Clause chaining and switch-reference in Aikanã and Kwaza
Encadeamento de cláusulas e referência alternada em Aikanã e Kwazá

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Abstract: In Aikanã and Kwaza, neighbouring endangered isolate languages of Rondônia, Brazil, sentences can include chains of medial clauses and end with a predicate in a matrix sentence mood, such as declarative, interrogative etc. In Kwaza, traditional narratives may even consist of a single long string of medial clauses, terminated by a fixed formula in the declarative mood. In both languages, subject (dis)continuity is expressed by a switch-reference system that indicates on the predicate of the current clause whether the subject of the next clause will be different or not. In this descriptive article I present similarities and differences between the systems of switch-reference in Aikanã and Kwaza. Among the differences, I discuss cases of formally marked switch-reference that appears to express topic discontinuity rather than subject discontinuity, in Kwaza. Also, I analyse the unusual anticipatory nature of the Kwaza system. As a special feature of this article I include two versions of a traditional mythological narrative, originally told in Aikanã and later retold in Kwaza, to illustrate clause chaining and switch-reference through a coherent and culturally relevant text.

Keywords: Clause chaining. Switch-reference. Aikanã. Kwaza.

Resumo: Em Aikanã e Kwazá, línguas isoladas vizinhas em risco de extinção, faladas em Rondônia, Brasil, as orações podem conter cadeias de cláusulas mediais que terminam com um predicado em um modo da oração matriz, como declarativo, interrogativo etc. Em Kwazá, narrativas tradicionais podem consistir em uma unica sequência comprida de orações mediais, terminada por uma expressão formuláico no modo declarativo. Em ambas as línguas, a (des)continuidade do sujeito é expressa por um sistema de referência alternada, que indica no predicado da oração atual se o sujeito da oração seguinte será diferente. Neste artigo descritivo, apresento o mecanismo de referência alternada em Aikanã e Kwazá. Entre as diferenças, discuto casos de referência trocada, a qual parece expressar descontinuidade de tópico em vez de descontinuidade de sujeito, em Kwazá. Além disso, analiso a natureza antecipatória do sistema Kwazá. Como recurso especial deste artigo, incluo duas versões de uma narrativa mitológica tradicional, originalmente contada em Aikanã e posteriormente recontada em Kwazá, como ilustração de encadeamento de cláusulas e referência alternada, por meio de um texto coerente e culturalmente relevante.

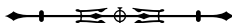**Palavras-chave**: Encadeamento de cláusulas. Referência alternada. Aikanã. Kwazá.

"Watch the muscles twitch for a brand new switch…"
(Sioux, 1978)

INTRODUCTION

Aikanã and Kwaza are two neighbouring isolate languages of southeastern Rondônia, Brazil, spoken by the Aikanã and Kwaza ethnic groups. Estimated in approximate figures, the Aikanã language has 250 speakers on a population of 400 and the Kwaza language has 25 speakers on a population of 45. Originally, the Aikanã and Kwaza inhabited adjacent territories and were neighbours to other indigenous groups, such as the Kanoé (isolate), Kepkiriwat (extinct Tupian, Tupari), Salamãy (Tupian, Mondé), and different "Mekens" (Tupian, Tupari) subgroups. They shared important aspects of culture, and traditional multilingualism must have led to diffusion of linguistic traits. First contacts with western culture probably occurred around the start of the 20th century, and brought diseases, violence and diaspora upon the indigenous peoples of the region. In the course of the second half of the 20th century, a big part of Rondônia was deforested and indigenous reserves were demarcated for what had remained of the indigenous groups. Nowadays, the Aikanã and Kwaza share two indigenous reserves, in both of which the Kwaza speakers form a minority. One of the reserves is also shared with speakers of the Latundê (Nambikwaran) language and with descendants of the Sabanê (Nambikwaran), Kanoé, and Salamãy ethnic groups.

The Aikanã language has been studied by linguists since the 1980s, and has been partially described by Hinton (1993), Vasconcelos (2002), Silva (2012), van der Voort & Birchall (in press) and several articles by van der Voort. The Kwaza language has been studied since the 1990s, and has been described by van der Voort (2004) in an extensive monograph and several articles. Both languages are genealogical isolates, as is evidenced by their lexical and grammatical properties. Nevertheless, when painted with a broad brush, they are typologically rather similar, both being polysynthetic, morphologically very complex suffixing languages. They furthermore share some rather specific grammatical traits with each other and with certain neighbouring languages, which may be due to many centuries of language contact. One of those traits concerns switch-reference systems.

Clause chaining refers, roughly speaking, to the possibility in many languages to express simultaneity or consecutivity of events, and explanations of purpose, causation, reason, etc., in the form of chains of subordinate dependent clauses (instead of allowing coordination of full sentences, as in English). Some languages have initial-consecutive chaining structures, in which the initial clause represents the main clause, whereas other languages have medial-final chaining, in which the final clause represents the main clause. Often, dependent clauses are limited with regard to certain inflectional or derivational possibilities. A rich body of literature exists on clause chaining. A useful overview is Longacre (2007 [1985]) and an important recent collection of articles on different kinds of clause linkage is Bril (2010).

