On the trail of Unua relative clause marking
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1. Introduction

An unusual feature of the verbal morphology of Unua (Malakula, Vanuatu) is the presence of an affix which is specialized for use in relative clauses. Among Vanuatu languages, the presence of such an affix appears to be unique. It is also the case that distinct relative clause marking is extremely rare cross-linguistically. In this paper, I investigate the origins of the Unua relative clause marker. On the basis of the available comparative evidence, I conclude that the Unua relative clause marker is historically derived as the result of a narrowing of the domains of the use of a Tense/Modality/Aspect (T/M/A) marker, previously not restricted only to use in relative clauses.

In general, verbal morphology tends to reference arguments of the clause and to encode a variety of tense, aspect and modality settings. In the finite relative clauses of a language the markings associated with the verb are in most cases non-distinct from the markings which appear with the verb of a main clause. Dixon (2010: 316) states that morphological markings that are found in relative clauses in languages “are likely to have further function(s) in the language”.

In most of the rare cases reported in the literature in which a relative clause has morphology special to relative clauses, the distinct morphology has the function of encoding the argument role of the head noun of the relative clause. Keenan (1985: 161) reports that the verb of a relative clause in Swahili takes “a concord marker agreeing with the head noun in addition to other subject and object concord markers”. Genetti (1992) discusses cases in Tibeto-Burman languages of Nepal which have distinct argument encoding morphology on relative clause verbs along with other verbal morphology in relative clauses sourced from nominalizing morphology. Comrie (2003) reports on the presence of relative clause argument encoding morphology in three Austronesian languages, Kambera, Nias, and Tukang Besi, as well as in Turkish, Lhasa Tibetan, Dolakha Newari, Ute, Cuzco Quechua, Macushi, and Apuriña. Yet more rarely, we find cases in which there is special relative clause

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1 Lynch and Crowley (2001: 4) reported a total of 106 as the number of Vanuatu languages, of which 81 were still actively spoken. Of the total of 106 languages, there were only 12 languages for which there was in existence an extensive grammar or an extensive dictionary or both a less extensive grammar and dictionary and a further 4 languages with both an extensive modern grammar and dictionary. Since the time of publication of Lynch and Crowley (2001), subsequent work on Vanuatu languages has seen the appearance of descriptive grammars of a further dozen or so previously undescribed Vanuatu languages. It is possible that there may be other not yet documented Vanuatu languages which may be found to have special relative clause morphology.
morphology with a tense/aspect marking function. Genetti (1992) discusses special relative clause morphology in Indo-Aryan Nepali (with a cognate in Hindi) combining aspect marking with a genitive formative. Among the languages that Comrie (2003) discusses, the special subject and patient encoding affixes of Lhasa Tibetan also distinguish imperfective and perfective aspect. Beyond the minimal domain of the relative clause, special relative clause morphology may appear in the use of markers which have their origins as complementizer/linker forms. Especially in verb-final languages, for example in Basque (de Rijk 1972), the relative clause subordinating/linker morphology may then appear as a suffix on the verb of the relative clause. Finally, Keenan (1985: 161) points to the existence of cases in Bantu languages in which the relative clause verb has a tone marking distinct from that occurring in main clause declarative verbs.

Leaving aside cases in which the verb of the relative clause is non-finite (including nominalized or reduced forms), we thus encounter three kinds of ways in which the verb of a relative clause may be associated with morphological marking distinct from that associated with the verb of a main clause:

(1) Functions of special relative clause verbal morphology:
   a. Argument referencing
   b. Tense/Modality/Aspect marking
   c. Subordination

As we will see below, the special marking in Unua relative clauses is of the (1b) type. In my analysis of the Unua relative clause marker, I will show that this marker is synchronically special to relative clauses but that the comparative evidence suggests that what is now special relative clause morphology would have had wider uses at an earlier stage in the language. It seems on the evidence that the most likely account of the source of the Unua relative marker is that it survives as a remnant of a (Realis) marker used with a backgrounding function.

2. Unua relative clause morphology

The Unua special relative clause morphology occurs as an prefix \( m \)- on the verb of the relative clause, as in the following examples:\(^2\)

\(^2\) The Unua data are presented in a phonemically-based orthography in which all voiced stops and the bilabial trill are prenasalized, \( \langle \text{bb} \rangle = /\text{bb}/, \langle \text{j} \rangle = /\text{t}j/, \langle \text{v} \rangle = /\text{v}/, \langle \text{x} \rangle = /\text{x}/, \langle \text{ng} \rangle = /\text{ng}/, \langle \text{r} \rangle = /\text{r}/, \langle \text{rr} \rangle = /\text{r}/, \) and all other orthographic symbols have the corresponding IPA values. Non-standard glosses are as follows: C = Complementizer, CONT = Continuous, NGEN = Ngenitive (form = nen), TR = Transitive, and XGEN = XGenitive (form = xi(se)-). The references accompanying Unua data are coded as described in Pearce (In preparation). (In essence, sources represented as ‘XX.xx’ are from recorded narratives, ‘XX’ followed by a date identify forms elicited with individual speakers, and ‘Luke/John/Mark x:xx’ identify texts of New Testament translations: Bembe 2007/2005/2009.)
The Unua relative clause is standardly introduced by the complementizer nga. This complementizer has its origins as a demonstrative (Pearce 2011). The form nga is also used as a linker with certain classes of noun modifiers (Pearce in preparation), but it is only sporadically used to introduce non-relative subordinate clauses. The m- marker is regularly produced in the speech of older speakers, but it is subject to loss in the speech of younger speakers.

