Base Classification and Word Class in the Bantik Language

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Abstract

Word formation in Western Malayo-Polynesian (WMP) languages is defined by the base and the affix they take. In most WMP languages, some word classes, such as nouns, contain words that consist of only a base, whereas others, most typically verbs, take some kind of affix. This paper aimed to present examples of base classification in WMP languages. In addition to word classes that categorize surface forms, base-level classification is not only possible but also necessary for the description of affixation in the Bantik language. This paper discusses base class distinction with a focus on verb forms.

1. Introduction

The Bantik language is a subcategory of the Sangiric micro-group (cf. Sneddon 1993) within the Philippine group, which in turn belongs to the Western Malayo-Polynesian language family (cf. Noorduyn, 1991; Sneddon, 1984). It is spoken by approximately 10,000 people in nine villages in Manado, a provincial city in North Sulawesi, and two more villages about 100 km away from Manado (cf. Noorduyn, 1991). Every Bantik speaker also speaks the Manado dialect of Indonesian, though people born after 1970 mostly use the Manado dialect, and those born after 1980 do not use Bantik. Bantik is now in danger of extinction and is the focus of Bawole (1993) and Utsumi (2005).

The Bantik language has five vowels (/i, e, a, o, u/), fourteen consonants (/p, b, t, d, k, g, s, h, ʔ, m, n, ŋ, ɾ, j/), and a phonemic pitch accent[1]. The syllable structure is (C)V(C), where only nasals and a glottal stop are allowed as coda. All consonant clusters consist of a nasal sound (one of /m, n, ŋ/), a homo-organic stop (one of /p, b, t, d, k, g/), or an alveolar fricative (/s/). Though they are mostly found mid-word, there are about 20 bases that begin with consonant clusters[2]. A glottal stop occurs only base-finally except for *kiʔaŋ* (to lift) and *eʔe* (there (distal)).

As is often the case with Philippine languages, Bantik has a rich morphology that is relatively transparent (cf. Himmelmann, 2005). A phonological word in Bantik is

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distinguished by prosodic units. A word may consist of only a base, or a base to which affixes and clitics are attached. The term "base" describes "the part to which any other morpheme is attached" (Spencer 1991: 461).

In many Philippine languages, a word may consist of a base; a base + affix(es); and a base + affix(es) + clitic(s). A base consists of a single morpheme in Bantik and is predominantly disyllabic or trisyllabic, although it can be mono-syllabic. Affixes and clitics are attached to a base to form phonological words. Affixes are bound forms attached to words of a specific word class. Clitics, on the other hand, function syntactically as separate grammatical units. By undergoing an affixation, a base may change word class, but it does not change word class *via* cliticization because the grammatical word specifies a particular word class by its properties. Word class is a classification by the surface form of a word. Although classification is done at the word level, base-level classification is also necessary for efficient description of morphological phenomena in the Bantik language.

Each base class is defined by three criteria: a set of affixes that can be attached, word class(es) that belong before and after affixation, and morpho-syntactic behavior after affixation. The third criterion concerns bases that form open class words only, whereas the first two are relevant for all bases.

This paper focuses on the bases of open word classes—nouns, adjectives, and verbs—to show why base-level classification is necessary for morphological description of Bantik. The difference between base classes become most obvious in the observation of the morphological behavior of verbs. Section 2 explains Bantik word classes, followed by a general discussion on the correlation between base class and word class in Section 3. Section 4 is a discussion of the verbal paradigm in Bantik. The morphological procedures that each base class can undergo are discussed in Sections 5 to 7.

2. Bases and word classes

Bantik has 10 word classes:

- Nouns
- Pronouns
- Noun markers
- Nominal modifiers (numerals, quantifiers, and classifiers)
- Adjectives
- Verbs
- Adverbs
- Conjunctions
- Interjections
- Discourse particles

Only three of these—nouns, adjectives, and verbs—are open classes. A base that can

form a word that belongs to one open class may also form a word that belongs to another when it undergoes affixation. For example, *buŋaŋ* (flower) is a noun when no affix is attached. It forms a verb when a verb-forming affix *maN-/naN-* is attached, resulting in the form *ma-muŋaŋ/na-muŋaŋ*, with a semantically derived meaning "to decorate (non-past/past)." Once affixation is done, a word belongs to only one word class in Bantik, unlike English or Chinese where the same word form can function as a noun in one environment and as a verb in another.

The other seven word classes—pronouns, noun markers, nominal modifiers, adverbs, conjunctions, interjections, and discourse particles—are formed only by a base. These bases do not undergo affixation, which means they belong to only one word class.

The bases that concern the three open classes are classified into eight groups as follows:

Class N: Bases that form a base-only noun
Class A1: Bases that form a base-only adjective
Class A2: Adjective-forming bases: subclass A, subclass B
Class V1: Verb-forming bases Class 1 (forming a basic verb by infixation of *-um-/-im-*)
Class V2: Verb-forming bases Class 2 (forming a basic verb by prefixation of *ma-/na-*)
Class V3: Verb-forming bases Class 3 (forming a basic verb by prefixation of *maN-/naN*)

Bases in Bantik have different morphological behaviors according to their base class. First, each base class has different set of affixes that can be attached to them. Second, the selection of allomorphs is determined by the base class. For example, the prefix that forms a progressive aspect form has three allomorphs. The choice of allomorph depends not on the phonological condition but on the base class to which a verbal base belongs.

3. General description of the correlation between "base classes" and word classes

Base-only nouns are formed by bases that belong to Class N. Bases that belong to Classes A1 to V3 above can also form nouns, but only by affixation of some kind. For example, Class A1 and A2 bases take the circumfix *ka-+-ne* to form a noun, such as *ka-bagai-ne* (bigness) from *bagai* (big) (Class A1) and *ka-dodoʔ-ne* (slowness) from *ma-dodoʔ* (slow) (ClassA2). Verb-forming bases (Classes V1 to V3) can form nouns by undergoing affixation, reduplication, and both affixation and reduplication. The base *tetseʔ* (drop) (Class V1) forms a noun, *t-a-tetseʔ* (drip) by reduplication, and forms the verb *t-um-etseʔ* with the verb-forming infix *-um-/-im-*. Another example is the base *baruʔ* (sell) (Class V2), which forms the verb *ma-baruʔ* (to sell) by affixation, and can form the noun *pa-ba-baruʔ-an* (shop) by both reduplication and affixation.

Most adjective-forming and verb-forming bases can form nouns *via* the above-described

process, but a relatively small number of bases that belong to Class N form adjectives or verbs. *Uha?* (muscle) can form the adjective *ma-uha?* (strong) by affixation. *Buŋaŋ* (flower) and *suha?* are examples of Class N bases which can form verbs by undergoing affixation: *ma-muŋaŋ* (to decorate) and *ma-nuha?* (to poison).

Adjectives can be formed by a base that belongs in Class A1 and a base in Class A2 that takes the adjectivizing prefix *ma-*. *Bagai* (big) and *ŋasa* (many) are the examples from Class A1, and *ma-ŋuda* (young) and *ma-risiŋ* (sour) are the examples from Class A2. Class A2 adjectives are divided into two subclasses, but this subclassification is only relevant when they form nouns. Subclass 1 adjectives take only the circumfix *ka-* + *-ne* to form nouns, whereas subclass 2 adjectives can take both the circumfix *ka-* + *-ne* and the suffix *-ne*. For example, *ma-ŋuda* (young) and *ma-sahioko?* (speedy) form the noun *ka-ŋuda-ne* (youth) and *ka-sahioko?-ne* (speed), respectively, but cannot form a noun by only attaching *-ne*. So, **ŋuda-ne* and **sahioko?-ne* cannot be found in the Bantik lexicon. By contrast, *ma-risiŋ* (sour) and *ma-pia* (good) can have two noun forms: *ka-risiŋ-ne* and *risiŋ-ne* for (sourness) and *ka-pia-ne* and *pia-ne* for (goodness). The difference between the two noun forms is not clear and is left for future investigation.

Verb-forming bases are classified according to the affix they take when they form a basic verb. There are three affixes when a verb takes the Actor Voice: the infix *-um-/-im-*, the prefix *ma-/na-*, and the prefix *maN-/naN-*. The final *N* in the latter prefix shows either the nasalization of the first consonant of the base or the insertion of a nasal which is homo-organic with the first consonant of the base. A verb-forming base predominantly takes two affixes, and it is difficult to say which is the more basic form by just looking at the verbs. However, there are several ways to solve this question, two of which are to look at the progressive aspect and to look at the potentive verb.