The term switch-reference, which was coined by Jacobsen (1967), refers broadly speaking to the phenomenon that languages may indicate by grammatical marking whether the subject or agent of a subordinate clause is identical with or different from the subject or agent of the main clause. In languages that allow clause chaining, 'same subject' and 'different subject' marking may occur repeatedly throughout the chain. Switch-reference is sometimes also put to pragmatic uses. In that case, the 'different subject' marker does not necessarily indicate a different subject, but a conspicuously different topic or different event. Switch-reference systems have been described for many languages in different parts of the world, and are especially well-known for languages of New Guinea, Australia and the Americas. Languages with medial clause chaining and switch-reference systems tend to be suffixing, head-marking, pro-drop

languages and tend to display Subject-Object-Verb clause constituent order (Stirling, 2005). Important collections of articles on switch-reference systems in diverse languages are Haiman & Munro (1983) and Gijn & Hammond (2016).

In the following subsections I will describe and illustrate the switch-reference systems and clause chaining properties of Aikanã and Kwaza. In the concluding section, I will discuss the similarities and differences between these systems. The linguistic data are from my personal fieldwork with native speakers from 1995 to 2021.

COMPLEX SENTENCES AND SWITCH-REFERENCE IN AIKANÃ

A complete sentence in Aikanã consists minimally of a verb root, inflectional person marking and inflectional mood marking. Other morphology is derivational and can be optionally inserted between the verb root and inflectional morphemes. It includes classifiers, directionals, valency morphemes, aspect and modality morphemes. Non-future tense is unmarked, whereas future tense has both derivational and inflectional properties, involving recursion of person marking (Voort, 2013, 2016). Person markers are usually suffixes, but there is a limited set of verbs that may occur with an alternative prefix paradigm. In addition to paradigms for canonical subject marking there are paradigms for causative, reflexive, patientive and beneficiary arguments (e.g., Voort, 2013; Voort & Birchall, in press). Mood markers are verb final, and include declarative, interrogative, imperative and several other matrix sentence moods. In addition, Aikanã has a small set of mood markers used for adverbial subordinate clauses: conditional, concessive, and reason.

Adverbial clauses tend to precede the main clause, and together they form a complex sentence, as the following conditional (1) and concessive (2) examples illustrate:

(1)   *uru-i-'a-nake*   *atuwe*   *hẽhẽ-'i*   *ware-yũ-'eye-'ẽ*
     sing-NMLZ-3SG.REFL-COND   elder   angry-NMLZ   go-DIR:close-3PL.PAT-DECL
     'Always if one would organise a party, the old-timers would go there.'

(2)   *hisa*   *hideka-a-dupa*   *detya*   *hane*   *pau~pau-pa-ẽ*
     I   strong-1SG.PAT-CONC   woman   water   run~run-CLF:fruit-DECL
     'Even though I am strong, my wife fetches the water.'

In addition to subordinate clauses with adverbial semantic content, Aikanã has medial clauses: subordinate clauses the semantic content of which is coordinate with that of the subsequent clause. The mood value of Aikanã medial clauses is identical to that of the final main clause, whereas person reference may be different. There are two medial clause-final markers: *-pü* 'same subject', which indicates that the subject of the next clause will be the same, and *-na* 'different subject', which indicates that the subject of the next clause will be different. The contrasts between the following basic examples demonstrate how the system works:

(3)   *João*   *ware-dua-pü*   *dara-ne*   *düni-ẽ*
     João   arrive-DIR:in-SS   hammock-LOC   lie-DECL
     'João entered (the house) and lay down in the hammock.'

(4) *João   ware-du-na   Maria   düni-ẽ*

João   arrive-DIR:in-DS   Maria   lie-DECL

'João entered (the house) and Maria lay down.'

(5) *hisa   Maurício-xa-pü   tipa-xa-isuwã-ẽ*

I   Maurício-1PL-SS   go.ahead-1PL-REM.PST-DECL

'Maurício and I went, we went ahead.'

(6) *hine   pu-dia-na   hĩzã   ãwĩwã-me-te'-ẽ*

fire   light-1SG.CAUS-DS   you   sleep-2SG-PST-DECL

'I made fire, then you slept.'

Aikanã medial clauses can be coordinated with one another, and thus form a chain that ends with a main clause in one of the sentential moods. Traditional narratives consist of complex sentences that contain long chains of medial clauses, which indicate continuity or discontinuity of the subject by the *-pü* and *-na* suffixes. The following short traditional narrative is an example of the high productivity of the system, as well as its complexities. All lines demonstrate the basic characteristics this system, i.e., same subject and different subject morphemes in medial clause chains. Certain particular traits are evaluated at the end of the text.

xüxüwe'ene   'The Oldtime Women'

A traditional Aikanã tale, told by Raimunda Dadü Kwā'ĩ, in Barroso, 6 May 1996.

(a1) *kureza-deri   detya-deri-ye   bu~bu-ke-pe-na*

man-3.POSS   woman-3.POSS-ACC   beat~beat-3.AG-CLF:round-DS

ke-pe-na   yo-e-pü   kya-pü

3.AG-CLF:round-DS   cry-3.INTR-SS   then-SS

'Her husband always beat his wife, he did, and she cried until she stopped crying,'

(a2) *wãwã'ĩ-deri-'ene-'ete   xa-na-xüne-re-'ẽ   küine-'ete-ne   he-pü*

child-3.POSS-COLL-ALL   1PL-DIR:hither-DIR:return-FUT-IMP[1]   old.garden-ALL-LOC   say-SS

'she said to her children "Let's leave and return to our old farmstead!",'

(a3) *xü-pa-ne-'ee-pü   kya-pü   küine   keza*

DIR:return-TR-PFV-3PL.PAT-SS   then-SS   old.garden   house

tü-rika-daika-'i-ne   ware-du-pa-ne'e-pü   kya-nã

put-DIR:floor-DIR:remain-NMLZ-LOC   walk-DIR:in-CLF:fruit-PFV-SS   then-DS

'she took them and they went, and got to their old plantation and entered into the abandoned house, which was still standing, and then'

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[1] The occurrence of bound morphology without a lexical root is highly context dependent, and is discussed in Voort & Birchall (in press).

