities and Differences

§5.1 Similarities

In this chapter I will shortly discuss the similarities between the different switch-reference systems in the three Panoan languages I have just discussed in §3. In order to graphically display the similarities between these systems, I have comprised the tables for the separate languages into one comprehensive table: table 7.

Overview Switch-Reference Markers

Same-Subject Referentiality			
Gloss	**Kashibo-Kakataibo**	**Shipibo-Konibo**	**Matses**
S/A>S(PE)	*-tankëx*	*-ax*	*-ash*
S/A>S(PE.ADJA)			*-tanec*
S/A>S(PE.LOCO)			*-anec*
S/A>S(SE)	*-i*	*-i*	*-ec*
S/A>S(POE)	*-nux*	*-nox*	*-nush*
S/A>S(POE.FRUS)			*-nuec*
S/A>S(POE.LOCO)			*-ec*
S/A>S	*-ax*		
S/A>A(PE)	*-tankëxun*	*-xon*	*-shun*
S/A>A(PE.ADJA)			*-tanquin*
S/A>A(PE.LOCO)			*-anquin*
S/A>A(SE)	*-kin*	*-kin*	*-quin*
S/A>A(SE.ARCH)			*-en*
S/A>A(POE)	*-nuxun*	*-noxon*	
S/A>A(POE.FRUS)			*-nuen*
S/A>A	*-xun*		
S/A>S/A(PE)		*-ta(a)nan*	
S/A>S/A(SE)	*-tanan*	*-anan*	
S/A>S/A(POE)			*-nun*
S/A>S/A(SE).1DO	*-anan*		

Subject > Object Referentiality			
Gloss	**Kashibo-Kakataibo**	**Shipibo-Konibo**	**Matses**
S>O(POE)			*-nuc*
S/A/O>O(PE)	*-këtian*		
S/A/O>O(SE)	*-ia*		
S/A/O>O			*-sho*
Object > Subject Referentiality			
Gloss	**Kashibo-Kakataibo**	**Shipibo-Konibo**	**Matses**
O>S(PE)	*-këx*		
O>S(SE)	*-këx=bi*		
O>A(PE)	*-këx*		
O>A(SE)	*-këxun=bi*		
O>S/A(PE)		*-a*	
O>S/A			*-ac*
Different-Argument Referentiality			
Gloss	**Kashibo-Kakataibo**	**Shipibo-Konibo**	**Matses**
DS/A(PE)		*-ken*	
DS/A(PE.IMM)		*-ketian*	
DS/A(SE)		*-ain*	
DS>A(SE.IMM)		*-aitian*	
DS/A(SE.ENC)		*-nontian*	
DS/A(POE)	*-nun*	*-non*	
DS/A/O(PE)	*-an*		
DS/A/O(PE.INF)			*-an*
DS/A/O(PE.EXP)			*-bon*
DS/A/O(SE)			*-nuc*
DS/A/O(SE.INTR)	*-këbë*		
DS/A/O(SE.TRAN)	*-këbëtan*		
DS/A/O(SE.DUR)	*-mainun*		

DS/A/O(POE)			*-teno*

Table 7: Overview table of all switch-reference markers in Kashibo-Kakataibo, Shipibo-Konibo and Matses

When studying table 7 closely, I found that Kashibo-Kakataibo, Shipibo-Konibo and Matses, despite being different languages, have a lot in common when it comes to their respective switch-reference systems. Some of these similarities include:

1) All three languages have a way of expressing the four types of referentiality: Same-Subject, Subject > Object, Object > Subject and Different-Argument referentiality. Although Shipibo-Konibo does not have a separate paradigm for Subject > Object referentiality, Different-Argument reference markers can be used to express this type of referentiality.

2) All three languages have a three-way distinction in temporal relationship (cf. §2.6) between the dependent and the matrix clause in all standard Same-Subject markers: S/A>S and S/A>A referentiality.

3) The posterior temporal relationship has the least diversity in markers; all three languages even lack a posterior marker for the Object > Subject referentiality paradigm.

