

On S, A, P, T, and R alignment in Malagasy Sign Language (TTM)

Nobukatsu MINOURA

1. Introduction

Malagasy Sign Language is the first language of many of the deaf people in Madagascar. Its name in Malagasy is Tenin'ny Tanana Malagasy (literally, Malagasy Hand Language) and it is abbreviated TTM (Minoura 2008). I would like to take a look into the syntactic and partial alignment of TTM.

The data have been collected in Antananarivo, Madagascar mainly from my deaf consultant M^{me} Raobelina Nivo Haingo Holy Tiana Eva¹ since August 2004. There are two kinds of data in my notebooks. (a) Scripted signing: M^{me} Eva jotted down sentences on notebooks using written Malagasy words. She was always aware that the sentences should be in TTM of the deaf people but not in written Malagasy. Although the sentences have been written using Malagasy words, most of the sentences are ungrammatical according to the written Malagasy grammar. After writing some pages, M^{me} Eva would sign the sentences to my video camera, with which I recorded her signing. Later I went over the video recording while looking at the notebooks with M^{me} Eva's writings and made corrections. That is to say that I added words, erased words, and/or changed constituent orders since sometimes M^{me} Eva did not sign exactly in the same way as she had written in the notebooks. The second type of data is (b) non-scripted signing: M^{me} Eva set up a topic and talked about it without a written script unlike in (a). M^{me} Eva also signed looking at picture books without written words and signed. I have some conversational data too. These data belong to (b). The examples copied from my past papers will be noted so. The examples from M^{me} Eva's non-scripted signing (b) will be noted e.g. (2012 NSS). The examples from M^{me} Eva's scripted signing (a) will not be noted so because they make the majority of my data. The data are represented in five lines like in Minoura (2012a, 2012b). Instead of trying to transform all of M^{me} Eva's writings into the lines of "labels", I am showing M^{me} Eva's writings and labels separately just like I did in Minoura (2012a, b). This way, linguistically untrained Malagasy people, both deaf and hearing, can read the first line and can partially know what is talked about.

(1) h-ank-any Behoririka izy ←what M^{me} Eva has written²

¹ In recent times, some Malagasy families have adopted a family name used by all the members of the family. But many Malagasy names do not have a family name as opposed to given names. In my language consultant's case, she has no family name.

² Many written Malagasy words were then mouthed when M^{me} Eva later signed. Mouthing means

AV.FUT-go-there	PLN	(s)he	←the gloss of the written words
MANKANY	BEHORIRIKA	IX ₃	←labels of TTM signs ³
go.there	PLN	(s)he	←the gloss of the TTM signs

‘(s)he will go to Behoririka’ (Minoura 2012a, b)

The line 1 represents what M^{me} Eva has written (hyphens added in order to show morph boundaries) with the glosses in the line 2. The line 3 represents the labels to the signs and the line 4 represents the glosses to the labels. I tried to make one-to-one correspondences between the labels and the signs, but this effort has not been completed, i.e. there are some many-to-one and one-to-many correspondences left. It is inevitable as spoken/written Malagasy and TTM have different categorization in their lexicons and in their grammars. You should have also noticed that the grammatical markings, e.g. AV.FUT are present in the glosses for M^{me} Eva’s writings but are lacking in the glosses for the labels of the TTM signs. This means that the grammatical most of as suggested by written Malagasy words are lacking in TTM. E.g. the AV/PV distinction is not relevant to TTM unless the PV verb in question takes a cliticized quasi-ergative (≡ genitive) actor marking. When the AV/PV distinction is irrelevant in TTM as M^{me} Eva has written down a PV form of a verb (e.g. *omena* (give [PV])), I replaced it with the AV form (e.g. MANOME (give [AV]) for the label of the sign (line 3) unless the PV form is predominantly used in written Malagasy for the verb, e.g. TIA (like [PV]) etc. Tense is not marked in TTM verbs with one exception unlike in Malagasy. The exception is that tense is marked in the oblique-case preposition signs: AMIN’NY (non-past), TAMIN’NY (past) (Minoura 2008).

2. Previous studies on S, A, P, T, and R

Haspelmath (2011) goes over the history of S-A-P-T-R⁴ terms and defines them very clearly for posterity. An intransitive clause has one argument, namely: S. A (mono-)transitive⁵ clause has two arguments: A, P. A is the “most agent-like argument of a (mono-)transitive clause.

moving the mouth as if one is pronouncing the words orally, but it does not necessarily accompany audible and understandable speech sounds. But I did not make efforts to clearly mark which signs accompanied Malagasy mouthing and which signs did not do so. Of the five lines in the examples, the top two lines are M^{me} Eva’s efforts to write down TTM signs using written Malagasy words and their translation. They may not be too relevant to TTM except for some cases where e.g. tense marking which is totally lacking in TTM verbs is mouthed.

