Tmesis in Ebang (Heiban, Kordofanian)*

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1. Introduction

1.1. What is tmesis?

The term *tmesis* (τμήσις *tmēsis* ‘cutting’, ‘a cut’)¹ was coined in antiquity by Greek linguists describing what then already was an archaic feature of Homeric language (8th century BCE). Compare the Homeric Greek form of the verb ἀναλύω *ana=luō* ‘untie’ in (1a) with its tmesis form in (1b).

- (1a) νόκτας δ’ ἀλλύεσκεν (Odyssey 2.105)
nuktas d’ al=luesken
night.PL.ACC but up=loosen.IPFV.3SG²
└ untie ┘
‘but at night she unravelled [what she had woven during the day].’
- (1b) ἀνα τε πρυμνήσια λῶσαι (Odyssey 9.178)
ana te prumnēsia lusai
up and stern-cables loosen.AOR.INF
└ untie ┘
‘and to untie the stern-cables’

Tmesis is generally defined as the insertion of one or more words between the parts of a compound word. Various processes in Latin, English, German and Dutch have been likened to Greek tmesis, some obligatory and some stylistic, but they don’t appear to constitute a unified phenomenon. In Ebang, tmesis is the term I use to describe the insertion of a lexical subject into the verb.³

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² Abbreviations used only in the Greek examples: AOR = aorist; INF = infinitive; IPFV = imperfective. Other abbreviations are explained in footnote 3.

³ Abbreviations used in Ebang glosses: 1,2,3 = 1st, 2nd, 3rd person; 12 = ‘I and you’; ACC = accusative; C = noun class concord; CAUS = causative; COLL = collective; CMP = comparative; DAT = dative; DEM = demonstrative; DIST = distal; FUT = future; GEN = (long) genitive; HAB = habitual; NEG = negative; OC = object concord; OJ = object; PASS = passive; PFV = perfective; PL = plural; POSS = possessive; PRO = free pronoun; PROG = progressive; PROX = proximate; Q = question; QT = quote; REL = relative; SBT = subito; SC = subject concord; SG = singular; SJ = subject; THEN = future auxiliary; VNT = ventive. In nouns, the nominal prefix is separated from the stem by a dot but not glossed separately.

- (2a) *Ninena* *li.umam* *l-a* *g.idhila* *l-athi-bupe* *ŋ.id-a*
 as nations C-of world C-HAB-seek things-ACC
ibi-ŋ-a *peth;*
 DEM-C-PROX all
 'For the nations of the world seek after all these things.' (Luk 12:30)
- (2b) *Ninena* ***athi*** *li.umam* ***bupe*** *ŋ.id-a* *ibi-ŋ-a* *peth;*
 as HAB nations seek things-ACC DEM-C-PROX all
 'For the Gentiles seek after all these things,' (Mat 6:32)

In (2b), the lexical subject is placed between the Habitual TAM marker *athi* and the verb stem *bupe* 'seek'. The subject concord *l(i)*- which in (2a) attaches to *athi* is absent because *athi* now precedes the subject and concords in Ebang always follow and never precede the word to which they relate.

1.2. The Ebang text corpus

Ebang is spoken in and around the town of Heiban in the Nuba Mountains. It belongs to the Heiban group of Kordofanian languages (Schadeberg 1981). Other sources on Ebang are Meinhof (1943/1944), Stevenson (1956-1957), Guest (1997), Schadeberg & Kossmann (2010), and Schadeberg (2013).

This paper is based entirely on a translation of the New Testament, *Kitham gina giyan* ..., published in 1966. The text has been transformed into an almost completely glossed database, containing more than 40,000 clauses. The Ebang text appears to be the work of generations of local translators loosely supervised by a chain of foreign missionaries. The phonological representation is obviously deficient (the omission of tone in particular severely limits grammatical analysis), but segmental morphology and syntax are rich and make a genuine, non-manipulated impression.

1.3. Structure of this paper

Section 2 describes the morpho-syntactic setting for tmesis in Ebang. First, I look at the morphological structure of the inflected verb; then I present the basic sentence patterns containing (at least) a lexical subject and a verb. Section 3 exemplifies tmesis with the four most common TAM elements (subsections 3.1 to 3.4); then subsection 3.5 puts a spotlight on the allomorphy of bound object pronouns and the PL-marker, thus showing that Ebang tmesis is not merely a kind of subject-auxiliary inversion. More evidence for the bound nature of the pre-posed part of the verb is presented in section 4 dealing with tmesis without a (segmental) TAM element. Section 5 summarizes the findings.

2. Morpho-syntactic setting

2.1. Inflectional morphology of the Ebang verb

The general structure of the Ebang verbal complex has been sketched by Schadeberg & Kossmann (2010: 81); this is repeated here in a slightly amended form.

Table 1: The morphological structure of inflected verbs:

(PREP)	(C) (C)	VS1 (TAM)	(PRO) (PRO)	(PL) (PL)	(DM) (DM)	=	VS2
Legend:							
	VS1	verb stem 1		C	noun class concord		
	VS2	verb stem 2		PRO	bound pronoun		
	=	tmesis position		PL	plural marker		
				TAM	tense/aspect marker		
				DM	discourse marker		
				PREP	preposition <i>di-</i> 'to'		

Verbs come in two distinct stems: VS1 and VS2. Each inflectional category selects either VS1 or VS2, and each verb stem imposes a particular order of elements on the verbal complex (cf. Schadeberg & Kossmann 2010). I use the term *concord* for any noun class agreement marker. *Bound pronouns* are elements referring either to the “dialogue participants”, i.e. 1st or 2nd person singular or plural, or (in the 3rd person) to entities irrespective of the noun class of their names, even to non-humans and non-animates. The 3rd person singular bound pronoun is *ɲwu* and always represents the subject. The corresponding bound plural marker *al* (with its allomorphs) has a wider range of uses including reference to subjects and objects (Schadeberg & Kossmann 2010: 92ff.).

The verbal complex can have at most one concord and one bound pronoun plus one extra plural reference marker. Since the plural marker may also count as a pronoun, the maximum number of reference markers is three: one concord, one bound pronoun (which may be the PL marker), and one plural marker (Schadeberg & Kossmann 2010: 81).