4) All three languages have a lot of markers in common, although sometimes these markers are used to express different things. Because the three Panoan languages are part of the same language family, I assume them to be cognates. A comprehensive overview of these cognate markers can be seen in table 8.

Overview of the Switch-Reference cognate markers

Kashibo-Kakataibo		**Shipibo-Konibo**		**Matses**	
Surfacing form	**Gloss**	**Surfacing form**	**Gloss**	**Surfacing form**	**Gloss**
-ax	S/A>S	*-ax*	S/A>S(PE)	*-ash*	S/A>S(PE)
-i	S/A>S(SE)	*-i*	S/A>S(SE)		
-nux	S/A>S(POE)	*-nox*	S/A>S(POE)	*-nush*	S/A>S(POE)
-xun	S/A>A	*-xon*	S/A>A(PE)	*-shun*	S/A>A(PE)
-kin	S/A>A(SE)	*-kin*	S/A>A(SE)	*-quin*	S/A>A(SE)
-nuxun	S/A>A(POE)	*-noxon*	S/A>A(POE)		
-tanan	S/A>S/A(SE)	*-ta(a)nan*	S/A>S/A(PE)		
-anan	S/A>S/A(SE).1DO	*-anan*	S/A>S/A(SE)		
-nun	DS/A/O(POE)	*-nun*	DS/A(POE)		
-an	DS/A/O(PE)			*-an*	DS/A/O(PE.INF)
-këtian	S/A/O>O(PE)	*-ketian*	DS/A(PE.IMM)		

Table 8: Overview table of the switch-reference cognates between Kashibo-Kakataibo, Shipibo-Konibo and Matses

As pointed out, some markers are used to express different things. There has been a shift for instance with *-tanan*/*-ta(a)nan* and *-anan*. Where *-tanan* in Kashibo-Kakataibo is used to express a simultaneous relationship between a subject in the dependent clause and a subject in the main clause, *-ta(a)nan* is used in Shipibo-Konibo to express this a similar type of referentiality, but with a previous relationship. *-anan*, similar to *-tanan*, but also expressing that one O argument is non-referential, has shifted to be the simultaneous counterpart of *-ta(a)nan* in Shipibo-Konibo. More examples of these types of shifts can be found in table 8. More research is required in order to properly investigate the diachronic causes for these shifts and differences between the switch-reference markers.

The last row of the table is a problematic one for two reasons: 1) there is a phonemic distinction between *-këtian* and *-ketian* that cannot be explained by differences of the orthography used by the writer: <e> /e/ and <ë> /ɨ/ are different phonemes in Panoan languages; 2) the function of the markers is quite different: expressing a referentiality of any argument (S, A or O) in the dependent clause with the O argument of the matrix clause with a previous relationship versus expressing a non-referentiality of the subject between the dependent and matrix clause with a previous relationship. Because, as I will show in §5.2, Different-Argument markers like *-ketian* are used in Shipibo-Konibo to fill the gap of Subject > Object referentiality like *-këtian*, I have still decided to add the pair to table 8.

§5.2 Differences

Even though the switch-reference systems of are very similar in some aspects (cf. §5.1), there are some crucial differences as well. If I remove the cognates from table 7, I end up with table 9: a big amount of markers, missing from the paradigms of other languages.

Overview of the non-shared Switch-Reference Markers

Same-Subject Referentiality			
Gloss	**Kashibo-Kakataibo**	**Shipibo-Konibo**	**Matses**
S/A>S(PE)	*-tankëx*		
S/A>S(PE.ADJA)			*-tanec*
S/A>S(PE.LOCO)			*-anec*
S/A>S(SE)			*-ec*
S/A>S(POE.FRUS)			*-nuec*
S/A>S(POE.LOC)			*-ec*
S/A>A(PE)	*-tankëxun*		
S/A>A(PE.ADJA)			*-tanquin*
S/A>A(PE.LOCO)			*-anquin*
S/A>A(SE.ARCH)			*-en*
S/A>A(POE.FRUS)			*-nuen*

