Racines sous-spécifiées, hiérarchie dérivationnelle, flexibilité fonctionnelle en amis (langue austronésienne de Taiwan)

1. Categorisation in Amis (Formosan)

Categorisation involves several possible levels of identification: roots, stems and morphosyntactic words (Lehmann 2008: 548).
- En amis, les racines sont sous-spécifiées/precatégorielles ;
- Seuls les mots dérivés (racine + affixes) ont une catégorie assez rigide.

Criteria for precategoriality

Some criteria were profiled by Evans & Osada (2005) to identify precategoriality.
(i) exhaustivity (i.e. all the lexemes of a language should be precategorical),
(ii) bi-directionality
(iii) compositionality, i.e. “any semantic difference between the uses of a putative ‘fluid’ lexeme in two syntactic positions —say argument or predicate— must be attributable to the function of that position” (ibid. 2005: 367).

These criteria apply to roots in Amis, not to derived stems and word forms.

Plan:
(i) Definitions; (ii) hierarchy of derivation; (iii) asymmetrical functional flexibility; (iv) 1ary & 2ary derivation; (iv) co-selection of roots & affixes; (v) the limits to root underspecification; (vi) category-changing derivations; (vii) lability of causative derivation; (viii) lability of passive derivation; (ix) lability of derivational-inflectional TAM affixes.

1.1. Roots: some features

(i) Roots are pervasively –but not exhaustively– categorially neutral.
All word forms are derived. Nouns & verbs are never cited under the root form.
(ii) Roots have a set of regular derivational and inflectional word-forms sharing some common/related meaning.
(iii) Roots have a general meaning, but only word forms have a specific meaning.
(iv) Roots also have abstract semantic features (entity-denoting, property-denoting and/or event denoting) and some instructions that allow or disallow affixation by primary derivational affixes which specify their class and category. For instance features such as ± human entity; or features such as ± activity, ± state, ± property denoting, etc.).
(iv) Lexical categories are expressed after roots have been derived and inflected as stems and morphosyntactic word forms and projected in a syntactic frame.

1.2. Hierarchy of derivation in Amis : primary vs. secondary derivations

Hierarchy of derivational processes of roots & stems
- Primary derivation operates on roots and is category attributing;
- Secondary derivation operates on already derived verb stems and is category changing.

- Primary derivation from categorially neutral roots
  - Roots are derived as noun stems by zero derivation and are flagged by the NM u.
(1a. Uruma k-u lipahak n-u babainay.
   great NOM-NM happy GEN-NM man
   ‘The men are very happy.’ (lit. the men's joy is great)

b. Ø-lipahak k-ita.
   Ø-happy NOM-1PL.INCL
   ‘We are very happy.’

- **Verb stems** (other than stative Ø-verb stems) are usually derived by voice affixes.

(2a. Awaay k-u ngudu n-ira.
   NEG.EXS NOM-NM respect GEN-3SG
   ‘He’s not respectful.’ (lit. there is no respect of his)

b. Ma-ngudu k-aku.
   NAV-respect NOM-1SG
   ‘I feel shy.’

1.3. The role of **SYNTAX**: asymmetrical functional flexibility of derived noun & verb stems
   - Derived morphosyntactic words inserted in a syntactic context are quite rigidly subcategorised as verbal, nominal or adjectival-modifying heads.
   - Some **functional** flexibility at syntactic level, but only for nouns & deverbal nouns, pronouns, numerals: they can be predicates without derivation, only through syntax.
   - **Asymmetrical** functional flexibility; verbs must be nominalised for argument function.

(3a. [u saba=aku] k-u ø-tayni-ay.
   NM young.sibling=GEN.1SG NOM-NM ø-arrive-NMZ
   PREDICATE ARGUMENT
   ‘It’s my younger brother who came.’

b. ø-tayni k-u saba=aku.
   ø-arrive NOM-NM young.sibling=GEN.1SG
   ‘My younger brother came.’

- **Free pronouns** behave like nouns in predicate function.

c. Caay ka aku k-u ø-tayni-ay.
   NEG NFIN FR.1SG NOM-NM ø-arrive-NMZ
   ‘It’s not me who came.’

Non-verbal predicates may host TAM markers (4a, b).

(4a. Mi-kutay=tu ci Cidal
   AV-replace=PFV PM Sun
   ‘Sun replaced (him).’ (U teker ni Adek.018)

b. Ci Cidal=tu k-u mi-kutay-ay.
   PM Sun=PFV NOM-NM AV-replace-NMZ
   ‘It was Sun (who was) the substitute.’ (U teker ni Adek.018)

Predicative nouns are negated and asserted by the same illocutionary markers as verbs (5a-b); same TAM markers and degree markers (5c-d).
(5a)  
Caay ka u tumay.  
NEG  NFIN  NM  bear  
‘No, it was not a bear.’  
b.  
Caay ka-ngudu cira.  
NEG  NFIN.NAV-be.ashamed  NOM.3SG  
‘He’s not ashamed.’  
c.  
Tada u tamdaw cira.  
DEGREE  NM  person  NOM.3SG  
‘He’s a true man.’  
d.  
Tada Ø-lipahak k-ita.  
DEGREE  happy  NOM-1PL.INCL  
‘We are very happy.’

(6a)  
u tumay is the focused predicative noun, its nominative argument is a gerund deverbals noun k<em>an-ay which governs an argument (tu tamdaw).

(6a)  
[U tumay haw] [k-u k<em>an-ay t-u tamdaw] ?  
NM  bear  QM  NOM-NM  <NAV>eat-NMZ  OBL-NM  people  
<PREDICATE>  <---------  ARGUMENT  ---------------------->  
‘Was it a bear that ate people?’  

b.  
K<em>an t-u tamdaw k-u tumay.  
<NAV>eat  OBL-NM  people  NOM-NM  bear  
‘The bear ate people.’

Predicative deverbals nouns:  

(7)  
U ma-adup-ay cira.  
NM  NAV-hunt-NMZ  NOM.3sg  
‘He’s a good hunter/ he often goes hunting/likes hunting.’