(a4)   *pene-ne   nu-pene-dupa-na   mama-deri   haki*

dusk-LOC   yard-dusk-CNTRX-DS   mother-3.POSS   maize

hana-ke-pe-pü   kya-pü   hara~hara-ke-pe-ẽ   kya-na

peel-3.AG-CLF:round-SS   then-SS   toast~toast-3.AG-CLF:round-DECL   then-DS

'late afternoon, as it was already getting dark in the yard, their mother was peeling off the maize husks, toasting the maize, and then,'

(a5)   *haki   xitu~xitu-'ẽ   pai~pai-duka-yũ̃-ẽ*

maize   pop~pop-DECL   pop~pop-DIR:away-CLF:hollow-DECL

'the maize was popping. "It's popping out of the pan."[2]'

(a6)   *baba   nukyapa-hãyã-pü   da-ka-kape-re-hãyã-re*

father   behind-1PL.PAT-SS   kill-1SG-CLF:head-FUT-1PL.PAT-EXCL[3]

wãwã̃ĩ-deri-ene-ete   yo-pa-'eye-pü   kya-pü

child-3.POSS-COLL-ALL   cry-TR-3PL.PAT-SS   then-SS

'"Would father be coming after us in order to kill us?", she cried out of fear for her children, then'

(a7)   *dupa-na   iza-yiye   penene-ne   dupa-na*

CNTRX-DS   far-again   afternoon-LOC   CNTRX-DS

'however, some time later, it was getting really late in the afternoon, then,'

(a8)   *i'iwe   dae-nu-na-pa-'i-ye   wãwã̃ĩ-deri-'ene-'ete*

jaguar   move-CLF:soil-DIR:hither-CLF:part-NMLZ-ACC   child-3.POSS-COLL-ALL

hĩwa-keza-ẽ   i'iwe   'e-na

that.way-3SG.CAUS-DECL   jaguar   3PL.PAT-DS

'"Look there, a jaguar is coming into the yard", she said to the children,'

(a9)   *wãwã̃ĩ   xua-e-pü   yo-ka-re-e-na*

child   see-3.INTR-SS   cry-1SG-FUT-3.INTR-DS

'the child saw it and was about to cry,'

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2   That is a highly unusual thing to happen, and therefore considered an omen of something serious.
3   Recursive person marking in Aikanã future tense constructions and Kwaza quotation constructions is discussed in, among other places, Voort (2013, 2016).

(a10) *yo-me-rete'ẽ*   *kuka-pü*   *atu-ne*   *dae-dui-pa-pü*

cry-2SG-NEG.IMP   say.TR-SS   mortar-LOC   move-DIR:in-CLF:part-SS

nãixi   *apa-'isu-deri-ye*   *pü<'ã>yãka-pü*

mat   call-HAB-NMLZ-ACC   cover<3SG.REFL>-SS

'"Don't cry!", she told it and they entered into the mortar and covered themselves with the mat, which is called *nãixi*,'

(a11) *hikirine-pü*   *kya-nake*   *i'iwe*   *hürüwa-pi-pa-'ẽ*

dark-SS   then-COND   jaguar   rise-DIR:base-CLF:part-DECL

'it had got dark when the jaguar rose from the base of the mortar (where it had been lying).'

(a12) *hũnu-rikape-'ẽ*   *hine-ne*   *hũnu=kadu-'ẽ*   *kya-pü*

sniff-DIR:inside-DECL   fire-LOC   sniff=inside-DECL   then-SS

ene-pi-pa-xüne-'ẽ

tighten-DIR:base-CLF:part-DIR:return-DECL

'He was sniffing all around the house, even in the embers of the fire, and then he lay down embracing the mortar again.'

(a13) *hürüwa-pi-pa-'ẽ*   *di<'a>wa-kuka-'ẽ*   *hiiye-'ẽ*

rise-DIR:base-CLF:part-DECL   stretch<3SG.REFL>-CLF:body-DECL   hiss-DECL

'Then he rose, and stretched himself, and was hissing.'

(a14) *wãwãĩ*   *yo-he-rete'ẽ*   *he-'ẽ*

child   cry-3.INTR-NEG.IMP   say-DECL

'She told the children not to cry'

(a15) *xüxü'i*   *supi-ke-wa-pa-ẽ*   *dürü-dui-pa-pü*

breast   insert-3.AG-CLF:mouth-TR-DECL   sit-DIR:in-CLF:round-SS

'She stuck her breast into the child's mouth, as they were sitting inside the mortar,'

(a16) *deri-hẽyã-nupe-dupa-na*   *i'iwe*   *hürüwa-pi-pa-pü*

lighten-DIR:down-DIR:yard-CNTRX-DS   jaguar   rise-DIR:base-CLF:part-SS

hika-de-pa-ne-na

leave-DIR:outside-CLF:part-PFV-DS

'dawn was arriving in the yard when the jaguar rose from the base of the mortar and left the house,'

(a17) *detya*   *hürüwa-dui-pa-pü*   *xua=hika-kü-ẽ*

woman   rise-DIR:in-CLF:round-DECL   see=leave-DIR:close-DECL

'the woman rose from inside the mortar and looked outside, her eyes following the jaguar.'