The positions of the reference markers C, PRO and PL are fixed in the verbal complex and neutral as to their syntactic function or reference to S or O. Concorde referring to subjects and objects are (at least at the segmental level) indistinguishable. The same is true about the plural marker. First and second person bound pronouns have different forms for subject and object in the plural and are probably distinguished tonally in the singular (Schadeberg & Kossmann 2010: 85, footnote 7).

- (3) *abi nyi gw-aji gw-aj=aŋa manan;*
 but PRO1SG SC-THEN C-2PL.OJ=see again
 ‘but I will see you again’ (Joh 16:22)
- (4) *(j.are peth) ... j-ath-anya-l=aŋa,*
 (trees all) OC-HAB-2PL.SJ-PL=see
 ‘(all trees) ... you see them.’ (Luk 21:30)

2.2. The order of subject and verb

Let us now look at the position of lexical subjects, and briefly also objects, relative to the main verb of the clause. The basic position of the object is after the verb. Objects are in principle marked for case except that not all nouns have (segmental) case marking. Topicalized objects are preposed in which case there is no case marking; compare the case-marked form *kwaio* in (5a) with the unmarked word *kwa* ‘woman’ in (5b).

- (5a) *A j.athib a Farriisiyiin al=odha kw.a-io d-ugun,*
 and scribes and Pharisees PL=lead woman- to-
ACC PRO3SG
 ‘The scribes and Pharisees brought a woman before him.’ (Joh 8:3)
- (5b) *kw.a ibi-gw-a gwu=buj-ana d-il-dhre kw.iji gw-ai*
 woman DEM-C-PROX OC=find-1PL.SJ to-PL-lie person C-with
gwi-ter.
 C-other
 ‘we found this woman lying with another man.’ (Joh 8:4)

The position of the lexical subject (S) with respect to the main verb (V) is more differentiated. The five attested patterns are presented in Table 2, classified according to the basic position, V S versus S V, the presence of a (segmental) TAM element and the use of a subject agreement marker (SC).

Table 2: Basic sentence types with lexical Subject:

	V S	S V with SC	S V without SC
without TAM	V S	S SC=V	S V
with TAM	—	S SC-TAM=V	TAM S V

Note that constructions without a SC may still have an agreement marker (concord), but this can only refer to a non-subject.

Pattern V S:

There can be no subject concord with this pattern since agreement in Ebang is strictly “backward”, never cataphoric or “forward-looking”. The pattern V S exists in a small number of rather well-circumscribed syntactic contexts. Firstly, V S appears in non-subject relative clauses (6) and in conjunction with preposed objects (7).

- (6) (... *dh.uṇun-a peth*) *dhi-na dhi=bupo kw.a gw-uṇun;*
 words-ACC all C-REL OC=seek woman C-POSS3SG
 ‘(... all things) that his wife wants;’ (1Co 7:3)
- (7) *Dh.uṇun ibi-dh-e dhi=geto Kw.eleny,*
 words DEM-C-DIST OC=make lord
 ‘God did these things,’ (Mar 12:11)

Preposed objects as in (7) demand a concord on the following verb. This is similar to the agreement in relative clauses where the verb always has the same concord as the immediately preceding relative marker, both agreeing with the head noun. (Relatives are not further investigated in this paper.)

Secondly, V S appears after *dina* 'when' (8), and in some cases also in clauses introduced by *ɲinena* 'as, for' (9).

- (8) *A dina aɲadhi c.almiz Kw.eleny-a,*
and when see disciples lord-ACC
'When the disciples saw the Lord,' (Joh 20:20)
- (9) *ɲinena bur d.ugor d-a Liji ibi-l-a,*
as be.strong hearts C-of people DEM-C-PROX
a ny.uni ny-egen rimi ganu di-diɲini,
and ears C-POSS3PL be.dark in to-hear
'For these people's hearts have become hard, and their ears dull to hear,' (Mat 13:15)

The two clauses in (9) are semantically and pragmatically entirely parallel. This suggests that the different word orders, V S as against S V, are linked to the presence of clause-initial *ɲinena*.

An apparent exception is found in the last clause (i.e., line 3) of (10), which also exhibits the V S pattern. Presumably, *gadam* 'servant' here counts as a more distant preposed object.

- (10) *Kw.eleny gw-ai, g.adam g-iny g-a g-uma dunu,*
lord C-with servant C-POSS SC-PROG SC-suffer house
1SG
g=aio aɲin-a nono
SC=die body-ACC at
a g=ithi ɲw.uredeny nono gwuleny.
and OC=eat pain at much
'Lord, my servant is suffering at home, he is paralysed, and he is in great pain.' (Mat 8:6)

Pattern S SC=V :

This pattern is common with but not restricted to "adjectival verbs" (e.g., *K.alo g=ɲɲir* 'God is good'), with *uthi* 'have' and with various copular verbs. It is a felicitous pattern for one-liners expressing statements that lack a clear topic-comment structure.

- (11) *ɲ.idi peth ɲi=juro;*
things all SC=be.clean
'all things are clean' (Rom 14:20)
- (12) *Ny.artumi ny=uthi ɲw.ubo,*
foxes SC=have holes
a ny.ira ny-a k.abo ny=uthi j.idhul;
and birds C-of sky SC=have nests
'The foxes have holes, and the birds of the sky have nests;' (Luk 9:58)
- (13) *Kw.eleny gwi=liɲidhi lij-o li-na li-ro l-ɲun;*
lord SC=know people-ACC C-REL SC=be C-POSS3SG
'The Lord knows the people who are his;' (2Ti 2:19)

- (14) *Anaŋa* *li=doinyo* *kw.ij-o* *ibi-gw-a*
 PRO1PL SC=fear person-ACC DEM-C-PROX
d-uŋwu=ro *malik* *gw-uri.*
 to-3SGSJ=be king C-POSS1PL
 'We fear this man may become our king.' (Luk 19:14)

Pattern S V:

This pattern is extremely common in narrative parts of the corpus, especially when preceded by *a* 'and' or *abi* 'but'. It is used to describe the next step in a chain of events. The pattern is excluded when S is represented by a free pronoun because free pronouns as subjects demand an agreeing concord (not a bound pronoun) on a following verb, cf. pattern TAM S V and footnote 5.