1.4. Primary vs. secondary derivations

- **Primary derivation** derives roots into noun stems & verb stems.
  - common noun stems denoting entities, concepts & instances of actions (a bite, a lie, etc.) are zero-derived from roots & flagged by the noun marker u.
  - Proper nouns are flagged by i.
  - Verb stems are generally derived by voice morphology.

- **Secondary derivation** operates on already derived verb stems: two types (fig. 2)
  - (i) applicative voices (locative, instrumental, conveyance), which modify alignment,
  - (ii) category-changing derivation: nominalisation, modification.

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1 Abbreviations follow the Leipzig glosses, additional ones are: ANAPH: anaphoric; ASS: assertive; AV: actor voice; CONV: conveyance marker; CV: conveyance voice; DX: deictic; EXS: existential verbal; FR: free pronoun; INST: instrumental marker; LNK: linker; LV: locative voice; NFIN: non-finite; NAV: non-actor voice; NM: noun marker; PFV: perfect; PN: personal noun marker; PROC: processual; QM: question marker; RED: reduplication; UV: undergoer voice; \ symbol for root.
ROOTS (ENTITY, ACTION, EVENT, PROPERTY DENOTING)

**PRIMARY DERIVATION** < *u* NOUN stem > < voice affixed-VERB stem >
category marking

**SECONDARY DERIVATION**
applicative voices ← (i) alignment changing
deverbal nouns ← (ii) category-changing
modifiers

Figure 1. Primary and secondary derivation

1.4.1. **Primary derivation of roots into verb forms & VERB CLASSES**

These voice affixes select & derive distinct classes of verb stems with distinct semantics.

<table>
<thead>
<tr>
<th>Voice</th>
<th>Semantic role of subject</th>
<th>Argument structure &amp; case-marking</th>
<th>Transitivity</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>mi-</em> AV</td>
<td><em>k</em>- actor</td>
<td>S NOM/ABS (OBL theme)</td>
<td>± trans.</td>
</tr>
<tr>
<td><em>ma-</em> NAV</td>
<td><em>k</em>- non-actor</td>
<td></td>
<td>mostly intr.</td>
</tr>
<tr>
<td>Ø- STAT</td>
<td><em>k</em>- non-actor</td>
<td></td>
<td>intr.</td>
</tr>
<tr>
<td><em>ma-</em> UV</td>
<td><em>k</em>- patient</td>
<td>A GEN P NOM/ABS</td>
<td>± trans.</td>
</tr>
<tr>
<td>-en UV</td>
<td><em>k</em>- patient</td>
<td></td>
<td>± trans.</td>
</tr>
<tr>
<td>-an LocV</td>
<td><em>k</em>- patient superficially affected, lieu</td>
<td></td>
<td>± trans.</td>
</tr>
<tr>
<td><em>sa-</em> InstV</td>
<td><em>k</em>- instrument</td>
<td></td>
<td>± trans.</td>
</tr>
<tr>
<td><em>si-</em> Conv.V</td>
<td><em>k</em>- conveyed entity</td>
<td></td>
<td>trans.</td>
</tr>
</tbody>
</table>

The derived verb stems have an argument structure (choice of a nominative pivot (Actor or Undergoer)), a type of case assignment, of alignment (antipassive or ergative).

1.4.2. **Secondary applicative voices : ALIGNMENT CHANGING**

Applicative voices are 2ary derivation of already derived verb stems. They are alignment changing derivations.

**INSTRUMENT VOICE** takes the instrument as the subject.

AV *mi-* stems occur as *sa-pi-* stems;
others (<*um*>, *ma*, Ø-) occur as *sa-ka-* , *sa-Ø-* stems

Gabarit voix 1aires :

**(MOOD) (TENSE) *mi-* / *ma-* ROOT** - (PFV) (MOOD)

Gabarit voix 2aires :

**(MOOD) (TENSE) *sa-pi-* / *sa-ka*-ROOT** - (PFV) (MOOD)

(8)a. Sa-pi-cadiway=aku t-u buting k-ina cadiway.

`inst-nfin-net=gen, 1sg obl-nm fish nom-dx net`

‘I used this net to fish.’ (lit. this net was used by me for net-fishing)

b. Mi-cadiway k-aku t-u buting.

`av-net.fish nom-1sg obl-nm fish`

‘I net-fish some fish.’

It also expresses purpose:
1.5. Lexical categories derived from roots

1.5.1. Noun stems: noun markers and case-marking

- Nouns, pronouns & demonstratives are case-marked: NOM k-, OBL t-, GEN n-.
- Case-markers prefixed to common noun marker: k-u, t-u, n-u
- Proper nouns flagged by the personal noun marker i (sg) & a (pl) & case-marked as c-i (sg, nominative or oblique) or c-a (pl), n-i or n-a (genitive)
- only case suffix on (pro)nouns is oblique –an (dative, locative, ablative/source).

1.5.2. Verb stems: voice affixes, VERB CLASSES and semantics

3 main classes : AV mi-, NAV <um>, ma-, Ø- property vbs

Table 2. Verb classes

<table>
<thead>
<tr>
<th>Voice</th>
<th>Verb classes</th>
<th>Argument structure</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>mi- AV</td>
<td>Activities, accomplishments</td>
<td>S NOM/ABS (OBL theme)</td>
<td>++</td>
</tr>
<tr>
<td>ma- NAV</td>
<td>properties, states, weather, position, mode of motion, feelings/ emotion, experiencer, cognition, ingestion, spontaneous/unintentional actions, natural process, body function or grooming, disease, modality, quantifiers, Aktionsart</td>
<td>A GEN (n-) k- (t-)</td>
<td>++</td>
</tr>
<tr>
<td>Ø-</td>
<td>properties, states, natural process, body function, quantifiers, deictic verbs</td>
<td></td>
<td>++</td>
</tr>
<tr>
<td>ma- UV</td>
<td>Vs with utterly affected, definite patients</td>
<td></td>
<td>++</td>
</tr>
<tr>
<td>-en UV</td>
<td>ALL verbs (inclut les ø-V)</td>
<td></td>
<td>++</td>
</tr>
<tr>
<td>-an LocV</td>
<td>Vs with superficially affected patient or location argument, natural phenomena, spontaneous, uncontrolled processes oriented towards an experiencer</td>
<td></td>
<td>++</td>
</tr>
<tr>
<td>sa- InstV</td>
<td>V allowing instrument</td>
<td></td>
<td>++</td>
</tr>
<tr>
<td>si- ConvV</td>
<td>V referring to transfer</td>
<td></td>
<td>infrequent</td>
</tr>
</tbody>
</table>