As one of a set of three Tense/Aspect/Modality (T/M/A) markers, m- occurs before the singular subject agreement prefix (as in (2a,c) and after the non-singular subject agreement markers (as in (2b)). The full linear sequencing of the Unua finite verb morphology is as follows:

\[(3)a. \text{T/M/A} – \text{SU}^{SG} – \text{seb} – \text{mo/ber} – \text{verb} – \text{(OBJ)}\]

\[b. \text{SU}^{NONSG} – \text{T/M/A} – \text{seb} – \text{mo/ber} – \text{verb} – \text{(OBJ)}\]

SU Subject reference
OBJ Object reference/Transitivity marker
T/M/A Tense/Mood/Aspect
\[b-\] Irrealis
\[t-\] Definitive Future Negative
\[m-\] Relative
\[seb-\] Negative
\[mo-\] Continuous
\[ber-\] Inceptive

Except in the case of the 1SG form, no-, the Realis verb has no distinct morphology. The Realis verb paradigm in main clauses and in non-relative subordinate clauses is in contrast with the Irrealis, illustrated in the paradigm for xa ‘go’ in (4):

\[
\begin{array}{ccc}
\text{SG} & 1 & \text{Realis} \\
& & \text{Irrealis} \\
& & \text{‘go’} \\
& 2 & \text{no-xa} \\
& & \text{b-a-xa} \\
& 3 & \text{u-xa} \\
& & \text{b-u-xa} \\
& 3 & \text{i-xa} \\
& & \text{b-i-xa} \\
\text{DU} & 1 & \text{INCL} \\
& & \text{rru-xa} \\
& & \text{rru-b-xa}
\end{array}
\]
In relative clauses, however, the use of the Irrealis marker with future reference is in contrast with use of the relative marker *m-* with non-future time reference. This contrast is illustrated in the examples in (5):

(5)a. Naxerr [nga *b-u-xa*], b-u-sar re nemen?
   time C IRR-2SG-go IRR-2SG-fly LOC plane
   ‘When you go, will you go by plane?’

   b. Naxerr [nga *m-u-xa*], u-sar re nemen?
   time C REL-2SG-go 2SG-fly LOC plane
   ‘When you went, did you go by plane?’ [KB 16/9/11]

In summary, relative clauses are special in that they have special T/M/A morphology with non-future time reference.

There is a feature of the phonological form of relative marking in paradigms which is relevant to the analysis of the possible source of this marking. Younger and mid-age speakers of Unua have neutralized outcomes for the contrasting Proto-Oceanic bilabials *C/*C\w > /C/ and older speakers have /p\w/, /m\w/ and /β\w/, but not /m\w/. Thus, for instance, for all speakers, the word for ‘snake’ is namat < na + *mwata (PNCV: Clark 2009). However, when *m-* ‘REL’ is followed by a vowel which in other paradigms would be a front non-low vowel, the vowel is produced as the corresponding central rounded vowel. These central rounded vowels are not found after /m\v/ in other contexts, or, indeed, anywhere else. The paradigms in (6) show the *m-* ‘REL’ forms used by older speakers contrasting with the corresponding forms used by younger speakers with the verb ke-i ‘see-TR’ (which takes an epenthetic vowel after a consonant-final prefix):

<table>
<thead>
<tr>
<th></th>
<th>Younger speakers</th>
<th>Older speakers</th>
</tr>
</thead>
<tbody>
<tr>
<td>SG 1</td>
<td>m-[e]-ke-i</td>
<td>m-[o]-ke-i</td>
</tr>
<tr>
<td>2</td>
<td>m-[u]-ke-i</td>
<td>m-[u]-ke-i</td>
</tr>
<tr>
<td>3</td>
<td>m-[i]-ke-i</td>
<td>m-[u]-ke-i</td>
</tr>
<tr>
<td>DU 1 INCL</td>
<td>rru-m-[e]-ke-i</td>
<td>rru-m-[o]-ke-i</td>
</tr>
<tr>
<td>EXCL</td>
<td>mor-m-[e]-ke-i</td>
<td>mor-m-[o]-ke-i</td>
</tr>
<tr>
<td>2</td>
<td>mur-m-[e]-ke-i</td>
<td>mur-m-[o]-ke-i</td>
</tr>
<tr>
<td>3</td>
<td>ru-m-[e]-ke-i</td>
<td>ru-m-[o]-ke-i</td>
</tr>
<tr>
<td>PL 1 INCL</td>
<td>rre-m-[e]-ke-i</td>
<td>rre-m-[o]-ke-i</td>
</tr>
<tr>
<td>EXCL</td>
<td>mem-m-[e]-ke-i</td>
<td>mem-m-[o]-ke-i</td>
</tr>
<tr>
<td>2</td>
<td>mum-m-[e]-ke-i</td>
<td>mum-m-[o]-ke-i</td>
</tr>
</tbody>
</table>
The presence of these rounded vowels after the m- ‘REL’ suggests that it is most plausible that the m- prefix should be analyzed as the reflex of an earlier marker including the velarized bilabial nasal *mʷ*, rather than as *m-.*

3. The uses of REL

In addition to its use in relative clauses, the m- ‘REL’ marker is also found in two other kinds of contexts: it appears on noun modifying expressions and on verbs in certain reason and manner clauses.