When a verb-forming base has a progressive aspect, it takes one of three forms: *ka-* + BASE + *-ne*, *kapa-* + BASE + *-ne*, and *kapaN-* + BASE + *-ne*. Interestingly, a base can take only one of these forms regardless of the number of Actor Voice affixes they take. For example, Class V1 base *ɾegei* takes the infix *-um-/-im-* to form the verb "to laugh" and can only take the form *ka-ɾegei-ne*. The base *duhaŋ* takes the infix *-um-/-im-* to form the verb *d-um-uhaŋ* (to increase) but also takes the prefix *maN-/naN-* to form the verb *man-duhaŋ* (to add). When the base has the progressive aspect, it is only the form *ka-duhaŋ-ne* (be increasing) that it can take. *Duhan* can be classified into Class V1 based on the semantic feature of its progressive aspect form.

A potentive verb is formed with the prefix *ka-*. When this prefix is attached, the verbal base does not undergo any phonological change, and the prefix *ma-* is needed in its Actor Voice. The Class V2 base *tuɾi* can form both *t-um-uɾi* (to drop in) and *ma-nuɾi* (to touch). When it takes the form *ma-ka-tuɾi*, the potentive verb form, it means "can touch," not "can drop in." Base classification is relevant for many affixes, and a base is consistently classified into one base class, with only one exception which is explained below.

Bases that belong to Class N, which form base-only nouns, sometimes form verbs by undergoing affixation. Those bases are divided into two groups. Those that belong to the first group exhibit features unique to Class N even when they form verbs, whereas those that belong to the second group exhibit features equivalent to verbal bases with verb-forming affixes. The bases that belong to the second group should be regarded as belonging to both Class N (when it is base-only) and Class V3. They will be categorized as Class N when dealing with nominal affixation and Class V3 when dealing with verbal affixation. There is no instance of Class N bases taking the infix *-um-/-im-* or the prefix *ma-/na-*, so there is no possibility of being classified into both Class N and Class V1 or V2.

Apart from this instance of classifying the same base into two classes, bases belong to only one base class.

4. Verbal morphology

The Bantik verbs, like most Philippine-type languages, have a rich morphology. A verbal base can take up to 11 derivational affixes, all of which add a specific meaning to the verbal base and some of which change the valency. Apart from derivational affixes, a Bantik verbal base has to take at least one affix, which indicates the voice, in order to appear in a sentence. In this paper, the latter will be called voice-indicating affixes and treated differently from the former, derivational affixes. Accordingly, the verbs are categorized into two: basic verbs and derivational verbs. Basic verbs take only voice-indicating affixes, whereas derivational verbs take both voice-indicating and derivational affixes. It is, in most cases, obligatory to attach a voice-indicating affix to a base in order for it to be used in a sentence. There are three voices in Bantik: Actor Voice, Goal Voice, and Conveyance Voice. The last two are undergoer voices in which an agent is marked by the genitive case. Every verb in Bantik, basic or derivational, is assigned to one of those voices. In addition, Bantik verbs also show the tense, which is either the non-past or the past tense, through voice-indicating affixes[3]. In other words, voice and tense are simultaneously expressed by a portmanteau morpheme. As discussed in Section 2, a base takes one of the following three affixes in the Actor Voice form: the infix *-um-/-im-*, *ma-/na-*, *maN-/naN-*. The form in the left shows the non-past tense and that in the left shows the past tense. Undergoer voice affixes are only of two kinds in each tense: Base-only and Base + *-an* forms for the non-past tense and *ni-* + Base and *ni-* + Base + *-an* for the past tense. There are three combinations of the undergoer voice forms:

(a) Goal voice: Base + *-an* in the non-past and *ni-* + Base + *-an* in the past and no Conveyance Voice.

(b) Goal voice: Base + *-an* in the non-past and *ni-* + Base in the past and no Conveyance Voice.

(c) Goal voice: Base in the non-past and *ni-* + Base in the past and Conveyance

Voice: Base＋*-an* in the non-past and *ni-*＋Base＋*-an* in the past.

Some verbs do not take undergoer voices. Here are examples of Bantik sentences that show voice alternation. The same logical meaning is shared by Examples (1) a, b, and c. In (1) c, the verb is in Actor Voice, which takes the prefix *maN-*, and the Conveyance Voice is marked by a zero morpheme in the non-past tense. The Goal Voice, on the other hand, is marked by the suffix *-AN*[4], which has an allomorph /en/ when the last vowel of the base is /a/.

(1) a. *i-terok* *ma-niŋan* *oto?=ne* *su* *daren* *ene*
SUBJ-Terok AV.NPST-drive car=GEN.3sg LOC road that
(Actor Voice, non-past tense)
b. *oto?=ne* *diŋan* *ni-terok* *su* *daren* *ene*
car=GEN.3sg CV.drive GEN-Terok LOC road that
(Conveyance Voice, non-past tense)
c. *daren* *ene* *diŋan-en* *ni-terok* *oto?=ne*
road that drive-GV GEN-Terok car=GEN.3sg
(Goal Voice, non-past tense)
"Terok will drive his car on that road."

Examples (2) a and b show the different forms of Goal Voice in the past tense. In (2) a, the verb *ni-boaga?* takes only the prefix *ni-*, which denotes past tense. However, *ni-sake-an*, the verb in (2) b, takes the suffix *-AN* in addition to the prefix *ni-*.

(2) a. *isie* *ni-boaga?* *ni-hili*
SUBJ.3sg PST-hit (GV) GEN-Hilly
"He was hit by Hilly." (Goal voice, past tense)
b. *kabaro* *ene* *ni-sake-an* *ni-deki*
horse that PST-ride-GV GEN-Deki
"That horse was ridden by Deki." (Goal voice, past tense)

There are two verbal groups that do not take any voice-indicating affix. First, imperative verbs take base-only forms, such as *abi?* (climb) in Example (3). Affixed imperatives, such as *soha-i* "run＋*-AI*[5]" and *pa-namboi* "*paN-*＋sow" are used in Bantik, but base-only imperatives are also common. Second, the non-past Conveyance Voice verb forms do not take any affix like *diŋan* in Example (2) and *poso?* in Example (4).[6]

(3) *tansiŋ* *su-sie* *i-kau*
Jump (IMP) LOC-here SUBJ-2sg

"You jump toward here." (Imperative construction)

(4) *tibi? **poso?*** *ni-titin* *su-botoro*
rice put (CV) GEN-Titin LOC-bottle
"Rice will be put by Titin in the bottle." (Conveyance voice, non-past)

The number of voices that a verb takes is also an important feature for classification. In the following descriptions, I will use the terms single-voiced, double-voiced, and triple-voiced to describe a verb that takes only the Actor Voice, takes the actor and Goal Voice, and takes all the three voices, respectively.

The transitivity of verbs should also be stated here. Verbs with low transitivity, or with semantically intransitive meaning, are either single-voiced or double-voiced. Single-voiced semantically intransitive verbs generally take the infix *-um-/-im-* or the prefix *ma-/na-*. Double-voiced verbs with semantically intransitive meaning include motion verbs, such as *ɾ-um-ampaŋ* (AV)/*ɾampaŋ-en* (GV) (walk) and *t-um-eŋede?* (AV)/*t-eŋed-an* (GV) (stand). These verbs take the actor and the location as arguments, and the latter can be the subject of the Goal Voice clause.

Verbs with high transitivity usually take the prefix *maN-/naN-* in the Actor Voice, but there is a significant number of bases that take the prefix *ma-/na-*. The nasalization process[7] is not possible for the flap /ɾ/ and the glottal fricative /h/ in Bantik phonology, so it is understandable that bases like *ɾutaŋ* (to shoot) and *heken* (to count) take the prefix *ma-/na-*. However, bases such as *tunu* (to grill) and *kaɾi* (to dig), which have semantically transitive meanings, take *ma-/na-*.

In summary, the verbal paradigm in Bantik includes these four factors: the affix that is attached in Actor Voice, the number of voices, the undergoer voice forms in the non-past tense, and the undergoer voice forms in the past tense. Table 1 presents the eight kinds of basic verbal paradigms.

