

Word Order in Malagasy Sign Language (TTM) ¹⁾

MINOURA Nobukatsu

Contents:

Introduction

1. The data and representation

2. Previous studies

3. Examination of the data

3.1 S + O + V

3.2. S + O + V + AUX

3.3. S + DO + IO + V

4. Summary

Conclusion and further remarks

References

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. Madagascar has about 170,000 deaf and/or hearing-impaired people according to the Federation of the Deaf in Madagascar (Federasionan'ny Marenina eto Madagasikara, abbreviated FMM). What proportion out of that number of the deaf and/or hearing-impaired people use TTM as their first language is unknown.

In this paper I am going to investigate the word order of TTM, especially that of subject, object, and verb.

1. The data and representation

The data have been collected in Antananarivo, Madagascar from my deaf language consultant M^{me} Raobelina Nivo Haingo Holy Tiana Eva in August and September of the year 2008. 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. And

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^{mc} 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^{mc} Eva's writings and made corrections. That is to say that I added words, erased words, and/or changed word orders since sometimes M^{mc} Eva did not sign exactly in the same way she had written in the notebooks.

In this paper, the TTM sentences are represented using labels. Labels are written Malagasy words, written all in capitals, roughly corresponding to the TTM signs. But I did not make efforts so that there would be one-to-one correspondence between the written Malagasy labels and the TTM signs. So one label may correspond to more than one sign and on the other hand one sign may be represented by more than one kind of label. There are several reasons for my decision. Tense is usually not marked in TTM unlike in written Malagasy as far as I know at the moment². But the tense marking in labels are retained for it may have some effects that I do not know of at the moment on top of the optional mouthing³. Present tense will not be noted, but past tense (PST) and future tense (FUT) will be marked in the glosses. As for voice, written Malagasy has actor voice (AV), object voice (OV), and circumstance voice (CV) (Rajaona 2006:179-180)⁴. In writing down TTM, M^{mc} Eva has used mostly the AV forms but sometimes also the OV forms but never the CV forms. The distinction between the AV forms and the OV forms are probably not expressed in the TTM signs. On the other hand the verbs in the OV forms sometimes incite ergative marking of the subjects as will be discussed in 3.1.7. And the distinction between the AV forms and the OV forms may have some other implications that I am not aware of at the moment, therefore I retained the AV/OV distinctions of the labels of the verbs. In the English glosses, only the OV forms are to be thus marked and the AV forms are not to be thus marked. On the other hand some TTM verbs and other TTM signs have the inverse (INV) forms as opposed to the unmarked direct (DIR) forms, which distinction does not correspond to anything in written Malagasy. Topicalization by NMS (non-manual signals) is found in many signed languages. But so far I have not isolated the NMS for topicalization in TTM. Personal pronouns are represented by IX (indexing) plus number (e.g. IX-1, IX-2) since the seeming case differences among the labels are not relevant in TTM except for the genitive-ergative-case enclitics which are represented as GEN. Directionals are not replaced by IX (indexing) since the difference between AO (there, not too far, not in sight), ANY (there, far, not in sight), etc. actually are present in the signs.

I do have video recordings of spontaneous speech (monologue) and spontaneous conversation (dialogue) from the year 2007. But only very little number of sentences which contain subject, object, and verb are found. It seems like the topic tends to persist for a long time and the topic is not reinforced by a pronoun nor repeated by the noun itself, hence it is hard to find sentences with subject, object, and verb. It is the main reason I am employing the data collected from M^{mc} Eva this year.

2. Previous studies

There have been no previous scientific studies on TTM grammar except for some sporadic mentions of TTM grammar in the Gazette of the Deaf (Gazetin'ny Marenina) of the FMM. Otherwise, FMM is about to publish the first dictionary of TTM. Therefore I need to turn to the studies on other signed languages. Rathmann (2001:189) says, "those languages which use PAM⁵⁾ do not seem to have fixed word order on the surface, whereas those which do not have PAM seem to have more restricted word order, in particular SVO word order." TTM does not seem to have PAM for direct cases or rather, PAM does not appear in the data that I have collected this year if there actually is or are in TTM, but TTM seems to have no particular word order as is shown in this paper. Susan Fischer (p.c.) on the other hand says that there should be at least one noun phrase (a subject or an object) before a verb in a (simplex) sentence of a signed language, which I will discuss later in this paper.

- (1) Fischer's principle: there should be at least one noun phrase before a verb.

3. Examination of the data

In this section, I will go through actual data.

3. 1. S + O + V

I will go through the examples which contain subject, object, and verb but not an auxiliary.

3. 1. 1. SOV

This word order is not possible in written Malagasy but the Fischer's principle (1) holds for this word order.