3.1. Noun modification

Noun modifiers may occur in variant forms, including or not the full trappings of the relative clause:

(7)a. nue [nga m-i-merr-merr]
   water C REL-3SG-DUP-clear
   ‘clear water’
b. nue m-i-merr-merr
c. nue merr-merr [BM 16/8/04]

(8)a. nixe berovre [nga m-i-mnvnv]
    stick long C REL-3SG-thin
    ‘a long thin stick’ [KB 17/4/07]
b. nixe m-i-mnvnv [nga m-i-brov]
    stick REL-3SG-thin C REL-3SG-long
    ‘a long thin stick’ [KB 17/4/07]

The use of the m- marker in these cases is consistent with the treatment of m- as a relative clause marker on the understanding that the forms where the complementizer is not present are reduced versions of the forms with the full relative clauses.

3.2. Reason and Manner clauses

3.2.1. Reason clauses

Relative marking applies with preposed imrebe ‘how/why’ (10), but not with clause-internal imrebe ‘how’ (9):

(9)a. Vin nge i-rav-i dabango-n ngo i-mrebe?
    woman PROX 3SG-take-TR belly-3SG the 3SG-how
    ‘How did this woman get that belly?’ [CO.06]
b. Motara, xau u-non ni nga i-mrebe?
    old.man 2SG 2SG-stay IO C 3SG-how
    ‘Old man, how come you are sitting there?’ [BS.19]
c. Go u-vena i-mrebe?
    and 2SG-come how
'And how did you come?' [BS.26]

(10)a. B-u-vra-i xini xina i-mrebe m-u-vase.
    IRR-2SG-say-TR IO 1SG 3SG-how REL-2SG-do
    ‘Tell me why you did it.’ [KB 9/8/05]

b. I-mrebe xini m-i-xa m-i-xenxen rroni motara namar rin?
    3SG-how 3SG REL-3SG-go REL-3SG-eat with old.man chief PL
    ‘How is it she goes and eats with the chiefs?’ [WC.08]

c. Jirvaren ninge i-sbo i-mrebe noxobb m-i-vena
    story one.PROX 3SG-discuss 3SG-how fire REL-3SG-come
    m-i-tetebatin Ambrym. [AV.03]
    REL-3SG-begin Ambrym
    ‘This story tells how the fire [the volcanoes] came and started at Ambrym.’

d. Go i-mrebe arres se xai re-m-se-vase rre
    and 3SG-how person GEN 2SG 3PL-REL-NEG-do NEG
    b-i-mro-g?
    IRR-3SG-like-that
    ‘And why do your people not do likewise?’ [Mark 2:18]

e. I-mrebe xai m-u-matur?
    3SG-how 2SG REL-2SG-sleep
    ‘Why are you sleeping?’ [Mark 14:37]

The m- marking has not been found to cooccur with other clefted constructions in the Unua data that I have collected and we might understand the use of the m- marking in the preposed ‘how/why’ construction as indicating an alignment of relative clauses with a form of subordination, represented schematically in (11):

(11) i-mrebe [ . . . m- . . . ]
    (it) is how/why [(that) . . . ]

Whilst this schema does not provide us with a head noun so that it can be fully assimilated with the relative clause construction, it does at least show the parallel that the m-marked verb is situated in a dependent clause containing a gap which corresponds to the modifier function in an independent clause. The quasi relative interpretation of the schema in (11) receives some (marginal) support from an example in which the preposed imrebe construction includes the relative clause complementizer nga:

(12) go re-ke-i i-mrebe [nga Josef m-i-ring-i Jesu
    and 3PL-see-TR 3SG-how C Joseph REL-3SG-put-TR Jesus
    morombbsi-n m-i-tox ren].
    ‘and they saw how Joseph had put the body of Jesus to stay there.’
Non-interrogative reason clauses, like time clauses (as in (2b), (5a,b)), may be formed as relative clauses on a head noun:

(13) a. i-ve batin [nga Pita m-i-rej m-i-mre-n].
    3SG-be reason C Peter REL-3SG-speak REL-3SG-like-this
    ‘that is the reason that Peter talked in this way.’ [Mark 9:6]

   b. Batin re [xai m-u-vra m-i-mro-g], b-u-xaxa
    reason LOC 2SG REL-2SG-say REL-1SG-like-that IRR-2SG-walk
    gir vex ji-xi-m. [Mark 7:29]
    back to DIR-2SG
    ‘Because you speak in that way, you should walk back to your place.’

Thus it seems that there is some (abstract) level at which we can construe both interrogative and non-interrogative reason clauses as syntactically akin to relative clauses.