There are two types of inflections with regard to the bases that take the infix *-um-/-im-* in the Actor Voice: Inflection Types I and II. Verbs that belong to Inflection Type I are single-voiced, that is, they take only the Actor Voice. Inflection Type II verbs take the Actor Voice and the Goal Voice. When they take the Goal Voice, they take the suffix *-AN*, whether they are in the non-past tense or in the past tense, which can be described as *Base* + *-AN* in the non-past tense and *ni-* + *Base* + *-AN* in the past tense.

Inflection Types III and IV are verbs that take the prefix *ma-/na-* in the Actor Voice. The former verbs have only the Actor Voice, whereas the latter have both the Actor Voice and the Goal Voice. The difference between Inflection Types II and IV lies in the affixation pattern in the past tense. Although verbs that belong to both inflection types take the suffix *-AN* in the non-past tense, those belonging to Inflection Type IV do not take this suffix in the past tense. Therefore, the Goal Voice of Inflection Type IV verbs is *Base* + *-AN* in the non-past tense and *ni-* + *Base* in the past tense.

So far, patterns of inflection are rather straightforward in that the affix a verb takes in the Actor Voice determines the Goal Voice form. It is, however, not the case with verbs that take the prefix *maN-/naN-*.

Inflection Types V, VI, VII, and VIII include verbs that take the prefix *maN-/naN-*. As mentioned earlier, this prefix forms verbs with high transitivity, and as a result, almost all the verbs with *maN-/naN-* are double- or triple-voiced. The exceptions to this are found in Class N bases, which are categorized into Inflection Types V and VI. In other words, when bases that can form a noun by itself form verbs, they should take the prefix *maN-/naN-*, but not the other two affixes. Inflection Type V classifies single-voiced verbs with the prefix *maN-/naN-*. Double-voiced verbs that are classified as Inflection Type VI take the suffix *-AN* both in the non-past tense and the past tense, formalized as *Base* + *-AN* and *ni-* + *Base* + *-AN*, respectively.

Inflection Type VII also shows the inflection pattern of double-voiced verbs, but their Goal Voice form in the past tense is different from that in Inflection Type VI but the same as Inflection Type IV: they do not take the suffix *-AN*. The Goal Voice forms of the verbs in Inflection Type VII can be described as *Base* + *-AN* in the non-past tense and *ni-* + *Base* in the past tense.

There are very limited numbers of verbs classified into the Inflection Type VIII. These verbs take all the three voices. The Goal Voice form is *Base* + *-AN* in the non-past tense and *ni-* + *Base* + *-AN* in the past tense, and the Conveyance Voice form is *Base* only in the non-past tense and *ni-* + *Base* in the past tense.

As can be observed above, the attachment of suffix *-AN* is not consistent with regard to the voice. For verbs that belong to Inflection Types II, VI, and VIII, it is attached both in the non-past tense and the past tense, but in those which belong to Types IV and VII, it is only attached in the non-past tense. This paper defines double-voiced verbs as having the Actor Voice and the Goal Voice forms. The two distinctive Goal Voice forms in the past tense, one group with the suffix *-AN* and the other without, are treated as allomorphs. This is because the two forms have similar syntactic and semantic functions (see Examples (5) and (6)). Examples (5) a and (6) a have the Actor Voice verbs in the non-past tense, whereas (5) c and (6) c have them in the past tense. Also, examples (5) b and (6) b, which have the Goal Voice verb in the non-past tense, have the same affix *-AN* attached to the verbs and also have NPs with the same semantic feature—PATIENT—as the subject of the clause. The affixation patterns of these six sentences are consistent and exhibit the same semantic features. By contrast, the affixation pattern is different between (5) d and (6) d. In (5) d, the suffix *-AN* is attached to the Goal Voice verb in the past tense for Inflection Type VI, but it is not attached for the Inflection Type VII, as presented in Example (6) d. However, both sentences have PATIENT NP as the subject. The syntactic and semantic relationship between (5) c and (5) d is the same as that between (6) c and

(6) d. Therefore, it can be said that the verb form in (5) d, to which the past tense prefix *ni-* and the Goal Voice indicator *-AN* are attached, has the same function as the verb form in (6) d, which does have the prefix *ni-*, but not the suffix *-AN*.

Inflection Type VI

(5) a. *isie* *maŋ-undaŋ* *si-linda*
SUBJ.3sg AV.NPST-medicine OBJ-Linda
"She will cure Linda (with medicine)" *maN-* attached (Actor Voice)

b. *i-linda* *undam-en=ne*[8)]
SUBJ-Linda medicine-GV=GEN.3sg
"Linda will be cured by her (with medicine)" *-AN* attached (Goal Voice)

c. *isie* *naŋ-undaŋ* *si-linda*
SUBJ.3sg AV.PST-medicine OBJ-Linda
"She cured Linda (with medicine)" *naN-* attached (Actor Voice)

d. *i-linda* *ni-undam-en=ne*
SUBJ-Linda PST-medicine-GV=GEN.3sg
"Linda was cured by her (with medicine)" *NI-* and *-AN* attached (Goal Voice)

Table 1

Inflection Type	Tense	Affix	Base	Actor Voice	Goal Voice	Convey-ance Voice	Meaning
(I) Single-voiced	Non-past Past	*-um-/-im-*	*ɾerei*	*ɾ-**um**-erei* *ɾ-**im**-erei*	* *	* *	to be tired
(II) Double-voiced	Non-past Past	*-um-/-im-*	*tontoŋ*	*t-**um**-ontoŋ* *t-**im**-ontoŋ*	*tontoŋ-**an*** ***ni**-tontoŋ-**an***	* *	to watch
(III) Single-voiced	Non-past Past	*ma-/na-*	*takuʔ*	***ma** -takuʔ* ***na** -takuʔ*	* *	* *	to be afraid of
(IV) Double-voiced	Non-past Past	*ma-/na-*	*kiso*	***ma**-kiso* ***na**-kiso*	*kiso-**n*** ***ni**-kiso*	*	to rub
(V) Single-voiced	Non-past Past	*maN-/naN-*	*tahiti* Class N	***ma**-nahiti* ***na**-nahiti*	* *	* *	to rain
(VI) Double-voiced	Non-past Past	*maN-/naN-*	*buŋaŋ* Class N	***ma**-muŋaŋ* ***na**-muŋaŋ*	*buŋaŋ-**en*** ***ni**-buŋaŋ-**en***	* *	to decorate
(VII) Double-voiced	Non-past Past	*maN-/naN-*	*buno*	***ma**-muno* ***na**-muno*	*buno-**n*** ***ni**-buno*	* *	to kill
(VIII) Triple-voiced	Non-past Past	*maN-/naN-*	*bihei*	***ma**-mihei* ***na**-mihei*	*bih-**an*** ***ni**-bih-**an***	*bihei* ***ni**-bihei*	to give

Inflection Type VII

(6) a. *side* *ma-mire* *si-kuntua*
SUBJ.3pl AV.NPST-choose OBJ-mayor
"They will choose the village mayor." *maN-* attached (Actor Voice)

b. *i-kuntua* *pire-n* *n-side*
SUBJ-mayor choose-GV GEN-3pl
"The village mayor will be chosen by them." *-AN* attached (Goal Voice)

c. *side* *na-mire* *si-kuntua*
SUBJ.3pl AV.PST-choose OBJ-mayor
"They chose the village mayor." *naN-* attached (Actor Voice)

d. *i-kuntua* *ni-pire* *n-side*
SUBJ-mayor PST-choose (GV) GEN-3pl
"The village mayor was chosen by them." *NI-* attached Goal Voice (but not *-AN*)

In Sections 5 to 7, each base class is presented with the affixes they may take, together with the inflection type when a base takes voice-indicating affixes.

5. Class N bases: Bases that form base-only nouns

Class N bases, by definition, form nouns on their own. Bases that belong to this class may undergo the following morphological procedures:

(1) Full reduplication denoting plurality.
(2) Take the suffix *-AN* (and partial reduplication) to form a derived noun.
(3) Take the prefix or the circumfix that means "one": *sin*, *siŋka-*, or *siŋka-* + *-an*.
(4) Take a set of voice-indicating affixes: the prefix *maN-* that forms an Active Voice verb and the suffix that forms a Goal Voice verb *-AN*, and the prefix *ni-* that attaches to the Goal Voice verb to indicate the past tense.
(5) Take the prefix that forms a verb that means "wearing" something: *gi-*.