(a18)　*i'iwe-'ete*　　*hika-de-kü-nunu*　　　　*ka-xüne-ta-he-deri-'ete-ne*

jaguar-ALL　　leave-DIR:outside-DIR:close-MIR　1SG-DIR:return-REM.FUT-3.INTR-NMLZ-ALL-LOC

paw=hika-paipa-'i-ye　　　*katene*　*xa-ne-ta-xa-'i-'ete-ne*

run=leave-DIR:ahead-NMLZ-ACC　there　1PL-PFV-REM.FUT-1PL-NMLZ-ALL-LOC

kaza-i　*i'iwe*　　*he-pü*

be-INT　jaguar　say-SS

'"Now look, where the jaguar is going to run ahead, is it in the same direction where we are going home?", she wondered,'

(a19)　*kãwã*　　*kari*　*kaza-hãyã-re-'ẽ*　　*he-pü*

be.like　that　be-1PL.PAT-FUT-IMP　say-SS

'"Well, let him get us! (rather than father killing us)", she said,'

(a20)　*katene*　*na-xü-pa-ne-pü*　　　　　*pü*

there　　DIR:hither-DIR:return-TR-PFV-SS　SS

'that is where she returned home (taking the children along), then,'

(a21)　*kureza-deri-ete*　*ka-me-a-'ẽ*　　　*bu~bu-me-pe-'isu-a-pü*　　　　　*i'iwe*

man-3.POSS-ALL　do-2SG-1SG.PAT-DECL　beat~beat-2SG-CLF:round-HAB-1SG.PAT-SS　jaguar

pau-nwãpa-hãyã-ẽ　　　*kau-hã-yã'e-ẽ*　　*kuka-pü*　*yo-he-pü*

run-enter.behind-1PL.PAT-DECL　eat-1SG.PAT-CNTR-DECL　say.TR-SS　cry-3.INTR-SS

'she said to her husband "You have done this to me. Because you used to beat me like that, the jaguar came in after us. He almost devoured me.", she said, crying,'

(a22)　*kãwã-ĩ*　　*apa-isu-ĩwãte*

be.like-NMLZ　tell-HAB-ADMON

'that is how it is being told.'

As the reader may have noticed, the chain contains several embedded quotations in main clause moods, such as imperative in sentences (a2) and (a19), negative imperative (a10), declarative (a5) and interrogative (a18), but those do not terminate the clause chain. The embedded quotation in (a6) even contains an internal medial clause:

(a6)　*baba*　*nukyapa-hãyã-pü*　*da-ka-kape-re-hãyã-re*

father　behind-1PL.PAT-SS　kill-1SG-CLF:head-FUT-1PL.PAT-EXCL

'Would father be coming after us in order to kill us?'

In some sentences there are real interruptions of the clause chain, by the declarative main clause mood in sentences (a4), (a11-a15) and (a17). The narrator has not integrated those into a general chain in the form of medial clauses.

In some sentences, (a10-a11), (a15-a16) and (a21), the same subject marker *-pü* occurs in spite of a change of subject in the next clause. On the other hand, whenever the marker *-na* occurs, it does systematically indicate a different grammatical subject in the next clause. This can perhaps be accounted for by a difference in semantic markedness. Whereas different subject marking in some languages can also signal a different or unexpected event instead of a different subject (e.g. Gijn, 2012), same subject marking in Aikanã might also signal that the next episode is part of an expected course of events, whether the subject is the same or not. This possible explanation of non-default use of same subject marking in Aikanã cannot be confirmed, however, on the basis of the few examples mentioned here.

COMPLEX SENTENCES AND SWITCH-REFERENCE IN KWAZA

A complete sentence in Kwaza consists minimally of a verb root, and inflectional person and mood suffixes, in that order. Any derivational morphology should occur between the root and the person marker (third person is unmarked). It includes classifiers, directionals, valency morphemes, tense, aspect and modality morphemes. Some modality morphemes may originate from degrammaticalised mood inflections and require recursive person marking. Some expressions of remote past tense and of habitual aspect involve morpheme-based reduplication of person markers (Voort, 2003, 2009, 2016). Mood markers are verb final, and include declarative, interrogative, imperative, volitive and several other main clause moods. Furthermore, Kwaza has a set of mood markers used for adverbial subordinate clauses: conditional, concessive, and manner.

Adverbial clauses tend to precede the main clause, and together they form a complex sentence, as examples (7) and (8) illustrate:

(7) *si   wɛra   onɛ-kɨwɨ   oja-da-tsɨ-tse*
     I   Vera   come-COND   go-1SG-POT-DECL
     'When Vera arrives, I will leave.'

(8) *awɨ-hɨ̃-da-lete   ba-da-ki*
     cold-NMLZ-1SG-CONC   cut-1SG-DECL
     'Even though I was cold, I cleared a field.'

Kwaza also has medial clauses. These are subordinate clauses ending in a dependent clause marker that represents the semantic content of the main clause mood marker[4], as in examples (9) and (10).

(9) *bilotswa   e-he-da-ta   okya-he-da-ki*
     shotgun   have-NEG-1SG-DEP hunt-NEG-1SG-DECL
     'I can't hunt, because I don't have a shutgun.'

(10) *tyari-da-ta   yo-da-mɨ̃*
     shoot-1SG-DEP   devour-1SG-VOL
     'I'm going to kill and devour him!'

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[4] And can therefore perhaps be regarded as a dummy mood marker.

There are two medial clause markers: *-ta* 'dependent', which is neutral with regard to person, and *-si* 'switch reference', which indicates the exclusion of a specific person value of the main clause subject. The suffix *-si* anticipates that the subject of the next clause will either be a non-third person or a third person, depending on whether the reverse is the case in the medial clause, as in examples (11) and (12), unless both subjects are different non-third persons, as illustrated by (13).