- (15) *A* *Fiilibbus* *ule* *gi* *mediina* *gwi-na* *gw=an*
 and Philipp descend at city C-REL SC=named
Saamira,
 Samaria
 'And Philipp went down to the city of Samaria,' (Act 8:5)

The pattern also characterizes non-subordinated optative forms, with and without preceding *a*.

- (16) *Kw.eleny* *dhedhi* *ina-ŋw* *gi* *dunu* *gw-a* *Uniisiifuurus;*
 lord give mercy-ACC at house C-of Onesiphorus
 'May the Lord give mercy to the house of Onesiphorus,' (2Ti 1:16)
- (17) *A* *dhedha* *gw-alo* *ro* *nyim;*
 and give C-POSS2PL be secret
 'Your giving should be in secret;' (Mat 6:4)

Pattern S SC-TAM=V:

This pattern is often used for statements without a clear topic-comment structure, just as TAM-less sentences of the type S SC-V.

- (18) *Yahuud* *gw-athi=bupe* *ˁalaama,*
 Jews SC-HAB-seek signs,
a *Yuunaaniyiin* *gw-athi=bupe* *bebr-uŋw;*
 and Greeks SC-HAB-seek wise-ACC
 'Jews seek signs, Greeks seek wisdom;' (1Co 1:22)

The following example occurs in a setting that is prototypical for thetic statements. The elder son comes home from the field and hears music and dancing. He asks a labourer what is going on. The farm-hand answers:

- (19) *Mag-alo* *gwi-m=aura;*
 brother-POSS2 SC-PFV=return
a *babo* *gw-uŋa* *gwi-ma=dhuge* *ŋ.idhr-a ...*
 and father C-POSS2SG SC-PFV=stab bull-ACC
 'Your brother has come back, and your father has slaughtered a bull ...' (Luk 15:27)

The pattern S SC-TAM=V occurs with and without the conjunctions *a* ‘and’, *abi* ‘or’, and *ɲinena* ‘as, for’. The pattern probably is the only possibility after *ada* ‘if’ and after the fixed verb form *darnu* functioning as a complementizer.

- (20) *ɲinena Diimaas gwi-m-inyi=gathani ...*
 as Demas SC-PFV-1SG=leave
a gwi-m=ela Tasaaluuniika,
 and SC-PFV=go Thessalonica,
a Kiriiskiis gwi-m=ela Qalaaṭiɲa,
 and Crescens SC-PFV=go Galatia,
a Tiiṭus gwi-m=ela Dalmaaṭiɲa.
 and Titus SC-PFV=go Dalmatia.
 ‘For Demas has left me ... and went to Thessalonica, Crescens has gone to Galatia, and Titus has gone to Dalmatia.’ (2Ti 4:10)
- (21) *Ada kw.iji gw-eta gwi-m-inyi=uminyi,*
 if person C-some SC-PFV-1SG=love
 ‘If someone loves me,’ (Joh 14:23)
- (22) *ɲinena liɲidh-ana darnu kalo peth Liji l-ath*
 as know-1PL.SJ that place all people SC-HAB
 =abiɲa
 =speak
dh.uṅun-a dhi-na dhi=ke gi l.iji ibi-l-a.
 words-acc c-rel sc=bad at people dem-c-prox
 ‘for we know that everywhere people speak badly about these people.’ (Act 28:22)

Pattern TAM S V :

This pattern is *the* pattern of tmesis in the presence of TAM. The tmesis position is immediately before the verb stem; any TAM elements and/or reference markers (C, PRO, PL) and discourse markers precede.⁴ The tmesis field always contains the lexical subject, either a single noun or a noun phrase. Free pronouns (1st and 2nd person, singular and plural) do not occur in the tmesis field.⁵ By contrast, the noun-like word *ɲeda* ‘s/he’ can fill the tmesis field. It resembles nouns, specifically proper names, more closely than free pronouns by having a derived collective/plural form (*ɲediɲa*) as well as case-marked forms (singular *ɲedun̄w*, plural *ɲediɲaije*). The pattern TAM S V is common in narrative and descriptive texts.

- (23) *ɲinena ma ɲ.idi ibi-ɲ-a get-ini momaɲ,*
 as PFV things DEM-C-PROX make-PASS well
athi g.usus uni gi g.utu
 HAB priests enter at tent
 ‘When these things have been done well, the priests always go into the tent ...’ (Heb 9:6)

⁴ Boldface type is used to mark the split verbal complex.

⁵ The same restriction holds for the patterns S V and V S; in other words, free pronouns (1st and 2nd person), when referring to the subject of the verb, must always be referenced by a concord (*gw-* or *l-*) on the verbal complex, cf. examples (3) and (14).

The pattern TAM S V should be contrasted with the preceding one. The absence of a subject concord results from the position of S after the C-bearing part of the verbal complex, i.e. the TAM element. A clear and probably significant difference between the two patterns exists in the distribution of clause introducing elements ("conjunctions").

Table 3: Clause-introducing elements and the use of two syntactic patterns with lexical S

Conjunction	S SC-TAM-V	TAM S V
(none)	✓	✓
<i>a</i> 'and'	✓	✓
<i>abi</i> 'but'	✓	✓
<i>ɲinena</i> 'as, for'	✓	✓
<i>ada</i> 'if'	✓	–
<i>darnu</i> 'that'	✓	–
<i>di</i> 'to, until'	–	✓
<i>dina</i> 'when'	–	✓
<i>maji</i> 'then when'	–	✓

- (24) *di ma kalo ure,*
to PFV place be.red
'until dawn' (Act 19:20)

- (25) *A dina ma Buṭrus uni,*
and when PFV Peter enter
'When Peter entered,' (Act 10:25)

- (26) *Abi maji ma ɲw.on ure,*
but when PFV grain be.red
'But when the grain is ripe,' (Mar 4:29)

2.3. The tmesis field and the subject NP

The tmesis field is occupied by the lexical subject which can be a single noun as in (24)-(26) or a more complex noun phrase as, for example, *ɲidi ibiɲa* 'these things' in (23). There seems to be no principled upper limit to how long or complex a lexical subject in the tmesis field may be.⁶