The full reduplication is the only productive procedure, though the others have fairly limited productivity. Personal pronouns are categorized in the dependent word class (see Section 2) because they do not show full reduplication, but do show partial reduplication[9], and the

Table 2: Class N bases and their reduplicated forms

Class N Base	meaning	Fully reduplicated form	meaning
buk *puyuŋ* *barei*	book grandchild house	*buk- buk* *puyuŋ- puyuŋ* *barei- barei*	books grandchildren houses
sinage	friend	*sinage- sinage*	friends
anaʔ *metehеʔ* *manuʔ*	child teacher bird	*ana-anaʔ* *metehe-metehеʔ* *manu-manuʔ*	children teachers birds

meaning added by it means "restriction," not "plurality." Table 2 presents examples of Class N bases and their reduplicated forms. The glottal stop, which is not reduplicated in any case in Bantik. Bases with the final glottal stop are shown on the last line.

The bases that can undergo the morphological procedure in (2) above are limited in number. For example, *gagudaŋ-en* (generation) is derived from *gagudaŋ* (parent); the suffix *-AN* is attached to the Class N base. A similar morphological process is observed with the base *taon* (year), which forms *taon-an* (several years) with the suffix *-AN*. The base *kayu* (tree) needs both partial reduplication and affixation to form *ka-kayu-an* (woods).

The examples of the morphological procedure in (3) are presented in Table 3. This procedure is also not productive. Only the bases associated with "group" or "pair" can form derived nouns with the prefix *siŋka-/sin-*. The prefix the base will take cannot be predicted, nor whether it needs the suffix *-AN* in addition to the prefix.

Table 3: Class N bases with the prefix denoting "one"

Class N base	meaning	Form with *siŋka-sin-*	meaning
banua	country, village	*siŋka-banua*	whole country
banti?	Bantik	*siŋka-banti?*	whole Bantik people
tuhaŋ	sibling	*siŋka-tuhaŋ*	brothers and sisters
iaŋkuŋ	spouse	*siŋka-aŋkum-an*	husband and wife
gio	shape	*sin-gio*	same shape

The morphological procedure in (4) shows Class N base-form verbs are much more productive than the procedures (1), (2), and (3). However, not all the bases that belong to Class N can be verbalized by affixation. The most important thing to be noted here is that Class N verbs take only the prefix *maN-* when they form verbs, which shows that only two inflection types, V and VI, are possible for Class N bases. Table 4 presents examples of Class N verbs that form verbs with voice-indicating affixes.

In procedure (5), Class N verbs form single-voiced verbs. With *ɾaku?*, the verb *ma-gi-*

Table 4: Class N bases that form verbs

Inflection Type	Base/Noun	Meaning	Tense	Actor Voice	Goal Voice	Meaning
(V)	*tahiti*	rain	NPST	*ma-nahiti*	*	to rain
			PST	*na-nahiti*	*	
	du	spit	NPST	*maŋ-udu*	*	to spit at
			PST	*naŋ-udu*	*	
	bahanei	courage	NPST	*ma-mahanei*	*	to have courage
			PST	*na-mahanei*	*	
(VI)	*buŋaŋ*	flower	NPST	*ma-muŋaŋ*	*buŋaŋ-en*	to decorate
			PST	*na-muŋaŋ*	*ni-buŋaŋ-en*	
	suha?	poison	NPST	*ma-nuha*	*suha?-en*	to poison
			PST	*na-nuha*	*ni-suha?-en*	
	undaŋ		NPST	*ma-ŋundaŋ*	*undam-en*	to cure (by medicine)
			PST	*ma-ŋundaŋ*	*ni-undam-en*	

ɾaku?/na-gi-ɾaku? (to wear clothes (non-past/past)) is formed, and with *sahimiŋ* (glass, mirror), the verb *ma-gi-sahimiŋ/na-gi-sahimiŋ* (to wear glasses (non-past/past)) is formed.

6. Class A1 and Class A2 bases: Bases that form adjectives

Class A1 bases, by definition, can function as adjectives on their own, whereas Class A2 bases need the prefix *ma-* in order to function as adjectives. Unlike verbs, Bantik adjectives do not have tense opposition. Both base-only adjectives and the *ma-* prefixed adjectives do not change their form in whatever time setting the clause exhibit, whether an adjective functions as a modifier (*bagai* "big" in Example 7) or the predicate (*ma-roŋkoŋ* "ripe" in Example 8).

(7) a. *i-ama?* *ma-hiŋa?* *kinasa?* ***bagai*** *tahibi*
SUBJ-father AV.NPST-cook fish big tomorrow
"Father will cook a big fish tomorrow."
b. *i-ama* *na-tunu* *kinasa?* ***bagai*** *kahibi*
SUBJ-father AV.PST-grill fish big yesterday
"Father grilled a big fish yesterday."

(8) a. *uai* *ŋ-kami* *aya=ken* ***ma-roŋkoŋ***
mango GEN.1pl.INC not=CONT ADJVZ-ripe
"The mango is not ripe yet." The present situation
b. *uai* *ŋ-kami* ***ma-roŋkoŋ****=te* *kahibi*
mango GEN.1pl.INC ADJVZ-ripe=COMP yesterday
"The mango was already ripe yesterday." The situation in the past

Bases that belong to Classes A1 and A2 undergo these morphological procedures:

(1) Take the prefixes that indicate the degree of the state which is denoted by an adjective: the prefix *iŋka-* "the high degree," *ɾiN-* "the low degree," and *kika-* "the preferable degree."
(2) Take a partially reduplicated form that indicates plurality: C1 + /a/ + *Base*.
(3) Take a partially reduplicated form with affixation that indicates "excessiveness": *na-* + σ1C2V2 + /a/ + *Base*.
(4) Take a partially reduplicated form that indicates "higher degree," used in the comparative construction: (*ma-*) + σ1C2V2[10] + /a/ + *Base*.
(5) Take the noun-forming prefix *maŋka-* to form a noun that indicates admiration or wonder.
(6) Take one of the verb-forming affixes: the infix *-um-/-im-* (and in some cases /ŋ/ insertion) or the prefix *maN-/naN-*.

(7) Take the partially reduplicated form and the circumfix *ka- -ne* to form a nominalized form.

(8) Take the prefixes *ma-* and *kika-* to form an Actor Voice verb (also a single-voiced verb) that means "to like something to be in the state denoted by the base."

Procedures (1) to (5), (7), and (8) are unique to Classes A1 and A2. For the purpose of this paper, procedure (6) compares the affixation patterns of different base classes. The examples in procedures (3) and (4), which involve prefixes identical to the Actor Voice prefix *ma-/na-*, will be presented to show the morphological differences between adjectives and verbs. Example (9) shows that the prefix *na-* does not indicate the past tense, and a base should be reduplicated when it is attached. Both *bagai* "big" and *na-baga-bagai* "too big" in Examples (9) a and (9) c describe a situation at the time of the utterance, with the same base that belongs to Class A1. Similarly, Class A2 base adjectival form *iha?* appears as *ma-iha?* "hot" in (10) a and *na-iha-iha?* "too hot" in (10) c. Both sentences describe the current situation. The prefix *na-* never attaches to the bases that belong to Classes A1 and A2 without undergoing partial reduplication, as presented in (9) b and (10) b.

(9) a. *raku? ie bagai, doŋka konio?-an*
clothes this big later small-GV
"This piece of clothing is big, (so it) will be made small later." Class A1

b. *raku? ie *na-bagai*

c. *raku? ie na-baga-bagai, doŋka konio?-an*
clothes this EXC-RED-big later small-GV
"This piece of clothing is too big (so it) will be made small later." Class A1

(10) a. *kopi ie ma-iha? tumani bo ana? ie aya=te*
coffee this ADJVZ-hot very and child this no=COMP
m-uari maŋ-inuŋ
AV.NPST-begin AV.NPST-drink
"This coffee is too hot and this child cannot start drinking yet."

b. *kopi ie *na-iha?*

c. *kopi ie na-iha-iha?=te bo ana? ie aya=te*
coffee this EXC-RED-hot=COMP and child this no=COMP
m-uari maŋ-inuŋ
AV.NPST-begin AV.NPST-drink
"This coffee is too hot and this child cannot start drinking yet."