- | | | | | |
|-----|----------------------------------|----------|-----------|------|
| (2) | IX-1 ⁶⁾ | PROGRAMA | MANDAMINA | IZAO |
| | I | program | arrange | now |
| | S | O | V | |
| | "I am arranging the program now" | | | |
-
- | | | | | |
|-----|--|-------------|-------------|------|
| (3) | IX-2 ⁷⁾ | ZAZAKELY | MANARA.MASO | SAO |
| | you | baby | watch | lest |
| | S | O | V | |
| | ZAVATRA | MITSINDROKA | | |
| | thing | pick at | | |
| | "you watch the baby so that (s)he does not pick up things and put them into his/her mouth" | | | |
-
- | | | | |
|-----|------------------------------|--------|------------|
| (4) | ANKIZY | VALALA | MISAMBATRA |
| | child | locust | catch |
| | S | O | V |
| | "the child catches a locust" | | |
-
- | | | | | | |
|-----|--|--------|--------|-------|-------|
| (5) | DADA | NAMANA | MANASA | FETY | ANY |
| | father | friend | invite | feast | there |
| | S | O | V | | |
| | "father is inviting a friend over for a feast there" | | | | |

The subjects in the above examples may be topics, but I have not been able to isolate the relevant NMS for topicalization in TTM yet.

3.1.2. SVO

This word order is possible in written Malagasy and the Fischer's principle (1) holds for this word order.

- | | | | | | | |
|-----|--|--------|---------------------------|-----|------------|---------|
| (6) | IX-1 ⁸⁾ | VITA | OMALY, IX-2 ⁹⁾ | ZAO | MANARY | FAKO |
| | I | finish | yesterday you | now | throw.away | garbage |
| | | | S | | V | O |
| | "I did it yesterday so you throw the garbage away now" | | | | | |

In this example, IX-1 and IX-2 are in contrast so they should be topicalized and probably that is the reason they are in the beginning of each clause.

- (7) VATO LALANA MANIMBA BISIKILETA
 rock road break bicycle
 S V O
 “the rocks on the road broke the bicycle”
- (8) FIRY IX-2⁽⁹⁾ AO MITONDRA MOFO
 how.many you there bring bread
 S V O
 “how many loaves of bread did you bring there?”

In (8), FIRY and MOFO are not adjacent to each other. I doubt such a case is possible in written Malagasy.

- (9) ZANDRI-GEN-1⁽¹¹⁾ NANARAKA⁽¹²⁾ MAMA ANY
 younger.sibling-my (PST)follow mother there
 S V O
 AN-TSENA
 at.market
 “my younger sibling followed mother to the market there”

Both in SOV word order and in SVO word order, the S may be the topic, but why M^{mc} Eva chose SOV over SVO or vice versa is not very clear.

- (10) IX-1⁽¹³⁾ TIA RANO TSOTRA SY SAKAY AZA HADINO
 I like water plain and chili don't forget
 S V O
 “I like plain water and don't forget chili sauce”

TIA (10) is an object-voice (OV) verb in written Malagasy and it can take an ergative subject both in written Malagasy and in TTM, but it does not here.

The subjects in the above examples may be topics (in the example 6 for sure), but I have not been able to isolate the relevant NMS for topicalization in TTM.

3. 1. 3. VSO

This word order is possible in written Malagasy, but the Fischer's principle (1) does not hold for this word order for there is no noun phrase before the verb. The sentences in VSO word order but with the ergative marking on the subject will be discussed in 3.1.7.1. In this section, only the sentences in VSO word order with the subject unmarked for case are discussed.

- | | | | | |
|------|--|----------------------|--------------------|--------------------|
| (11) | MANDRARAKA | | KAMIÔ | VATO ¹⁴ |
| | scatter | | truck | rock |
| | V | | S | O |
| (12) | MANKANY | MANKANY | IX-3 ¹⁵ | MAZOTO |
| | go.to | go.to | (s)he | diligent |
| | V | V | S | |
| | AMBANIVOHITRA | | | |
| | country.side | | | |
| | O | | | |
| | “(s)he goes diligently to the country side over and over” | | | |
| (13) | MIFANERASERA | IX-1 ¹⁶) | TENY | SAMY.HAFA, |
| | converse | I | language | different.kinds.of |
| | V | S | O | |
| | HAY ¹⁷ | SASANY, | OK | |
| | know(OV) | some | okay | |
| | “I speak several different languages. I know some and it will be okay” | | | |

These sentences above may have no topicalized noun phrase, but I cannot say that for sure because I have not been able to isolate the relevant NMS for topicalization in TTM.

3. 1. 4. VOS

This word order is possible in written Malagasy, but the Fischer's principle (1) does not hold for this word order for there is no noun phrase before the verb.

- (14) MITSAKOTSAKO INONA IX-2¹⁸⁾
 chew what you
 V O S
 “what are you chewing?”
- (15) MBOLA HANOME¹⁹⁾ FANOMEZANA IX-1²⁰⁾
 still (FUT)give gift I
 V O S
 “I will still give a gift”
- (16) NANGALATRA²¹⁾ VOASARY IZA
 steal orange who
 V O S
 “who stole the oranges?”
- (17) HANKANY²²⁾ BEHORIRIKA IX-3²³⁾
 (FUT)go-to Behoririka (s)he
 V O S
 “(s)he will go to Behoririka”
- (18) MANASA IX-2²⁴⁾ IISAKAFO²⁵⁾ IX-1.PL.EXCL²⁶⁾
 invite you (FUT)have.meal we(EXCL)
 V O S
 “we invite you over for dinner”

This VOS word order maybe a result of influences from written Malagasy since this is the unmarked AV word order in written Malagasy, but the non-sentence-initial placement of the interrogative signs (14, 16) is unique to TTM since the interrogative words tend to be placed sentence-initially in written Malagasy.