S/A>S/A(POE)			*-nun*
Subject > Object Referentiality			
Gloss	**Kashibo-Kakataibo**	**Shipibo-Konibo**	**Matses**
S>O(POE)			*-nuc*
S/A/O>O(SE)	*-ia*		
S/A/O>O			*-sho*
Object > Subject Referentiality			
Gloss	**Kashibo-Kakataibo**	**Shipibo-Konibo**	**Matses**
O>S(PE)	*-këx*		
O>S(SE)	*-këx=bi*		
O>A(PE)	*-këx*		
O>A(SE)	*-këxun=bi*		
O>S/A(PE)		*-a*	
O>S/A			*-ac*
Different-Argument Referentiality			
Gloss	**Kashibo-Kakataibo**	**Shipibo-Konibo**	**Matses**
DS/A(PE)		*-ken*	
DS/A(SE)		*-ain*	
DS>A(SE.IMM)		*-aitian*	
DS/A(SE.ENC)		*-nontian*	
DS/A(POE)			
DS/A/O(PE.EXP)			*-bon*
DS/A/O(SE)			*-nuc*
DS/A/O(SE.INTR)	*-këbë*		
DS/A/O(SE.TRAN)	*-këbëtan*		
DS/A/O(SE.DUR)	*-mainun*		
DS/A/O(POE)			*-teno*

Table 8: Overview table of the switch-reference markers in Kashibo-Kakataibo, Shipibo-Konibo and Matses that are not shared

1) As we saw in §5.1, the switch-reference systems have a lot of patterns and morphemes, that reoccur (e.g. the morpheme *-tan* in Kashibo-Kakataibo *-tankëx*, *-tankëxun* and Matses *-tanec* and *-tanquin*). It is still hard however to ignore the fact that the majority of the switch-reference markers seem to be stand-alone markers that are not shared. These markers could be innovations or markers that were originally in other language family members as well, but went extinct as time passed by. More research is required to map the exact origins of all these different markers, although the majority of the markers seems to be morphologically complex.

2) Matses seems to have developed a very specialized paradigm for the Same-Subject referentiality markers, with three distinctions for the previous temporal relationship paradigm (regular, adjacent events and locomotive verbs) and two distinctions for the posterior temporal relationship paradigm (frustrative and locomotive verbs). Kashibo-Kakataibo and Shipibo-Konibo do not make these distinctions and use regular markers in all cases.

3) The paradigm of Different-Argument referentiality in Shipibo-Konibo contrary to Kashibo-Kakataibo and Matses only expresses that the subject in the dependent clause is different from the subject in the matrix clause: the objects in both clauses can still be co-referential. This results in Shipibo-Konibo using the Different-Argument markers when the S argument of the dependent clause is co-referential with the O argument of the matrix clause. An example of this can be seen in sentence (71):

Shipibo-Konibo

(71)	*Pikó-ke-tian-bi*	*no-a*	*ani*	*a-kan-ai*
	take.out:MID-P-DS-EM	1p-ABS	big	do.T-PL-INC
	take.out.MID-DS/A(PE.IMM)-EMPH	1PL-ABS	big	do(TRAN)-PL-INC

"From the moment we are born, they (our parents) take care of us…"

(Valenzuela 2003: 425)

In sentence (71), the S argument of the dependent clause *pikóketianbi* "from the moment [we] are born" (i.e. the implicit "we") is co-refential with the O argument of the matrix clause *noa ani akanai* "they take care of us" because the people being born, are the same as the ones being taken care of. This is expressed by the Different-Argument referentiality marker *-ketian* since Shipibo-Konibo does not have a separate paradigm for Subject > Object referentiality.

4) All three languages have specialized markers that can convey very specific information about the events in the clauses, like evidentiality (Matses experiential *-bon* versus inferential *-an*), the temporal structure of the event (Shipibo-Konibo *-aitian* with immediately following events versus *-nontian* if one of the events is encompassed by the other one) and many other grammatical categories. Not a single of these specialized meanings however is expressed in the same way in another language of the three languages I have studied.