(11) *si   isihɨ̃-da-si   ori-hɨ̃-ki*

     I   secure-1SG-SWR   ascend-NMLZ-DECL

     'I helped him climb up.'

(12) *onɛ-si   oja-ta-da-hɨ̃-ki*

     arrive-SWR   leave-TR-1SG-NMLZ-DECL

     'He returned and I went there.'

(13) *kwɛ-da-si   wadɨ-xa-ki   txi'a-wã*

     enter-1SG-SWR   give-2SG-DECL   Txi'a-ACC

     'I entered and you gave something to Txi'a.'

In case both subjects of the medial and main clauses are different third persons, the dependent marker *-ta* is used, preceded by the different subject morpheme *-dɨ-*, as in examples (14) vs. (15). The contrasts between these basic examples demonstrate how the system works:

(14) *tswa-wã   mɛ̃́-ta   emã-ki*

     man-ACC   beat-DEP   cry-DECL

     'She beat the man and she cried.'

(15) *etaɨ   tswa-wã   mɛ̃́-dɨ-ta   emã-ki   tswa*

     woman   man-ACC   beat-DS-DEP   cry-DECL   man

     'The woman beat the man and the man cried.'

Multiple medial clauses of Kwaza can be juxtaposed, forming a chain that ends with a main clause in one of the sentential moods. A narrative can consist of a single long chain of medial clauses, which contain suffixes that indicate continuity or discontinuity of the subject. The following short traditional story was retold in Kwaza from the Aikanã story of the previous section. It does not contain cases of non-third person switch-reference, but same-reference and third person different subject are well represented, as well as the impressively persistent clause-chain.

hakainahere   'The Oldtime People'[5]

An Aikanã tale, retold in Kwaza by Mario Kyikãu Mãdɛ, in Barroso, 8 May 1996.

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[5] This is a revised and reorganised version of the story in Voort (2004, pp. 740-743).

(k1)   *exwa-tyate*   *mɛ̃-tyaryɨ̃-di-ta*   *a-tara-hɨ̃-ta*   *mɛ̃-ʼe-di-ta*   *emã=hãrã-tya*

husband-3.POSS   beat-much-DS-DEP   exist-PROC-NMLZ-DEP   beat-too-DS-DEP   cry=stop-MAN

'She was accustomed to her husband always hitting her, and when he beat again, she just stopped crying,'

(k2)   *etohoi-nahere-wã*   *hɨ̃dɛ*   *ya-ʼɨ̃-ryɨ̃*   *karitywa-na*   *ɛ-ʼa-ta*   *a-ʼa-ta*   *atxitxi*

child-COLL-ACC   go!   DIST-this-CD:area   old.field-LOC   go-1PL.INC-DEP   exist-1PL.INC-DEP   maize

   manini-tsi-hɨ̃   *hude-ʼa-ta*   *ya-ʼa-ta*   *a-ʼa-ni-tya*   *ta-ta*

fish-GER-NMLZ   splash-1PL.INC-DEP   eat-1PL.INC-DEP   exist-1PL.INC-EXH-MAN   talk-DEP

'she said to her children: "Let's go there to the old farmstead, we go there, we'll live there, we'll dry and eat maize and fish, let's live there!"'

(k3)   *wɛ*   *karitywa-na*   *tya*   *a-ʼete-ta*

bring   old.field-LOC   MAN   exist-COM-DEP

'taking (the children) to the old farmstead they lived there together,'

(k4)   *oyaburu-tya*   *atxitxi*   *kã-to-ta*

arrive-MAN   maize   toast-CLF:kernel-DEP

'they arrived there and toasted maize,'

(k5)   *tya*   *kã-to-da-hɨ̃-here-tsi-hɨ̃=wara*   *atxitxi*   *bɛrɛrɛ-ta*   *tana*   *bɛ*

MAN   toast-CLF:kernel-1SG-NMLZ-INTL-GER-NMLZ=but   maize   pop-DEP   well   bang!

'so she was toasting the maize while suddenly it popped (loudly): "bang!"'

(k6)   *yiye-di-ta*   *tsuhũ-rati*   *nãi-re*   *ti-nãi-da-ki-tya*   *nãi-re*

break-DS-DEP   what-FOC   like-INT   what-like-1SG-DECL-MAN   like-INT

'it cracked, "Why is it acting like that; what did I do?", she said, "Why?"'

(k7)   *aha*   *tsasi-ta*   *huhui=asa-ʼeteya-nã-tehere-tya*   *ta-ta*

father   follow-DEP   kill=end-1PL.OBJ-FUT-APPR-MAN   talk-DEP

'"I think father will come after us to kill us", she said,'

(k8)   *ũi-nã-tsi-hɨ̃=wara*   *tsileta*   *tsileta-tya*   *awɨ̃i=xare-ritsa-hɨ̃=wara*

lie-FUT-GER-NMLZ=but   afternoon   afternoon-MAN   see=turn-DIR:outside-NMLZ=but

   yerexwa-le

jaguar-only

'they had gone to sleep, but at (early) night when (she) looked outside there was a jaguar!'

