

Word class classification in Tajio

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Unlike the “clear-cut distinction” between word classes in European languages, word class classification in Austronesian languages is not always straightforward. In these languages, word class classification on the lexical level may not always correspond to word class classification on the morphosyntactic level. Therefore, approaches based on either level may be misleading. Word class classification at the morphosyntactic level may not be able to explain why some lexemes of the same word class cannot always take the same morphological markers. Based on that fact, this paper adopts approaches that define word class classification on both lexical and morphosyntactic levels. On the lexical level, word classes are defined based on the morphological markers that can be taken by the lexical roots. Morphosyntactically, word classes are determined based on the syntactic distribution of the words. The data shows that with regards to the morphological potential of the lexical roots, Tajio has three types of roots: (a) single-class roots, (b) dual-class roots, and (c) triple-class roots. On the morphosyntactic level, Tajio consists of two major word classes: nouns and verbs. Verbs are further divided into intransitive verbs (dynamic intransitive verbs and statives) and dynamic transitive verbs. The word class analysis applied in this paper, especially on the lexical level (i.e. based on morphological markers) can be developed as a model for defining word classes in other Austronesian languages.

1. Introduction

Tajio (ISO-639-3 code: tjd) is a language that belongs to the Tomini-Tolitoli language group, a group of languages spoken by 145,000 people on Sulawesi, a major island in eastern Indonesia. Tajio itself belongs to the Southern Tomini subgroup and is spoken by 12,000 people in Central Sulawesi, especially in the Ampibabo, Tinombo, and Sindue subdistricts.

The neighbouring languages of Tajio are Ampibabo-Lauje, Pendau, and Lauje. Tajio people live in the villages in the East Coast area (Pantai Timur), which administratively spreads from the village of Toribulu in the Kecamatan (subdistrict) Ampibabo to the village of Sipayo in the Kecamatan Tinombo, Central Sulawesi (Himmelman 2001:32).

Tajio is a relatively understudied language. The topic and data developed in this paper are taken from a grammar on Tajio written by Mayani (2013), especially from Sections 4.1 and 4.2, which discuss the morphological potential of lexical roots and the syntactic distribution of nouns and verbs, respectively. In addition to Mayani (2013), there are only two studies on Tajio: Himmelman (2001), who collected data on Tajio as part of his survey study on Tomini-Tolitoli languages, and McKenzie (1991) who investigated the sociolinguistic situation of Tajio. Using lexicostatistics, McKenzie (1991:24) identified three dialects of Tajio: northern, central, and western.

Regarding works on word class classification, there have been many approaches applied by linguists to classify word classes among the world's languages. Two approaches described here show that the basis of classifying word classes may vary, that is, lexical-item categorization, syntactic function, or semantic category may be used. Anward (2000:5)

described that in the 1990s, the Amsterdam model of the part-of-speech system distinguishes classes of lexical items based on their syntactic function: “Functions recognized by the model are predicate, term (subject or object), term modifier (attribute) and predicate or modifier (adverbial)” (p.5). In terms of lexical items, this model categorized lexical items into verb, adjective, and adverb (p.5). This model, however, does not recognize other parts of speech, such as pronoun, article, preposition, conjunction, quantifier, numeral, and interjection (p.10).

Further, Anward (2000:10–13) also mentioned that another approach is the Dionysios’ and Priscian’s system, which classifies parts of speech primarily based on a morphological classification. As the morphological classification may be partially overridden by a syntactic classification, Dionysios’ and Priscian’s system is further grounded in a semantic interpretation. Thus, this approach finally extended its dimension of differentiation: Word class classification is based on syntactic functions, inflectional patterns, and semantic categories. However, this approach still has its weaknesses. The syntactic function of a word is of course no problem, but the semantic category of a word may be determined either by contextual priming or by previous use.

In Indonesia, van den Berg (1989), who conducted research on the Muna language (a language spoken in Southeast Sulawesi), classified word classes based on the inflectional/derivational possibilities and the syntactic properties of words. He distinguished words in Muna into declinable and non-declinable words. As morphological classes, he divided the declinable words into noun, verb, numeral, and pronoun. Syntactic criteria such as substitution, expansion, and function divide the non-declinable words into several classes (pp. 43–44). Further, in his conclusion, he admitted that “the division into word class is also necessary and meaningful for basic (i.e. underived) words. Division based on derived words only raises problems” (p. 49).