3.2.2. Manner clauses
A similar kind of structural parallel seems to be at work with manner clauses introduced by the verb -mre ‘be like’, which is also followed by an m-marked clause:

(14) a. go mokiki i-vra-i mu i-mre [nga ru-m-vemu
    and boy 3SG-say-TR again 3SG-like C 3DU-REL-before
    ru-ma-vra-i]
    3DU-REL-say-TR
    ‘and the boy in turn replied as the other two had replied before’ [GS.24]

   b. Xini i-vase i-mre [nga xina m-o-gom].
    3SG 3SG-make 3SG-like C 1SG REL-1SG-run.
    ‘He ran like I ran.’ [JH 15/9/11]

   c. Go xina b-a-vase xamru mur-b-xon xini arres
    and 1SG IRR-1SG-make 2DU 2DU-IRR-catch IO person
    b-i-mre [mur-m-xon xini naix].
    IRR-3SG-like 2DU-REL-catch IO fish
    ‘And I will have you catch men as you catch fish.’ [Mark 1:2]

   d. Xande mim-b-vase b-i-mre [nga xina m-a-vase].
    2PL 2PL-IRR-make IRR-3SG-like C 1SG REL-1SG-make
    ‘You should do as I do.’ [Mark 10:45]

In the case of these manner clauses with imre, the attestations show a greater frequency of forms with the relative complementizer nga than without nga. Although I will leave aside here, the question of how the apparent parallelism between the manner and relative clauses may best be represented formally, it seems that once again, we should assume that these manner clauses, along with the reason clauses, have some degree of structural comparability with relative clauses and which distinguishes them from other kinds of subordinate clauses.
3.3. Age grading
Among present-day speakers of Unua there is some variation in the use of \( m^- \) ‘REL’ with respect to the three constructions in which it has been found to occur. A rough depiction of the parameters of the variation in terms of the age of speakers is as follows:

(15) Variation in the use of \( m^- \)

<table>
<thead>
<tr>
<th>Construction</th>
<th>Speakers’ use of ( m^- )</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Noun modifiers</td>
<td>All speakers</td>
</tr>
<tr>
<td>b. Relative clauses</td>
<td>Older and mid-age speakers with use by younger speakers mainly restricted to 3SG forms</td>
</tr>
<tr>
<td>c. Reason/manner clauses</td>
<td>Older speakers and variably for mid-age speakers with manner clauses</td>
</tr>
</tbody>
</table>

The distribution for older and mid-age speakers in (15) shows the nexus of usage of \( m^- \) with relative clauses and with the reduced relative clauses/noun modifiers. This chronologically based picture also indicates a scenario of inter-generational loss proceeding (variably) in accordance with construction type.

4. Other Malakula languages

In this section I examine possible antecedents for the Unua relative clause marking through the consideration of data on comparable T/M/A prefixes in other related languages, proceeding in bottom-up fashion, starting with Pangkumu, Unua’s co-dialect in section 4.1, and continuing on with other Malakula languages, then extending on (more briefly) to other Vanuatu languages.

4.1. Unua-Pangkumu

Unua is a co-dialect with Pangkumu of a language that is conventionally designated as ‘Unua-Pangkumu’. The published sources of information on Pangkumu are the grammar sketch of Morton (1891), a primer (Morton n.d. [1892]), missionary translations of four books of the New Testament (Morton 1892, 1897, Paton 1903, 1913) and some 2,000 vocabulary items in Charpentier (1982). Morton (1891) discusses three T/M/A markers that precede the Pangkumu verb and which I interpret in present-day terminology as:

(16) Pangkumu (from Morton 1891)

\[
\begin{align*}
m^- & \quad \text{REALIS (present and past)} \\
b^- & \quad \text{IRREALIS (future, imperative, infinitive/subjunctive)} \\
ti & \quad \text{NEG (hortative)} \\
se & \quad \text{NEG} \\
bir^- & \quad \text{INCEPTIVE}
\end{align*}
\]

On this account, whereas the Unua verb paradigm has zero marking for Realis, in Pangkumu the Realis is marked with a prefix \( m^- \). Our first working assumption, therefore, is that the Unua relative clause marker \( m^- \) is cognate with Pangkumu Realis \( m^-/(mw^-) \).
As seen in (17) below, Charpentier (1982) indicates the presence of a mi- prefix on some items which can have noun modifier functions. In other instances with the forms shown in (17), the Pangkumu form differs from its Unua cognate in having initial mV, and in one instance with initial mwV-. (In (17), ‘N’ stands for ‘noun’ and the Pangkumu and Unua forms are given in IPA symbols for ease of comparison.)

(17) Charpentier (1982): Likely modifier citation forms

<table>
<thead>
<tr>
<th>Pangkumu</th>
<th>Unua</th>
</tr>
</thead>
<tbody>
<tr>
<td>marumbrumb</td>
<td>rum</td>
</tr>
<tr>
<td>maßyr tfiptjip</td>
<td>ßur</td>
</tr>
<tr>
<td>meßur</td>
<td>ßur</td>
</tr>
<tr>
<td>mit[etf]</td>
<td>se</td>
</tr>
<tr>
<td>mier</td>
<td>erer</td>
</tr>
<tr>
<td>mimar</td>
<td>mer</td>
</tr>
<tr>
<td>mi-metf</td>
<td>metf</td>
</tr>
<tr>
<td>mißo</td>
<td>ßo</td>
</tr>
<tr>
<td>mi-ßyr kakas me</td>
<td>ßur</td>
</tr>
<tr>
<td>mwesras</td>
<td>sras</td>
</tr>
<tr>
<td>N + mingut</td>
<td>ñot</td>
</tr>
<tr>
<td>mi-ngar</td>
<td>?</td>
</tr>
<tr>
<td>mi-ngut/mi-ngur</td>
<td>?</td>
</tr>
<tr>
<td>mi-retf</td>
<td>?</td>
</tr>
<tr>
<td>mirun</td>
<td>?</td>
</tr>
<tr>
<td>mixer</td>
<td>?</td>
</tr>
<tr>
<td>N + maratf</td>
<td>?</td>
</tr>
<tr>
<td>N + maxombxomb</td>
<td>‘slacken/muddy/sodden’</td>
</tr>
</tbody>
</table>