\(\sqrt{\text{tarakaw}}, \ u \text{ tarakaw} \) ‘height’, \(\Ø \text{-tarakaw} \) ‘high’ (a). When used as modifiers, they are derived by –ay (b).
(12) a. Walu a ditek k-u tarakaw n-u tireng n-iya wawa.
8 LNK measure NOM-NM height GEN-NM body GEN-ANAPH child
‘Eight foot was the height of the child's body.’ (Arikakay)

b. u tarakaw-ay a lutuk
NM high-MOD LNK mountain
‘A high mountain.’

√banaq, u banaq ‘knowledge’ (a), ma-banaq ‘know’ (b), with experiencer pivot (the seat of knowledge) and an oblique theme.

(13) a. Awaay k-u banaq.
NEG.EXS NOM-NM knowledge
‘(He) is not intelligent.’ (lit. there is no intelligence)

b. Ma-banaq haw k-isu iciraan?
NAV-know QM NOM-2SG OBL-3SG
‘Do you know him?’ (ma- class,*mi-)

c. Caay ka-banaq k-aku iciraan.
NEG NFIN-know NOM-1sg OBL-3 sg
‘I don’t know him.’

Secondary derivation : nominalisation

d. Awaay k-u ma-banaq-ay.
NEG.EXS NOM-NM NAV-know-NMLZ
‘Nobody knows.’ (lit. there is no know-er)

1.6. Co-indexation of roots and affixes

The roots’ ontology and semantic features pair up with that of voice affixes.

1.6.1. Primary derivation of roots

Table 3 : primary derivation of roots into <u noun stems> & into mi-, ma-, Ø-verb stems.

<table>
<thead>
<tr>
<th>ROOT</th>
<th>DERIVED NOUN STEMS</th>
<th>PRIMARY DERIVED VERB STEMS</th>
<th>&amp; verb classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>√CADIWAY</td>
<td>u cadiway ‘fish-net’</td>
<td>MI- activity</td>
<td>mi-cadiway ‘fish with net’</td>
</tr>
<tr>
<td>√NANUM</td>
<td>u nanum ‘water’</td>
<td>MI- activity</td>
<td>mi-nanum ‘drink water’</td>
</tr>
<tr>
<td>√RADUM</td>
<td>u radum ‘sharp’</td>
<td>MI- activity</td>
<td>mi-radum ‘sharp’</td>
</tr>
<tr>
<td>√DADUI</td>
<td>u dadui ‘weight’</td>
<td>MI- activity</td>
<td>mi-dadui ‘weigh’</td>
</tr>
<tr>
<td>√TAKAW</td>
<td>u takaw ‘theft’</td>
<td>MI- activity</td>
<td>mi-takaw ‘steal’</td>
</tr>
<tr>
<td>√NANUWANG</td>
<td>u nanuwang ‘motion’</td>
<td>MI- activity</td>
<td>mi-nanuwang ‘move’</td>
</tr>
<tr>
<td>√NANAM</td>
<td>u nanam ‘thought, idea’</td>
<td>MI- activity</td>
<td>mi-nanam ‘think’</td>
</tr>
<tr>
<td>√BEKAC</td>
<td>u bekac ‘a race’</td>
<td>MA- dynamic, motion</td>
<td>ma-bekac ‘run’</td>
</tr>
<tr>
<td>√BANaq</td>
<td>u banaq ‘knowledge’</td>
<td>MA- state, cognition</td>
<td>ma-banaq ‘know’</td>
</tr>
<tr>
<td>√TALEM</td>
<td>u talem ‘blade’</td>
<td>MA- property</td>
<td>ma-talem ‘sharp’</td>
</tr>
<tr>
<td>√ATEKAK</td>
<td>u atekak ‘hardness’</td>
<td>Ø- property</td>
<td>Ø-atekak ‘hard’</td>
</tr>
<tr>
<td>√TARAKAW</td>
<td>u tarakaw ‘height’</td>
<td>Ø- property</td>
<td>Ø-tarakaw ‘high’</td>
</tr>
<tr>
<td>√BAQKET</td>
<td>Ø- property</td>
<td>Ø-baqket ‘heavy’</td>
<td></td>
</tr>
</tbody>
</table>

Table 3. Pairing roots and voice affixes
1.6.2. Semantics of voice affixes: stems allowing AV *mi-* & NAV *ma-*

<table>
<thead>
<tr>
<th>Process denoting</th>
<th>property or state denoting</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>mi-ngata</em> ‘draw near, approach’</td>
<td><em>ma-ngata</em> ‘be close’ (state)</td>
</tr>
<tr>
<td><em>mi-lecad</em> ‘compare’</td>
<td><em>ma-lecad</em> ‘be similar’</td>
</tr>
<tr>
<td><em>mi-libabui</em> ‘bark’</td>
<td><em>ma-libabui</em> ‘bark all the time’, ‘be a barker’</td>
</tr>
<tr>
<td><em>mi-adup</em> ‘hunt’</td>
<td><em>ma-adup</em> ‘be good at hunting’</td>
</tr>
</tbody>
</table>

Intentional process (perception)

<table>
<thead>
<tr>
<th><em>mi-araw</em> ‘watch’</th>
<th>Unintentional process</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>ma-araw</em> ‘see’</td>
<td></td>
</tr>
</tbody>
</table>

1.7. ‘Nounier’ and ‘verbier’ roots in Amis: a limit to categorially neutral roots?