3. 1. 5. OVS

This word order is possible in written Malagasy and the Fischer’s principle (1) holds for this word order. The sentences in OVS word order but with the ergative marking on the subject will be discussed in 3.1.7.2. In this section, only the sentences in OVS word order with the subject unmarked for case are discussed.

- (19) LAMBA MANASA IX-1²⁷⁾ BE.DIA.BE BE.DIA.BE
 cloth wash I a.lot.of a.lot.of
 O V S
 BE.DIA.BE
 a. lot.of
 “I wash a lot of cloths and/or clothes”
- (20) INONA MAMPIASA IX-2²⁸⁾, TAVA TSARA
 what use you, face good
 O V S
 “what do you use? your face looks good”
- (21) TENDROMBOHITRA IRY HANKENY IX-1²⁹⁾ I ZAO
 mountain that (FUT)go.there I now
 O V S
 “I am going to that mountain now”
- (22) ZAZA MAMPANDRO IX-3³⁰⁾ MAMA
 baby bathe the mom
 O V S
 “mom is bathing the baby”
- (23) MOFO MIHINANA ZAZA
 bread eat baby
 O V S
 “the baby is eating the bread”

In the above examples, perhaps the objects are the topics, but I have not been able to isolate the relevant NMS for topicalization in TTM.

3. 1. 6. OSV

This word order is not possible in written Malagasy, but the Fischer’s principle (1) holds for this word order for there is more than one noun phrase before the verb.

- (24) TUNNEL BISY MANDALO
 tunnel bus pass

- O S V
 “the bus passes the tunnel”
- (25) PROGRAMA AO GAZETY NA BOKY IX-1³¹⁾ MIJERY
 program there newspaper or book I look.at
 O S V
 “I look at the program (recipe) there in a newspaper or in a book”
- (26) BOKY MPIANATRA IX-1³²⁾ MITADY, TSY
 book student I look.for NEG
 O S V
 MAHITA, GAGA
 see surprised
 “I am looking for student’s book, but I don’t find one and I am surprised”
- (27) LALANA HO ANY ROVA IZA MAHITA
 road to there royal.palace who see
 O S V
 “who sees the road to the royal palace?”
- (28) INONA FANOMEZANA IX-2³³⁾ NAIIAZO³⁴⁾
 what gift you (PST)receive
 O S V
 “what gift did you receive?”
- (29) VEHIVAVY HENDRY IX-1 TIA³⁵⁾
 woman smart I like(OV)
 O S V
 “I like smart women”

With all the OSV examples (24-29), there is a feeling that the objects are probably topicalized although the NMS for topicalization has not been isolated clearly yet in TTM.

3. 1. 7. Ergative marking

TTM has ergative-case marking. It is probably an influence from written/spoken Malagasy, which has ergative-case marking in the OV and CV verb forms. TTM ergative-case marking does not have a special handshape unlike the genitive pronouns in American Sign Language

(open-B-handshape), the genitive pronouns in British Sign Language (S-handshape), the accusative PAM in German Sign Language (bent-L-handshape), or the benefactive PAM in German Sign Language (F-handshape) (Rathmann 2001). TTM ergative-case marker is identical with the TTM genitive-case marker and both are labeled GEN in the examples. The GEN has 1-handshape unless otherwise noted. Therefore it is identical with the IX as for its handshape. But it is prosodically different from IX. An IX gets a word stress. But a GEN is an enclitic to the preceding sign, i.e. a noun if it is genitive and a verb if it is ergative. The host sign and the enclitic GEN are pronounced in one go like a compound and the GEN does not get a word stress and is dependent on the host prosodically. And in some cases GEN copies the handshape of the host, i.e. the preceding sign.

The ergative-case marking limits the possibility of word order. When the ergative-case marking is present, the only choices of word order are $V S^{ERG} O$ and $O V S^{ERG}$ for the S^{ERG} needs to immediately follow the V.

3.1.7.1. $V S^{ERG} O$

This word order with ergative-case marking is possible in written Malagasy, but Fischer's principle (1) does not hold for this word order.

- | | | | | |
|------|---------------------------------------|--------------------------|---------|--------|
| (30) | TIA-GEN-2 ³⁶ | HAFa | TOERANA | AIZA |
| | like(OV)-you | other | place | where |
| | V-S ^{ERG} | | O | |
| | “what other places do you like?” | | | |
| (31) | TSY | HITA-GEN-1 ³⁷ | HEVITRA | ATAO |
| | NEG | see(OV)-I | thought | do(OV) |
| | | V-S ^{ERG} | O | |
| | “I do not see an idea what to do” | | | |
| (32) | AZAFADY | TIA-GEN-2 ³⁸ | INONA | SAKAFO |
| | please | like(OV)-you | what | meal |
| | | V-S ^{ERG} | | O |
| | “please tell me what you want to eat” | | | |
| (33) | HITA-GEN-1.PL.INCL ³⁹ | OMALY | DADATOA | ANATY |
| | see(OV)-we (INCL) | yesterday | uncle | inside |

V-S^{ERG} O
 AOTOMOBILINA
 car
 “we saw uncle inside the car yesterday”

The following example is not a case of ergative marking.