- (27) *ɲinena athi [ɲ.idi ɲi-na ɲ-athi=dhug-ini*
as HAB things C-REL SC-HAB=stab-PASS
ɲi-na ɲi=ro minon] ɲɲir-iyē K.alo-ɲa dh.ugor-e.
C-REL SC=be thus good-CAUS God-ACC heart-ACC
'for such sacrifices please God.' (Heb 13:16)

- (28) *ɲinena ma [Kw.eleny gwi-na gwi=ro K.alo gi-na*
as PFV lord C-REL SC=be god C-REL
g=uthi ɲ.oma ɲ.idi alañ peth] ro malik.
SC=have power things on all be king
'for the Lord who is God, who has power over all things, is the king.' (Rev 19:6)

⁶ In this section, subject NPs of tmesis constructions are enclosed in square brackets; when the subject NP is discontinuous, each of its parts is enclosed in brackets.

In some cases, the tmesis field does not hold the complete subject noun phrase but only its head noun (29) or core phrase (30).

- (29) *ɲinəna* **ma** [*l.əmun*] **ila**
 as PFV digit come
 [*l-a-dhi* *ka-dh.ugor-e* *gw-uŋun* *li-na* *li=naŋj*;
 C-of-GEN be.bad-heart-ACC C-POSS3SG C-REL SC=great
 'for the great day of his wrath has come;' (Rev 6:17)
- (30) *Abi* **ma** [*ɲ.ari*] *ɲ-uŋa* *ibi-ɲ-a* **aura** [*ɲi-na*] *ɲi-ma=dhigiri*
 but PFV child C-POSS DEM-C- re- C-REL C-PFV=waste
 2SG PROX turn
ɲ.idi *ɲ-ai* *ɲ-uŋa* *peth* *gi* *la* *li-na* *li=ke*,
 things C-with C-POSS2SG all at women C-REL SC=bad
 'But this son of yours has returned, who has wasted all your property
 on bad women,' (Luk 15:30)

The second part of a discontinuous subject NP does not immediately follow the verb stem but comes after the lexical object (if there is one). Again, the object noun phrase may be more or less complex.

- (31) *A* **ma** [*kw.iji*] *gw-eta* **diɲini** *dh.uŋun-a* *ibi-dh-e*
 and PFV person C-some hear word-ACC DEM-C-DIST
 [*gwi-na* *gwi=jali-l-ai* *d-eny*],
 C-REL SC=sit-C-with to-eat
 'Someone, who sat together with them eating, heard those things,'
 (Luk 14:15)
- (32) **Ma** [*Hiiruudus*] **diɲini** *dh.uŋun-a* *peth* *dhi-na*
 PFV Herod hear word-ACC all C-REL
dh=up-inu, [*gwi-na* *gwi=ro* *kw.eleny*],
 C=take-PASS C-REL C=be lord
 'Herod, who was the ruler, heard all that was done to him,' (Luk 9:7)

In many cases, the split-off second part of the subject noun phrase is a relative clause. Examples (27) and (28) show that this "heavy shift" does not apply automatically. More surprisingly, a subject noun phrase may be split into a head noun and a much lighter modifier, as in (33); and even if there is a relative clause, the split may be between the head noun and its one-word modifier, as in (34).

- (33) **Ma** [*saa^ca*] **je** [*j-a*] *dh-eny*, ...
 PFV hour be C-of GEN-eat
 'When it was the hour of eating, ...' (Luk 14:17)
- (34) *ɲwu=jalo* *di* **ma** [*l.əmun*] **ila** [*li-ter*]
 3SG=sit to PFV digit come C-other
li-na *l=iɲir* *l-a* *dh-ugeje*.
 C-REL SC=good C-of GEN-tempt
 'he [the devil] stayed until another day would come that was good
 for temptation.' (Luk 4:13)

The first clause of (35) shows that discontinuous subject noun phrases are not an exclusive feature of tmesis constructions. The other

two clauses are again tmesis constructions with discontinuous subject noun phrases not involving relative clauses.

- (35) *A [malaak] tuiya [gwi-ter] gi hekal, ηw=urnie ...*
 and angel exit c-other at temple, 3SG=call
ηinena ma [saa^ca] ila [j-a-dh-uni];
 as PFV hour come C-of-GEN-reap
ηinena ma [d.ugur] udhe [d-a g.idhila]
 as PFV vines dry C-of world.
 'Another angel came out of the temple and called ... "... for the hour
 to reap has come; for the grapes of the earth are ripe.'" (Rev 14:15)

3. Tmesis with basic TAM

3.1. Tmesis with PFV *ma*

This section describes the morphosyntactic patterns of tmesis with the TAM morpheme *ma*, provisionally glossed as perfective (PFV). It always attaches to the second stem (VS2) and has a high frequency with and without tmesis.

- (36) *Ma aηin ule,*
 PFV sun descend
 'The sun had gone down,' (Mar 1:32)

In (36), *ma* occurs in clause-initial position. Significantly more frequent are clauses where *ma* is preceded by a conjunction such as *a* 'and', *(a) dina* '(and) when', *di* 'to' (in this context 'until'), *abi* 'but', *ηinena* 'as' (cause).

- (37) *A ma kau ni,*
 and PFV rain fall
 'It rained,' (Mat 7:25)

The TAM morpheme *ma* may be preceded by a concord or followed by a bound pronoun, either of which, given the presence of a following lexical subject and the unacceptability of cataphoric reference "ahead", must refer to an object.

- (38) *abi gwi-ma Kalo ina,*
 but OC-PFV god have.mercy
 'but God had mercy on him.' (Phi 2:27)

- (39) *ηinena m-iji η.oma η-a Kalo dhedha η.id-a peth*
 as PFV-1PL.OJ power C-of god give things- all
 ACC

'Since the power of God has given us all things ...' (2Pe 1:3)

The combination C-PFV-Pro is only possible with ditransitive verbs where the concord and the bound pronoun refer to two distinct objects.⁷

⁷ The only readily available example (40) shows this particular constellation in a relative clause, which I generally avoid in this paper because relative clauses impose

- (40) *finjaan gwi-na gwi-m-iny Babo gw-iny dhedha,*
 cup C-REL OC-PFV-1SG father C-POSS1SG give
 'the cup which my father has given me,' (Joh 18:11)

The PL morpheme in *ma-l* also refers to the object, either by itself as in (41), or jointly with a preceding concord as in (42).