Not all roots display the same degree of categorial neutrality, nor the same potential of derivation. This does not jeopardise the rule.

1.7.1. Action-denoting and property-denoting roots

Some action-denoting roots are ‘verbier’: their nominal forms (*a bite*) are derived.

\(\sqrt{\text{tayni}}\) ‘come, arrive’ (*\(u\ \text{tayni}\)*) , perfective event noun *ni-ka-tayni* ‘arrival’.

\(\sqrt{\text{radum}}\), (*\(u\ \text{radum}\)*) , *mi-radum* ‘draw water’; action nominal *pi-radum* ‘water-drawing’.

1.7.2. Proper nouns

- Mono-categorial only: do **not** occur as verbs and **only** host case-marking.

1.7.3. Entity-denoting roots derived as verbs

- Nouns can be predicative (at syntactic level) **without** derivation in equative, attributive, cleft constructions.
- **Derivation** of entity-denoting as verb stems: variable range of derivational affixes, correlating with the root’s ontology, class & semantic structure.
  Verbal derivation is also restricted by the type of actions, events or relations that are culturally **conceivable** or that can be carried out with such entities.
- Tools and artefacts, kinship terms have a wider range of relational ontologies than plants, insects or natural elements, & are thus expected to have a wider range of derivations.
- Some less predictable combinations with other affixes are learned by usage and are stored in the speakers’ linguistic knowledge.

A. Derivations with AV *mi- and NAV ma-*

- derivations with AV *mi-* denote some prototypical activity conducted in relation with the entity, getting it, ingesting it, etc.
  \(u\ \text{piyu}\) ‘flute’, *mi-piyu* ‘play the flute’
- derivations with NAV *ma-* denote properties, states, etc. (table 2, 3).
  \(u\ \text{bursen}\) ‘numbness’ *ma-bursen* ‘be stiff, numb’ (ankylosé)

Some of these roots are derived with *mi- and ma-:

\(u\ \text{tamaq}\) ‘game’, *mi-tamaq* ‘hunt game’, *ma-tamaq* ‘be hunted as game’.

\(u\ \text{patay}\) ‘death’, *mi-patay* ‘kill’, *ma-patay* ‘die, be dead’

(14)a. Bursen-an k-u kuku numaku.
numb-LV NOM-NM leg GEN.1SG  
‘My leg has gone numb.’
B. Derivations with *si- ‘get, convey’*

*Si-* stems denote acquired property, transitory states or transitory events, transfer of entity, or acquired property.

<table>
<thead>
<tr>
<th>NOUN STEMS</th>
<th>VERB STEMS</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>u mata</em> ‘eye’</td>
<td>&gt; <em>si-mata</em> ‘get eye/vision’</td>
</tr>
<tr>
<td><em>u kawas</em> ‘spirit’</td>
<td>&gt; <em>si-kawas</em> ‘get spirit’</td>
</tr>
<tr>
<td><em>u kumes</em> ‘hair’</td>
<td>&gt; <em>si-kumes</em> ‘get hair’</td>
</tr>
<tr>
<td><em>u tangal</em> ‘head’</td>
<td>&gt; <em>si-tangal</em> ‘be clever’</td>
</tr>
</tbody>
</table>

2ary derivation

### 1.7.4. Derivational patterns of entity-denoting roots & semantics

- Roots denoting human beings and kinship relations (not exhaustive).
  - ‘kadabu, *u kadabu* ‘child-in-law’, *mi-kadabu* ‘marry’ (i.e. go as in-law into spouse’s family)

<table>
<thead>
<tr>
<th>NOUN STEMS</th>
<th>VERB STEMS</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>u kadabu</em> child-in-law</td>
<td><em>mi-kadabu</em> marry</td>
</tr>
<tr>
<td><em>u dapunuh</em> widow(er)</td>
<td><em>ma-dapunuh</em> be a widow(er)</td>
</tr>
<tr>
<td><em>u cabay</em> companion</td>
<td><em>si-cabay</em> get a companion</td>
</tr>
<tr>
<td><em>u tamdaw</em> person</td>
<td><em>mi-sa-tamdaw</em> get acquainted, behave like a person, make friends</td>
</tr>
<tr>
<td><em>u babainay</em> man</td>
<td><em>si-babainay</em> marry a man</td>
</tr>
</tbody>
</table>

Table 4. Derivations of roots **DENOTING HUMAN BEINGS**

- Body-parts, body excretions:

  √*tireng, u tireng* ‘body’, *t<em>em</em>* *tireng* ‘stand’, *pa-tireng* ‘erect, build’, 2ary NMZ *u pa-tireng-an* ‘building’;

  √*supaq, u supaq* ‘saliva’, *mi-supaq* ‘spit’, *pa-supaq* ‘apply saliva’, UV *supaq-en* ‘spit it!’ (lit. let it be spit);

- Animals: derivation depends on the kind of conceptually possible relations:
  - *u ayam* ‘bird, hen’, *mi-ayam* ‘hunt birds’, *mi-sa-ayam* ‘raise hens’.
  - *u kalang* ‘crab’, *mi-kalang* ‘catch crab’

- Insects:
  - √*udal, u udal* ‘bee’, *mi-udal* ‘collect honey’ (lit. go for bees).

- Plants: derivation conceptually related to their potential of cultivation, use

  √*sadim, u sadim* (*Millettia Taiwanica*), *mi-sadim* ‘fish with fish-poison plant’, *ma-sadim* ‘fished with poison’;

  √*icep, u icep* ‘betel nut’, *mi-icep* ‘chew betel nut’, *pa-icep* ‘give betel nut’ (*ma-*);

  √*habay, u habay* ‘millet’, *mi-habay* ‘harvest millet’

  √*uway, u uway* ‘rattan’, *mi-uway* ‘gather rattan’ (rotin)

- Natural phenomena: (no *mi-* form)

  - *u bali* ‘wind’, *ma-bali* ‘be windy’, *pa-bali* ‘inflate’
  - *kutem, u kutem* ‘cloud’, *ma-kutem* or *kutem-an* ‘it’s cloudy’, *si-kutem* ‘be, get cloudy’
In (15) \textit{bulad-an} denotes a situation superficially affecting the subject \textit{k-ita}.