(k9)   *tana   hɨ-sinywa-nɨ-di-ta*

well   move-CD:yard-REFL-DS-DEP

'then, it was approaching over the yard,'

(k10)   *kui   yerexwa-tadɨ-tya   ta-hɨ̃=wara   etohoi   ɨro-damɨ̃-di-ta*

my!   jaguar-EXCL-MAN   talk-NMLZ=but   child   cry-want-DS-DEP

'"My! That's a jaguar, isn't it?", she said, but then the son was about to cry,'

(k11)   *ɨro-he-kɨ-tya   ta-ta*

cry-NEG-NEG.IMP-MAN   talk-DEP

'"Don't cry!", she said,'

(k12)   *hou   dukɨ-hɨ̃   houwaria-tya   hɛ-na   hɨ-tye-tya*

take   other-NMLZ   hang-MAN   mortar-LOC   move-CLF:hole-MAN

iritsi-tye-nɨ̃-hɨ̃-dɨ-ta

cover-CLF:hole-REFL-NMLZ-DS-DEP

'she took him, and took the other one into her sling hanging and entered the hole of the mortar and covered themselves, whereupon...'

(k13)   *yerexwa   kwɛ=buru-tya   hẽu-ryɨ̃=hɨhɨrwa-silona=baru-tya*

jaguar   inside=arrive-MAN   smell-CD:area=move-DIR:corner=do.all-MAN

'entering the house the jaguar smelled around, walking to all corners;...'

(k14)   *hɛ-na   bukya-ta   yãsi-tyaryɨ̃   akwate   di-ta*

mortar-LOC   lie-DEP   hear-much   inside   DS-DEP

'it lay down at the foot of the mortar, probing the sounds inside, as...'

(k15)   *etohoi   ɨro-nã-di-ta   ɨro-tsi-tya   tyẽrẽ-le   kunũ-di-tya*

child   cry-FUT-DS-DEP   cry-ADMON-MAN   breast-only   suck-CAUS-MAN

'the child was about to cry, so she just gave it the breast to suckle for it not to cry,'

(k16)   *tana   hɨ̃-di-ta   tana   daityotonɨ̃-tya   hɨhɨrwa-kwate   du=ɨ̃̃ta-tya*

well   NMLZ-DS-DEP   well   rise.up-MAN   move-DIR:inside   finish=always-MAN

'then, thereafter the jaguar stood up and kept on walking everywhere around the house,'

(k17)   *tana   budɨnɨhɨ̃-tya   hɨ=ɨ̃̃ta-di-ta   tana   nanãi-tya*

well   stretch-MAN   hiss=always-DS-DEP   well   very-MAN

'then it stretched itself and didn't stop sniffing and hissing around like that,'

(k18) *tana* *bukya-ryate-ta* *tana* *he~hẽu-ryĩ̄* *ĩ̃ta* *haya-ta*

well lie-DIR:rim-DEP well RED~smell-CD:area always day-DEP

'it was lying by the side of the mortar, continuously sniffing around until sunrise,'

(k19) *tana* *haya* *buru-dɨ-ta* *ta* *haya-siwã-dɨ-ta* *harɨkɨ*

well day arrive-DS-DEP DEP day-CD:yard-DS-DEP now

daitotonĩ̄-ta *bui-hĩ̄-dɨ-ta* *harɨkɨ*

stand.up-DEP leave-NMLZ-DS-DEP now

'then day arrived, and the daylight shone in the yard, and then the jaguar rose, and left the house, uh,'

(k20) *diri-tya* *awĩ̄* *tsasi-le-ki* *ɛ-da-te-tsɨ-ryĩ̄* *tana*

rise-MAN see follow-only-DECL go-1SG-PURP-POT-CD:area well

hɨ-dwa=leya-dɨ-ta

move-DIR:onto=ahead-DS-DEP

'getting up (from the mortar) she looked "It went ahead in the direction I should go,'

(k21) *ɛ-'a-te=yã-ryĩ̄=wara* *nãi-re* *leya-rai-ki=tya* *ta*

go-1PL-PURP=be-CD:area=but like-INT ahead-damn-DECL=MAN talk

etohoi-tyate-wã *tya* *ta-ta*

child-3.POSS-ACC MAN talk-DEP

'now that direction where we are headed, it went ahead, damned!", she said talking to her son,'

(k22) *ta* *hĩdɛ* *ɛ-'a-ni* *nanãi-'eteya-lɛ* *yerexwa*

DEP let's.go! go-1PL-EXH very-1PL.OBJ-PREC jaguar

kahɛ=asa-'eteya-tara-tsɛ-tya *ta-dɨ-ta*

bite=end-1PL.OBJ-PROC-DECL-MAN talk-DS-DEP

'then she said "Let's go! Let it have its way with us, let the jaguar just try to tear us up!"'

(k23) *ta* *ɛ-tya* *oyaburu-tya*

DEP go-MAN arrive-MAN

'then having gone (home) and arrived,'

(k24) *ĩ* *mɛ̃-tyaryĩ̄-ta-nãi-ko* *etohoi-nahere* *wɛ=ɛ-da-ta*

nothing beat-much-1SG.OBJ-NMLZ-INST child-COLL bring=go-1SG-DEP

'"Because of (your) beating me so much for no reason I took the children and left…'

(k25)   *bukwa-'ete-da-hĩ-here-da-hĩ=wara*   *yerexwa*   *tsye-'eteya-le-ki*

live-COM-1SG-NMLZ-INTL-1SG-NMLZ=but   jaguar   grab-1PL.OBJ-FRUST-DECL

mɛ̃-tyaryĩ-ta-nãi-ko-tya   *ta-ki*

beat-much-1SG.OBJ-NMLZ-INST-MAN   talk-DECL

'I went to live together (there in the old house), but the jaguar nearly grabbed us, because of (your) beating me always", she said to him.'

(k26)   *tywa-rati-ki*

be-FOC-DECL

'That's how the story is told.'