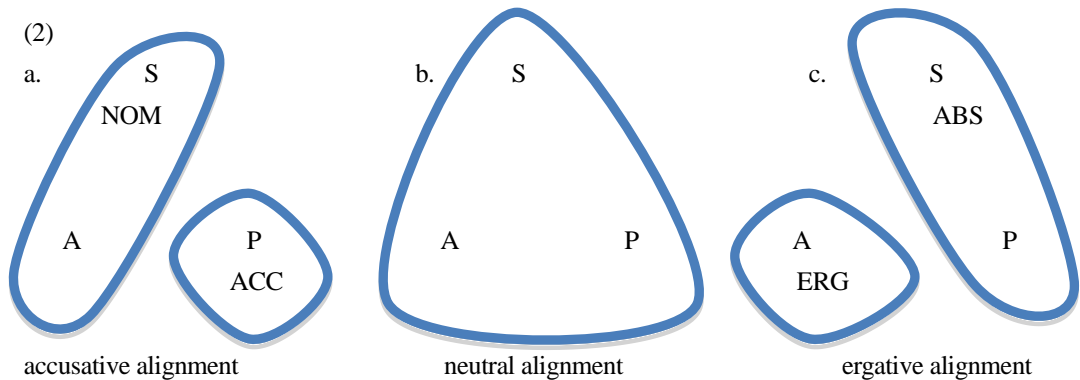
³ The labels of signs are written in all capitals.

⁴ S, A, P, T, and R should not be understood by the terms which they seem to originate from, i.e. subject, agent, patient, theme, recipient. S, A, P, T, and R are finely defined terms on their own different from the original words. For this argument, cf. Haspelmath (2011).

⁵ Haspelmath (2011) writes transitive. I added (mono-) for clarity.

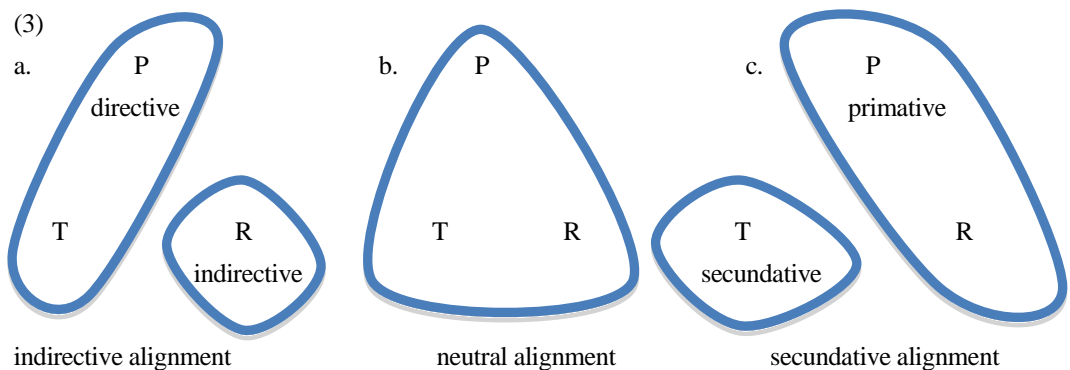
P is the “most patient-like argument of a (mono-)transitive clause. Moreover, a ditransitive clause has three arguments, namely: A, T, R. T is the “less goal-like argument of the less agent-like arguments of a ditransitive/three-place clause. R is the “more goal-like argument of the less agent-like arguments of a ditransitive/three-place clause.

As for the S-A-P alignments, Haspelmath (2011) presents the following schemata:



In a language (or a part of a language⁶) with accusative alignment, S and A are marked with the nominative case while P is marked with the accusative case. In a language (or a part of a language) with neutral alignment, S, A, and P are all marked alike. In a language (or a part of a language) with ergative alignment, S and P are marked with the absolutive case while A is marked with ergative case.

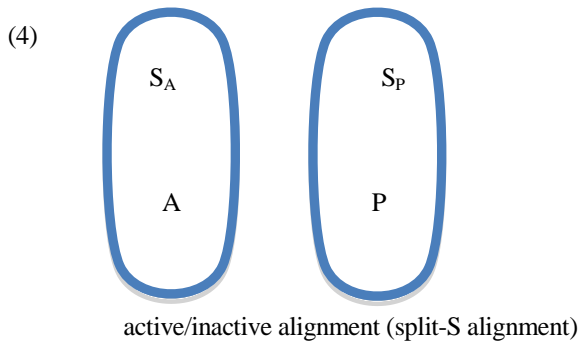
Haspelmath (ibid.) argues that P, T, and R can also be aligned in the following ways:



⁶ Tsunoda (1991 [2009]) demonstrates that one language can have different alignment patterns in it. Hence, I added “a part of a language” in parentheses.