(15) \textit{Bulad-an} \textit{k-ita} anini a labi.
\textit{moon-LV NOM-1PL.INCL now LNK night}
‘We are moon-lit tonight.’

- Natural entities:
  \textit{u nanum} ‘water’, \textit{mi-nanum} ‘drink water’, property \textit{ma-nanum} ‘be a water drinker’

- Instruments and tools:
  - some are \textit{<u stems>}
    \textit{u pitaw} ‘(big) hoe’, \textit{mi-pitaw} ‘to hoe’ (herminette)
  \textit{u rarar} ‘(small) hoe’, \textit{mi-rarar} ‘to hoe’.
  - A few are noun stems \textbf{only} (actions expressed by different roots)
    \textit{pa-} \textit{hawan} ‘draw/direct knife against’, \textit{pa-} \textit{puut} \textit{idem}
  - some are derived by \textit{sa-} as instrument nouns from \textit{action} roots (newly introduced tools).
    \begin{itemize}
    \item \textit{\textbackslash{}luktuk} \textit{u sa-} \textit{luktuk} ‘hammer’ \textit{mi-} \textit{luktuk} ‘to pound’
    \item \textit{\textbackslash{}tis} \textit{u sa-} \textit{tis} ‘razor’ \textit{mi-} \textit{tis} ‘to shave’
    \item \textit{\textbackslash{}rusar} \textit{u sa-} \textit{rusar} ‘a saw’ \textit{mi-} \textit{rusar} ‘to saw’
    \item \textit{\textbackslash{}sait} \textit{u sa-} \textit{sait} ‘scissors’ \textit{mi-} \textit{sait} ‘cut’
    \item \textit{\textbackslash{}kales} \textit{u sa-} \textit{kales} ‘a comb’ \textit{mi-} \textit{kales} ‘comb’
    \item \textit{\textbackslash{}kalic} \textit{u sa-} \textit{kalic} ‘ladder’ \textit{mi-} \textit{kalic} ‘climb’
    \item \textit{\textbackslash{}cukcuk} \textit{u sa-} \textit{cukcuk} ‘key’ \textit{mi-} \textit{cukcuk} ‘insert, probe’
    \end{itemize}

**Summary:** \textbf{INSTRUMENTAL \textit{SA}-}

\begin{itemize}
\item \textbf{PRIMARY DERIVATION}
\item \textbf{ZERO-DERIVED INSTR. NOUNS} \textit{u sa-} instrument nouns
\item \textbf{SECONDARY DERIVATION}
\item \textbf{APPLICATIVE INSTR. VOICE (alignment changing)} \textit{sa-pi-}, \textit{sa-ka-}, \textit{sa-\textit{Ø}-} verb stems
\item \textbf{INSTR. EVENT NOMINALS} \textit{u sa-pi-}, \textit{sa-ka-}, \textit{sa-\textit{Ø}-}
\end{itemize}

| Figure 3. Primary and secondary instrumental derivation |

1.7.5. \textbf{Summary}

In spite of a slight tendency for some action-denoting roots to be ‘verbier’ (i.e. less categorially neutral), with nominalized forms denoting instances of actions; still dominant pattern of categorially neutral lexical roots holds.

1.8. \textbf{Secondary derivations: CATEGORY CHANGING}

Primarily derived voice-marked verb stems can further be causativised, nominalised, derived into modifiers, time nouns, locative nouns, etc.,

1.8.1. \textbf{Nominaliser –\textit{ay}}

Derives nouns referring to ± animates:

\begin{itemize}
\item \textit{u banaq} ‘knowledge’ \textit{si-banaq} ‘get knowledge’ \textit{u si-banaq-ay} ‘a learned person’
\item \textit{u buting} ‘fish’ \textit{mi-buting} ‘to angle, fish’ \textit{u mi-buting-ay} ‘fisherman’
\end{itemize}
1. Like all nouns, they have –

2. These deverbal nouns behave like gerunds: retain verbal properties & an oblique argument tu tangal,

1.8.2. Deverbal time or place nouns: pi-....an, ka-....an

Mi-, ma-, Ø- verb stems are NMZ as pi-....an, ka-....an noun stems by NMZ –an.

1.8.3. Collective plural, result, stative nouns derived by Ca-reduplication …-an


u tayiq ‘faeces’, ta-tayiq-an ‘toilet’, t<em>ayiq ‘defecate’, t<in>ayiq ‘intestines’
1.8.4. Secondary modifying derivation

In modifying constructions [modifier a modified], the modifier is suffixed by –ay or -an

(18) a. Ø-atekak k-ina bekeluh. b. U Ø-atekak-ay a bekeluh.
Ø-hard NOM-DX stone NM Ø-hard-NMZ LNK stone
‘This stone is hard.’ ‘(it’s) a hard stone.’

(19) Tuqman k-u lumaq b. I tuqman-an a lumaq.
dark NOM-NM house LOC dark-LOC LNK house
‘The house is dark.’ ‘In the dark house’

2. The lability of affixes on roots: causative derivation pa-

Causative pa- is another instance of affix occurring on all types of roots with slightly distinct functions and meanings.
- On entity-denoting roots, pa- derives caused transfer, processual verb stems
- On verb stems, causative pa- has the standard valency-increasing (AV alignment).

2.1. Deriving entity-denoting roots into caused transfer pa- verb stems

- Entity-denoting roots derived by pa- into caused transfer verb stems involving that entity (< x transfers y (to z) >).

