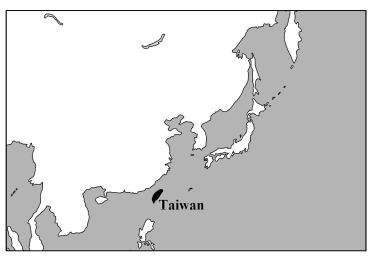
Describing the morphology of Amis

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Amis is Austronesian an language spoken in Taiwan. Typologically, it belongs to the Philippine-type languages and, along with other indigenous languages spoken in Taiwan, shares a number of similarities with Philippine languages.

Phonologically, the language is rather simple; it has 21 phonemes, (C)V(C) syllable structure, and few phonological



Map of East Asia Figure 1

rules. Morphologically, the language is complex and owns a rich variety of affixes. It has a complex system of voice alternation, which is traditionally called "focus system". The word order is relatively free except that the predicate basically precedes its arguments.

1. About my research

1.1. Why Amis?

As I was studying linguistic in my undergraduate course, I came to know that a lot of minority languages of the world are dying out; I definitely wanted to conduct a field research of any endangered language.

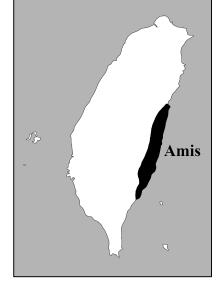


Figure 2 Map of Taiwan

Taiwan used to be a colony of Japan until 1945 and old people there still speak Japanese (my mother tongue) well. It is geographically very close to Japan, and living expenses there are not high. These all factors led me to choose one of the minority languages spoken in Taiwan.

In my undergraduate course, I had not taken any course on field method; there are, in fact, no course on field method at my former university; therefore, I thought I was difficult to conduct a research on a literally "dying" language, such as Kanakanavu or Saaroa. Amis is the largest indigenous language in Taiwan, with approximately 50,000

to 80,000 speakers; there is no reference grammar which is based on adequate knowledge of linguistics. Because of all these, I decided to conduct researches on Amis. I am now trying to write its reference grammar.

1.2. At which stage?

In my M.A. Thesis (*A basic description of the Amis language (Taiwan*), in 2009), I described the background (culture, basic sociolinguistic observations, and previous works), phonetics and phonology, important morphology, and part of syntax of Amis. I am trying to write a reference grammar as my Ph.D. thesis.

So far, I have studied the major grammatical figure of the language, including phonetics and phonology, morphology, and syntax, mainly from elicitation. Now I am gathering and analyzing texts, and extract elements which have not appeared in elicitation.

2. Problem: describing the morphology of Amis

In this section, I am going to talk about two problems in describing the morphology of Amis: [1] the distinction between "stem-forming" process and "word-forming" process, and [2] the applicability of "derivation" and "inflection" to Amis.

2.1. Derivation vs. inflection

Below, I list tentative definitions of the derivation and the inflection.

<Prototypical derivation>

- (a) Less productive (does not form a paradigm)
- (b) Not obligatory.
- (c) Involves a change of word class

<Prototypical inflection>

- (a) Productive (forms a paradigm)
- (b) Obligatory
- (c) Transparent meaning

Table 1 "Prototypical" derivation and inflection

	Derivation	Inflection
Productivity	Less	More
Obligatoriness	Less	More

2.2. Word formation of Amis

In this section, I am going to talk about the word formation process in Amis. I tentatively assume the following word-formation processes (Table 2) in Amis. Both "stem-formation" process and "word-formation" process involve zero, affixation, and/or reduplication.

Table 2 Word formation in Amis

Root	=>	Stem	=>	Word
	"Stem formation"		"Word formation"	
	(Derivation?)		(Inflection?)	

Table 3 shows an example of word formation in Amis, from the root *nanum* "water" to the word *na-mi-nanum* "drank (past form)". Table 4 shows the multiple applications of the "stem-forming" process to the root *rakat* "walk".

Table 3 From √nanum "water" to na-mi-nanum "drank (past)"

```
\sqrt{nanum} => mi-nanum => na-mi-nanum
"water" S-f "to drink" W-f "drank"
```

Table 4 From √rakat "walk" to pa-ka-r-um-akat-en "will make someone walk"

```
\sqrt{rakat} \implies r\text{-}um\text{-}akat \implies pa\text{-}ka^{T}\text{-}r\text{-}um\text{-}akat \implies pa\text{-}ka\text{-}r\text{-}um\text{-}akat => pa\text{-}ka\text{-}r\text{-}um\text{-}akat => pa\text{-}ka\text{-}r\text{-}um\text{-}akat ==> ma\text{-}ka\text{-}r\text{-}um\text{-}akat => pa\text{-}ka\text{-}r\text{-}um\text{-}akat => pa\text{-}akat => pa\text{-}akat => pa\text{-}akat => pa\text{-}akat => pa
```

A root itself functions as a word, with few exceptions. This means that both the "stem-formation" process and the "word-formation" process may involve zero.

(1) √rakat "walk (noun)", √nanum "water (noun)", √seti^ "hit (noun)"

Table 5 From √nanum "water" to nanum "water (noun)"

```
\sqrt{nanum} => nanum => nanum
"water" S-f "water" W-f "water"
```

2.3. Stem formation and word formation: a comparison

In this section, I would like describe the "stem formation" and "word formation" in

¹ ka- is a stem-forming prefix.

Amis and compare them.

<The characteristics of "stem formation">

- (a) Quite **productive**.
- (b) Voice ("focus") is assigned.
- (c) Aspectual properties are determined.
- (d) In some cases, tense and modality are assigned.

Let us look at two examples; \sqrt{seti} "hit", and \sqrt{patay} "death".