The existence of forms such as those in (17) in a more contemporary form of Pangkumu suggests the availability of m(w)(V)- as a marker of noun modifiers.

In a set (in draft form) of Pangkumu texts that he collected in 1976, Charpentier (2003), we find the presence of a verb prefix of the form m(w)(V)- which shows up both in main clauses and in relative clauses with realis interpretations and which is in contrast with a prefix b(V)- glossed as ‘Future’. The examples in (18) show uses of the m(w)(V)- prefix in main clauses and in (19) in relative clauses, with the glosses as assigned in Charpentier (2003), but with some modifications following discussion with Jean-Michel Charpentier (personal communication November 2011).

(18)a. re-me-vrer-i mi-co vere ni-vet  
    3PL-R-beat-TR 3SG.R-go like the-stone  
    ‘they beat him until he became as a stone.’ [Demec (Sem), 29]

3 My thanks to Jean-Michel Charpentier for his generosity in sending me copies of these texts.
b. Ru-**mwe**-vevar, mi-co, mi-co, …
   3DU-R-walk.around 3SG.R-go 3SG.R-go
   ‘They went on walking around …’ [Demec (Sem), 6]

c. re-**mwe**-vrer-i mi-co …
   3PL-R-hit-TR 3SG.R-go
   ‘they went on hitting it …’ [Demec (Sem), 30]

(19)a. xaris [nga re-**mwe**-vrer°-i]
   person C 3PL-R-hit-TR
   ‘the men that had hit him’ [Demec (Sem), 33]

b. na-urur [nga mwe-kese-xn i Rano]
   the-island C R-call-DAT TR Rano
   ‘the island that is called Rano’ [Rambramb 76]

c. mokere na [mwe-re ni-reng mbi-nong]
   boy DEM R-hear the-wind 3SG.FUT/IRR-end
   ‘the boy that breathes the wind that is ending’ [Rambramb 100]

In these data, we thus see the Pangkumu m(w)-Realis prefix is used both in relative clauses and in main clauses. Aligning the contrasting b-/m(w)- Unua and Pangkumu prefixal forms, their designations are as follows:

(20) Pangkumu Unua
    
    $bV$- IRREALIS $bV$- IRREALIS
    $m(w)V$- REALIS $mV$- RELATIVE

If we assume cognacy for the Pangkumu and Unua forms of (20), Charpentier’s material is of particular interest in that it shows the Pangkumu bilabial nasal prefix most frequently represented as velarized, mw(V)-. Given this, we have additional support for the conclusion of the Unua-internal reconstruction (proposed in section 2) that the Unua m- ‘REL’ derives from *mw-.

Second, given the existence and the distribution of the m(w)(V)- prefix in Pangkumu, we may begin to consider two alternatives as to the diachronic developments involving the outcomes for the *mw- marking in the two Unua-Pangkumu dialects:

(21) Hypotheses as to diachronic evolution (A or B)
    
    A. A special marking applying to relative clauses and to other related subordinate clause constructions has been extended to a wider range of constructions in Pangkumu.

    B. The domains of use of a Realis marker have been reduced to apply only to relative clauses and related subordinate clause constructions in Unua.

In the next section we undertake the investigation of the comparative data in other languages of Malakula.
4.2. Pre-verbal markers in other Malakula languages

4.2.1. North-East Malakula: Uripiv and Atchin

As will be seen below, there are a number of Malakula languages which have an Irrealis marker cognate with Unua-Pangkumu /b-/ , but there is only one language, North-East Malakula, which has a marker of the form /m(w)-/ which provides a firm basis for comparison with Unua-Pangkumu *mw-.

The Uripiv dialect of North-East Malakula is described in McKerras (2005) as having the following T/M/A verb prefixes:

(22) Uripiv verb prefixes (McKerras 2005)

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>m-</td>
<td>STATIVE REALIS</td>
</tr>
<tr>
<td>b-/p-</td>
<td>IRREALIS</td>
</tr>
<tr>
<td>d-/t-</td>
<td>WARNING MOOD</td>
</tr>
</tbody>
</table>

The m- Stative Realis is used in the following functions:

(23) Uses of the Stative Realis (McKerras 2005: 12-13)

- events in progress
- background events/states
- usually used instead of Realis in relative clauses
- complement clauses with present/past reference in constructions corresponding to subjunctive/infinitive uses in other languages
- with future negative

McKerras (2005: 7) notes also that noun modifiers occur as m-marked relative clauses, as in: nai [nga mi-lep] ‘the fish which is big’. As is the case in Unua, the Uripiv (non-stative) Realis has no dedicated prefix and is distinct from other verb markings only in its 1SG form. McKerras (2005: 12) states that the Uripiv Realis is “generally used for mainline action” (past or present) and it thus seems plausible that all the uses of the contrasting Stative Realis listed in (23) should appropriately be characterized as marking events or states which are backgrounded with respect to the main events of ongoing narratives.