- (34) LASA- -N'NY.RIVOTRA IX-3⁴⁰⁾ BALLON
 carry.off(OV) wind the balloon
 V S O
 “the wind carried off the balloon”

In this last example, the labels in written Malagasy show ergative marking, but the manual expression does not show ergativity of the subject unlike the examples above. The signs for LASA and RIVOTRA are not pronounced in one go like a compound, but probably the word order (VS) has been conditioned by the VS word order in written Malagasy.

3. 1. 7. 2. O V S^{ERG}

This word order with ergative-case marking is possible in written Malagasy and Fischer's principle (1) holds for this word order.

- (35) TENIN'NY.TANANA MARENINA TANY⁴¹⁾ MAHAJANGA
 sign.language deaf (PST)there Mahajanga
 O
 TSY AZO-GEN-1⁴²⁾, HAINGANA BE
 NEG get(OV)-I fast big
 V-S^{ERG}
 “I did not understand the deaf sign language there in Mahajanga. It was very fast”
- (36) VOLA HADINO-GEN-1 ANY AN-TRANO, OLANA
 money forget(OV)-I there in.house problem
 O V-S^{ERG}
 “I left money there in the house and it is a problem”

- (37) TOMPO-GEN-3⁴³⁾ TSY.FANTATRA-GEN-1⁴⁴⁾
 lord-its NEG.know(OV)-I
 O V-S^{ERG}
 “I do not know its owner”
- (38) RANO TAPA- -JINGA IHANY ILAINA-GEN-1⁴⁵⁾
 water half dipper only need(OV)-I
 O V-S^{ERG}
 “I need only half a dipper of water”

With all the O V S^{ERG} examples (35-38), there is a feeling that the objects are probably topicalized just like in the OSV examples in 3.1.6. although the NMS for topicalization has not been isolated clearly yet in TTM.

3. 1. 8. Noun incorporation

When noun incorporation which is present in written Malagasy is followed in TTM, it fixes the V O^{INC} word order.

- (39) IZA MANAPA- -KEVITRA ZAO
 who cut thought(INC) now
 S V O^{INC}
 “who has made the decision now?”

But the following example is not an example of noun incorporation.

- (40) IX-1 MBOLA HANASA.LOHA⁴⁶⁾ VETIVETY
 I still (FUT)wash.head quickly
 S VO
 “I am yet to wash my head quickly”

In this example, the verb-object combination HANASA.LOHA looks like a case of noun incorporation, but it simply is a single sign in TTM, thus it is not a case of noun incorporation.

3.1.9. Summary of the S + O + V section

Since the number of sentences that I have gathered this year is not very big, it should not have much statistical meaning, but just to show that all the possible six patterns of S, O, V word order are found in TTM, I am showing the distribution of each pattern in a table in figure 1.

<figure 1> Distribution of the patterns

pattern	count	written Malagasy	Fischer's principle(1)
SOV	11	-	+
SVO	32	+	+
VSO	11 (of which V S ^{ERG} O: 7)	+	-
VOS	6	+	-
OVS	22 (of which O V S ^{ERG} : 13)	+	+
OSV	11	-	+

The patterns which are found in written Malagasy and with which Fischer's principle (1) holds have bigger numbers (SVO: 32, OVS: 22). But other patterns are also found in my data. Since there is no strict word order in TTM and there is no PAM in my data, the subjecthood of a noun phrase in a sentence and the objecthood of a noun phrase in a sentence should be determined by animacy, ergativity, semantics, context, etc. Some sentences have units which have set word order like V S^{ERG} and V O^{INC}. But most of the sentences are not affected by these rules. The factors which determine the word order may have something to do with the functional sentence perspective, but this point needs to be further investigated in the future.

3.2. S + O + V + AUX

When you add AUX (auxiliary) to S, O, and V, the situation gets more chaotic. AUX does not seem to have a preferred place in a sentence, be it sentence-initial, sentence-final, pre-verbal, or post-verbal. In written Malagasy, AUX is placed before the verb so the situation in TTM and the situation in written Malagasy contrast with each other drastically. Let us look into the example sentences.

3.2.1. Sentence-initial AUX

- (41) TIA-GEN-2⁴⁷⁾ ANTSOINA VE NAMANA, AHOANA
 like(OV)-you summon(OV) Y/N-Q friend how
 AUX-S^{ERG} V O
- “do you want to call the friend over? how?”
- (42) TSARA IX-2⁴⁸⁾ TENIN’NY.TANANA JAPONEY MIANATRA
 good you sign.language Japanese study
 AUX S O V
- “it is good that you study Japanese Sign Language”
- (43) EFA VITA⁴⁹⁾ TENIN’NY.TANANA JAPONEY MIANATRA IX-3⁵⁰⁾
 already finish sign.language Japanese study (s)he
 AUX AUX O V S
- “(s)he has already finished studying Japanese Sign Language”
- (44) EFA NOME-GEN-3⁵¹⁾ INONA FANOMEZANA
 already give(OV)-(s)he what gift
 AUX V-S^{ERG} O
- “what gift has (s)he given already?”

Sentence-initial placement of AUX is similar to the placement of AUX in written Malagasy when the AUX is immediately followed by a verb (44) or by an ergative enclitic and a verb (41). Examples (42, 43) with the dependent verb placed far from the sentence-initial AUX are very different from written Malagasy. The sentence-initial AUX may be some kind of a predicate if not a comment/rheme.