\budui u budui ‘clothes’ si-budui ‘be dressed up’ pa-budui ‘dress s.o.’
\cael u cael ‘necklace’ si-cael ‘wear a necklace’ pa-cael ‘put around neck’
\cabay u cabay ‘partner’ si-cabay ‘have, get a partner’ pa-cabay ‘accompany’
\labang u labang ‘guest’ si-labang ‘have guests’ pa-labang ‘host, greet’
\kawas u kawas ‘spirit’ si-kawas ‘host spirit, haunted’ pa-kawas ‘act as a shaman’
\qepah u qepah ‘alcohol’ si-qepah ‘have alcohol’ pa-qepah ‘put alcohol’
\tusur u tusur ‘knee’ pa-tusur ‘kneel down’,

- Comparing caused transfer pa- with mi- verb stems

AV mi- verb stems denote activities (often centripetal) done in relation with the entity, while pa- stems denote some centrifugal caused transfer.

\cudad u cudad ‘letter, book’ mi-cudad ‘study’ pa-cudad ‘write a letter’
\icep u icep ‘betelnut’ mi-icep ‘chew betelnut’ pa-icep ‘give betelnut to s.o.’
\kasui u kasui ‘fire-wood’ mi-kasui ‘go cut wood’ pa-kasui ‘fuel wood’ (in fire)
\nanum u nanum ‘water’ mi-nanum ‘drink water’ pa-nanum ‘give water, to water’
\bekluh u bekluh ‘stone’ mi-bekluh ‘collect stones’ pa-bekluh ‘put stones’
\cilah, u cilah ‘salt’, (*mi-) pa-cilah ‘to salt’;
\lunun, u lunan ‘boat’, (*mi-, *ma-) pa-lunan ‘steer a boat’.
\huting, u huting ‘pasture’ (*mi-) pa-huting ‘take to pasture’

Caused transfer, assistive process:

(20) Pa-icep k-aku t-u ma-tuas-ay.
CAUS-betel NOM-1SG OBL-NM NAV-old-NMLZ
‘I give betelnuts to the elderly.’

(21) Pa-huting k-aku t-u rarapa.
CAUS-pasture NOM-1SG OBL-NM bufallo
‘I take the buffalo to graze.’

- Comparing caused transfer pa- with stative ma- verb stems

Roots denoting bodily functions, properties, feelings or psychological features.
\(\sqrt{nhanhan} \ u \ hanhan \ ‘breath, rest’ \ ma-hanhan \ ‘breathe’ \ pa-hanhan \ ‘rest’\)
\(\sqrt{urip} \ u \ urip \ ‘life’ \ ma-urip \ ‘be alive’ \ pa-urip \ ‘revive’\)

- Some kinship and body-part roots derived as caused processes (*mi-, *ma-)

\(\sqrt{wawa}, \ u \ wawa \ ‘child’, \ pa-wawa \ ‘beget a child’\)
\(\sqrt{kamay}, \ u \ kamay \ ‘hand, arm’, \ pa-kamay \ ‘punch’\)

- Roots denoting atmospheric; natural elements
derived as stative verb stems by \textit{ma-} & as dynamic processes by \textit{pa-} as caused transfer.

\(u \ bali \ ‘wind’ \ ma-bali \ ‘be windy’ \ pa-bali \ ‘inflate’\)
\(u \ cidal \ ‘sun’ \ ma-cidal \ ‘it is sunny’ \ pa-cidal \ ‘put in the sun, sunbathe’\)

(22) \textbf{Pa-cidal} \textit{k-aku} \textit{t-ina} \tireng-an.
\underline{CAUS-sun} \textit{NOM-1SG} \underline{OBL-DX} \textit{body-OBL}.

‘I’m sunbathing.’ (lit. I’m sunbathing this body)

The meaning of the derived lexemes is not always fully predictable.

- Roots denoting instances of actions and actions

\(\sqrt{ngangan}, \ u \ ngangan \ ‘name’, \ caused \ transfer \ pa-ngangan \ ‘to name, give a name’ \ derived\)
as \textit{LV} (*\textit{mi}*-).

(23) \textbf{Pa-ngangan-an} \textit{n-u} \ Pangcah \ (cira).
\underline{CAUS-name-LV} \textit{GEN-NM} \textit{Amis} \underline{NOM.3SG}.

‘(He) was [so] given an Amis name.’ (Quer.015)

2.2. \textbf{Causative \textit{pa}- verb stems from other root types}
Standard causative, valency increasing, \textit{pa}- verbs are also derived from property, perception, cognition, grooming, position, motion roots, then expressing caused change (of property, position).

- Roots denoting bodily functions, properties, feelings or psychological features.

\(\sqrt{seneng}, \ u \ seneng \ ‘pride’ \ ma-seneng \ ‘be proud’ \ pa-seneng \ ‘boast about’\)

- Perception or cognition roots are derived by \textit{pa-} into causative assistive verbs

\(\sqrt{tengil}, \ u \ tengil \ ‘audition’, \ ma-tengil \ ‘hear’, \ mi-tengil \ ‘listen’, \ pa-tengil \ ‘explain’\)

- Roots expressing grooming, position, configuration

\(\sqrt{silisil}, \ ma-silisil \ ‘stand in line’, \ mi-silisil \ ‘arrange, lay out’, \ pa-silisil \ ‘lay out’\)

- Intransitive motion roots derived as caused transfer or caused motion \textit{pa-Ø} verb stems

\(ta-ngasa \ ‘arrive, reach’ > pa-Ø-ta-ngasa \ ‘transmit, pass on’;\)
\(ta-hkal \ ‘go out, appear’ > pa-Ø-ta-hkal \ ‘take out’;\)
\(tayra \ ‘go’ > pa-Ø-tayra \ ‘take, send’;\)
\(tayni \ ‘come’ > pa-Ø-tayni \ ‘bring’\)
\(kalamkam \ ‘hurry’ > pa-Ø-kalamkam \ ‘cause to hurry’\).