Studying word class classification in western Austronesian languages, Himmelmann (2005:126–127) suggested that “it is necessary to make a fundamental distinction between morphological and syntactic (distributional) levels and between lexemes (lexical bases) and morphosyntactic words. (...) For instance, two morphosyntactic words may differ clearly in that they participate in different paradigms and thus belong to two distinct morphological categories. At the same time, however, their syntactic distribution may be identical, thus belonging to the same syntactic category. Similarly, morphosyntactic words in a given language may clearly belong to different morphological or syntactic categories but at the same time there may not be a corresponding distinction on the level of lexical bases (roots).”

In this paper, I adopt the approaches suggested by Himmelmann (2005; 2008) because they are applicable to Tajio data. In Tajio, it is important to make a clear-cut distinction between lexical roots and morphosyntactic words because the two classifications do not necessarily result in the same classes. Thus, the discussion of word class classification in this paper includes (1) the morphological potential of lexical roots and (2) word class classification on the morphosyntactic level.

The data analysis presented in this paper is based on qualitative research methods. Lexical items in the database have been compiled by interviewing language consultants, recording the data, and then transcribing the data in the field notes, and finally by using the ELAN

program. The interview guideline consists of the Sulawesi Umbrella Word List¹ and elicited sentence lists.

To determine word classes on the lexical level, lexical items found in the database are classified based on the morphological markers they take. The next step is determining the most frequent morphological marker that occurs in each class. This procedure results in major word class classification, that is, single-class roots. The next step is classifying lexical items that can be marked by two or more morphological markers. This step results in dual-class or triple-class roots.

Word class classification on the morphosyntactic level is determined by the syntactic distribution of the words. The data used for this analysis consist of the elicited data (i.e. from the elicited sentence lists). Words that belong to a certain class are tested by applying them in some sentence structures. Several restrictions on syntactic position can then be used to distinguish nouns from verbs, and, within the supra-class of verbs, intransitives from transitives.

2. Word class classification in Tajio

Morphosyntactic words in Tajio include both underived roots and morphologically complex words and can be divided into open-class and closed-class items. The open classes are nouns and verbs, while the closed classes are pronouns, demonstratives, numerals, adverbs, quantifiers, prepositions, interjections, and conjunctions.

This paper, however, will only discuss the open word class in Tajio. The classification is carried out on two levels: the lexical level and the morphosyntactic level. On the lexical level, the discussion will be primarily based on the morphological markers taken by the lexical roots – if they can be used as unaffixed roots – or their syntactic distribution. On this basis, Section 2.1 focuses on the discussion of the morphological potential of lexical roots.

On the morphosyntactic level, the morphosyntactic words are classified based on their syntactic distribution. As this paper only discusses the open word class, Section 2.2 will only present the syntactic distribution of nouns and verbs.

2.1 Morphological potential of lexical roots

If we examine the morphological potential of lexical roots in Tajio, we can distinguish three classes: (a) single-class roots, that is, roots that can only take morphological markers from one root class; (b) dual-class roots, that is, roots that can take morphological markers from two root classes; and (c) triple-class roots, that is, roots that can take morphological markers from all root classes.

I have chosen the markers that are most frequently used to classify as follows: (1) The diagnostic morphological markers of nominal roots are the noun marker *te=* and the

¹ This is an unpublished document originally edited by Timothy Friberg in June 1987; corrected in December 1987; edited in August 2004 by Janet Watkins; and edited in November 2004, September 2006, and October 2009 by David Mead.

verbalizing circumfix *nV--ong* ‘to have/own ...’ and/or ‘to be ...’.² Only roots classified as nominal can take these markers. (2) The diagnostic morphological marker of stative roots is the vowel harmonic stative prefix *nV-* ‘ST.RLS’. Roots that can take this prefix are stative roots. (3) The diagnostic morphological marker of verbal roots can be divided into two types based on the transitivity of the roots: the dynamic intransitive roots take the dynamic intransitive prefix *ne-/no-* ‘DY.RLS’ and the dynamic transitive roots take the dynamic transitive prefix, that is, the actor voice prefix *noN-* ‘AV.RLS’. The morphological markers of stative, dynamic intransitive, and dynamic transitive roots also indicate mood alternations, that is, realis and non-realis. Throughout the discussion, the realis marker will be used for the relevant affix sets.