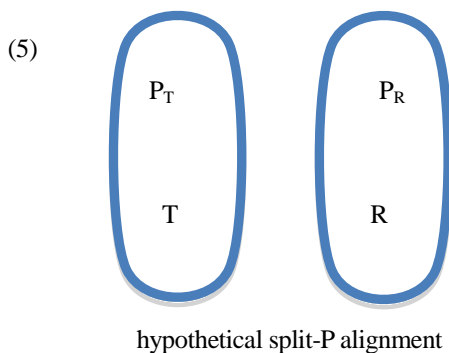
In a language (or a part of a language) with indirective alignment, P and T are marked with the same case e.g. accusative while R is marked with a different case e.g. dative. In a language (or a part of a language) with neutral alignment, P, T, and R are all marked alike. In a language (or a part of a language) with secundative alignment, P and R are marked with one case while T is marked with another case.

Moreover, Tsunoda (1991 [2009]) and Haspelmath (2011) demonstrate that there are split-S languages. A split-S language can be illustrated as follows:



In a language with split S, some Ss are marked like the As in the language while some other Ss are marked like the Ps in the language. For the typological purposes, the case for S_A and A is called active while the case for S_P and P is called inactive.

Haspelmath (2011) argues that almost all the languages might be considered split-P languages, i.e. it is very common that some Ps are marked like Ts in the language while some other Ps are marked like Rs in the language.



If some two-place verbs take nominative and dative (instead of accusative) arguments in an accusative-alignment language, this language might be considered to have a split-P alignment.

But Haspelmath (2011) rejects it by narrowing the P down to prototypical P (P_{major}). Then the nominative-dative marking in an accusative-alignment language can be rejected as non-prototypical. But in this paper, I would like to demonstrate that TTM may actually have split-P alignment although it is not morphological but partial and syntactic.

3. Examination of TTM data

In this section, I will examine data from TTM and try to argue in the end that TTM has a “syntactic” split-P alignment pattern.

3.1. Constituent order of monotransitive clauses in TTM

As for A, P, and V, Minoura (2008) demonstrates that TTM shows all the 6 possible combinations of constituent order, i.e. APV⁷, AVP, VAP, VPA, PVA, PAV. Extremely free constituent order in TTM is probably due to the clause-initial placement of topics and clause-final placement of focused elements and antitopics⁸ (Minoura 2012a, b). We will take a look at the examples in the following sections.

3.1.1. APV

Below are some examples of APV order:

(6)	ianao	zazakely	m-an-ara+maso
	you	baby	AV.PRES-VM-follow+eye
	IX ₂	ZAZAKELY	MANARA.MASO
	you	baby	watch
	A(TP)	P	V
	sao	zavatra	m-i-tsindroka
	lest	thing	AV.PRES-VM-pick
	SAO ⁹	ZAVATRA	MITSinROKA
	lest	thing	pick
	'you watch the baby so that (s)he does not pick up things (and put them into her/his mouth)' (Minoura 2008)		

⁷ In Minoura (2008), the A, P, and V are represented by S, O, and V respectively.

⁸ Topics and antitopics are called themes and afterthought themes in Minoura (2012b).

⁹ SAO (lest) in 2008 did not have manual expression but only mouthing. Later on, the TTM signers adopted the manual expression for OHATRA (if) for SAO (lest).

- (7) ankizy valala m-i-sambotra
 child locus AV.PRES-VM-catch
 ANKIZY VALALA MISAMBOTRA
 child locust catch
 A(TP) P V
 ‘the child catches a locust’ (Minoura 2008)

The APV constituent order is impossible in spoken/written Malagasy, but is quite normal in TTM.

3.1.2. AVP

I do not have enough data to show statistically meaningful percentage, but the AVP order seems to outnumber other orders in the 2008 study (Minoura 2008).

- (8) vato lalana m-an-imba bisikileta
 rock road AV.PRES-VM-break bicycle
 VATO LALANA MANIMBA BISIKILETA
 rock road break bicycle
 A(TP) V P
 ‘the rocks on the road break the bicycles’ (Minoura 2008)
- (9) zandri=ko n-an-araka mama any
 younger.sibling=GEN₁ AV.PST-VM-follow mother there
 ZANDRI=GEN₁ MANARAKA MAMA ANY
 younger.sibling=GEN₁ follow mother there
 A(TP) V P

an-tsena

ACC-market

TSENA

market

‘my younger sibling followed mother to the market there’ (Minoura 2008)

Both APV (6, 7) and AVP (8, 9) examples seem to have clause-initial topical A(TP).