Examples (11) and (12) are comparative construction sentences. The conjunction *bo* is positioned before the NP, which is the criterion for comparison. Class A1 bases need only a reduplication of the first syllable and the onset and the vowel of the second syllable as in Example (11), whereas Class A2 bases need the prefix *ma-* attached before the partially

reduplicated form.

(11) *i-yopi* *baha-bahanei* *bo* *i-rempis*
SUBJ-Yopi RED-brave and SUBJ-Rempis
"Yopi is braver than Rempis."

(12) *i-heis* *ma-uha-uha?* *ɾ-um-ampaŋ* *bo* *i-titin*
SUBJ-Heis ADJVZ-RED-strong AV.NPST-walk and SUBJ-Titin
"Heis is stronger (walks faster and longer) in walking than Titin."

Both procedures above involve partial reduplication, but the semantic features differ from verbal reduplication where the iterative aspect is indicated by this form. In addition, the verbal reduplication has tense opposition (the non-past tense and the past tense by *ma-/ na-* alternation).

Class A1 and A2 bases can form verbs with similar morphological procedures, as presented in Table 5, and their inflection patterns are either Type I or VI. In other words, a single-voiced verb formed with Class A1 or A2 bases should exhibit Inflection Type I, and a double-voiced verb formed with those bases should exhibit Inflection Type IV. The semantic feature of the former verbs is the change of the state, and that of the latter verbs

Table 5: Verbs formed from the bases that belong to Classes A1 and A2

Inflection Type	Adjective	Meaning	Tense	Actor Voice	Goal Voice	Meaning
(I) /ŋ/ insertion/ substitution	*ma-pedeke?*	short	NPST	*ŋ-um-edeke?*	*	to get shorter
			PST	*ŋ-im-edeke?*	*	
	ma-baha?	heavy	NPST	*ŋ-um-aha?*	*	to get heavy
			PST	*ŋ-im-aha?*	*	
	ma-iha?	hot	NPST	*ŋ-um-iha?*	*	to get hotter
			PST	*ŋ-im-iha?*	*	
(I) without */ŋ/* insertion	*gudaŋ*	old	NPST	*g-um-udaŋ*	*	to get old
			PST	*g-im-udaŋ*	*	
	ŋasa	many	NPST	*ŋ-um-asa*	*	to increase
			PST	*ŋ-im-asa*	*	
	ma-heta	wet	NPST	*h-um-eta*	*	to get wet
			PST	*h-im-eta*	*	
	ma-tiŋkope?	blunt	NPST	*t-um-iŋkope?*	*	to get blunt
			PST	*t-im-iŋkope?*	*	
	ma-roŋkoŋ	ripe	NPST	*ɾ-um-oŋkoŋ*	*	
			PST	*ɾ-im-oŋkoŋ*	*	to get ripe
(VI)	*bagai*	big	NPST	*mam-bagai*	*bagaɾ-en*[11]	to enlarge
			PST	*nam-bagai*	*ni-bagai*	
	daɾai?	bad	NPST	*man-daɾai?*	*daɾai?-an*	to break
			PST	*nan- daɾai?*	*ni- daɾai?*	
	gehe?	torn	NPST	*maŋ-gehe?*	*gehe?-an*	to tear
			PST	*naŋ-gehe?*	*ni-gehe?*	
	ma-pikihi?	considerate	NPST	*ma-mikihi?*	*pikih-an*	to consider
			PST	*na-mikihi?*	*ni-pikihi?*	
	ma-tegaŋ	skeptical	NPST	*ma-negaŋ*	*tegaŋ-en*	
			PST	*na-negaŋ*	*ni-tegaŋ*	to doubt
	ma-ombaɾa?	loud-voiced	NPST	*ma-ŋombaɾa?*	*ombaɾ-en*	
			PST	*na-ŋombaɾa?*	*ni-ombaɾa?*	to shout

is high transitivity, in which an agent is doing something to the patient.

The insertion of the velar nasal /ŋ/ or the substitution of the first consonant of the base with /ŋ/ occurs only in Classes A1 and A2. It is not clear what phonological condition triggers this. So far, bases that begin with /i/, /p/, and /b/ are found to undergo the velar nasal insertion or substitution. As can be seen in Table 5, bases that begin with the other phonemes do not undergo this process. However, verifying phonological conditions is difficult because the number of bases that take inflection pattern I is limited. A large number of bases that belong to Classes A1 and A2 take the prefix *maN-/naN-* to form double-voiced verbs. Examples (13) and (14) contain verbs formed from adjectival bases.

(13) *anaʔ* *ene* *h-im-eta* *ka* *na-tin-tahiti=te*
child that AV.PST-wet because AV.PST-VL- rain=COMP
"That child got wet because he played in the rain." Inflection Type (I)

(14) a. *side* *ma-negaŋ* *si-kau*
SUBJ.3pl AV.NPST-doubt OBJ-2sg Inflection Type (IV), (Actor Voice)
b. *i-kau* *tegaŋ-en* *n-side*
SUBJ-2sg doubt-GV GEN-3pl Inflection Type (IV), (Goal Voice)
"They have a doubt on you."

7. Class V1, V2, and V3 bases (verbal bases)

7.1 Morphological procedures relevant to verbal bases

Bases that belong to Classes V1, V2, and V3 almost always appear with voice-indicating affixes. As already mentioned, there are two exceptions to this: bases that can appear as imperative verbs and a limited number of bases that appear in the Conveyance Voice form in the non-past tense.

The verbal bases below show the largest number of morphological procedures:

(1) Take a voice-indicating affix and function as a verb
(2) Take the following noun-forming affixes:
  (A) the partial reduplication C1/a/+*Base* to indicate "the way of the action is done" with the prefix *pa-*, or the prefix *ka-*, or without any.
  (B) the partial reduplication C1/a/+*Base* to indicate "the tool for the action"
  (C) the partial reduplication C1/a/+*Base* to indicate "the place where the action takes place," with the suffix *-AN* and the prefix *pa-* for some bases, and only with the suffix *-AN* for the other.
(3) Take the prefix *pa-/paN-* to form an instrumental verb.
(4) Take the prefix *pa-/paN-* and the suffix *-AN* to form a locative verb.
(5) Take the prefix *paN-* to form an applicative verb.
(6) Take the prefix *pa-/paN-* to form a causative verb.

(7) Take the prefix *paki-* to form a causative verb.
(8) Take the prefix *tin/tiŋka-* to form a voluntary verb.
(9) Take the prefix *i-* to form an involuntary verb.
(10) Take the prefix *kipa-* to form a verb that denotes "assisting."
(11) Take the prefix *hi-* and the suffix -AN or the prefix *hiN-* to form a reciprocal verb.
(12) Take the prefix *ka-* to form a potentive verb.
(13) Take the circumfix *ka-/kapa-/kapaN-* + *Base* + *-ne* to form the progressive aspect. Take the suffix *-AI* and/or *paN-* to form the imperative form.

As pointed out in Section 3, the semantic features of a verb when it is equipped with the potentive prefix *ka-* and the progressive prefix *ka-/kapa-/kapaN-* are the test frames for determining which base class a verbal base belongs to.

Base classification is relevant for almost all morphological procedures that have allomorphs. The base classes cannot explain the conditions of the allomorphs of the voluntary prefix *tin-/tiŋka-*. The involuntary prefix *i-*, the assisting prefix *kipa-*, the potentive prefix *ka-*, and the causative prefix *paki-* do not have alterations, so base classes are irrelevant. Apart from these, all allomorphs should be explained using the base class distinction.

7. 2 Patterns of nominalization

Table 6 contains examples of nominalization. The first line shows the base classes, and the second line shows the verbs that take the most basic verb form. The nominalization does not apply to every base, and there are differences in productivity. The least productive nominalization is the one which denotes an object relevant to the action, such as *s-a-sinda?* "breath, lung" from the base *sinda?* whose verb form is *s-um-inda?* "to breathe". This procedure, in which the first consonant of the base is reduplicated followed by /a/ and the base, is applicable to all verbal base classes, but there are very few cases of words that denote an object relevant to the action. The same procedure is applied to base class V3 to form a noun that denotes "the tool used in the action denoted by the verb." The verb *ma-nihuŋ* "to scoop" is formed from the base *sihuŋ*, and when it undergoes the nominalization process above, *s-a-sihuŋ* "scoop, spoon" is formed. Nouns with this semantic feature are only found in words formed with Class V3 bases.