It appears that the Uripiv Stative Realis m- is broadly most comparable with the Pangkumu Realis m(w)- in that it has a wider range of uses than the Unua m-.

However, we can also note that the ‘backgrounding’ function of the Uripiv Stative Realis shows a specialization in function suggestive of at least a partial correspondence with the more restricted uses of the Unua m-.

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4 Lynch and Crowley (2001) attribute a total of 39 distinct languages to Malakula. I have had access to grammatical descriptions for: Avava (Crowley (2006d), Naman (Crowley 2006c), Nāti (Crowley 1998), Navahaq (Dimock 2009), Nese (Crowley 2006a), Neve’ei (Musgrave 2007), North-East Malakula: Atchin (Capell and Layard 1980), Uripiv (McKerras 2005), Port Sandwich (Charpentier 1979), Tape (Crowley 2006b), Tirax (Brotchie 2009), and V’ènen Taut (Fox 1979).
The Atchin dialect of North-East Malakula presents another variant on the function of an \( m^- \) prefix. Atchin is described in Capell and Layard (1980) as having contrasting verb prefixes as follows:

(24) Atchin verb prefixes (Capell and Layard 1980: 75)\(^5\)

\[
\begin{array}{ll}
p-/p^-/pw^- & \text{FUTURE} \\
e^- & \text{INDEFINITE (without tense specification)} \\
m-/m^-/mw^- & \text{PAST}
\end{array}
\]

The Indefinite \( e^- \) mostly has zero realization in the paradigms presented in Capell and Layard (1980: 75-81) and its uses are obscure. Assuming cognacy for Atchin/Uripiv Future/Irrealis and Past/Stative Irrealis, for the particular case of \( /m^-/ \) prefixing, Atchin presents another variant in a function for this marker.

The relative stability of Irrealis/Future function of the \( /b^-/ \) marking is therefore in contrast with variation in the functions to which the \( /m^-/ \) marking is put in the different dialects. The instability of the functions of the \( /m^-/ \) marking is particularly notable in that we have found contrasting uses in two instances where the functions of this marker differ in co-dialects of the same language, in Unua-Pangkumu and in North-East Malakula.

4.2.2. Other Malakula languages

Whilst a number of other Malakula languages have a \( /b^-/ \) Irrealis marker, we do not find clear evidence of a correspondent to the \( /m^-/ \) marking found in Unua-Pangkumu and in North-East Malakula. The Malakula languages which have a bilabial stop Irrealis affix are:\(^6\)

(25) IRREALIS\(^7\)

\[
\begin{array}{l}
\text{Atchin} \\
\text{Uripiv} \\
\text{Avava} \\
\text{Neverver}
\end{array}
\begin{array}{l}
p-/p^-/pw^- \\
b-/p^- \\
 bwV^- \\
b-/m^-
\end{array}
\]

\(^5\)For discussion of apical bilabials in Malakula languages (\( p^- \) and \( m^- \) in (24)), see Lynch and Brotchie (2010).

\(^6\)Malakula languages which do not have bilabial segments in their Irrealis markers are:

(i) IRREALIS

\[
\begin{array}{l}
\text{Nese:} \\
\text{Tirax:} \\
\text{Nahavaq:} \\
\text{Näti}
\end{array}
\begin{array}{l}
(de-)/je-/se- \\
dV^-/tV^- \\
gV^-/kv^- \\
-a-
\end{array}
\]

Following the discussion of Lynch and Brotchie (2010), it is however possible that the Tirax Irrealis marking derives through shift of apico-bilabials \( *b'/*p' > d-/t- \) (see Lynch and Brotchie 2010). If this is so, the Tirax Irrealis is cognate with other Malakula languages having Irrealis reflexes of the proposed Proto-Malakula \( *b^{(w)}a \) (from Lynch 2007).

\(^7\)Sources for the languages included in (25) are as listed in fn. 5, along with Neverver (Barbour 2010) and Ninde (Ray 1926 and Leino Isno personal communication).
Lynch (2007) suggests that these Malakula Irrealis markers are probably reconstructable as \*b\(^{(w)}\)a. However, despite the apparent uniformity in the Irrealis forms for the languages of (25), it remains that it is only with Unua-Pangkumu and North-East Malakula that we find a marker with a bilabial nasal which is appropriately, I believe, analyzed as a cross-linguistic cognate with Unua m- `REL'. This leaves us with a residue in the analysis for the case of the marker which appears as mo- `CONT’ in Unua, the possible cognates of which we investigate in the section now following.