The above story consists in fact of one single long chain of medial clauses, which ends in a main clause mood only at the formulaic expression in (k26), and which represents the main clause of the entire preceding subordinated chain that started with sentence (k1). One may wonder about the main clause moods that are encountered inside this narrative. However, these represent direct speech quotations in different moods, such as the exhortative in (k2) and (k22), interrogative and declarative in (k6), (k20) and (k25), negative imperative in (k11), and others. They are embedded in the clause chain, and may contain subordinate and medial clause chains themselves.

Throughout the chain, the subject of a clause may differ from the subject of the next clause, which is indicated by the different subject morpheme *-di-*. Also clause chains that are embedded inside quotations may contain internal reference switches, as in (k20-k21). In some some cases, however, *-di-* should be interpreted not as signalling a different subject, but as announcing a different event or topic, as in sentences (k17) and (k22).

Note that, in addition to the dedicated different subject morpheme *-di-*, the concessive clitic *wara* 'but' also has the effect of announcing a different subject, as in (k5), (k10) and embedded in (k25).

Note furthermore that the functional difference between dependent clause marker *-ta* and adverbial clause marker *-tya* 'manner, background' can be unclear. At a cursory glance, in same subject third person clauses they both seem to represent medial clause markers. However, unlike *-ta*, the morpheme *-tya* is never preceded by person marking or the different subject morpheme *-di-*, is never instrumental in clause chaining and is independent of reference switches.[6]

CONCLUSION

Both Aikanã and Kwaza have very productive medial clause chaining constructions involving switch-reference systems. Certain similarities can be perceived in their chaining constructions and in their switch-reference systems. Table 1 lists typological similarities and differences between Aikanã and Kwaza switch-reference systems attested in this article.

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[6] In previous work (especially Voort, 2004, pp. 649-650, 660-663) I had more doubts about this analysis and represented *-tya* as an allomorph of *-ta*, which I used to gloss as 'cosubordinative'.

Table 1. Similarities and differences between Aikanã and Kwaza switch-reference systems.

Similarities
- high productivity of clause chaining constructions
- same subject and different subject marking of medial clauses
- medial clause has same mood value as main clause
- sameness or difference status of subject concerns the next clause
- medial clauses can be just as grammatically rich as the final clause
- possibility of extended medial clause chains
- matrix mood tends to be on the final clause
- possibility of embedded clause chains
Differences
- frequent interruptions of the chain in Aikanã, but uncommon in Kwaza
- non-default SS marking in Aikanã vs. non-default DS marking in Kwaza
- specific person value anticipated in Kwaza, but not in Aikanã
- forms: Aikanã (*-pü* 'SS'; *-na* 'DS') vs. Kwaza (*-ta* 'SS'; *-dɨ-/-si* 'DS')

Some similarities are rather common for medial clause chaining languages, such as the fact that the final clause tends to occur at the very end of the chain, that clause chains can be embedded at a separate structural level (as seen in quoted utterances in Aikanã and Kwaza), and that the reference switch is announced by the preceding clause for the next clause (Longacre, 2007 [1985]).

In both Aikanã and Kwaza the distinction between same subject and different subject is made by dedicated morphological suffixes. Also, the medial clause is inflected for person, and does not resemble the "stripped-down structure" that Longacre (2007 [1985], p. 412) observed in other clause chaining languages. Even in the case of non-third persons, where person marking would leave no doubt as to the distinctness of the subjects, subject discontinuity is marked overtly and in some situations quite redundantly, as in Aikanã example (16) and Kwaza example (17):

(16) *hisa*   *te-ka-na*   *hĩzã-ke*   *te-me-ẽ*
      I   have-1SG-DS   you-COM   have-2SG-DECL
      'I have (this pan), you have (that pan).'

(17) *si*   *isihĩ-da-si*   *ori-hĩ-ki*
      I   secure-1SG-SWR   ascend-NMLZ-DECL
      'I helped him climb up.'

Some of the characteristics of the switch-reference systems shared by Aikanã and Kwaza could be due to long term contact between the languages. Their speakers have been direct neighbours since time immemorial, they share the same cultural area, and the languages also show other traits of mutual interference (e.g. Crevels & Voort, 2008; Voort, 2005, 2016).

There are also some notable differences between Aikanã and Kwaza clause chaining and switch-reference. As seen in the above Aikanã text, as well as in other Aikanã texts (e.g. Birchall et al., 2017), the clause chain is sometimes

'interrupted' by sentential mood clauses that are not embedded. Such interruptions are conspicuously absent in the above Kwaza text, as well as in other Kwaza texts (e.g. Voort, 2004 and Voort et al., 2017, which also contain several cases of non-third person switch-reference).

Furthermore, in this and other texts the Aikanã different subject marker seems to function exclusively to signal a reference switch. In Kwaza, however, subject discontinuity marking is not the only function of the switch-reference system. This is confirmed by examples where the subject is identical across a clause chain, but nonetheless bears different subject marking:

(18) *mãrɛ̃ʼa-da-hĩ-si*   *ũtyenãi-da-rai-re*

spirit-1SG-NMLZ-SWR   know-1SG-damn-INT

'Being a Westerner, I know bugger-all.'

Apparently, as seen in examples (18), (k17-k18) and (k22-k23), pragmatic functions such as a new topic are signalled by switch-reference too. In his overview of similar phenomena widespread in South American languages, Gijn (2012) refers to non-'default' use of switch-reference systems as 'switch-attention', and proposes that it could be subject to diffusion through contact. Between the neighbouring languages Aikanã and Kwaza, however, switch-attention does not seem to have spread, as the data presented here suggest. It is nevertheless interesting that some Aikanã examples, (a10-a11), (a15-a16) and (a21), showed an opposite phenomenon, in which same subject marking has been attested in spite of the next subject being different. Note that Aikanã-Kwaza bilingualism is exclusively found with native speakers of Kwaza today. Even though there are some notable structural similarities between both isolate languages, we do not know how common such bilingualism was in traditional times.