2.1.1 Single-class roots

Single-class roots are roots that can be clearly classified as either nominal, stative, or dynamic verbal roots. Dynamic intransitive and dynamic transitive roots are classified as a single class (i.e. verbal roots), because both are semantically dynamic and their morphological potential partially overlaps.

Tables 1, 2, 3, and 4 present examples of nominal, stative, dynamic intransitive, and dynamic transitive roots, respectively.

² When the circumfix *nV--ong* occurs with a nominal root or a nominal-verbal root, it generally has the meaning ‘to have/own ...’. When it occurs with nominal-stative or nominal-verbal-stative roots, it may mean either ‘to have/own ...’ or ‘to be ...’.

Table 1. Morphological potential of nominal single-class roots

Nominal root	Morphological marker of nominal roots		Stative marker	Verbal marker	
	Noun marker <i>te=</i>	Verbalizer <i>nV--ong</i> ‘to have/own...’ and/or ‘to be...’		<i>ne-/no-</i> ‘DY.RLS’	<i>noN-</i> ‘AV.RLS’
<i>utu</i> ‘louse’	<i>teutu</i> ‘louse’	<i>noutuong</i> ‘to have a louse/lice’	x	x	x
<i>bugis</i> ‘ichthyosis’	<i>tebugis</i> ‘ichthyosis’	<i>nobugisong</i> ‘to have ichthyosis disease’	x	x	x
<i>tuai</i> ‘younger sibling’	<i>tetuai</i> ‘younger sibling’	<i>notuaiong</i> ‘to have a younger sibling/ younger siblings’	x	x	x
<i>saping</i> ‘cow’	<i>tesaping</i> ‘cow’	<i>nasapinong</i> ‘to have a cow/cows’	x	x	x
<i>loka</i> ‘banana’	<i>teloka</i> ‘banana’	<i>nolokaong</i> ‘to have a banana/bananas’	x	x	x
<i>bau</i> ‘fish’	<i>tebau</i> ‘fish’	<i>nabauong</i> ‘to have a fish/fish’	x	x	x
<i>mejang</i> ‘table’	<i>temejang</i> ‘table’	<i>nemejanong</i> ‘to have a table/tables’	x	x	x
<i>tana</i> ‘earth/soil’	<i>tetana</i> ‘earth/soil’	<i>natanaong</i> ‘to have earth/soil’	x	x	x

Table 2. Morphological potential of stative single-class roots

Stative root	Morphological marker of nominal roots		Stative marker	Verbal marker	
	Noun marker <i>te=</i>	Verbalizer <i>nV--ong</i> 'to have/own...'	<i>nV-</i> 'ST.RLS'	<i>ne-/no-</i> 'DY.RLS'	<i>noN-</i> 'AV.RLS'
<i>turu</i> 'to be asleep'	x	x	<i>noturu</i> 'to be asleep'	x	x
<i>buseg</i> 'to be queasy'	x	x	<i>nobuseg</i> 'to be queasy'	x	x
<i>peit</i> 'to be bitter'	x	x	<i>nepeit</i> 'to be bitter'	x	x
<i>vosu</i> 'to be satisfied (food)'	x	x	<i>novosu</i> 'to be satisfied (food)'	x	x
<i>onggom</i> 'to be cold'	x	x	<i>noonggom</i> 'to be cold'	x	x
<i>ate</i> 'to be dead'	x	x	<i>naate</i> 'to be dead'	x	x
<i>navu</i> 'to fall'	x	x	<i>nanavu</i> 'to fall'	x	x
<i>jaok</i> 'to arrive'	x	x	<i>najaok</i> 'to arrive'	x	x