3.2.2. Sentence-final AUX

- (45) LOLO SAKA MISAMBOTRA AZO
 butterfly cat catch can(OV)
 O S V AUX
- “the cat can catch a butterfly”
- (46) IX-1⁵²⁾ MANASA LOVIA VITA

I	wash	dish	finish
S	V	O	AUX

“I finished washing dishes”

The sentence-final auxiliaries seem to have a feeling of a rheme or a comment while the dependent clause being a topic. This word order is totally foreign to written Malagasy.

3. 2. 3. Sentence-final AUX-S^{ERG}

(17)	IX-2 ⁵³⁾	MIJERY	VEHIVAVY	TIA-GEN-2 ⁵⁴⁾ ,	TSARA
	you	watch	woman	like(OV)-you	good
	S	V	O	AUX-S ^{ERG}	

MANAM.BADY⁵⁵⁾
get.married
“you like watching women. you’d better get married”

In the above sentence, the subject is expressed sentence-initially as a topic, but it is repeated as an enclitic. Something similar to this phenomenon is not known in written Malagasy.

3. 2. 4. Pre-verbal AUX

(48)	IX-3 ⁵⁶⁾	VITA	MITENY	IX-1 ⁵⁷⁾	OMALY
	(s)he	finish	tell	me	yesterday
	S	AUX	V	O	

“(s)he had told me yesterday”

(49)	ANKIZY	TSARA	MIHINANA	GOÛTER
	child	good	eat	snack
	S	AUX	V	O

“it is good for children to eat snacks”

(50)	IX-1 ⁵⁸⁾	TIA ⁵⁹⁾	ZAVATRA	MIJERY	NA	SAKAFO	MIVIDY
	I	like(OV)	thing	watch	or	food	buy
	S	AUX	O	V		O	V

- “I like watching things or buying food”
- (51) IX-1⁶⁰⁾ FANOMEZANA VITA MANOME
 I gift finish give
 S O AUX V
- “I have given the gift”
- (52) KATÔLIKA SEKOLY TIA MAHANTRA MANAMPY
 catholic school like(OV) poor help
 S AUX O V
- “the catholic schools like to help the afflicted”
- (53) TOERANA EFA MAHAFANTATRA IX-1⁶¹⁾
 place already know I
 O AUX V S
- “I already know the place”

When the auxiliary immediately precedes the verb, it looks similar to written Malagasy (48, 49, 53) except when the AUX verb unit is preceded by a subject and an object (51). When an object intervenes between the AUX and the verb, it looks very foreign to written Malagasy (50, 52))

3. 2. 5. Post-verbal AUX

- (54) IX-3⁶²⁾ MAMPIANATRA VITA IX-1.PLEXCL⁶³⁾
 (s)he teach finish us
 S V AUX O
- TALOHA
 long.time.ago
 “(s)he has taught me long time ago”
- (55) MIKARAKARA FITAFIANA MAHAY IX-3⁶⁴⁾
 take.care.of clothing can (s)he
 V O AUX S
- “(s)he can take care of the clothings”

There are not too many cases where the AUX follows the V. Probably it has something to do with the functional sentence perspective or the topicalization. E.g. in the sentence (54), the VO unit MIKARAKARA FITAFIANA “take.care.of clothing” is perhaps topicalized and placed at the beginning of the sentence. But the relevant NMS haven’t been identified.

3. 2. 6. Summary S + O + V + AUX

When you add AUX to subject, object, and verb, it seems that AUX enjoys free placement in a sentence, be it sentence-initial, sentence-final, pre-verbal, or post-verbal. This contrasts greatly with the situation of AUX in written Malagasy where it is placed pre-verbally.

3. 3. S + DO + IO + V

When you look at sentences with S, DO, IO, and V, there does not seem to be much of a pattern. The only tendency seems to be that the IO comes right after the V unless it is topicalized and placed at the beginning of the sentence or unless it follows the V + S^{ERG} unit.

3. 3. 1. IO immediately following V

- | | | | | | | |
|------|--|-----------------------|--------|----------------------------|-----------|--------------------|
| (56) | FANAMPIANA | IX-3 ⁶⁵ | MANOME | IX-1.PL.INCL ⁶⁶ | | |
| | help | (s)he | give | us(INCL) | | |
| | DO | S | V | IO | | |
| | “(s)he gives us help” | | | | | |
| (57) | AO | OVY | IRAY | GONY, | ANTSASANY | IX-1 ⁶⁷ |
| | there | potato | one | gunny.sack | half | I |
| | | | | | DO | S |
| | MANOME | IX-2.PL ⁶⁸ | | | | |
| | give | you.guys | | | | |
| | V | IO | | | | |
| | “there are one gunny sack of potatoes. I give you guys half of it” | | | | | |

In the above examples, it can be observed that IO comes right after the verb.