- (41) *A dina ma-l Buulus aṇa,*
 and when PFV-PL Paul see
 'When Paul saw them,' (Act 28:15)
- (42) *a c.iraṇ j-alo ji-ma-l lodo eny.*
 and cloths C-POSS3PL OC-PFV-PL worms eat
 'and worms have eaten your garments.' (Jam 5:2)

3.2. Tmesis with HAB *athi*

The TAM marker *athi*, provisionally glossed as habitual (HAB), occurs frequently with and without tmesis. It always selects VS2. In tmesis clauses, *athi* commonly occurs clause-initially.

- (43) *athi ny.in ila, al=muna ny.uri ny-uṇun.*
 HAB dogs come PL=lick wounds C-POSS3SG
 'dogs came and licked his wounds.' (Mat 4:24)

The TAM morpheme *athi* may be preceded by a concord or followed by a bound pronoun and/or the plural marker. Such reference markers always refer to objects. In (44) below, the initial concord *ṇ*-refers to *ṇ.ari* 'child, son' mentioned shortly before, not to the subject noun of the clause itself.

- (44) *N-athi ṇ.uriny mutha, ...*
 C-HAB demon hold
 'A demon seizes him, ...' (Luk 9:39)
- (45) *Abi kworaṇ ath-aji-bi d.ugor mir-ejo*
 but why HAB-2PL.OJ-but⁸ hearts strike-DAT
ṇ.id-a ṇ-a dhi-gena?
 things-ACC C-of GEN-dress
 'So why are you anxious about clothing?' (Mat 6:28)
- (46) *ṇinena ath-il ṇ.iro ṇ-egen gwuje.*
 as HAB-PL works C-POSS3PL follow
 'for their works follow them.' (Rev 14:13)

The TAM morpheme *athi* may also be preceded by a concord and followed by a bound pronoun and/or the plural marker. (The concord *ny*- and the PL marker *-(i)l* in (48) both refer to *ny.uriny* 'demons' in the preceding clause.)

particular morphosyntactic constraints. — No tmesis examples were found in the corpus with PFV and three reference markers: C-PFV-PRO-PL, C-PFV-PL-PL.

⁸ All available examples have an additional inflectional element.

- (47) *Dh.uḡun* *peth* *dhi-na* ***dh-ath-aji*** *liji* ***ur-ijo***
 word all C-REL OC-HAB-2PL.OJ people do-DAT
dh-ath-anya-l=ur-ijo *ko*;
 OC-HAB-2PL.SJ-PL=do-DAT also
 'Whatever people do for you, you do for them, too;' (Mat 7:12)
- (48) *abi* ***ny-ath-il*** *k.eleḡa* *g-alo* ***teye***
 but OC-HAB-PL children C-POSS2PL put.out
ḡ.oma *ḡ-ai* *ḡ-a* *dh-ei?*
 power C-with C-of GEN-who
 '[But if I have driven out demons by the power of Beelzebul,] then by
 whose power do your children drive them out?' (Mat 12:27; Luk
 11:19)

The only available example with three reference markers is given in (49). It contains the same idiom as (45) and its morphosyntax is not immediately transparent. Other instances of this idiom suggest that the subject is *dh.uḡor* 'heart', the ("indirect" or dative) object is *-aḡa* (2SG), and the phrase *ḡ.idi ḡ=oinyadhō* 'many things' has a kind of adverbial function⁹ and would be marked for case if it were not left-dislocated; see *ḡ.id-a* in (45) above.

- (49) *Martha,* *Martha,* *ḡ.idi* *ḡ=oinyadhō* ***ḡ-ath-aḡa-l*** *dh.uḡor*
 Martha, Martha, things C=many OC-HAB-2SG-PL heart
mir-ejo.
 strike-DAT
 'Martha, Martha, you are troubled about many things.' (Luk 10:41)

The TAM morphemes *ma* and *athi* can easily combine.

- (50) ***M-athi*** *kw.oma* ***ethadhē*** *dun-a* *gw-uḡun*
 PFV-HAB man watch house-ACC C-POSS3SG
ḡwi-na *ḡwi=bur* *nono,*
 C-REL SC=be.strong at
 'When a strong man guards his house,' (Luk 11:21)
- (51) ***M-ath-aḡa*** *kw.iji* *gw.eta* ***orn-aijo*** *ḡ.irin-a* *ḡ.imure, ...*
 PFV-HAB- person C-some call-DAT hospitality- feast
 2SG ACC
 'When someone has invited you to a feast, ...' (Luk 14:3)

3.3. Tmesis with *FUT a*

The TAM morpheme *a* generally refers to future or other unrealized events and is provisionally glossed FUT. Like PFV *ma* and HAB *athi* it occurs with and without tmesis.

- (52) *gw-ati* ***gw-a*** *j.amu* ***eny*** *ganu* *no*;
 OC-NOT OC-FUT hunger eat in not
 'he will not be hungry;' (lit. hunger will not eat him) (Joh 6:35)

⁹ Cf. the accusative of respect in Ancient Greek and Latin and the accusative of manner in classical Arabic.

- (53) *a gw-a l.iji urlani ganu*
 and OC-FUT people be.hostile in;
 'and people will persecute him;' (Mar 10:30)

Examples (52) and (53) clearly show that *gw-a* agrees with some previously mentioned object rather than with the subject of the clause itself.

- (54) *ada kw.iji gw-eta gwi-m-iny=upi-ijo η.iro,*
 if person C-any C-PFV-1SG=take-DAT work
ηeda gw-a Babo gw-iny neye.
 s/he OC-FUT father C-POSS1SG honour
 'if anyone works for me, my father will honour him.' (Joh 12:26)

In the second clause in (54), *ηeda* is the object but lacks case marking because it is left-dislocated.