§6 Conclusion

§6.1 Conclusion

In this thesis, I have wanted to do a comparative study on a specific grammatical category: switch-reference. This type of interclausal reference-tracking is expressed by a wide variety of markers in the language family I have decided to study: Panoan languages, spoken in Peru, Bolivia and Brazil. In order to do a comparative study, I have summed up all the different paradigms of markers that can be used for switch-referencing in three Panoan languages. After doing so, I have compared these paradigms to see to what degree the markers are the same and where the main differences lie between the studied languages. Although the scope of this thesis is not big enough to make statements about the Panoan language family as a whole, it is clear that switch-reference systems in these languages are very complex and quite divergent, especially when it comes to the exact use and the semantic stretch. More research is required to investigate the diachronic origins of some markers and the shifts that took place.

I have also looked at a distinction that Zariquiey (2011) makes: converbs versus switch-reference clauses. These two types of switch-reference constructions are distinguished on three points: target, position and degree of embedding. It seems that Shipibo-Konibo switch-reference constructions could be divided into converbs and switch-reference clauses in the same way that Kashibo-Kakataibo could be divided according to Zariquiey. It is a lot harder however to do the same for Matses, since Matses does not have second-position enclitics like Kashibo-Kakataibo and Shipibo-Konibo. Second-position enclitics form the main ground for giving information about the position and the degree of embedding, thus making statements harder without thorough research of Matses syntaxis.

Of the three languages, Kashibo-Kakataibo and Shipibo-Konibo have the most similar switch-reference paradigms. Zariquiey (2011) argues that this is due to the intense contact between the two tribes. Even though some markers between the languages are quite different in use and in phonological form, all three languages have a way of expressing the four types of referentiality (Same-Subject, Subject > Object, Object > Subject and Different-Argument) and a lot of similarities (like the posterior paradigm having a secondary purpositive meaning “in order to …” in all three languages).

Most interesting however, is the fact that the switch-reference systems get more complex over the years, when comparing the Proto-Pano system (cf. Valenzuela 2003: Chapter 20) to the systems in languages today. This development needs to be researched more thoroughly and diachronically before one can make statements about this.

I hope this thesis has succeeded in being a contribution to Amazonian linguistics. Nevertheless, there is still a lot of work left to be done and time is scarce, since the majority of Amazonian languages is rapidly disappearing by the influence of prevailing languages such as Portuguese and Spanish.

§7.1 Appendix 1: List of used abbreviations

For reasons of space, I will only list the abbreviations I have used for my own glosses and throughout the text of this thesis. For further reference for the abbreviations used in the original glosses, see the list of used abbreviations in the corresponding grammar.

Abbreviation	Meaning	Note
>	acting on	Indicates a switch-reference relationship between a dependent clause (before the arrow) and a matrix clause (after the arrow).
1SG	first person singular	Either used as personal pronoun or as person-marking affix on the verb.
1SG.POSS	first person singular as possessor	
2SG	second person singular	Either used as personal pronoun or as person-marking affix on the verb.
3SG	third person singular	Either used as personal pronoun or as person-marking affix on the verb.
3SG.POSS	third person singular as possessor	
1PL	first person plural	Either used as personal pronoun or as person-marking affix on the verb.
2PL	first person plural	Either used as personal pronoun or as person-marking affix on the verb.
3PL	first person plural	Either used as personal pronoun or as person-marking affix on the verb.
1/2P	first or second person subject	Is indifferent to number: plurality can be expressed by a separate morpheme or a second position enclitic.
3P	third person subject	Is indifferent to number: plurality can be expressed by a separate morpheme or a second position enclitic.
1DO	one different object	
A	transitive subject, A-orientation	
ABL	ablative case	
ABS	absolutive case	
ADJA	adjacent events	
ARCH	archaic	
AUG	augmentative	
AUX	auxiliary verb	
CAUS	causative	
COMP	completive aspect	