Each verbal base class follows distinct processes when forming a noun denoting "the manner of action." The partial reduplication process, in which the first consonant of the base is reduplicated followed by /a/, is shared by all the three classes. Although Class V1 bases do not need further processing, Class V2 bases need the prefix *ka-*, and Class V3 bases need the prefix *paN-*. So, *t-a-tuyu* "the manner of running" is formed from the Class V1 base *tuyu*, *ka-s-a-saka* "the manner of climbing" is formed from the Class V2 base *saka*, and *pa-ma-muahi* "the manner of drying" is formed from the Class V3 base *puahi*.

When a verbal base forms a noun denoting "the place where the action takes place," the same partial reduplication pattern as the one above is observed in all the three verbal classes, the suffix *-AN* is attached, and, for Class V1 bases, there is no prefix needed. It is necessary to attach the prefix *pa-* to a Class V2 base and the prefix *paN-* to a Class V3 base. *D-a-dusun-an* "downhill" has the Class V1 base *dusun*, *pa-b-a-baru?-an* "shop" has the Class V2 base *baru?*, and *pa-ma-muto?-an* "shortcut" has the Class V3 base *poto?*. The verb forms created using these bases and their meanings are *d-um-usun* "to descend", *ma-baru?* "to sell", and *ma-moto?* "to cross".

Table 6: Nominalized forms of base Classes V1, V2, and V3

	Base V1	Base V2	Base V3
The AV form with a voice-indicating affix	**The infix *-um-/-im-*** *t-um-etese?* "to drop" *s-um-inda?* "to breathe" *t-um-tuyu* "to run" *s-um-eŋko?* "to sail" *d-um-usun* "to descend" *s-um-u?* "to enter"	**The prefix *ma-/na-*** *ma-suan* "to plant" *ma-saka* "to climb up" *ma-tutuŋ* "to burn" *ma-baru?* "to sell" *ma-tiki* "to sleep"	**The prefix *maN-/naN-*** *ma-maehe?* "to reward" *ma-muahi* "to dry" *maŋ-ompu* "to worship" *man-dahuŋ* "to sew" *ma-nihuŋ* "to scoop" *ma-moto?* "to cross" *ma-neno* "to bathe"
Nominalization: Object relevant to the action	**C1/a/+Base** *t-a-tetese?* "drip" *s-a-sinda?* "breathe, lung"	**C1/a/+Base** *s-a-suan* "plants"	**C1/a/+Base** *b-a-baehe?* "reward"
Nominalization: The tool used in the action	**NA**	**NA**	**C1/a/+Base** *d-a-dahuŋ* "needle" *s-a-sihuŋ* "scoop, spoon" *t-a-turubu?* "cover, blanket"
Nominalization: The manner of the action	**C1/a/+Base** *t-a-tuyu* "the manner of running" *s-a-seŋko?* "the manner of sailing"	**ka-+C1/a/+Base** *ka-s-a-saka* "the manner of climbing up" *ka-t-a-tutuŋ* "the manner of burning"	**paN-+C1/a/+Base** *pa-m-a-muahi* "the manner of drying" *pa-ŋ-a-ŋompu* "the manner of worshipping"
Nominalization: the place of action	**C1/a/+*Base*+*-AN*** *d-a-dusun-an* "downhill" *s-a-su?-an* "entrance"	***pa-*+C1/a/+*Base*+-AN** *pa-b-a-baru?-an* "shop" *pa-t-a-tiki-an* "bed, bedroom"	***paN-*+C1/a/+*Base*+-AN** *pa-m-a-moto?-an* "shortcut" *pa-n-a-neno-an* "bathroom"

7. 3 Derivational verbs and the progressive aspect

Some derivational verbs are formed with affixes with identical phonological forms, whereas others take distinctive allomorphs according to the base class. The phonologically identical prefix *pa-/paN-* can function to forman instrumental verb, an applicative verb, a causative verb, and a locative verb with the suffix *-AN*. Conditions for allomorphs *pa-* and *paN-* are the same as any function above.

7. 3. 1 The prefix *pa-/paN-* and base classes

A noun which denotes an instrument becomes the subject of an instrumental verb. Instrumental verbs are formed from either Class V2 or V3 base but restricted to those which have high transitivity. Class V1, N, A1, and A2 bases can never form an instrumental verb. verbs. Example (15) has an instrumental verb formed with a Class V3 base.

(15) *pisou=ku* *ni-pa-ŋarimu?=ku* *kororusu?*
knife=GEN.1sg PST-PAN-make=GEN.1sg top
"My knife was used by me to make a top (for a toy)." Class V3

The three verbal base classes can form locative verbs, but there is a semantic restriction. Bases that denote motion or action can form locative verbs, but those which denote sensation or emotion cannot. Locative verbs take the location NP as the subject. Class V1 and V2 bases take the prefix *pa-*, but Class V3 bases take *paN-*. A locative verb formed from a Class V1 base is found in Example (16), and that which is formed from a Class V3 base is shown in Example (17).

(16) *barei=ne* *ni-pa-teŋed-an* *su* *pogidon*
house=GEN.3sg PST-PA-stand-AN LOC Pogidon
"His house was built in Pogidon (=an old name for Manado city in Bantik)." Class V1

(17) *kadu* *ie* *pa-ŋiaŋ-en=ku* *ɾabanen*
sack this PAN-lift-AN=GEN.1sg sand
"I'll put sand in the sack (*Lit.* This sack will be placed sand by me)." Class V3

A causative verb can be formed either by the affixation of *pa-/paN-* or *paki-*. The latter prefix can be attached to every base class. Many bases that belong to Classes V1 and V2 take the prefix *pa-*, but very small groups of Class V3 bases take the prefix *paN-*. Most of the verbs formed from a Class V3 base and the prefix *paN-* are applicative verbs which add an instrumental, locative, or beneficiary argument, but without causative meaning. One Class N base that forms a verb taking the prefix *maN-* can also form a locative verb. From *saŋkoi* "field", an applicative verb which takes an additional instrumental argument *pa-naŋkoi-an* "to culture with something" is formed. A causative construction with a verb that takes the prefix *pa-* and the prefix *paN-* is shown in Examples (18) and (19), and an applicative construction is shown in Example (20).

(18) *i-deki* *ma-pa-hompoŋ* *ni-stefi* *su* *hahompoŋan*
SUBJ-Deki AV.NPST-PA-sit GEN-Stevy LOC chair
"Deki will make Stevy sit on the chair." Causative verb with Class V1 base

(19) *i-ma?=ne* *ma-pa-nuhe* *nu ana?=ne* *ɾaku?*
SUBJ-mother=GEN.3sg AV.NPST-PAN-wear GEN-child=GEN.3sg clothes
"Her mother will dress her child (*lit.* Her mother will make her child wear clothes)." Causative verb with V3 base

(20) *i-remi* *ma-mandaŋ pisou=ne*
SUBJ-Remi AV.NPST-test knife=GEN.3sg
"Remi tested his knife."

b. *i-remi* *ma-pa-mandaŋ* *nu-pisou=ne* *su pun nu-teriŋ*
SUBJ-Remi AV.NPST-APPL-test GEN-knife=GEN.3sg LOC trunk GEN-bamboo
"Remi tested his knife on the bamboo trunk."
Applicative verb with Class V3 base

There is no Class V1 and V2 base that can form an applicative verb. Table 7 contains examples of bases and the verbs formed with the prefix *pa-/paN-*.