3.1.3. VAP

The verb initial order (VAP and VPA) may be a result of an influence from spoken/written Malagasy. There is no clause-initial topical A in the verb-initial examples (10-14).

- (10) m-an-draraka kamiô vato
 AV.PRES-VM-scattertruck rock
 MANDRARAKA KAMIÔ VATO
 scatter truck rock
 V A P
 ‘the truck scattered rocks’ (Minoura 2008)
- (11) m-if-an-erasera izaho teny samy.hafa,
 AV.PRES-RECIP-VM-talk I language different.kinds.of,
 MIFANERASERA IX₁ TENY SAMY.HAFA,
 converse I language different.kinds.of,
 V A P(F??)
- hay sasany, ok
 know(PV) some, okay
 MAHAY SASANY, OK
 know some, okay (Minoura 2008)
 ‘I speak several different languages. I know some and it will be okay’

It is not clear if the above examples have clause-final focus (or antitopic).

3.1.4. VPA

For VPA, there is no clause-initial topical A.

- (12) m-i-tsakotsako inona ianao?
 AV.PRES-VM-chew what you?
 MITSAKOTSAKO INONA IX₂?
 chew what you?
 V P A(AT??)
 ‘what are you chewing?’ (Minoura 2008)
- (13) n-an-galatra voasary iza?
 AV.PST-VM-steal orange who?

MANGALATRA	ORANGE	IZA?
steal	orange	who?
V	P	A(F)

‘who stole the oranges?’ (Minoura 2008)

(14)	m-an-asa	anao	h-i-sakafo	izahay
	AV-VM-invite	you(ACC)	AV.FUT-VM-have.meal	we(EXCL)
	MANASA	IX ₂	misakafo	IX _{1pEXCL}
	invite	you	have.meal	we(EXCL)
	V	P		A(AT)

‘we invite you to dinner’ (Minoura 2008)

As for content question signs, there is no set position in the clause in TTM. The IZA (who) in (13) seems to be positioned in the clause-final focused position. On the other hand, the INONA (what) in (12) is not in the focused position. The IX_{1pEXCL} (we [EXCL]) seems to be positioned in the clause-final antitopic position.

3.1.5. PVA

Some of the clause-initial Ps seem to be topics (TP).

(15)	lamba	m-an-asa	izaho	be.dia.be	be.dia.be
	cloth	AV.PRES-VM-wash	I	a.lot.of	a.lot.of
	LAMBA	MANASA	IX ₁	BE.DIA.BE	BE.DIA.BE
	cloth	wash	I	a.lot.of	a.lot.of
	P(TP)	V	A	F	F

be.dia.be

a. lot.of

BE.DIA.BE

a. lot.of

F

‘I wash a lot of cloths and/or clothes’ (Minoura 2008)

(16)	inona	m-amp-i-asa	ianao,	tava	tsara
	what	AV.PRES-CAUS-VM-work	you,	face	good
	INONA	MAMPIASA	IX ₂ ,	TAVA	TSARA
	what	use	you,	face	good

- | | P | V | A(AT) | |
|------|--|-----------------------|-----------------|--------|
| | 'what do you use? your face looks good' (Minoura 2008) | | | |
| (17) | zaza | m-amp-an-dro | i ¹⁰ | mama |
| | baby | AV.PRES-CAUS-VM-bathe | DEF | mother |
| | ZAZA | MAMPANDRO | IX | MAMA |
| | baby | bathe | DEF | mother |
| | P(TP) | V | A(F??) | |
| | 'it is mother that is bathing the baby' (Minoura 2008) | | | |
| (18) | mofo | m-i-hinana | zaza | |
| | bread | AV.PRES-VM-eat | baby | |
| | MOFO | MIHINANA | ZAZA | |
| | bread | eat | baby | |
| | P(TP) | V | A(AT??) | |
| | 'the baby eats the bread' (Minoura 2008) | | | |

The clause-initial Ps in (15, 17, 18) seem to be topics (TP). The clause-initial INONA (what) may be a result of influence from spoken/written Malagasy. A content question sign can be also clause-medial (12) and clause-final (13). The clause-final BE.DIA.BE BE.DIA.BE BE.DIA.BE (a.lot.of a.lot.of a.lot.of) is definitely F with the triplication. It forms a noun phrase with the clause-initial and topical LAMBA (cloth). This is a split noun phrase with two words in between. You do not find split noun phrases like this in spoken/written Malagasy.

3.1.6. PAV

This constituent order with two noun phrases in front of the verb is impossible in spoken/written Malagasy.