CONTRST	contrast	
DIM	diminutive	
DIST	distal	
DIST.PAST	distal past	
DS/A/O	different-argument	
DS/A	different-subject	
DUR	durative aspect	
EMPH	emphatic	
ENC	encompassing events	
ERG	ergative case	
EXP	experiential	
EV	direct evidential	
FRUS	frustrative	
GEN	genitive case	
HAB	habitual	
HSY2	shorter hearsay	
IMM	immediately following events	
IMP	imperative	
IMPF	imperfective aspect	
INC	incompletive aspect	
IND	indicative tense	
INF	inferential	
INST	instrumental case	
INTENS	intensifier	
INTENT	intention	
INTR	intransitive	
ITER	iterative	
LOC	locative case	
LOCO	locomotive verbs	
MID	middle voice	
NAR	narrative	

NAR.PAST	narrative past	
NAR.REP	narrative reportative	
NEG	negation	
NOM	nominalizer	
NOM.AGENT	agentive nominalizer	
NON.PAST	non-past	
NON.PROX	non-proximal to the addressee	
NON.SG	non-singular	
O	object argument	
ONOM	onomatopoeia	
PA:S	participant agreement: subject	
PAST	past tense	
PAST1	earlier today past	
PAST4	several years ago past	
PE	previous event	
PERF	perfective aspect	
PL	plural	
PL.ABS	absolutive plural	
POE	posterior event	
PP2	completive participle	
PROP	proprietive	
PROX	proximal	
REC	reciprocal	
REDUP	reduplication	
REM.PAST	remote past	
S	intransitive subject, S-orientation	
S/A	subject argument: either an S or A argument	
S/A/O	any grammatical core argument: either an S, A or O argument	
SE	simultaneous event	
SIML	similitive	
TEMP	temporal	

TRAN	transitive	
TRNZ	transitivizer	
VEN2	venitive non-singular, singular transitive	
VBZR.MAKE	verbalizer “to make…”	

§7.2 Appendix 2: Fleck's (2013) Panoan language family classification

I. Mayoruna branch (4 extant and 4 documented extinct languages)
  A. Mayo group
    i. Matses subgroup
      a. **Matses** (3 dialects):
        Peruvian Matses; *Brazilian Matses*
        †*Paud Usunkid*
      b. ***Kulina of the Curuçá River** (3 dialects):
        **Kapishtana; *Mawi*
        **Chema*
      c. †**Demushbo**
    ii. **Korubo** (2 dialects)
        Korubo
        **Chankueshbo*
    iii. Matis subgroup (most similar to Mainline branch)
      a. **Matis** (most divergent from other extant Mayoruna languages)
      b. †**Mayoruna of the Jandiatuba River**
      c. †**Mayoruna of the Amazon River** (2 dialects):
        †*Settled Mayoruna of the Amazon River*
        †*Wild Mayoruna of the Amazon River*
  B. †**Mayoruna of Tabating**a (the phonologically most divergent Mayoruna unit)
II. Mainline branch (about 14 extant and about 10 documented extinct languages)
  A. **Kasharari** (most divergent Mainline language)
  B. **Kashibo** (4 dialects; similar to Nawa group due to contact with Shipibo)
    Kashibo (Tessmann's "Kaschinõ")
    Rubo; *Isunubo*
    Kakataibo
    Nokaman (formerly thought to be extinct)
  C. Nawa group (subgroups ordered from most to least divergent)
    i. Bolivian subgroup
      a. **Chakobo**/**Pakawara** (2 dialects of 1 language)
      b. †**Karipuna** (may be a dialect of Chakobo/Pakawara)
      c. †**Chiriba** (?)
    ii. Madre de Dios subgroup
      a. †**Atsawaka**/†**Yamiaka** (2 dialects of 1 language)
      b. †**Arazaire**
    iii. †**Remo of the Blanco River**
    iv. †**Kashinawa of the Tarauacá River**
    v. Marubo subgroup
      a. **Marubo (of the Javari Basin)**
      b. **Katukina**
        Katukina of Olinda; *Katukina of Sete Estrelas*
        †*Kanamari*
      c. †**Kulina of São Paulo de Olivença**

"Central Panoan Assemblage": evidently there has been areal influence among neighboring languages, such that the boundaries among subgroups vi–viii are somewhat blurred.