Another significant difference with Aikanã is that the switch-reference system of Kwaza is anticipatory. Apart from announcing that the subject of the next clause will be different from the current clause or not, it also signals whether the person value of the subject of the next clause will be different or not. Thus, if the subjects of two chained clauses are different, but their person value is the same—which is obviously only possible if both are third persons—the preceding clause is marked by the derivational suffix *-di-*. This suffix indicates that the different subject of the next clause is a third person. However, when one or both subjects in a biclausal chain are not third persons, the first clause is marked by the inflectional suffix *-si*. In effect, the different subject marking system in Kwaza anticipates (by blocking the possibility of) a specific person value. Table 2 demonstrates the difference between the marking systems in Aikanã and Kwaza.

Table 2. Reference continuity in medial clause constructions. Legends: X = first, second or third person; 3 = third person; i = coreferent; j = non-coreferent.

Subjects		Medial clause		
Medial	Next	Type	Aikanã	Kwaza
Xi	Xi	DEP-SS	*-pü*	*-ta*
3i	3j	DEP-DS	*-na*	*-di-ta*
1 or 2	2 or 1	DEP/SWR-DS	*-na*	*-si*
3 or non-3	Non-3 or 3	DEP/SWR-DS	*-na*	*-si*

Anticipatory subject agreement, where the preceding clause actually identifies the subject of the next clause, is known from some Papuan languages, such as Kanite and Hua (Roberts, 1997, p. 129). Aikhenvald (2012, p. 342) suggests that Kwaza is possibly unique among South American languages in this respect.[7] However, she also points out that some Macro-Jê languages, such as Maxakali, display anticipatory switch-reference. Because this is marked on conjunctional particles, she considers this different from switch-reference in clause chaining. Nevertheless, the Kĩsêdjê (Jê) language of Brazil also shows anticipatory switch-reference on its conjunctional particles or clitics (meaning 'and'), and in doing so, it can form extended clause chains, as Nonato (2014) and Nonato et al. (2017) demonstrate.

Finally, as Table 2 shows, the forms used by Aikanã and Kwaza for distinguishing same subject and different subject are different and do not seem to be etymologically related. In this respect, a similarity between the Kwaza and Mamaindê (Nambikwaran) forms is noteworthy, as Gijn (2016) points out. Although in Mamaindê (Eberhard, 2009) switch-reference is marked by suffixes on conjunctional particles, and although other important differences exist in the system, it involves the same reference marker *-taʔ* and the different reference marker *-sĩʔ*. Because other Nambikwaran languages do not seem to have a switch-reference system, van Gijn suggests that Mamaindê could have developed it under influence from Kwaza. The formal and functional similarities are striking, to say the least.

A NOTE ON THE ORTHOGRAPHIES USED

The orthographies used for the Aikanã and Kwaza language data are partially phonemic and partially in accordance with standard practical orthographies that were established for the languages. With regard to the Aikanã data, <'> represents IPA [ʔ]; <ü> = [ø]~[ɣ]~[y]; <i> = [ə]~[ɨ]; <y> = [j]; <s> = [ts]; <x> = [tʃ]; <z> = [ð]~[z]. Nasalisation is unmarked on vowels that follow nasal consonants. The vowel <i> is in fact an allophone of /a/ in the context of a following adjacent <i>. With regard to Kwaza, <'> represents IPA [ʔ]; <i> = [ə]~[ɨ]; <y> = [j]; <b> = [ɓ]; <d> = [ɗ]; <ny> = [ɲ]; <x> = [s̠]; <tx> = [tʃ]; <ty> = [t̠]. The vowel <ɛ>, which represents [ɛ], is not in accordance with the standard practical orthography, where it should be written as <ee>. Other characters used correspond to their IPA value.

ABBREVIATIONS

The abbreviations used in this article sometimes differ from those used in previous work on Aikanã and Kwaza.

1	first person		CD	classifier/directional
2	second person		CLF	classifier
3	third person		CNTR	contrastive
ACC	accusative		CNTRX	counterexpectative
ADMON	admonitory		COLL	collective
AG	agentive		COM	comitative
ALL	allative		CONC	concessive
APPR	apprehensive		COND	conditional
CAUS	causative		DECL	declarative

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7   When Alexandra Aikhenvald pointed out the anticipatory nature of Kwaza switch-reference in a personal communication in 2010, I made the mistake of replying that Aikanã might have a similar system. This resulted in an unwarranted endnote in her book (Aikhenvald, 2012, p. 437, n. 38). *Mea culpa*.

DEP	dependent		NEG	negative
DIR	directional		NMLZ	nominaliser
DIST	distal		OBJ	object
DS	different subject		PAT	patientive
EXCL	exclamative		PFV	perfective
EXH	exhortative		PL	plural
FOC	focus		POSS	possessive
FRUST	frustrative		POT	potential
FUT	future		PREC	preconditional
GER	gerundial		PROC	procrastinative
HAB	habitual		PST	past
IMP	imperative		PURP	purposive
INC	inclusive		RED	partial reduplication
INST	instrumental		REFL	reflexive
INT	interrogative		REM	remote
INTL	intentional		SG	singular
INTR	intransitive		SS	same subject
LOC	locative		SWR	switch-reference
MAN	manner		TR	transitive
MIR	mirative		VOL	volitional

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