- | | | | | |
|------|--|------|-----------------|--|
| (19) | tunnel | bisy | m-an-dalo | |
| | tunnel | bus | AV.PRES-VM-pass | |
| | TUNNEL | BISY | MANDALO | |
| | tunnel | bus | pass | |
| | P(TP) | A | V | |
| | 'the bus passes the tunnel' (Minoura 2008) | | | |

¹⁰ The definite article is not obligatory in TTM. It is an influence from written/spoken Malagasy. It shows up in TTM in registers nearing written/spoken Malagasy.

(20)	programa	ao	gazety	na	boky
	program	there	newspaper	or	book
	PROGRAMA	AO	GAZETY	NA	BOKY
	program	there	newspaper	or	book
	P(TP)				P(T)

izaho m-i-jery
 I AV.PRES-VM-look.at
 IX₁ MIJERY
 I look.at
 A V

‘I look at the program/recipe there in a newspaper or the book’ (Minoura 2008)

(21)	lalana	ho	any	rova	iza	m-a-hita?
	road	to	there	royal.palace	who	see?
	LALANA	HO	ANY	ROVA	IZA	MAHITA?
	road	to	there	royal.palace	who	see?
	P(TP)				A	V

‘who sees the road to the royal palace?’ (Minoura 2008)

(22)	vehivavy	hendry	izaho	tia
	woman	smart	I	like
	VEHIVAVY	HENDRY	IX ₁	TIA
	woman	smart	I	like
	P(TP)		A	V

‘I like the smart women’ (Minoura 2008)

The clause-initial Ps seem to be topics (TP) (19-22).

3.1.7. Summary of the monotransitive clauses

From the examples in the previous sections, you can see that all the 6 possible combinations of constituent order, i.e. APV, AVP, VAP, VPA, PVA, PAV are found in TTM. It is probably due to clause-initial placement of topics (TP) and clause-final placement of focused elements (F) and antitopics (AT) among other reasons.

3.2. Constituent order of ditransitive clauses in TTM

The constituent order of monotransitive clauses concerning A, P, and V is quite free in

TTM as can be seen in the section 3.1. On the other hand, the constituent order of ditransitive clauses concerning A, T, R, and V is not as free. According to Minoura (2008), the R constituent is placed right after the V unless it is positioned clause-initially because of topicalization.

3.2.1. R immediately following V

R constituents immediately follow Vs.

- (23) f-an-ampi-ana izy m-an-ome anay
 NM-VM-help-CV (s)he AV.PRES-VM-give us
 FANAMPIANA IX₃ MANOME IX_{1pINCL}
 help (s)he give us
 T(TP) A V R

‘(s)he gives us the help’ (Minoura 2008)

- (24) ao ovy iray gony, antsasany
 there potato one gunny.sack, half
 AO OVY IRAY GONY, ANTSASANY
 there potato one gunny.sack, half
 T(TP)

izaho m-an-ome anareo
 I AV.PRES-VM-give you.guys
 IX₁ MANOME IX_{2p}
 I give you.guys
 A V R

‘there is one gunny-sack-full of potatoes. I give you guys half of it’ (Minoura 2008)

In the above examples (23, 24), you can see that the R immediately follows the V. In (24), we have two clauses and the ANTSASANY (half [of it]) refers to the OVY IRAY GONY (one gunny-sack-full of potatoes) and is the topic in the second clause.

3.2.2. R immediately following V=A^{ERG}

When there is an ergative (= genitive) encliticized A attached to V, R follows the V=A^{ERG} chunk.

- (25) m-i-andry, asa ome=ny anao
 AV.PRES-VM-wait work give(PV)=GEN₃ you
 MIANDRY, ASA OMENA=GEN₃ IX₂
 wait, work give=GEN₃ you
 T(TP) V=A^{ERG} R
 ‘wait and (s)he will give you the work’ (Minoura 2008)
- (26) n-ome=ny ahy fotoana rahampitso
 AV.PST-give(PV)=GEN₃ me time tomorrow
 OMENA=GEN₃ IX₁ FOTOANA RAHAMPITSO
 give=GEN₃ me time tomorrow
 V=A^{ERG} R T
 ‘(s)he gave me the appointment for tomorrow’ (Minoura 2008)

3.2.3. Clause-initial and topicalized R

When R is topicalized, it is positioned at the beginning of the clause and logically it does not follow the V.