Unlike PFV *ma* and HAB *athi*, FUT *a* does not occur without a preceding concord C (either with or without tmesis). The sequence C-FUT- may be followed by the PL marker, resulting in the forms *lal*, *gwal*, *ηal*, *jal* etc. and occurring with and without tmesis.

- (55) *L-aji l-a-l j.alala id-eye,*
 OC-THEN OC-FUT-PL swords fall-CAUS
a l-a-l l.iji l-a ηw.en ηwi-ter peth
 and OC-FUT-PL people C-of hill C-other all
odha a l-a-l=ruji j.ine
 lead and OC-FUT-PL=change servants
 'Swords will fell them, and people of all the other countries will lead them away and make them slaves.' (Luk 21:24)

At first sight, it seems there are no instances where FUT *-a-* is followed by a bound pronoun, again either with or without tmesis. In sequences C-Pro, the vowel following the (consonantal) concord is determined by the bound pronoun. Thus, we find *gwiny(i)*, *liny(i)* ... C-1SG, *gwan(a)*, *lan(a)* ... C-2SG, *gwunw(u)*, *lunw(u)* ... C-3SG, etc. On the other hand, there are no contrasting forms such as ***gwany(i)* or ***gwainy(i)*, ***gwin(a)*, ***gwanw(u)* or ***gwanw(u)*. Arguably, rules of vowel coalescence obscure the underlying TAM marker *a* in such sequences. But the assumption of its underlying presence is supported by the rather frequent occurrence of such forms after the auxiliary C-*aji* glossed as THEN and reinforcing a 'future' interpretation. This auxiliary is — in non-ambiguous cases — always followed by verb forms with the TAM marker *a*.

- (56) *(dh.unjun peth ...)* *dh-aji dh-ana Kalo dhedha.*
 (word all ...) OC-THEN OC-FUT.2SG god give
 '(all matters ...) God will give them to you.' (Joh 11:22)

The PL marker may follow the bound pronoun. (All available examples occur in relative clauses.)

- (57) *(η.id-a η.eda) ηi-na η-aj-il kw.iji gw-eda alimiye*
 (thing- ACC C-some) C-REL OC-2PL. OJ-PL person C-some teach
 '(anything) that someone would teach you.' (1Jo 2:27)

As far as I can see, FUT *a* does not combine with either PFV *ma* or HAB *athi*.

3.4. Tmesis with NEG *athi*

There are several ways to express negation; one of them involves the NEG marker *athi*.¹⁰ All negative clauses have the final particle *no*. The NEG marker *athi* differs from the TAM elements PFV *ma*, HAB *athi* and FUT *a* in two (related?) ways: (i) it combines with VS1 (rather than VS2), and (ii) it never appears with a preceding C. The second constraint accounts for the observation that Tmesis is the only way to accommodate a lexical subject with *athi* NEG.

Examples are frequent. NEG *athi* may occur by itself or followed by a bound pronoun or a PL marker. No examples are available with two reference markers (Pro-PL or PL-PL).

- (58) *ηinena athi g.ile jo mine no.*
 as NEG night be there not.
 'as there is no night there.' (Rev 21:25)
- (59) *dhedh-iny η.au ibi-η-a ath-iny odha ithi no,*
 give-1SG water DEM-C-PROX NEG-1SG thirst eat not
 'give me this water that I may not be thirsty,' (Joh 4:15)
- (60) *Li-na li-girimina-lo K.alo,*
 C-REL OC-join-PL god
ath-il kw.iji urudhi ganu no.
 NEG-PL person cut.off in not
 'Whom God has joined, let man not part.' (Mat 19:6)

The NEG element *athi* easily combines with PFV *ma* : *m-athi*. The sequences C-PFV-NEG-Pro and C-PFV-NEG-PL also exist but are not attested with tmesis.

- (61) *A dina m-athi aηin a ηw.udum aη-inu*
 and when PFV-NEG sun and stars see-PASS
ηw.amun ηw=oinyadho no,
 digits SC=many not
 'When neither sun nor stars were seen for many days,' (Act 27:20)
- (62) *m-ath-iji d.ugor d-ega akimiyo no,*
 PFV-NEG-1PL.OJ hearts C-POSS12PL judge not
 'if our hearts don't condemn us, ...' (1Jo 3:21)

NEG *athi* also frequently co-occurs with its HAB homograph. The sequence *ath-athi* is never preceded by a concord; hence I assume the order to be NEG-HAB. The main verb appears most often (always?) as VS1.

- (63) *A ηinena ko ath-athi li.meg-en uminyu no.*
 and so also NEG-HAB brothers-POSS3 trust not
 'For even his brothers didn't believe in him.' (Joh 7:5)

¹⁰ The NEG marker *athi* is distinct from the negative auxiliary *ati* occurring in (52).

Finally, I have found two (parallel) examples of the sequence PFV-NEG-HAB, but they do not exhibit tmesis.

- (64) *Abi ada nyaṇa li-m-ath-athi=dhudhanu ganu*
but if PRO2PL SC-PFV-NEG-HAB=forget in
ṇ.idi ṇi-ke ...
things c-bad
'But if you don't forgive the sins ...' (Mat 6:15)

3.5. The allomorphy of bound object pronouns and the plural marker

If the TAM complex could be analysed as a full word, there would be little justification to consider the pattern TAM S V as a split (tmesis) resulting in a discontinuous verb form. However, the allomorphy of bound object pronouns and the plural marker provides a strong argument for a true tmesis analysis. Table 4 below repeats part of Table 7 from Schadeberg and Kossmann 2010: 85.