2.3. \textbf{Secondary causative-indirective derivation as \textit{pa-pi-}, \textit{pa-ka-}, \textit{pa-Ø}- verb stems}
affixed to already derived verb stems as \textit{pa-pi-} (\textit{mi}- stems) & \textit{pa-ka-} (NAV \textit{ma}- stems).

(24)a. \textbf{Pa-pi-nanum-en} \ cira.
\underline{CAUS-NFIN-water-UV} \textit{NOM.3SG}.

‘He was made to drink water.’

b. \textbf{Pa-nanum} \textit{k-aku} \textit{t-u} \textit{ma-tuas-ay}.
\underline{CAUS-water} \textit{NOM-1SG} \underline{OBL-NM} \underline{UV-old-NMZ}.

‘I offer water to the old ones.’
c. Mi-nanum cira.
   AV-water NOM.3SG
   ‘He’s drinking water.’

- Stative property roots NAV ma- stems or Ø- verb stems, are causativised as pa-(ka)-verb stems and denote a caused property change, with increased valency.

<table>
<thead>
<tr>
<th>ROOT</th>
<th>NOUN</th>
<th>STATIVE VERB</th>
<th>CAUSATIVE VERB</th>
</tr>
</thead>
<tbody>
<tr>
<td>ñatekak</td>
<td>ñatekak</td>
<td>‘hardness’</td>
<td>ña-ñatekak ‘harden’</td>
</tr>
<tr>
<td>ñbiyaraw</td>
<td>ñbiyaraw</td>
<td>‘anxiety’</td>
<td>ña-ñbiyaraw ‘make’</td>
</tr>
</tbody>
</table>

(25) Pa-ka-ñbiyaraw k-isu itakuwan.
   CAUS-NFIN-anxious NOM-2SG OBL.1SG
   ‘You make me anxious.’

Summary: Causative pa- is thus a primary or secondary derivational affix occurring on roots or on already derived verb stems with different functions and semantics.

This brings up one other important feature of neutrally categorial roots: the same derivational affixes occur on roots with different ontologies (e.g. entity, property, action- or event-denoting); the morphosyntactic words derived from those roots have distinct functional and semantic outputs that result from the co-selection & compositional effects between the roots’ ontology and the properties of affixes.

3. The lability of UV passive –en

UV–en hosted by all types of roots, denoting entities, action, state or properties.

3.1. Manner of action verbs derived from entity-denoting roots by –en

Impersonal passive restricted to complex verb constructions expressing manner of action.

<table>
<thead>
<tr>
<th>ñtaruduq</th>
<th>ñtaruduq</th>
<th>‘finger’</th>
<th>mi-ñtaruduq</th>
<th>‘point at’</th>
<th>ma-ñtaruduq</th>
<th>‘(be) point(ed) at’</th>
</tr>
</thead>
<tbody>
<tr>
<td>ñalapit</td>
<td>ñalapit</td>
<td>‘chopsticks’</td>
<td>mi-ñalapit</td>
<td>‘seize with chopsticks’</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(26) Taruduq-en a mi-la.
   finger-UV COMP AV-take
   ‘(they) are picked with fingers.’ (lit. it’s done with finger to pick)

(27) Alapit-en a k<em>an</em> t-u titi !
   chopsticks-UV COMP <NAV>eat OBL-NM meat
   ‘Eat the meat with chopsticks!’

3.2. Action and property denoting roots

UV passive –en is affixed to action & property stems. Pas de restriction de construction.

<table>
<thead>
<tr>
<th>ñdimataq</th>
<th>ñdimataq</th>
<th>‘a load (on shoulder)’, mi-ñdimataq</th>
<th>‘carry on the shoulder’, UV ma-ñdimataq, ñdimataq-en</th>
<th>‘be carried on the shoulder’</th>
</tr>
</thead>
</table>

(28) Dimataq-en=tu [amin k-u ni-la t-u buting].
   carry.on.shoulder-UV=PFV all NOM-NM PFV.NMZ-take OBL-NM fish
   ‘All the caught fish were carried on the shoulder.’

| ñsubuc | ñsubuc | ‘birth’, UV ma-ñsubuc | ‘be born, be given birth’, NAV ma-ñsubuc | ‘give birth’, with a non-actor pivot (i.e. seat of bodily function), UV subuc-en | ‘be given birth’ has a patient subject. |
(29)  Yu subuc-en k-aku, ira hen k-u bayi numaku.
when bear-UV NOM-1SG EXS still NOM-NM grandma GEN.1SG
‘When I was born (lit. was given birth), my grandmother was still alive.’

4. The lability of roots hosting derivational-inflectional affixes

Inflectional affixes are generally specific to derived stems; but some are both derivational and inflectional.

4.2. Derivational and inflectional aspectual affixes: fusion of voice & aspect features

(i)  composés de mi- et ma- : inchoative AV mi-sa- or NAV ma-sa-
(ii) ongoing or immediate process mah(a)-,
(iii) change of state mala-.
• They are all affixed to entity-denoting and action or event roots (mi-sa- & mala- also derive property-denoting roots)
• Like voice affixes, these affixes also have nonfinite forms (i) mi-sa- > pi-sa-, (ii) mah(a)- > kah(a)-, (iii) mala- > kala- and causative pala-.

4.2.1. Inchoative actions, transformation activities: mi-sa- derivations

Mi-sa- (sa- possibly a bound light verb ‘do’) derives activity verbs from entity-denoting roots & stative, property-denoting roots.