3.3.2. IO following V S^{ERG}

- (58) MIANDRY, ASA OME-GEN-3⁽⁶⁹⁾ IX-2⁽⁷⁰⁾
 wait work give(OV)-he you
 DO V-S^{ERG} IO
 “wait and (s)he will give you work”
- (59) NOME-GEN-3⁽⁷¹⁾ IX-1⁽⁷²⁾ FOTOANA RAHAMPITSO
 give(OV)-(s)he me time tomorrow
 V-S^{ERG} IO DO
 “(s)he gave me the appointment for tomorrow”
- (60) NOME-GEN-1⁽⁷³⁾ IX-3⁽⁷⁴⁾ AKANJO FANOMEZANA
 give(OV)-I him/her clothes gift
 V-S^{ERG} IO DO
 “I gave him/her clothes as a gift”

In the above examples, the IO cannot come right after the verb because the ergative subject clitic intervenes between them.

3.3.3. Sentence-initial IO

- (61) OLONA INY IX-2⁽⁷⁵⁾ INONA MANOME
 person that you what give
 IO S DO V
 “what are you giving that person?”
- (62) BEN-2⁽⁷⁶⁾ FANOMEZANA IX-1⁽⁷⁷⁾ MANOME
 for.you gift I give
 IO DO S V
 “I give you a gift”

The sentence-initial IO is probably a topicalized IO. In the example (62), the IO is overtly marked by the benefactive PAM.

3.3.4. Summary S + DO + IO + V

As for the word order of sentences with a ditransitive verb, the only constituent that has a set position is IO. IO comes right after the verb or it comes after the V S^{ERG} unit or it comes sentence-initially when it is topicalized.

When you see that IO has a set position in a sentence, you might wonder maybe an animate O in a sentence with a transitive verb behaves the same way. But that is not the case. There are counterexamples for that. I.e. SOV sentences with an animate O: examples (3, 5). The animate O in these examples are neither placed after a verb nor topicalized and placed at the beginning of the sentence.

4. Summary

When you look at the word order of S, O, and V in TTM, you find all the six possible patterns, i.e. SOV, SVO, VSO, VOS, OVS, OSV. But it seems like the patterns which are found in written Malagasy and with which Fischer's principle (1) holds are preferred, i.e. SVO, OVS. But the patterns which are not found in written Malagasy are also found, i.e. SOV, OSV. And the patterns with which Fischer's principle does not hold are also found, i.e. VSO, VOS. But there are two minor factors which determine a part of the word order. When the S is in ergative case, it follows the V. When there is noun incorporation, the word order is V O^{INC}. With the free word order and without a PAM, the subjecthood of a noun phrase in a sentence and the objecthood of a noun phrase in a sentence should be determined by animacy, ergativity, semantics, context, etc. And the functional sentence perspective may be playing some roles in determining the word order, but it is not clear how it plays the roles at the moment.

When AUX comes into the scene, it looks very different from what you see in written Malagasy. In written Malagasy, AUX comes right before the dependent V. But in TTM, AUX comes sentence-initially, sentence-finally, pre-verbally, and post-verbally. Again, functional sentence perspective may have something to do with the placement of AUX, but this has not been fully examined in this paper.

As for the word order of sentences with a ditransitive verb, the only constituent that has a set position is IO. IO comes right after the verb or it comes after the V S^{ERG} unit or it comes sentence-initially when it is topicalized.

Conclusion and further remarks

TTM has pretty much free word order. The only set orders are: V^{ERG}, V^{O^{INC}}, V IO. But when both ^{ERG} and IO are involved, they are arranged V^{ERG} IO. AUX is placed sentence-initially, sentence-finally, pre-verbally, and post-verbally. And probably functional sentence perspective plays a big role in determining the word order of a sentence in TTM, but this point has not been much investigated in this paper. One needs to record spontaneous speech and spontaneous dialogues in the future so as to get clearer NMS showing topicalization and other clues concerning functional sentence perspective. And to determine what is subject and what is object, animacy, ergativity, semantics, and context are involved. One thing which needs to be done in the future is to find out what happens when the animacy of the subject and the object are equal, which point has not been looked into in the present paper.

References

- Rajaona, Simeon 2006
 “Particularités de la langue malgache”, *Madagascar Fenêtres, Aperçus sur la Culture Malgache*, pp. 176-186, CITE, Antananarivo.
- Rajemisa Raolison, Régis 1969
Grammaire Malgache, 6^{ème} Édition, Centre de Formation Pédagogique, Fianarantsoa.
- Rathmann, Christian 2001
 “The Optionality of Agreement Phrase: Evidence from German Sign Language (DGS)”, William Earl Griffin, *Texas Linguistics Society 2001 Conference Proceedings, The Role of Agreement in Natural Language*, pp. 181-192, Texas Linguistics Society.
-
- 1) This study has been supported partially by the Grant-in-Aid for Scientific Research (B) (#19401041, title: “Comparative study of the common structures and differences of the linguistic culture of Madagascar based on the mutual act analysis of oral conversation and sign language,” headed by Hideo Fukazawa) and partially by the Grant-in-Aid for Exploratory Research (#18652036, title: “Descriptive study of the grammar of Malagasy Sign Language,” headed by Nobukatsu Minoura) both by the Japan Society for the Promotion of Science. I am especially indebted to my deaf language consultant of TTM, M^{me} Raobelina Nivo Haingo Holy Tiana Eva. The abbreviations are: AUX: auxiliary, AV: actor voice, BEN: benefactive, CV: circumstance voice, DIR: direct, DO: direct object, ERG: ergative, EXCL: exclusive, FMM: Federasionan’ny Marekina eto Madagasikara or Federation of the Deaf in Madagascar, FUT: future tense, GEN: genitive, INC: incorporation/incorporated, INCL: inclusive, INV: inverse, IO: indirect object, IX: index(ing), NMS: non-manual signals, O: object, OV: object voice, PAM: person agreement marker, PL: plural, PST: past tense, S: subject, TTM: Tenin’ny Tanana Malagasy or Malagasy Sign Language, V: verb, Y/N-Q: yes/no-question.
- 2) Tense is not marked in verbs nor directionals in TTM unlike in written Malagasy. But it is marked in the oblique-case preposition: AMIN’NY (non-past), TAMIN’NY (past).
- 3) Mouthing is the movement of the mouth of the signer which is made as if to say the word in a spoken language. The actual speech sound is sometimes understandably heard, but mostly unintelligible or silent.
- 4) AV, OV, and CV in Rajaona (2006:179-180), written in French, are *voix agentive*, *voix objective*, and *voix circonstancielle* respectively. In older grammar using terminology from French grammar (Rajemisa Raolison