- (27) olona iny ianao inona m-an-ome?
 person that you what AV.PRES-VM-give?
 OLONA INY IX₂ INONA MANOME?
 person that you what give?
 R(TP) A T V
 ‘what are you giving that person?’ (Minoura 2008)
- (28) ho+anao f-an-omez-ana izaho m-an-ome
 for+you NM-VM-give-CV I AV.PRES-VM-give
 BEN(DIR)₂ FANOMEZANA IX₁ MANOME(DIR)₂
 for.you gift I give
 R(TP) T A V
 ‘I give you a gift’ (Minoura 2008)

In (27), OLONA (person) is topicalized and placed in the beginning of the clause. In (28), benefactive person agreement marker (PAM) BEN(DIR¹¹)₂ explicitly marks that the second

¹¹ Verbs, PAMs, and other signs can have direct (DIR) and inverse (INV) forms concerning inversion. As for inversion in (Japanese) Sign Language, see Minoura (2013).

person is the R. The BEN(DIR)₂ is topicalized and placed in the beginning of the clause. It is not known if the clause-initially placed, topicalized, and pronominal R always takes the form of a PAM, BEN. This is in a way morphological or rather lexical case marking. This point needs to be further investigated.

3.2.4. Summary of the ditransitive clauses

Unlike the monotransitive clauses which have been examined in the section 3.1., the ditransitive clauses do not have a totally free constituent order. At least one constituent, namely R, is placed right after the V or the V=A^{ERG} chunk unless it is topicalized and placed at the beginning of the clause.

3.3. Monotransitive clauses revisited

Looking at the data of ditransitive clauses, I came up with a naïve hypothesis that TTM is a real split-P language with the following rule (29):

- (29) Hypothesis A: the animate P acts like the R while the inanimate P acts like the T

In 2006, my language consultant, M^{me} Eva gave me the following examples.

- (30) a. Andriamanitra m-i-antso Mosesy
 God AV.PRES-VM-call Moses
 ANDRIAMANITRA MIANTSO MOSESY
 God call Moses
 A(TP) V P
 ‘God called on Moses’ (2006 NSS)
- b. ??Andriamanitra Mosesy m-i-antso
 God Moses AV.PRES-VM-call
 ??ANDRIAMANITRA MOSESY MIANTSO
 God Moses call
- (31) a. Mosesy Andriamanitra m-i-antso
 Moses God AV.PRES-VM-call
 MOSESY ANDRIAMANITRA MIANTSO
 Moses God call
 P(TP) A V
 ‘as for Moses, God called on him’ (2006 NSS)

b. ??Mosesy	m-i-antso	Andriamanitra
Moses	AV.PRES-VM-call	God
??MOSESY	MIANTSO	ANDRIAMANITRA
Moses	call	God

M^{me} Eva rejected (30b, 31b). Probably she did so not because they were ungrammatical but because they were contextually wrong, i.e. it was not what the pastor told her in a previous day at the deaf church.

Now it seems like we are dealing with some kind of animacy hierarchy. And from the examples (30, 31), you can guess that ANDRIAMANITRA (God) and MOSESY (Moses) are equal on the animacy hierarchy. It can be summed up as follows replacing (29):

- (32) When the two arguments in a monotransitive clause are equal on the animacy hierarchy, an ArgVArg clause can only be interpreted as an AVP clause, while an ArgArgV clause can only be interpreted as a PAV clause with a topicalized P(TP).

The Ps in (30a, 31a) seem behaving just like the R argument which have been examined in the section 3.2. I.e. when an argument comes right after the V, it is interpreted as P (30a), but the P can be placed at the beginning of a clause when it is topicalized (31a).

Let us now go through the data from the section 3.1. There seems to be an animacy hierarchy at work in TTM. As long as the two arguments are unequal on the animacy hierarchy, the constituent order seems to be quite free in TTM. The animacy hierarchy is something like this:

- (33) pronoun > human > animate > self-moblie inanimate > inanimate

When the A is higher in the hierarchy (33) than the P, then the constituent order is quite free. Let us look at unequal pairs first. (6) has a pronominal A and a human P and the APV order. (7) has a human A and an animate P and the APV order. (10) has a self-mobile inanimate A and an inanimate P and the VAP order. (11) has a pronominal A and an inanimate P and the VAP order. (12) has a pronominal A and an inanimate (content question) P and the VPA order. (13) has a human (content question) A and an inanimate P and the VPA order. (15) has a pronominal A and an inanimate P and the PVA order. (16) has a pronominal A and an inanimate P and the PVA order. (18) has a human A and an inanimate P and the PVA order. (19) has a self-mobile A and an inanimate P and the PAV order. (20) has a pronominal A and an inanimate P and the PAV order. (21) has a pronominal (content question) A and an inanimate P and the PAV order. (22) has a

pronominal A and a human P and the PAV order.