Table 3. Morphological potential of dynamic intransitive single-class roots

Dynamic intransitive root	Morphological marker of nominal roots		Stative marker	Verbal marker	
	Noun marker <i>te=</i>	Verbalizer <i>nV--ong</i> 'to have/own...'	<i>nV-</i> 'ST.RLS'	<i>ne-/no-</i> 'DY.RLS'	<i>noN-</i> 'AV.RLS'
<i>nyau</i> 'to go down'	x	x	x	<i>nenyau</i> 'to go down'	x
<i>soog</i> 'to stop by'	x	x	x	<i>nesoog</i> 'to stop by'	x
<i>lolom</i> 'to swim'	x	x	x	<i>nelolom</i> 'to swim'	x
<i>ndiis</i> 'to take a bath'	x	x	x	<i>nendiis</i> 'to take a bath'	x
<i>lampa</i> 'to walk'	x	x	x	<i>nelampa</i> 'to walk'	x
<i>se'u-se'u</i> 'to cry (sobbingly)'	x	x	x	<i>nose'u-se'u</i> 'to cry (sobbingly)'	x
<i>mberek</i> 'to stay'	x	x	x	<i>nomberek</i> 'to stay'	x
<i>ngkalerang</i> 'to lie down'	x	x	x	<i>nongkalerang</i> 'to lie down'	x

Table 4. Morphological potential of dynamic transitive single-class roots

Dynamic transitive root	Morphological marker of nominal roots		Stative marker	Verbal marker	
	Noun marker <i>te=</i>	Verbalizer <i>nV--ong</i> ‘to have/own...’	<i>nV-</i> ‘ST.RLS’	<i>ne-/no-</i> ‘DY.RLS’	<i>noN-</i> ‘AV.RLS’
<i>sangki</i> ‘to sickle’	x	x	x	x	<i>nonyangki</i> ‘to sickle’
<i>vee</i> ‘to give’	x	x	x	x	<i>nombee</i> ‘to give’
<i>mongi</i> ‘to ask for’	x	x	x	x	<i>nomongi</i> ‘to ask for’
<i>gutu</i> ‘to make’	x	x	x	x	<i>nonggutu</i> ‘to make’
<i>tandas</i> ‘to accuse’	x	x	x	x	<i>nonandas</i> ‘to accuse’
<i>tovong</i> ‘to cut down’	x	x	x	x	<i>nonovong</i> ‘to cut down’
<i>oyos</i> ‘to tread on (rice paddy)’	x	x	x	x	<i>nongoyos</i> ‘to tread on (paddy)’
<i>sanda</i> ‘to try’	x	x	x	x	<i>nonyanda</i> ‘to try’

2.1.2 Dual-class roots

The second type of root, the dual-class root, can occur with two different sets of morphological markers. There are three types of dual-class roots: nominal-stative, nominal-verbal, and verbal-stative roots.

- Nominal-stative roots can take the morphological markers of nominal roots as well as the stative marker.
- Nominal-verbal roots can take the morphological markers of nominal roots as well as at least one of the dynamic verbal markers.
- Verbal-stative roots can take the morphological markers of dynamic verbal roots as well as the stative marker.

Tables 5 and 6 present examples of nominal-stative roots. The difference is whether they can take the circumfix *nV--ong* so that nominal-statives in Tajio fall into two subclasses: (1) nominal-stative roots that can take the noun marker *te=*, the circumfix *nV--ong*, and the stative marker *nV-*, as shown in Table 5; and (2) nominal-stative roots that can only occur with the noun marker *te=* and the stative marker *nV-*, as presented in Table 6. However, the other hypothetical combination, nominal-stative roots that only take the circumfix *nV--ong* and the stative marker *nV-*, is not found in the database.

Table 5. Morphological potential of nominal-stative dual-class roots type 1

Nominal-stative root	Morphological marker of nominal roots		Stative marker
	Noun marker <i>te=</i>	Verbalizer <i>nV--ong</i> 'to have/own...' or 'to be...'	<i>nV-</i> 'ST.RLS'
<i>balang</i> 'wound/wounded'	<i>tebalang</i> 'wound'	<i>nabalanong</i> 'to have a wound/wounds'; 'to be wounded'	<i>nabalang</i> 'to be wounded'
<i>vatu</i> 'stone/stony'	<i>tevatu</i> 'stone'	<i>navatuong</i> 'to have a stone/stones'; 'to be stony'	<i>navatu</i> 'to be stony'
<i>longu</i> 'grease/greasy'	<i>telongu</i> 'grease'	<i>nolonguong</i> 'to have grease'; 'to be greasy'	<i>nolongu</i> 'to be greasy'
<i>sumpi</i> 'sprout/sprouted'	<i>tesumpi</i> 'sprout'	<i>nosumpiong</i> 'to have sprouts'; 'to have sprouted'	<i>nosumpi</i> 'to be sprouted'
<i>buut</i> 'mountain/mountainous'	<i>tebuut</i> 'mountain'	<i>nobuutong</i> 'to have mountains'; 'to be mountainous'	<i>nobuut</i> 'to be mountainous'
<i>avaat</i> 'wind/windy'	<i>teavaat</i> 'wind'	<i>naavaatong</i> 'to be windy'	<i>naavaat</i> 'to be windy'
<i>eleo</i> 'sun/day/sunny'	<i>teeleo</i> 'sun/day'	<i>neeleonong</i> 'to be sunny'	<i>neeleo</i> 'to be sunny'