- 1969:76), they are *voix active*, *voix passive*, and *voix relative* (or *voix circonstantielle*) respectively.
- 5) PAM stands for **person agreement marker**, which is a sign used with a verb in some signed languages to mark the person agreement.
 - 6) IX stands for *index(ing)*. IX-1 is first person. IX-2 is second person. IX-3 is third person. In this particular case, M^{mc} Eva wrote AHO (I, unmarked case). IX is singular unless marked PL.
 - 7) M^{mc} Eva wrote IANAO (you, unmarked case).
 - 8) M^{mc} Eva wrote AHO (I, unmarked case).
 - 9) M^{mc} Eva wrote IANAO (you, unmarked case).
 - 10) M^{mc} Eva wrote IANAO (you, unmarked case).
 - 11) M^{mc} Eva wrote ZANDRIKO where -KO is the genitive-case first-person singular enclitic. The genitive pronominal signs are enclitics and are different from other IX signs. They are signed in one go with the previous signs like compounds in a way. In other words, they are prosodically dependent on the previous signs and do not get an independent word stress assigned.
 - 12) The label NANARAKA is in the past tense for MANARAKA, but the pastness is not marked in the sign.
 - 13) M^{mc} Eva wrote AHO (I, unmarked case).
 - 14) In written Malagasy, the VSO word order is possible in the object voice, but in this context, the sentence in the VOS word order in the actor voice is more natural.
 - 15) M^{mc} Eva wrote IZY ([s]he, unmarked case).
 - 16) M^{mc} Eva wrote AHO (I, unmarked case).
 - 17) The label HAY is the OV form of MAHAY, but the OV is not marked in the sign.
 - 18) M^{mc} Eva wrote IANAO (you, unmarked case).
 - 19) The label HANOME is the future tense form of MANOME, but the futurity is not marked in the sign.
 - 20) M^{mc} Eva wrote AHO (I, unmarked case).
 - 21) The label NANGALATRA is the past tense form of MANGALATRA, but the pastness is not marked in the sign.
 - 22) The label HANKANY is the future tense form of MANKANY, but the futurity is not marked in the sign.
 - 23) M^{mc} Eva wrote IZY ([s]he, unmarked case).
 - 24) M^{mc} Eva wrote ANAO (you, accusative case), but there is no case marking on this indexing sign.
 - 25) The label HISAKAFO is the future tense form of MISAKAFO, but the futurity is not marked in the sign.
 - 26) M^{mc} Eva wrote IZAHAY (we, exclusive, unmarked case).
 - 27) M^{mc} Eva wrote AHO (I, unmarked case).
 - 28) M^{mc} Eva wrote IANAO (you, unmarked case).
 - 29) M^{mc} Eva wrote AHO (I, unmarked case).
 - 30) M^{mc} Eva wrote I, the definite article for a personal name, but the sign is just an indexing.
 - 31) M^{mc} Eva wrote AHO (I, unmarked case).
 - 32) M^{mc} Eva wrote AHO (I, unmarked case).
 - 33) M^{mc} Eva wrote IANAO (you, unmarked case).
 - 34) The label NAHAZO is the past-tense form of MAHAZO, but the pastness is not marked in the sign.
 - 35) TIA is an OV verb and it can have an ergative subject like in written Malagasy (cf. 3.1.7.), but actually it behaves just like an AV verb and has an unmarked subject in this TTM sentence.
 - 36) M^{mc} Eva wrote TIANAO. -NAO is the second person singular genitive enclitic in written Malagasy.
 - 37) M^{mc} Eva wrote HITAKO. -KO is the first person singular genitive enclitic in written Malagasy.
 - 38) M^{mc} Eva wrote TIANAO. -NAO is the second person singular genitive enclitic in written Malagasy.
 - 39) M^{mc} Eva wrote HITANTSIKA. -NTSIKA is the first person plural inclusive genitive enclitic in written Malagasy.
 - 40) M^{mc} Eva wrote NY, the definite article, but TTM does not have a grammaticalized definite article. The sign is just a third-person singular index.
 - 41) The label TANY is the past-tense form of ANY, but the pastness is not encoded in the sign.