Table 7: Base classes and verb formation with the prefix *pa-/paN-*

	Base V1	Base V2	Base V3
The AV form with a voice-indicating affix	**The infix *-um-/-im-*** *t-um-ara?* "to fly" *t-um-eŋede?* "to stand" *k-um-aha?* "to cry"	**The prefix *ma-/na-*** *ma-hiudu?* "to pull" *ma-heken* "to count" *ma-samboi* "to scatter" *ma-hata* "to cut" *ma-tiki* "to sleep"	**The prefix *maN-/naN-*** *ma-mudu?* "to pick" *ma-nukusu?* "to close" *ma-moto?* "to cross" *ma-nurubu?* "to cover" *ma-mareŋ* "to throw" *maŋ-inuŋ* "to drink" *ma-nuhe* "to dress"
Instrumental verb	NA	***pa-+Base*** *pa-hiudu?* "be used for pulling" *pa-heken* "*be used for counting*	***paN-+Base*** *pa-mudu?* "be used for picking" *pa-nukusu?* "be used for wrapping"
Locative verb	***pa-+Base+-AN*** *pa-tara?-en* "be flew at" *pa-teŋed-an* "be built at"	***pa-+Base+-AN*** *pa-samboi-an* "be scattered at" *pa-hata-n* "be cut at"	***paN-+Base+-AN*** *pa-moto?-an* "be crossed at" *pa-nurub-an* "be covered at"
Applicative verb	NA	NA	***paN-+Base*** *ma-pa-mareŋ* "take something by throwing" *ma-paŋ-inuŋ* "drink with something"
Causative verb	***pa-+Base*** *ma-pa-kaha?* "make someone cry"	***pa-+Base*** *ma-pa-tiki* "make someone sleep"	***paN-+Base*** *ma-pa-nuhe* "dress someone"

7. 3. 2 Reciprocal verbs

Reciprocal verbs are formed with the prefix *hiN2*[12]-. They are single-voiced verbs and always take the Actor Voice which is indicated by the prefix *ma-/na-*. With Class V1 and V2 bases, there are two patterns of formation: *hiN2–+Base+-AN* and *hiN2–+*C1/a/*+Base*. There is a tendency for bases that denote emotion, emotional action, and sensation to take the first type of formation, and bases which have more transitive meaning take the second. However, the conditions are not very clear. For example, Class V1 bases *ɾegei* "laugh" and *tontoŋ* "watch" form reciprocal verbs *ma-hi-rege-an* "to laugh at each other" and *ma-hin-t-a-tontoŋ* "to watch each other". It is not clear how much difference in transitivity is found between the two bases. On the other hand, a slight difference in transitivity is observed between two Class V2 bases *sibi?* "like" and *bahiga* "speak", which form reciprocal verbs *ma-hin-sibi?-an* "to like each other" and *ma-him-b-a-bahiga* "to argue", respectively.

Class V3 bases never take the first formation. They all take the second formation with partial reduplication but without the suffix. The base *tiaha?* takes the prefix *maN-/naN-* to form the Actor Voice verb *ma-niaha?* "to distribute", and when it undergoes the second reciprocal formation, *ma-n-a-niaha?* "to share" is formed. Examples (21), (22), and (23) are sentences with reciprocal verbs formed from Class V1, V2, and V3 bases, respectively.

(21) *i-stefi* *bo i-aŋkuŋ=ne* *na-hiŋ-kaha?-en*
SUBJ-Stevy and SUBJ-spouse=GEN.3sg AV.PST-RCP-cry-AN
ka *nahisabu=te*
because AV.PST-meet=COMP
"Stevy and her husband cried when they met." (Class V1)

(22) *side* *dua siŋka-tuhaŋ* *ma-hin-t-a-tiho?*
SUBJ.3pl two one-sibling AV.NPST-RCP-RED-/a/-know
"The two brothers help each other (*Lit.* The two brothers know each other)." (Class V2)

(23) *isie* *ma-him-b-a-boaga?* *age?* *ni-* *aŋkuŋ=ne*
SUBJ.3sg AV.NPST-RCP-RED-/a/-beat with GEN-spouse=GEN.3sg
"He and his spouse beat each other." (Class V3)

Table 8 contains examples of base classes and allomorphs found in reciprocal verbs, the progressive aspect forms, and imperative forms. The latter two are discussed in the following Sections 7. 3. 3 and 7. 3. 4.

7. 3. 3 The formation of the progressive aspect

As already mentioned, the progressive aspect functions as the test frame for classifying verbal bases. Class V1 bases take the circumfix *ka-* + *Base* + *-ne*, Class V2 bases take *kapa-* + *Base* + *-ne*, and Class V3 bases take *kapaN-* + *Base* + *-ne*. The only exception to this rule are Class V1 bases which begin with /k/. These take the prefix *kapa-*, not *ka-*. With this irregular formation, the base *kuku?* forms a basic verb *k-um-uku?* "to shout", and its progressive aspect form is *kapa-kuku?-ne*. It is assumed that this exceptional rule is needed to avoid confusion. *Ka-kuku?-ne* has the same phonological feature as the partial reduplication that denotes "the manner of action" and the pronominal enclitic that denotes third person singular, as described in Subsection 7.2, which can be interpreted as "his manner of shouting."

This type of progressive aspect formation is only applicable to basic verbs in the Actor Voice. Undergoer voice verbs and derivational verbs take periphrastic formation in which *kahagasa* "now" + the linker *nu* is placed before a verb. Example (24) is a sentence with a causative verb in the Actor Voice, and Example (25) is one with a basic verb in the Goal Voice in the progressive aspect. Examples (26), (27), and (28) are examples of progressive aspects with the circumfix *ka-/kapa-/kapaN-* + *Base* + *-ne*.

(24) *toumata kahagasa nu ma-ki-rutaŋ nu-manu? si-stenli*
people now LNK AV.NPST-CAUS-shoot OBL-chicken OBJ-Stenly
"People are making Stenly shoot chickens."

(25) *side kahagasa nu upi?-an ni-ma?=nside*
SUBJ.3pl now LNK scold-GV GEN-mother=GEN.3pl
"They are being scolded by their mother."

(26) *ka-bua=ku ake ie ka-duhaŋ-ne=ken*
POT-see=GEN.1sg water this PROG-increase-NE=COMP
"It seems to me that this water is still increasing."

(27) *i-terok kapa-suba=ne su-gaheda*
SUBJ-Terok PROG-pray=NE LOC-church
"Terok is praying in the church."

(28) *i-ma?=ne kapa-mokei-ne si-linda*
SUBJ-mother=GEN.3sg PROG-call-NE OBJ-Linda
"Her mother is calling Linda."

7. 3. 4 Imperative form

As mentioned in Section 2, a verbal base can appear on its own in the imperative form. There are three other ways to form an imperative verb, all of which are described below:

(A) Base-only
(B) Base + the suffix *-AI*
(C) The prefix *paN-* + Base
(D) The prefix *paN* + Base + the suffix *-AI*.

Class V1 and V2 bases take imperative forms (A) and (B). In contrast, Class V3 bases can take all of the four forms, but (C) and (D) forms are the ones most commonly used. The suffix *-AI* softens the imperative, sometimes making it sound like a recommendation. When Class V1 andV2 bases form a base-only imperative (A), the second singular agent appears as the subject (as in Example 29), a feature very much similar to Actor Voice. When an imperative is formed with the suffix *-AI*, the agent is marked by a genitive case (Examples 30 and 32), like undergoer voice sentences. A Class V3 base-only imperative (A) marks the agent with a genitive case (Example 33) which is the same as the imperative form (B) (Example 29). The same case marking is observed when it takes the prefix *paN-* and the suffix *-AI* (imperative form D), as shown in Example (32). By contrast, the combination of Class V3 base and the prefix *paN-* (imperative form C) demands subject marking on the agent noun, as shown in Example (31). As for the imperative form, base classification is relevant for both the morphological procedure and the syntactic features.

(29) *tiki = te* *ikau* *e*
sleap = COMP SUBJ.2sg DP
"You sleep!"

(30) *bokou-ai = nu = ken* *ɾaku? = nu*
wash-AI = GEN.2sg = CONT clothes = GEN.2sg
"Wash your clothes, will you?"

(31) *pa-moso?* *ikau* *gula*
PAN-put SUBJ.2sg sugar
"You put sugar!"

(32) *pa-moso?-ai = nu* *gula*
PAN-put-AI = GEN.2sg sugar
"You put sugar!"

(33) *inung = nu = te* *kopi = ku*
drink = GEN.2sg = COMP coffee = GEN.1sg
"You drink my coffee, would you?"