Table 4: Allomorphs of bound object pronouns¹¹ and the PL morpheme

	word-initial	word-medial	word-final
1PL.OJ	<i>ji-</i>	<i>-iji-</i>	<i>-ije</i>
2PL.OJ	<i>ṇaji</i>	<i>-a(i)ji-</i>	<i>-aje</i>
PL	<i>al-</i>	<i>-(i)l-</i>	<i>-(i)lo</i>

The word-final allomorphs never occur word-internally.¹² What is important for the present analysis, they also never occur in tmesis constructions preceding the lexical subject where we find word-medial forms instead. For example, the 1PL.OJ form *-iji* appears in (39) and (62) before the lexical subject heading the tmesis field, and so does the 2PL.OJ form *-aji* in (47). Both final and medial allomorphs of PL occur in (60), the final one in a relative clause before a lexical subject (*Kalo* 'god') and the medial one in a tmesis construction before a lexical subject (*kwiji* 'person'). The allomorphy of the PL marker is further illustrated in (65):

- (65a) *Gw=aṇadh-ilo peth, al d.ugor miri.*
OC-see-PL all PL hearts strike
'They all saw him, and they were troubled.' (lit. hearts beat them).
(Mar 6:50)
- (65b) *ada ṇi-ma-l=aṇa ...*
if OC-PFV-PL=see
'when they have seen him ...' (Luk 20:13)

¹¹ I did not include bound pronominal subject forms since tmesis occurs only with lexical subjects, not with (bound) pronominal subjects. I also omitted 1st and 2nd person singular since final and non-final forms are difficult to distinguish given my poor understanding of vowel contraction and epenthesis.
¹² There are a few cases where *-(i)l* appears to occur word-finally. They raise questions about cliticization details that I am (still) unable to solve.

- (65c) A *dina* ***ma-l*** *malaayka* ***gathani***,
 and when PFV-PL angels leave
 ‘when the angels had left them,’ (Luk 2:15)

The first clause in (65a) shows word-final PL occurring after verb stem 1, which is the only position where it can occur (cf. Table 1); (65b) shows medial PL following the PFV marker and preceding stem 2 of the same lexical item. In (65c) we see a tmesis construction, which employs the word-medial allomorph although it is followed by a space and a word that is clearly a separate lexical item.

Finally, the second clause of (65a) shows the word-initial allomorph of PL, which cannot attach to a TAM marker but will figure in the next section.

4. Tmesis without (segmental) TAM

In this section I present examples of tmesis in which the lexical subject is preceded by just a reference marker: a bound pronoun, a plural marker, or a concord. Elsewhere, such elements never appear as separate words, but need to be affixed to lexical stems, mainly verbs.

Let us first consider bound pronouns, which support analysing tmesis as a true cut. Free and bound pronouns differ not only in their form but also have differently structured paradigms.

Table 5: Free and bound pronouns in Ebang

		free pronouns	subject (initial/final)	object (initial/final)
1sg	‘I’	<i>nyi</i>	<i>nyi / iny</i>	<i>nyi / inyi</i>
2sg	‘you’	<i>ŋa</i>	<i>ŋa / aŋa</i>	<i>ŋa / aŋa</i>
12	‘I and you’	<i>daŋa</i>	↓	↓
12pl	‘I & you & others’	<i>alŋa</i>	<i>al / il</i>	↓
1pl	‘I & others’	<i>anaŋa</i>	<i>ana / ana</i>	<i>ji / ije</i>
2pl	‘you & others’	<i>nyaŋa</i>	<i>nya / anya</i>	<i>ŋaji / aje</i>

N.B. The arrows represent “mergers” of categories: free pronouns distinguish three forms for ‘we’, bound subject pronouns distinguish only ‘we (inclusive)’ from ‘we (exclusive)’, and bound object pronouns have but one form for ‘we’. The chosen terminology is oriented towards the most extended paradigm.

Tmesis examples with just a bound (object) pronoun but without any TAM element are not frequent but leave little room for doubt: the pronominal objects preceding the lexical subjects in (66) to (69) are clearly bound rather than free forms.

- (66) A ***ji*** *ŋeda* ***abiŋ-aijo*** *darnu ...*
 and 1PL.OJ s/he speak-DAT that
 ‘And he told us that ...’ (Act 11:13)

- (67) *Ji* *l.iji* *ibi-l-a* *neye* *neye*
 1PL.OJ people DEM-C-PROX honour honour¹³
gw-ai *gw=oinyadho*;
 C-with SC=many
 'They honoured us with many honours;' (Act 28:10)
- (68) *Ji* *ηeda* *gwuje* *anaηa* *Buulus* *ηa-l-ai*,
 1PL.OJ s/he follow PRO1PL Paul COLL-C-with
 'She followed Paul and us,' (Act 16:17)
- (69) *di* *ηaji* *l.amun* *ibi-l-e* *madhino* *galo*
 to 2PL.OJ digit DEM-C-DIST precede around
li=ro *ηinena* *gw.uram*.
 SC=be as thief
 'until that day will overtake you like a thief.' (1Th 5:4)

The word-initial singular bound pronouns are orthographically identical with their free counterparts but can be distinguished by their syntax: free pronouns are almost always followed by a concord that is affixed to a verb or an auxiliary.¹⁴ Compare the free pronouns in (70a) and (71a)¹⁵ with their bound counterparts in (70b) and (71b):

- (70a) *Nyi* *gw-a* *gw=ac-aiji-nu*,
 PRO1SG SC-PROG C=tell-2PL.OJ-QT
 'I am telling you,' (Mat 5:20)
- (70b) *nyi* *g.ibur* *ig-in-ijo* *gi* *kw.eleny*,
 1SG door open-PASS-DAT at lord
 'a door was opened to me in the Lord' (2Co 2:12)
- (71a) *Na* *gwi=ro* *Malik* *gw-a* *Yahuud* *a?*
 PRO2SG SC=be king C-of Jews Q
 'Are you the king of the Jews?' (Mat 27:11)
- (71b) *i* *ηa* *odha* *eny*,
 or 2SG thirst eat
 'or [when] you were thirsty,' (lit. thirst ate you) (Mat 25:37)

Tmesis examples with a plural marker are numerous. Reference is generally (always?) to 3rd person plural rather than to the plurality of some other event participant. The most frequent kind of phrase is of the kind 'NN said to / spoke to / told / asked them' as in (72).

- (72) *Al* *Buṭrus* *aici-nu*,
 PL Peter say-QT
 'Peter said to them,' (Act 2:38)

¹³ The second verb stem (VS2) can be inflected (here: *ji ... neye*) or function as a verbal noun. Such verbal nouns have no nominal prefix and take the concord *gw-* (here: *neye gw-ai*).