    vi. Poyanawa subgroup
      a. ***Poyanawa**
      b. ***Iskonawa** (very close to Poyanawa, but also resembles Shipibo-Konibo-Kapanawa and Amawaka)
      c. ***Nukini**
      d. ***Nawa** (of the Môa River) (tentatively classified due to lack of useful linguistic data)
      e. †**Remo of the Jaquirana River**
    vii. Chama subgroup
      a. **Shipibo-Konibo** (3 dialects of 1 language)
        Shipibo; *Konibo* (currently fused)
        **Kapanawa of the Tapiche River*

b. ***Pano**
†*Pano*
**Shetebo*; **Piskino*
c. †*Sensi* (see Fleck to be published)
viii. Headwaters subgroup
a. **Kashinawa of the Ibuaçu River**
Brazilian Kashinawa
Peruvian Kashinawa
†*Kapanawa of the Juruá River*
†*Paranawa*
b. **Yaminawa** (large dialect complex)
Brazilian Yaminawa (probably represents 2 or more dialects)
Peruvian Yaminawa
Chaninawa
Chitonawa
Mastanawa
Parkenawa
Shanenawa
Sharanawa; **Marinawa*
Shawannawa (= Arara)
Yawanawa
**Yaminawa-arara* (very similar to *Shawannawa*/*Arara*)
†*Nehanawa*
c. **Amawaka**
Peruvian Amawaka (intermediate between this subgroup and Chama subgroup, perhaps as a result of areal contact)
†*Nishinawa* (= Brazilian Amawaka)
†*Yumanawa* (also very similar to Kashinawa of the Ibuaçu River)
d. †**Remo of the Môa River** (resembles Amawaka)
e. †**Tuchiunawa** (resembles Yaminawa dialects)

"Languages in **bold**; dialects in *italics*; † = extinct; * = obsolescent (i.e., no longer spoken as an everyday language, but a few speakers remember it.)" (Fleck 2013: 11-12)

§7.3 Appendix 3: Orthography overview

In this appendix, I will summarize the orthographies used for the phonemes in the three grammars I have used for this comparative study. I have completely followed the author's opinion when it comes to phoneme status and this is merely an overview for the ease of referencing.

Kashibo-Kakataibo (Zariquiey 2011)		**Shipibo-Konibo (Valenzuela 2003)**		**Matses (Fleck 2003)**	
Orthography	Phoneme	Orthography	Phoneme	Orthography	Phoneme
<p>	/p/	<p>	/p/	<p>	/p/
				<b>	/b/
<t>	/t/	<t>	/t/	<t>	/t/
				<d>	/d/
<k>	/k/	<k>	/k/	<c/qu>	/k/
<kw>	/kʷ/				
<‘>	/ʔ/				
<m>	/m/	<m>	/m/	<m>	/m/
<n>	/n/	<n>	/n/	<n>	/n/
<ñ>	/ɲ/				
<r>	/ɾ/	<r>	/ɻ/	<r>	/ɾ/
<ts>	/t͡s/	<ts>	/t͡s/	<ts>	/t͡s/
				<ch>	/t͡ʂ/
<ch>	/t͡ʃ/	<ch>	/t͡ʃ/	<ch>	/t͡ʃ/
<b>	/β̞/	<b>	/β̞/		
<s>	/s/	<s>	/s/	<s>	/s/
<sh>	/ʃ/	<sh>	/ʃ/	<sh>	/ʃ/
<x>	/ʂ/	<x>	/ʂ/	<sh>	/ʂ/
		<h>	/h/		
<i>	/i/	<i>	/i/	<i>	/i/
<e>	/e/			<e>	/e/
<ë>	/ɨ/	<ɨ>	/ɨ/	<ë>	/ɨ/
<a>	/a/	<a>	/a/	<a>	/a/
<u>	/u/			<u>	/u/
<o>	/o/	<o>	/o/	<o>	/o/
<y>	/j/	<y>	/j/	<y>	/j/
<w>	/w/	<w>	/w/	<u>	/w/

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