Let us look at pairs equal on the hierarchy (33) now. (8) has inanimate A and P and the AVP order; the rule (32) is met. (9) has human A and P and the AVP order; the rule (32) is met. (14) has pronominal A and P and the VPA order. It is not in the rule (32), but the fact that the P directly follows the V does not contradict (32) but rather enhances it. Therefore (32) should be expanded as follows:

- (34) When the two arguments in a monotransitive clause are equal on the animacy hierarchy, an ArgVArg clause can only be interpreted as an AVP clause, an ArgArgV clause can only be interpreted as a PAV clause with a topicalized P(TP), and an VArgArg clause can only be interpreted as a VPA clause with the A(AT). (Adapted from 32.)

Let us continue. (17) has a human A and a human P and the PVA order. It is a counter example to the rule (34), but the arguments seem to have semantic inequality in animacy (or agency) aside from the hierarchy.

- | | | | | |
|------|-------|-----------------------|-----|-------------|
| (35) | zaza | m-amp-an-dro | i | mama (= 17) |
| | baby | AV.PRES-CAUS-VM-bathe | DEF | mother |
| | ZAZA | MAMPANDRO | IX | MAMA |
| | baby | bathe | DEF | mother |
| | P(TP) | V | | A(F??) |
- 'it is mother that is bathing the baby' (Minoura 2008)

Semantically speaking, a baby would not bathe her/his mother. It seems that semantics (who can bathe who) and pragmatics (topicalization and focusization) outrule the hierarchy. So let us leave the animacy hierarchy (33) and the rule (34) untouched.

Let us look at another example from my fieldnotes from the year 2013.

- | | | | |
|------|------------------------|----------------------|-------------|
| (36) | sahirana | ray | aman+dreny, |
| | in.difficulty | father | OBL+mother, |
| | SAHIRANA | RAY | RENY, |
| | in.difficulty | father | mother |
| | zana=ny | m-i-antoka | vazaha |
| | child=GEN ₃ | AV.PRES-VM-guarantee | foreigner |

ZANAKA=GEN ₃	MIANTOKA	VAZAHA
child=GEN ₃	guarantee	foreigner
P(TP)	V	A(F)

‘when the father and the mother are in difficulty, foreigners carry the expenses of their child’ (2013)

If one follows the rule (34) the second clause of (36) should be interpreted as ‘their child carries the expenses of the foreigner’ instead. But semantically-speaking, the argument structure of the second clause of (36) is not ambiguous. (35) and (36) show us that the rule (34) can be violated when both the A and P are on the same rank in the hierarchy (33) when there is a semantic difference in animacy (or agency) between the A and the P.

3.4. Ditransitive clauses revisited

In my fieldnotes from the year 2013, there are minor deviations from the examples I have from Minoura (2008).

(37)	lehilahy	io	m-an-ome	toky	anao
	man	that	AV.PRES-VM-give	confidence	you(ACC)
	LEHILAHY	IO	MANOME	TOKY	IX ₂
	man	that	give	confidence	you
	A(TP)		V	T	R(F??)

‘that man has confidence in you’ (2013)

(38)	pôlisy	m-an-ome	sazy	vehivavy
	police	AV.PRES-VM-give	fine	woman
	PÔLISY	MANOME	SAZY	VEHIVAVY
	police	give	fine	woman
	A(TP)	V	T	R(F??)

‘the police gave a fine to the woman’ (2013)

In (37, 38), the R argument does not directly follow the V, but a T intervenes between the V and the R. But the argument structures in both the clauses are semantically clear and probably the R arguments in both the examples are also focused at the end of the clause each. Moreover, MANOME TOKY (have confidence) and MANOME SAZY (give fine) may form lexicalized phrases. That may be the reason the T intervene between the V and the R in each clause.

4. Conclusion

The ditransitive clauses in TTM do not have a totally free constituent order unlike monotransitive clauses, which allow all the possible six types of constituent order. Minoura (2008) argues that R is placed right after the V or the V=A^{ERG} chunk unless it is topicalized and placed at the beginning of the clause. In the section 3.4., we also looked at the examples in which the R is focused and is placed at the end of the clause.

Monotransitive clauses have all the possible six types of constituent order probably because of relatively free application of topicalization, focusization, and antitopicalization. Monotransitive arguments seem to be sensitive to the following animacy hierarchy:

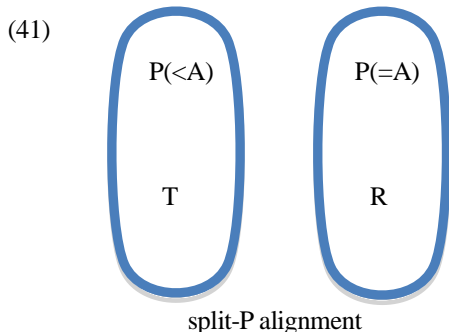
- (39) pronoun > human > animate > self-moblie inanimate > inanimate (= 33)