Table 8: Verbal bases and verb forms with allomorphs

	Base V1	Base V2	Base V3
The AV form with a voice-indicating affix	**The infix *-um-/-im-*** *k-um-aha?* "to cry" *t-um-ontoŋ* "to watch" *t-um-uri* "to drop in" *k-um-uku?* "to shout" *t-um-agoŋ* "to sink" *h-um-embaŋ* "to flame"	**The prefix *ma-/na-*** *ma-sibi?* "to like" *ma-dadiŋihi?* "to listen" *ma-bahiga* "to speak" *ma-kina* "to ask" *ma-suba* "to pray"	**The prefix *maN-/naN-*** *ma-moaga?* "to punch" *ma-niaha?* "to share" *maŋ-gogaha?* "to break" *ma-mokei* "to call"
Reciprocal verb/act together	***hiN-+Base+-AN*** *ma-hin-kaha?-en* "cried together" *ma-hin-tontoŋ-an* "watch eatch other" *hiN-* + C1/a/ + *Base* *ma-hin-t-a-turi* "to visit each other" *ma-hin-k-a-ku?* "to shout at each other"	***hiN-+Base+-AN*** *ma-hin-sibi?-an* "like each other *ma-hin-dadih-an* "listen to each other *hiN-* + C1/a/ + *Base* *ma-him-b-a-bahiga?* "to listen to each other" *ma-hin-k-a-kina* "to ask each other"	***hiN-+C1/a/+Base*** *ma-him-ba-boaga?* "to beat each other" *ma-hin-t-a-tiaha?* "to share with"
Progressive Aspect	***ka-+Base+-NE*** *ka-tagoŋ-ne* "be sinking" *ka-hembaŋ-ne* "be flaming" *kapa-* + *Base* (with the onset /k/) + *-AN* *kapa-kuku?-ne* "be shouting"	***kapa-+Base+-NE*** *kapa-suba-ne* "be paraying" *kapa-kina-ne* "be asking"	***kapaN-+Base+-NE*** *kapaŋ-gogaha?-ne* "be breaking" *kapa-mokei-ne* "be calling"
Imperative Form	***Base*** *kuku?* "shout!" ***Base + -AI*** *tontoŋ-ai* "Look!"	***Base*** *kina* "Ask!" ***Base+-AI*** *dadiŋih-ai* "Listen!"	***Base*** *pokei* "Call!" ***Base+-AI*** *poke-ai* "Call!" ***paN-+Base*** *pa-mokei* "Call!" ***paN-+Base+-AI*** *pa-moke-ai* "Call!"

7. 3. 5 Summary

Bantik verbal bases have a rich morphology. It is clear from the above discussion that voice-indicating affixes and derivational affixes are selected according to the base classes.

It is necessary to categorize verbal bases into at least three classes in order to grasp the affixation patterns. The syntactic features of the imperative construction are also relevant to the base classes, as presented in 7. 3. 4.

The semantic features of each base class also need to be investigated. At a glance, Class V1 bases and most bases in Class V2 exhibit semantically intransitive meaning. Class V3 bases predominantly have transitive meaning. However, there are exceptions to the above rule, and a detailed discussion is needed.

8. Conclusion

There have been extensive studies on root, stem, or base classification in Philippine languages (cf. Chandler 1974, Klimenko and Endriga 2016, among others). For Bantik morphology, base-level classification is necessary for a clear and efficient description. First, the open class bases and closed class bases are distinguished by the fact that the former can take affixes, whereas the latter cannot. Second, the subcategorization of each open class base explains the affixation pattern. Third, the morpho-syntactic features of verbs are explained by the base class from which they are formed.

Bases that can become nouns without any affixation are classified as Class N. Bases that can become adjectives without any affixation are classified as Class A1. Bases that form adjectives by the prefixation of *ma-* are Class A2 bases. There are three verbal bases: Classes V1, V2, and V3. Verbal bases do not appear by themselves, except in imperative clauses. Only the eight bases that belong to Class V3 appear without any affixation in the past tense of the Conveyance Voice. Classes V1 and V2 bases have semantically intransitive meaning, and Class V3 bases have transitive meaning, but this is not always the case. Inherent base classification should be acknowledged in order to explain the different affixation patterns, as in the cases of the progressive aspect forms, reciprocal verbs, and many others.

Abbreviations

1sg	First person singular
1pl	First person plural
2sg	Second person singular
3sg	Third person singular
3pl	Third person plural
ADJVZ	Adjectivising prefix *ma-*
-AI	The imperative suffix *-AI*
APPL	Applicative
AV	Actor Voice
CAUS	Causative

=COMP	The completive aspect clitic *te*
=CONT	The continuative aspect clitic *ken*
CV	Conveyance Voice
DP	Discourse particle
EXC	The prefix *–na* that shows the excessiveness
GEN	The genitive marker *ni-*
GV	Goal Voice
IMP	Imperative
INC	Inclusive
LNK	Linker
-NE	A part of the circumfix *ka-/kapa-/kapaN-* + *Base* + *-NE* or nominalizing suffix *-ne*
NPST	The non-past tense
OBJ	The object marker *si-/su-*
OBL	The oblique noun marker *ni-/nu-*
PA-	The causative/instrumental/locative prefix *pa-*
PAN-	The applicative/causative/instrumental/locative prefix *paN-*
PST	The past tense
RCP	The reciprocal prefix *hiN2–*
RED	Reduplication
SUBJ	The subject marker *i-*
VL	The prefix *tin-/tiŋka-* that forms a voluntary verb

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[Notes]

1) For example, *pa'higi* "well" and *pahi'gi* "knife" consist of a minimal pair. (Pitch accent nucleus is shown by an apostrophe at the beginning of the syllable.)

2) For example, *nsao* "over there" (more or less the same height).

3) The Bantik verbs, by definition, have tense opposition. Adjectives and verbs are distinguished by this factor as adjectives do not have tense opposition.

4) The suffix *–AN* has three phonologically conditioned allomorphs, *-an*, *-en*, and *-n*. When the base ends with a mid or open vowel, *-n* is attached. If the final syllable of the base has the vowel /a/, *-en* is attached. *–An* is found elsewhere.

5) The suffix *–AI* has three phonologically conditioned allomorphs, *-ai*, *-ei*, *-i*. When the base ends with a mid or open vowel, *-i* is attached. If the final syllable of the base has the vowel /a/, *-en* is attached. *–Ai* is found elsewhere.

6) So far, only eight basic verbs are confirmed to have Conveyance Voice forms. They are *bihei* (give), *buni* (hide), *poso?* (put), *diŋan* (bring), *tondo* (push), *turau* (leave something), *suŋi?* (feed), and *oŋkoho?* (hand something).

7) The final consonant *N* in *maN-/naN-*, as mentioned earlier, denotes the substitution of the first consonant of the base with the homo-organic nasal or the insertion of a nasal that is homo-organic with the first consonant of the base. When a base begins with a vowel, the velar nasal /ŋ/ is inserted. If a base begins with either /b/ or /p/, it is substituted by /m/, or /m/ is inserted before them. Similarly, a nasal counterpart of /s/, /t/ and /d/ is /n/, and that of /k/ and /g/ is /ŋ/. However, in Bantik phonological system, there is no nasal substitute for the flap and the glottal fricative.

8) The base *undaŋ* ends with a velar nasal, but it is assumed that it ended with a bilabial nasal (cf. Sneddon 1984, Sneddon 1993). It is one of the innovations of the Bantik language in which word-final bilabial nasals are replaced by the velar nasal. In the cases of affixation, the original /m/ still appears.

9) Pronouns show partial reduplication in which the first and the second syllables are repeated. For example, the reduplicated form of the second person singular *ikau* is *ika-ikau*, and for the third person singular *isie*, it is *isi-isie*. In the sentence, *ika-ikau maŋ-insuei berenan* (RED–2sg AV-finish work) "(It's only) you (that) finishes the work," the partially reduplicated form emphasizes that the person who finishes the work is the one referred to by the second singular pronoun.

10) With this type of partial reduplication, the first syllable and the onset and nuclear of the second syllable is repeated. /σ/ indicates the first syllable; C2, the onset of the second syllable; and V2, the vowel of the second syllable.

11) The Goal Voice form, *bagar-en* is an irregular form. The base is *bagai*, and a flap substitutes the last vowel /i/ before the suffixation occurs. This is the only case of a flap substitution observed in Bantik morphology.

12) The final /N2/ in this prefix, described as */N2/*, has distinctive phonological features from /N/ in the other prefixes like *paN-* or *maN-*. /N2/ stands for homo-organic nasal insertion, and never the substitution. The phoneme /m/ is inserted before /p, b/, /n/ before /s, t, d/, and /ŋ/ before /k, g/. The velar nasal is also inserted before the glottal fricative /h/. No nasal is inserted before bases that begin with /ɾ/ and the nasals /m, n, ŋ/. So, when the prefix *maN-* is attached to the base *boaga?*, *ma-moaga?* (to punch) is formed, but when the prefix *hiN2-* is attached, the result is *ma-him-b-a-boaga?* (to punch each other).