A. On entity-denoting roots

Mi-sa- denotes creation, processing, transformation applied to or conducted with the entity.

  u waneng ‘sugar’, mi-sa-waneng ‘make honey’
  u qepah ‘alcohol’, mi-sa-qepah ‘make alcohol’ (*mi-), pa-qepah ‘put alcohol’
  u turun ‘rice-pudding’, mi-sa-turun ‘make turun’
  u lumaq ‘house’, mi-sa-lumaq ‘build a house’
  u tebun ‘well’, mi-sa-tebun ‘dig a well’
  u lunan ‘boat’, mi-sa-lunan ‘build a boat’
  u ayam ‘chicken’, mi-sa-ayam ‘feed, raise (the) hens’ (u ayam ‘hen’)

• Compare derivations with mi- & mi-sa-
  u dateng ‘vegetables’ mi-dateng ‘collect vegetables’ mi-sa-dateng ‘plant vegetables’;
  u alapit ‘chopsticks’ mi-alapit ‘eat with chopsticks’ mi-sa-alapit ‘make chopsticks’
  u umah ‘field’ ma-umah ‘work in the field’ mi-sa-umah ‘plough field’.

Both stems can be nominalized: ma-umah-ay ‘peasant’, mi-sa-umah-ay ‘ploughman’.

  u dipung ‘nest’, mi-sa-dipung ‘make a nest’, mi-sa-dipung-ay ‘nestmaker’.

(30)  U maan a ayam-an [k-u mi-sa-dipung-ay] ?
NM what.sort LNK bird-COLL NOM-NM AV-do-nest-NMZ
‘What kind of bird makes that nest?’ (lit. … is the nestmaker?)

B. On stative, property-denoting roots

Stative, property-denoting roots derived by mi-sa- express inchoative processes, transformation & change of state, (AV alignment, increased valency).

Ø-atekak ‘hard’ u atekak ‘hardness’ mi-sa-atekak ‘harden’
Ø-adidiq ‘small’ u adidiq ‘smallness’ mi-sa-adidiq ‘diminish, belittle’
Ø-bangcal ‘beautiful’ u bangcal ‘beauty’ mi-sa-bangcal ‘embellish’
C. **NAV ma-sa-: change of state**

Occurs on entity-denoting & state- or property-denoting roots

\(kaput, u\ \text{kaput} \ ‘a\ \text{team}, \ mi-kaput \ ‘\text{join the team}, \ ma-sa-kaput \ ‘\text{team up}\)

\(muhting \ ‘black\)

\(ma-sa-muhting \ ‘\text{become black}\)

(31) Ma-sa-muhting k-u pising n-ira.

NAV-do-black NOM-NM face GEN-3SG

‘His face became black.’

4.2.2. **Mah(a)- derivations of entity-denoting roots & action, motion-denoting roots : immediate, ongoing process**

A. **On entity-denoting roots: mah-(ka)- or mah(a)-Ca-**

- ongoing processes conducted with that entity. Non-finite form is kah(a)-. (*mah-pi-)
  
  \(u\ \text{budui} \ ‘\text{clothes}, \ mah-ba-budui \ ‘\text{be dressing}\).
  
  \(u\ \text{cukap} \ ‘\text{shoe}, \ mah-ca-cukap \ ‘\text{be putting on shoes}\)

(32) a. Mah(a)-ba-budui k-aku.

NAV.ASP-Ca.RED-clothes NOM-1SG

‘I’m getting dressed.’

b. Caay hen k-aku kah(a)-ba-budui.

NEG yet NOM-1SG NAV.ASP.NFIN-Ca.RED-clothes

‘I’m not yet dressed.’

B. **On action or motion denoting roots: mah(a)-(ka)-**

- mah(a)- only hosted by intransitive verb stems (NAV ma-, mu- or Ø- verb classes).
  
  \(mah-\text{cerem} \ ‘\text{be setting (sun)}, \ mu-\text{cerem} \ ‘\text{dive}, \ mah-ka-\text{mu-cerem} \ ‘\text{be setting (sun)}\)
  
- On Ø- motion & time-denoting verb stems, it occurs as mah(a)-ka :
  
  Ø-tayni ‘come’, mah-ka-tayni ‘just arriving’
  
  Ø-tangelal ‘dawn’, mah-ka-tangelal ‘(break) of dawn’

4.2.3. **Deriving stative roots: mala- change of state & pala- caused change of state**

A. **Entity-denoting roots: expressing a change of state**

\(heci, u\ \text{heci} \ ‘\text{fruit, result}, \ mala-heci \ ‘\text{become fruitful, be fulfilled}, \ pala-heci \ ‘\text{cause to become fruitful}\)

(33) a. Mala-qepah k-u nanum.

BECOME-alcohol NOM-NM water

‘The water is changed into wine.’ (lit. ‘winised’)

b. Pala-qepah t-u nanum.

CAUS.BECOME-alcohol OBL-NM water

‘(He) turned the water into wine.’ (lit. ‘winise’ the water)

B. **Stative, property roots : change of state**

\(adidiq \ ‘\text{small, little} > mala-adidiq \ ‘\text{diminish}\). Nonfinite form kala- (b).

(34) a. Mala-lahngang k-u cengel n-ira.

BECOME-brown.red NOM-NM colour GEN-3SG

‘Its colour changed to brownish red.’
b. Caay kala-lahngang k-u cengel=isu.
   NEG NFIN.BECOME-brown.red NOM-NM colour=GEN.2SG
   ‘Your colour has not changed to brownish red.’

5. To conclude

- In Amis, lexical roots are pervasively categorially neutral.
- Word forms are categorised as nouns, verbs, or adjectival modifiers after primary derivation from roots and/or by secondary derivation (category changing derivation or alignment changing through applicatives).
- Roots and affixes have ontological and semantic structure and properties, their co-selection is ruled by principles of non-contradiction & compatibilities of such properties (class properties).
- Once roots have been derived and inflected into word forms, they are strictly categorised and unambiguously identifiable.
- There is some functional flexibility at syntactic level. But it is not bidirectional: nouns and derived nouns have some functional flexibility as predicates, arguments or modifiers once they are inserted in the appropriate syntactic slot and construction.
- The last point concerns the lability of use of the same affixes on entity-denoting roots and on action-denoting roots, with slightly different derivational functions and meanings varying with their host’s class.

The function and meaning of these affixes result from compositional effects with a derived stem, projected in a syntactic frame where the ultimate function and meaning of the word forms are interpreted.

References