¹⁴ A rare exception is seen in (68). It is exceptional in at least two respects: the free pronoun *anaηa* 'I & others' follows the verb and refers to an object; it resumes and disambiguates the previous bound pronominal reference to the object. The only other such case is cited in (76) where the verb is followed by *alηa* 'I & you & others'.

¹⁵ Free plural pronouns followed by the concord *li-* are seen in (14) and (64).

- (73) *A minoŋ al Buulus tu keligeny ganu d-egen.*
 and thus PL Paul exit amidst in to-3PL
 'Thus Paul went out from among them.' (Act 17:33)
- (74) *a c.almiz j-uŋun al j.amu eny ganu*
 and disciples C-POSS3 PL hunger eat in
 'and his disciples were hungry.' (Mat 12:1)
- (75) *abrico j.iriny j-uŋa al l-iji uminyi.*
 let name C-POSS2SG PL people believe
 'let people trust your name.' (Mat 6:9)

The PL marker *al* in the last two examples refers to the preposed object noun phrase, 'his disciples' in (74) and 'your name' in (75). This shows that *al* is independent of noun class and humanness or animacy.¹⁶

Bound (object) pronouns and the PL marker may combine with each other in tmesis constructions. They may additionally combine with the discourse markers (DM) *an* 'suddenly, immediately' (glossed SBT "subito") and *bi* 'but', and also with the preposition *di* 'to'.

- (76) *Ji-l-bi K.alo aŋ-in-ijo alŋa Dh.igirim dh-ai dh-uŋun;*
 1PL.OJ- god see-PASS- PRO12PL spirit C-with C-POSS3SG
 PL-but DAT
 'But to us, God revealed them through his Spirit;' (1Co 2:10)
- (77) *Nyi-n-bi ŋeda geta dh.oi alaŋ dh-uŋun*
 1SG-SBT-but s/he make hand on C-POSS3SG
dhi-na dh=iŋir,
 C-REL C=be.good
 'He immediately laid his right hand on me,' (Rev 1:17)
- (78) *kworaŋ ŋaji-bi d.ugor mir-ejo dh.uŋun-a dhi-ter?*
 why 2PL.OJ-but hearts strike-DAT word-ACC C-other
 'Why are you troubled about other things?' (Luk 12:26)
- (79) *al=uminyu d-il l.iji mira gi suug.*
 PL=love to-PL people greet at market
 'they like it when people greet them in the market.' (Mar 12:38)
- (80) *d-aŋa kw.iji othaije galo*
 to-2SG person ask around
 '... that someone ask you.' (Mar 12:38)

I refrain from showing tmesis occurring with sequences concord-bound pronoun since I cannot disambiguate them from those containing the TAM-marker *-a-* (see the discussion in section 3.3 above). I do, however, have one good example of tmesis with just a bare object concord before the lexical subject.

¹⁶ Incidentally, (75) also shows that *jiriny* 'name' is treated as a plural, a feature identified by Greenberg (1963: 131f., nr. 31) as being characteristic for Nilo-Saharan. I assume that this property has spread to (some) Kordofanian languages in the Nuba Mountains.

- (81) A **gwi** *ejigur* *ko* **ake.juma**
 and OC soldiers also laugh
 The soldiers also mocked him, (Luk 23:36)

The scarcity of such examples may be due to a general rarity of object concords — they are often omitted when the identity of the referent is understood. In this particular example, however, omission might give a different meaning: ‘laugh’ rather than ‘laugh at’ or ‘mock’.¹⁷

However, assuming this example to be valid evidence, we are here facing a noun phrase, *ejigur ko* ‘soldiers too’, being inserted into a single word — concords never occur as free words!

5. Conclusion

In Ebang, tmesis is the interpolation of a lexical subject into the verbal complex. The tmesis position is immediately before the verb stem. No other kind of material has been observed in the tmesis field.

It has often been observed that, even in Homeric Greek, the term tmesis may be a bit of a misnomer; this is why Bertrand (2014: 11) sees it as “the non-agglutination of the verbal particle to the verb” rather than as a cut-and-insert operation. For Ebang, however, I have presented evidence that the verb is indeed split into two parts of which at least the first one has no independent existence as a morphologically well-built word. This is shown by the use of word-medial forms of the PL marker and the plural bound objects, i.e. PL -*(i)l-*, 1PL.OJ -*iji-*, 2PL.OJ -*a(i)ji-*, and also by the use of bare pronominal forms, such as *ji* ‘us’ and *ɲaji* ‘you (plural, object case)’, which are bound pronominal forms distinct from free pronouns.

Bertrand (2014) further shows that tmesis in Homeric Greek can — at least semantically — be likened to noun incorporation. This differs markedly from the situation in Ebang where the inserted material has to be a noun functioning as the syntactic subject, can be definite or specific, can be modified in various ways, and shows no sign of forming a semantic unit with the verb.

The presence of a lexical subject (other than a free pronoun) is a necessary but not by itself sufficient condition for tmesis. There are indications that tmesis also depends on other factors, such as certain tenses, clause-initial words (“conjunctions”), and pragmatic considerations (thetic *versus* categorical statements?). I realize that I have not (yet) been able to establish these factors in a satisfactory way.

A final remark: I don’t recall morpho-syntactic structures similar to tmesis in Ebang having been described for other languages in the area. Stevenson did not observe tmesis in closely related Otoro or Tira (cf.

¹⁷ It is furthermore possible that some examples have escaped notice because several concords are homographs with some other high-frequency function words: *di* ‘to’, *gi* ‘at’, *nyi* 1sg, *i* ‘or’.

Schadeberg 2009).¹⁸ However, comparison of the Ebang and Otoro New Testaments reveals many likely instances of tmesis in Otoro.

- (82) Otoro: *kani ɲiji elo idiɔ ouwir*
 Ebang: *d - ɲi Kalo igiyeɔ gibur-a galo*
 to - 1PL.OJ god open.DAT door-ACC around
 ‘that God may open the door for us’ (Col 4:3)

It remains to be seen how far such “tmesis” constructions are spread in the HEIBAN Group and what their analysis in Otoro (and elsewhere) may be.

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¹⁸ N. Quint (p.c.) confirms that similar syntactic structures exist in Koalib.