Table 6 "Stem formation" of \sqrt{seti} "hit", \sqrt{patay} "death" (not exhaustive)

	"S-f"	Feature	√seti^	\sqrt{patay}
Noun	Zero		seti^ "hit"	patay "death"
	[mi- (AV)	General	<i>mi-seti</i> ^ "to hit"	mi-patay "to kill"
	D	<i>ma-seti</i> ^ "have	ma-patay "to die, have	
	<i>ma-</i> (UV)) Perfect/stative	been hit"	been killed, dead"
		Will (afthe actor)	seti^-aw "should be	patay-aw "should be
	-aw (UV)	Will (of the actor)	hit''	killed"
Verb .		Irrealis (Future/	seti^-en	patay-en "will/should
	-en (UV)	imperative)	"will/should be hit"	be killed"
	nian	Doot	ni-seti^-an "was	ni-patay-an "was
	(UV)	Past	hit''	killed"
	pa-	Causative	<i>pa-pi-seti</i> ^ "make	<i>pa-pi-patay</i> "make
	(+pi-/ka-)	Causative	[someone] hit"	[someone] kill"

The "word formation" in Amis has the following characteristics:

<The characteristics of "word formation">

- (a) The **productivity varies** depending on the stem (there are defective paradigms)
- (b) Very often **non-obligatory**.
- (c) In many cases, **tense** is assigned.

The past and future tense is assigned both in the "stem-formation" process and the "word-formation" process. Stems (i.e. the forms in Table 6) may undergo a "word-formation" process. There is varying degrees of productivity. Let us look at examples *mi-patay* "to kill" and *ma-patay* "to die". They are the most productive ones.

Table 7 "Word-formation" process of mi-patay "kill"

"Word formation" process	Form	Translation
Infinitive (zero)	mi-patay	killed, kill, will kill
Past (na-)	na-mi-patay	killed
Near future $(a=)$	a=mi-patay	will (definitely) kill
Remote future (Ca-RED)	ma-mi-patay	will kill
Concessive (RED)	mi-pata-pata-y	Though someone killed/ kills
Gerundive/imperative (pi-/ka-)	pi-patay	killing (gerund), kill!

Table 8 "W-f" process of ma-patay "to die, have been killed (stative/perfect)"

"Word formation" process	Form	Translation
Infinitive (zero)	ma-patay	die, dead, have been killed
Past (na-)	na-ma-patay	was dead, had been killed
Near future $(a=)$	a=ma-patay	will (soon) die
Remote future (Ca-RED)	ma-ma-patay	about to die
Concessive (RED)	ma-pata-pata-y	Though someone is dead,
Gerundive/imperative (pi-/ka-)	ka-patay	dying (gerund), die!

The "infinitive" form *mi-patay* "kill" can express past, future, and concessive meaning depending on the context in which it is used; that is to say, **the "word-formation" process is basically optional**. Only gerundive/imperative form is not optional.

The form *ma-patay* "to die, to have been killed" has perfect/stative aspect; therefore, all the forms in Table 8 have the same aspectual property. Past form and concessive forms are optional, i.e. the infinitive itself may express them. Others are not optional.

The "word-formation" process of *patay-en* "will be killed, be killed! (future/imperative)" and *ni-patay-an* "was killed (past)" are defective (Table 9 and 10).

Table 9 "W-f" process of patay-en "will be killed, be killed! (future/imperative)"

"Word formation" process	Form	Translation
Infinitive (zero)	patay-en	will be killed, be killed!
Past (na-)	na-patay-en	was going to be killed
Near future (<i>a</i> =)	*a=patay-en	
Remote future (Ca-RED)	pa-patay-en	must be killed (obligation)
Concessive (RED)	pata-pata-y-en	Though someone will be killed,
Gerundive/imperative (pi-/ka-)	*pi-/*ka-patay-en	

Table 10 "W-f" process of ni-patay-an "was killed (past)"

"Word formation" process	Form	Translation
Infinitive (zero)	ni-patay-an	was killed
Past (na-)	na-ni-patay-an	was killed
Near future $(a=)$	*a=ni-patay-an	
Remote future (Ca-RED)	*na-ni-patay-an	
Concessive (RED)	ni-pata-pata-y-an	Though someone was killed,
Gerundive/imperative (pi-/ka-)	*pi-/*ka-ni-patay-an	

The "stem formation" and the "word formation" are quite different from prototypical derivation and inflection. It seems that two parameters, productivity and obligatoriness, are assigned in quite a different way in Amis, compared to languages such as English.

Table 11 "Stem formation" and "word formation" (cf. Table 1)

	"Stem formation"	"Word formation"
Productivity	More	Less
Obligatoriness	More	Less

3. Question

- [1] Is there a clear distinction between the "stem formation" and the "word formation" (Cf. Table 2)? There are some overlaps of the assignment of meaning (e.g. tense). Besides, the stem (and even the root) by itself may function as a word, which optionally undergoes one of the "word formation processes".
- [2] Is it possible to apply the notion "derivation" and "inflection" to Amis?

Abbreviations

AV: actor voice, UV: undergoer voice, RED: reduplication, Ca-RED: Ca- reduplication (the first consonant is copied leftward, followed by the vowel *a*), w-f: word formation, s-f: stem formation.

Orthography (Those which are different from IPA)

 $<e> = [\mathfrak{p}]; <u> = [\mathfrak{u} \sim \mathfrak{v} \sim \mathfrak{o}]; <i> = [\mathfrak{i} \sim e]; <y> = [\mathfrak{j}]; <s> = [\mathfrak{g}] \text{ before /i/, [s] in other environments; } <d> = [\mathfrak{k} \sim \mathfrak{k}]; <g> = [\mathfrak{g}]; <<>= [\mathfrak{k} \sim \mathfrak{k}]; <g> = [\mathfrak{g}];$