It should be noted that, semantically, the *nV-* verbs and the *nV--ong* have slightly different meanings. The state of *nabalang* 'to be wounded' is uttered when someone is wounded, that is, *nabalanong*. A hilly area is called *nobuut*, 'to be mountainous', because it has mountains, that is, *nobuutong*. Having stones, *navatuong*, makes a road, that is, is in the state of *navatu* 'to be stony', etc.

Table 6. Morphological potential of nominal-stative dual-class roots type 2

Nominal-stative root	Morphological marker of nominal roots		Stative marker
	Noun marker <i>te=</i>	Verbalizer <i>nV--ong</i> 'to have/own...' or 'to be...'	<i>nV-</i> 'ST.RLS'
<i>lenda</i> 'length/long'	<i>telenda</i> 'length'	x	<i>nelenda</i> 'long'
<i>bilak</i> 'width/wide'	<i>tebilak</i> 'width'	x	<i>nebilak</i> 'wide'
<i>rosong</i> 'strength/strong'	<i>terosong</i> 'strength'	x	<i>norosong</i> 'strong'
<i>sanang</i> 'happiness/happy'	<i>tesanang</i> 'happiness'	x	<i>nasanang</i> 'happy'
<i>doda</i> 'redness/red'	<i>tedoda</i> 'redness'	x	<i>nedoda</i> 'red'
<i>kunik</i> 'darkness/dark'	<i>tekunik</i> 'darkness'	x	<i>nokunik</i> 'dark'
<i>nasu</i> 'anger/angry'	<i>tenasu</i> 'anger'	x	<i>nanasu</i> 'angry'
<i>bule</i> 'fear/afraid'	<i>tebule</i> 'fear'	x	<i>nobule</i> 'afraid'

Tables 7 and 8 present examples of nominal-verbal roots. This type of root can be divided into two subclasses as well: (a) nominal-verbal roots that can take the noun marker *te=*, the

circumfix *nV--ong*, and the dynamic intransitive marker *ne-/no-*, as shown in Table 7; and (b) nominal-verbal roots that can only take the noun marker *te=* and the dynamic intransitive marker *ne-/no-*, as presented in Table 8. Nominal-verbal roots that can only take the circumfix *nV--ong* and the dynamic intransitive marker *ne-/no-* are again not attested in the database.

Table 7. Morphological potential of nominal-verbal dual-class roots type 1

Nominal-verbal root	Morphological marker of nominal roots		Verbal marker
	Noun marker <i>te=</i>	Verbalizer <i>nV--ong</i> 'to have/own...'	<i>ne-/no-</i> 'DY.RLS'
<i>vonua</i> 'house/to marry'	<i>tevonua</i> 'house'	<i>novonuaong</i> 'to have a house'	<i>nevonua</i> 'to marry/have a family'
<i>tagu</i> 'friend/to befriend'	<i>tetagu</i> 'friend'	<i>nataguong</i> 'to have a friend'	<i>notagu</i> 'to befriend'
<i>elong</i> 'song/to sing'	<i>teelong</i> 'song'	<i>neelonong</i> 'to have a song'	<i>neelong</i> 'to sing'
<i>jole</i> 'corn/to plant corn'	<i>tejole</i> 'corn'	<i>nojoleong</i> 'to have corn'	<i>nejole</i> 'to plant corn'
<i>jarita</i> 'story/to tell a story'	<i>tejarita</i> 'story'	<i>najaritaong</i> 'to own a story'	<i>nojarita</i> 'to tell stories'
<i>guru</i> 'teacher/to study'	<i>teguru</i> 'teacher'	<i>noguruong</i> 'to have a teacher'	<i>neguru</i> 'to study'
<i>sapeda</i> 'bike/to bike'	<i>tesapeda</i> 'bike'	<i>nasapedaong</i> 'to have a bike'	<i>nosapeda</i> 'to bike'
<i>vua</i> 'fruit/to bear fruits'	<i>tevua</i> 'fruit'	<i>nevuaong</i> 'to have a fruit'	<i>nevua</i> 'to bear fruits'
<i>avu</i> 'kitchen/to cook'	<i>teavu</i> 'kitchen'	<i>naavuong</i> 'to have a kitchen'	<i>noavu</i> 'to cook'