4.3. Problematic /m-/ marking

First we need to put aside the possible role of what now appears as a relic m(\(V\))-prefix which Evans and Ross (2001) reconstruct as a Proto-Oceanic prefix \*ma which had uses in a valency decreasing function and as a prefix attached to non-agentive verbs (see Evans and Ross 2001: 287). Clark (2009: 70) identifies distinct markers m(\(V\))- `Realis or 3SG present’ and ma- `Prefix deriving intransitives’, both as a frequently occurring prefixes in North Central Vanuatu languages. Unua appears to have a relic of \*ma incorporated in the statives shown in (26), along with the Proto North and Central Vanuatu (PNCV) reconstructions of Clark (2009):

\[\text{8} \text{ In Neverver the Irrealis marker is realized as contextually conditioned [mb] or [m] which Barbour (2010: 203) treats as underlying /m-/. However, I believe that the Neverver marker is better analyzed as underlying /\textit{mb}-/, with the preferred derivation involving a weakening rather than a strengthening (dissimilation) rule:} \]

(i) Neverver 1INCL Irrealis /m-/ (following Barbour 2011: 203):

\[
\begin{array}{lll}
\text{epenthesis} & \text{n-i-m-t-laβ} & /n-i-m-t-\text{uβ}/ \\
\text{dissimilation} & \text{n-i-mb-i-t-laβ} & /i-mb-\text{roŋ}/ \\
\text{‘get’} & [n-i-mb-i-t-laβ] & [i-mb-\text{roŋ}] \\
\text{‘go’} & [n-i-m-t-\text{uβ}] & [i-mb-\text{roŋ}] \\
\text{‘want’} & [n-i-m-b-i-t-laβ] & [i-mb-\text{roŋ}] \\
\end{array}
\]

(ii) Alternative analysis /\textit{mb}-/:

\[
\begin{array}{lll}
\text{epenthesis} & \text{n-i-mb-t- laβ} & /n-i-mb-t-\text{uβ}/ \\
\text{weakening} & \text{n-i-mb-i-t- laβ} & /i-mb-\text{roŋ}/ \\
\end{array}
\]
Unua stative verbs with relic formative *m-

<table>
<thead>
<tr>
<th>Unua</th>
<th>PNCV (Clark 2009)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>mniivniv</td>
<td>*ma-nivi=nivi</td>
<td>‘thin’</td>
</tr>
<tr>
<td>mrara</td>
<td>*mara?a</td>
<td>‘light (weight)’</td>
</tr>
<tr>
<td>mtonton</td>
<td>*tunu</td>
<td>‘straighten’</td>
</tr>
<tr>
<td>mroxroxx</td>
<td>*mataku</td>
<td>‘weak (person)’</td>
</tr>
<tr>
<td>mtox(tox)</td>
<td>*mavor ‘broken’, *vora ‘break’</td>
<td>‘break’</td>
</tr>
<tr>
<td>mxon(xon)</td>
<td></td>
<td>‘shy/stuck’</td>
</tr>
</tbody>
</table>

Uripiv also has a fossilized ‘Resultant State Prefix’ usually *mV-: oti worwor ‘he breaks it up small’, e-mawor ‘it is broken’ (McKerras 2005: 14). Dimock (2009: 276-279) shows a much larger number of fossilized *ma- forms in Nahavaq.

Synchronically, there is no relationship between the Unua *m- ‘REL’ and the incorporated forms with *m- in (26) (cf. the forms *mi-mniivniv ‘REL-3SG-thin’ in (8a,b)). This would appear to be the case also for the corresponding forms in Uripiv. It is therefore highly probable that the Unua relative *m- and the Uripiv Stative Realis *m- are reflexes of Clark’s *m(V)- ‘Realis or 3SG present’ (sections 4.1, 4.2.1). This interpretation is also supported by the fact that Uripiv’s co-dialect, Atchin, has *m-/mw- ‘Past’ in contrast with *p-/p’-/pw- ‘Future’.

But we still do not have a solution as to the source of Unua *mo- ‘CONT’, contrasting with Unua *m- ‘REL’.

The following Malakula languages have a verbal prefix including /m/ which is more difficult to reconcile with the /m-/ markers that we have seen for Pangkumu and for North-East Malakula which appear to be cognate with Unua *m- ‘REL’:

Other /m/ markers

| V’ënen Taut: | m-/m’-          | CONDITIONAL IRREALIS |
| Naman:       | ma-             | CONTINUOUS           |
| Avava:       | ma-             | CONTINUOUS/HABITUAL  |
| Port Sandwich: | mo-          | ‘appearance, momentary quality, doubt’ |

Given its form, V’ënen Taut *m-/m’- could conceivably be considered to be an alternative development (into an Irrealis) from what we have identified as *m(w)- (a Realis marker) for North-East Malakula and Unua-Pangkumu. Unua *mo- ‘CONT’ has the same function as Naman and Avava ma-, but is closest in form to the differently functioning Port Sandwich mo-. We are left with no solution as to the source of the *mV- markers. In particular, it is an open question as to whether they could have been more distantly sourced from the marker giving rise to the proposed *m(w)- prefix deriving North-East Malakula and the Unua-Pangkumu m(w)- forms.

4.4. ‘Backgrounding’ beyond Malakula

I have proposed that the Unua *m- ‘REL’ prefix could have derived from an earlier ‘backgrounding’ marker that is represented synchronically with this latter function in Uripiv. The kind of backgrounding function that is seen in the Uripiv morphology is
comparable to a function labelled by Krifka (2011) as ‘Distal’ for a verb prefix in Daakie (Southwest Ambrym). Krifka identifies the following verb prefixes:

(28) Daakie verb prefixes (Krifka 2011)

\[
\begin{array}{ll}
  m & \text{Realis} \\
  bw & \text{Irrealis} \\
  t & \text{Distal:} \\
\end{array}
\]

- background frame setting
- noun modification
- conditional clauses involving doubt/counterfactuals
- stative predications (progressives, habituals, adjectival predications)

The Distal marking is applied also in Daakie relative clauses (Krifka personal communication October 2011). The functions of the Daakie Distal marker are a subset of the functions of the backgrounding Stative Realis marker in Uripiv (section 4.2.1).