When the A is higher in hierarchy than the P in the hierarchy (33 = 39), then A, P, and V have a relatively free choice of constituent order. On the other hand, when the A and the P are in the same rank in the hierarchy, we have the following rule:

- (40) When the two arguments in a monotransitive clause are equal on the animacy hierarchy, an ArgVArg clause can only be interpreted as an AVP clause, an ArgArgV clause can only be interpreted as a PAV clause with a topicalized P(TP), and a VArgArg clause can only be interpreted as a VPA clause with the A(AT). (= 34)

But there are exceptions to the rule, (35, 36). In these examples, the semantics overrules the rule. In other words, one argument can be semantically regarded as higher in animacy (or agency) than the other even if the two arguments fall on the same rank in the proposed animacy hierarchy (39).

TTM does not employ case marking in the core arguments except for the ergative cliticization (cf. 25, 26). Therefore we cannot talk about morphological alignment typology by referring to Tsunoda (1991 [2009]) and Haspelmath (2011). But I would like to propose the syntactic alignment typology in TTM. Just like the R argument in ditransitive clauses, the P argument in monotransitive clauses which is in the same rank in the animacy hierarchy (39 = 33) with the A argument in the clause (P(=A)) tends to be placed right after the V unless it is topicalized. The syntactic hierarchy can be schematized as follows:



When the P (in a monotransitive clause) is equal in animacy with the A (P(=A)), it has a syntactically motivated and restricted placement within the clause just like the R (in a ditransitive clause). Both P(=A) and R are placed right after the V unless they are topicalized and placed at the beginning of a clause. (R can be placed after V and T (cf. 37, 38), but this argument is irrelevant to P.) Any P which is lower in the animacy hierarchy than the A (P(<A)) can be placed freely in a monotransitive clause just like any T in a ditransitive clause. This situation came about probably because the R is usually human and equal with the A in the animacy hierarchy just like P(=A) is with A.

So far, I have not looked at the examples where the P is higher in the animacy hierarchy than the A, e.g. “a horse kicks a person” etc. This is something I should look into in the future investigation. So far, my language consultant, M^{mc} Eva has not spontaneously given me any such examples. My guess for now is that such examples may involve an auxiliary and/or inversion¹².

Abbreviations

- affix boundary, = clitic boundary, + word boundary, ABS (absolute), ACC (accusative), Arg (argument), AT (antitopic), AV (actor voice), BEN (benefactive), CAUS (causative), CV (circumstantial voice), DEF (definite), DIR (direct), ERG (ergative), EXCL (exclusive), F (focus), FUT (future), GEN (genitive), INCL (inclusive), INV (inverse), IX (index[ing]), NM (nominalizer), NOM (nominative), NSS (non-scripted signing), OBL (oblique), p (plural), PAM (person agreement marker), PLN (place name), PRES (present), PST (past), PV (patient voice), TP (topic), TTM (Tenin’ny Tanana Malagasy, Malagasy Sign Language), VM (valency marker).

¹² Inversion means the choice of an inverse (INV) form instead of a direct (DIR) form for the verb, or for the auxiliary, or for other types of signs.

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マダガスカル手話における S, A, P, T, R アラインメントについて

箕浦 信勝

マダガスカル手話において、単他動詞節は A, P, V に関して可能な 6 つの全ての構成要素順を見せる。他方、複他動詞節において、T は自由に様々な位置に置かれることができるが、R は topic として節頭に置かれたり、あるいは antitopic として節末に置かれたとき以外は、V あるいは能格倚語的 A^{ERG} を伴った V=A^{ERG} のかたまりの直後に置かれる。R は半ば語彙化された VT のかたまりの直後に置かれることもある。

単他動詞節の構成要素順が自由なのは、実は「代名詞>人間>動物>自動無生物>無生物」という序列において A が P よりも高いか、あるいは同じ序列にあっても意味的に有情性に差があると認められる場合のみで、A と P が序列上同等である場合(P=A)), 採りうる構成要素順は、AVP, PAV (P は topic), VPA (A は antitopic) だけである。

このように、序列上 A と同等である P(=A)は、節内の分布が制限され、この状況は複他動詞節の R に類似している。このことから、P(=A)は R と統語論的に同等の振る舞いを示し、他方 A よりも低い P(<A)は単他動詞説の T 同様、節内で自由な分布を見せる。このことから、マダガスカル手話は、P, T, R に関して、統語論的に部分的な P のスプリットアラインメントを見せることを提案する。このことは、R が通常「人間」(あるいは「代名詞」)であり、序列上 A と同等 (あるいはそれ以上) であることにも理由の 1 つがあると思われる。