- 42) M^{mc} Eva wrote AZOKO. -KO is the first person singular genitive enclitic in written Malagasy.
- 43) M^{mc} Eva wrote TOMPONY. -NY is the third person singular genitive enclitic in written Malagasy.
- 44) M^{mc} Eva wrote FANTATRO. -(K)O is the first person singular genitive enclitic in written Malagasy. The GEN enclitic used with this particular negative verb copies the handshape from the verb, i.e. the GEN is not expressed with the usual 1-handshape but with the F-handshape copied from the sign TSY.FANTATRA (not.know).
- 45) M^{mc} Eva wrote ILAIKO. -KO is the first person singular genitive enclitic in written Malagasy. And ILAI(NA) is the OV counterpart of the AV MILA in written Malagasy.
- 46) The label IANASA is the future tense form of MANASA, but the futurity is not marked in sign.
- 47) M^{mc} Eva wrote I'IANAO. -NAO is the second person singular genitive enclitic in written Malagasy.
- 48) M^{mc} Eva wrote IANAO (you, unmarked case).
- 49) EFA and VITA have the same manual expression, therefore they probably belong to the same sign.
- 50) M^{mc} Eva wrote IZY ([s]he, unmarked case).
- 51) M^{mc} Eva wrote NOMENY. NOME is the past tense form of OME in written Malagasy, but the pastness is not encoded in the sign. -NY is the third person singular genitive enclitic in written Malagasy.
- 52) M^{mc} Eva wrote AHO (I, unmarked case).
- 53) M^{mc} Eva wrote IANAO (you, unmarked case).
- 54) M^{mc} Eva wrote IANAO. -NAO is the second person singular genitive enclitic.
- 55) This is a case of noun incorporation in written Malagasy: manam (have), bady (spouse). But what is manually expressed is only VADY (=BADY) (spouse) and this is not a case of noun incorporation in TTM.
- 56) M^{mc} Eva wrote IZY ([s]he, unmarked case).
- 57) M^{mc} Eva wrote AHY (me, accusative). But the case is not expressed manually in TTM.
- 58) M^{mc} Eva wrote AHO (I, unmarked case).
- 59) The label TIA is an OV form in written Malagasy and it is often followed by an ergative subject also in TTM, but not in this sentence.
- 60) M^{mc} Eva wrote AHO (I, unmarked case).
- 61) M^{mc} Eva wrote AHO (I, unmarked case).
- 62) M^{mc} Eva wrote IZY ([s]he, unmarked case).
- 63) M^{mc} Eva wrote ANAY (us, exclusive, accusative case).
- 64) M^{mc} Eva wrote IZY ([s]he, unmarked case).
- 65) M^{mc} Eva wrote IZY ([s]he, unmarked case).
- 66) M^{mc} Eva wrote AN-TSIKA (us, accusative case), but the case is not manually encoded in the TTM sign.
- 67) M^{mc} Eva wrote AHO (I, unmarked case).
- 68) M^{mc} Eva wrote ANAREO (you guys, accusative case), but the case meaning is not encoded in the TTM index sign.
- 69) M^{mc} Eva wrote OMENY. -NY is the third person singular genitive enclitic.
- 70) M^{mc} Eva wrote IANAO (you, unmarked case).
- 71) M^{mc} Eva wrote NOMENY. -NY is the third person singular genitive enclitic. NOME is the past-tense form of OME, but the pastness is not encoded in the sign.
- 72) M^{mc} Eva wrote AHO (I, unmarked case).
- 73) M^{mc} Eva wrote NOMEKO. -KO is the first person singular genitive enclitic. NOME is the past-tense form of OME, but the pastness is not encoded in the sign.
- 74) M^{mc} Eva wrote IZY (him/her, unmarked case).
- 75) M^{mc} Eva wrote IANAO (you, unmarked case).
- 76) M^{mc} Eva wrote HO ANAO (for you, benefactive case). The benefactive PAM comes from the verb MANOME "give."
- 77) M^{mc} Eva wrote AHO (I, unmarked case).

マダガスカル手話の語順

箕浦信勝

マダガスカル手話(TTM)において、S、O、Vに関する語順を調べると、SOV、SVO、VSO、VOS、OVS、OSVの全6パターンが見られる。その中では、書記マダガスカル語に見られ、「動詞の前に1つ以上名詞句が必要」というFischerの原則に当てはまる、SVOとOVSがより好まれる傾向がある。しかし、書記マダガスカル語に見られ、Fischerの原則が当てはまらないVSO、VOSや、Fischerの原則が当てはまるが書記マダガスカル語に見られないSOV、OSVも見られる。語順は、ほとんど自由なようであるが、部分的に決まっている語順もある。例えば主語に能格標示があるばあいV S^{ERG}語順であり、名詞抱合がある場合V O^{INC}語順である。語順が自由であるので、何が主語か、何が目的語かは、有生性、能格性、意味論、文脈で決まってくる。また、語順の決定には、機能的文展望(FSP)が関わっていると思われるが、主題化の非手指信号(NMS)が同定できていない以上、更なる調査、考察が必要である。

更に、助動詞(AUX)を加えて考察してみると、AUXは、文頭、文末、動詞前、動詞後に置かれることがわかった。

また、複他動詞を見ると、やはり語順はほとんど自由であるが、間接目的語(IO)だけは、主題化されていない場合において、動詞の後に来ることがわかった。