François (2010) discusses two languages of Torres Island, Hiw and Lo-Toga, which have ‘Background Perfect’ markers with the following forms and functions:

(29) ‘Background Perfect’ in Hiw and Lo-Toga (François 2010)

a. Forms:
   Hiw: \( ve \ldots ti \)
   Lo-Toga: \( ve \ldots si \)

b. Functions:
   - clause topicalization and backgrounding (w/o complementizer)
   - realis restrictive relative clauses (+/- complementizer)
   - cleft/focus realis clauses (+/- complementizer)
   - wh-fronted questions (w/o complementizer)

In independent uses Hiw and Lo-Toga \( ve \) functions as an Imperfective. The examples in (30a,b) show the contrasting functions for \( ve \) in Lo-Toga:

(30)a. Nihe \( ve \) lòv nie tē “Temétrōn”.
   3PL IPFV call 3SG QUOT Healer
   ‘People call him “Healer”.’ [François 2010: 531]

b. Ne gehuh \( ve \) kerkur tēle si mat mēt.
   ART coconut.crab BKPF1 ITER.crunch person BKPF2 CPLT die
   ‘The coconut crab (which) had devoured people was dead.’
   [François 2010: 501]

Interestingly, the Hiw/Lo-Toga Background Perfect has uses which to a certain extent are comparable to those for \( m \)- ‘REL’ as used by older Unua speakers. In both cases, the \( ve/m \)- markers are used with relative clauses and with (a different range of) \( wh \)-fronting constructions. Although we do not have here evidence for a sequencing across all the different languages that we have discussed, the array of uses of the

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\[\text{9} \] Von Prince (2011) also applies the ‘Distal’ label to a cognate prefix in Daakaka, a Southwest Ambrym co-dialect with Daakie.
various ‘backgrounding’ markers is suggestive of possible stages in losses of functions at least with respect to the distribution seen for the Malakula languages:

(31) Progressive specialization hypothesis

<table>
<thead>
<tr>
<th>Functions</th>
<th>Malakula languages</th>
<th>Other Vanuatu languages</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Realis</td>
<td>V’ënen Taut</td>
<td></td>
</tr>
<tr>
<td>II. Backgrounding realis in a variety of constructions</td>
<td>Uripiv</td>
<td>Daakie</td>
</tr>
<tr>
<td>III. Backgrounding realis used in restricting subordinate clauses</td>
<td>Unua: older speakers</td>
<td>Hiw/Lo-Toga</td>
</tr>
<tr>
<td>IV. Realis relative clauses</td>
<td>Unua: mid-age/younger speakers</td>
<td></td>
</tr>
</tbody>
</table>

5. Excursus: Linker relative clause marking in Malakula

There are four Malakula languages known to have a cognate linker which appears to be derived from *ti(t). In one of these languages, Naman, the use of this linker is special to the marking of relative clauses. The forms and functions of this marker in the four languages are:

(32) *Complementizer/*Linker > Relative marker

- V’ënen Taut: 
  - *ti* ‘that’ (introduces complement clauses, Fox 1979: 105)
- Naman: 
  - *i/ti/ti* REL (precedes relative clause subject, *tet* in headless relatives, Crowley 2006c: 91-96)
- Nahavaq: 
  - *t(i)-* REL (precedes relative clause subject; same as possessive marker, Dimock 2009: 102-108)
- Ninde: 
  - *ti-* occurs on adjective, numeral and demonstrative modifiers of N, form similar to genitive

The existence of these linker forms attests to another pathway by which a language may acquire a specialized relative clause marker: Naman now has a linker form which is used exclusively as a relative clause complementizer.

6. Concluding remarks

We have seen that there is a relatively pervasive presence of verb prefixes consisting of (variant forms of) /m-/ in the Malakula languages. I believe that I have shown that there is a good case for the Unua relative clause marker *m-* being cognate with the North East Malakula (Uripiv and Atchin) Stative Realis/Past *m-/m’-/m*- prefixes. The *ma-/mo-* ‘CONT’ prefixes of Unua, Naman and Avava appear as separate cognate forms and we remain with an unexplained residue for Port Sandwich *mo-* and for V’ënen Taut *m-/m’-.
My analysis of the Unua *m- ‘REL’ has proposed that it survives as a relic of a prefix *mw- which had an earlier use as a (backgrounding) realis marker. This finding extends on the observations of Comrie (2003: 15-16) as to the sources of the special relative clause marking which he identifies (for the cases that he discusses) as deriving from voice marking morphology or from nominalizing morphology. Beyond the scope of this paper has been the consideration of the origins of the special relative clause Tense/Aspect morphology reported for Nepali/Hindi (Genetti 1992) and for Lhasa Tibetan (Comrie 2003).

*Special thanks to Leina Isno for Ninde data.

References