Table 8. Morphological potential of nominal-verbal dual-class roots type 2

Nominal-verbal root	Morphological marker of nominal roots		Verbal marker
	Noun marker <i>te=</i>	Verbalizer <i>nV--ong</i> 'to have/ own ...' or 'to be ...'	<i>ne-/no-</i> 'DY.RLS'
<i>miing</i> 'smile/to smile'	<i>temiing</i> 'smile'	x	<i>nemiing</i> 'to smile'
<i>kinde</i> 'nod/to nod'	<i>tekinde</i> 'nod'	x	<i>nekinde</i> 'to nod'
<i>sengkel</i> 'a throat-clearing noise/to clear one's throat'	<i>tesengkel</i> 'a throat-clearing noise'	x	<i>nesengkel</i> 'to clear one's throat'
<i>ntaul</i> 'chew/to chew'	<i>tentaul</i> 'chew'	x	<i>nentaul</i> 'to chew'
<i>tolee</i> 'urine/to urinate'	<i>tetolee</i> 'urine'	x	<i>notolee</i> 'to urinate'
<i>mengke</i> 'cough/to cough'	<i>temengke</i> 'cough'	x	<i>nemengke</i> 'to cough'
<i>ntoga</i> 'belch/to belch'	<i>tentoga</i> 'belch'	x	<i>nentoga</i> 'to belch'
<i>anggor</i> 'snore/to snore'	<i>teanggor</i> 'snore'	x	<i>neanggor</i> 'to snore'
<i>sumbaing</i> 'sneeze/to sneeze'	<i>tesumbaing</i> 'sneeze'	x	<i>nosumbaing</i> 'to sneeze'

Finally, Table 9 provides examples of verbal-stative roots. The dynamic verbal marker that attaches to verbal-stative roots is the active voice marker *noN-*. Importantly, these roots must be able to take this marker without any further affixations such as the stem-forming prefix or the causative marker. There are no examples of verbal-stative roots that take the dynamic intransitive prefix *ne-/no-*.

Table 9. Morphological potential of verbal-stative dual-class roots

Verbal-stative root	Stative marker	Verbal marker
	<i>nV-</i> 'ST.RLS'	<i>noN-</i> 'AV.RLS'
<i>tatar</i> 'to hew/to be hewn'	<i>natatar</i> 'to be hewn'	<i>nonatar</i> 'to hew'
<i>tilang</i> 'to split/to be split (wood)'	<i>netilang</i> 'to be split'	<i>nonilang</i> 'to split'
<i>diit</i> 'to pull/to be straight'	<i>nediit</i> 'to be straight'	<i>nondiit</i> 'to pull'
<i>balik</i> 'to change/to be changed'	<i>nabalik</i> 'to be changed'	<i>nombalik</i> 'to change'
<i>pude</i> 'to break/to be broken'	<i>nopude</i> 'to be broken'	<i>nomude</i> 'to break'
<i>udut</i> 'to break/to be broken (rope)'	<i>noudut</i> 'to be broken (rope)'	<i>nongudut</i> 'to break (rope)'
<i>lalas</i> 'to untie/to be untied'	<i>nalalas</i> 'to be untied'	<i>nolalas</i> 'to untie'

2.1.3 Triple-class roots

The third type of root is called the triple-class root because it can take the morphological markers of all root classes, and could thus be called nominal-verbal-stative roots. They can take the morphological markers of nominal roots (i.e. noun marker *te=* and/or the circumfix *nV--ong*), the verbal marker (i.e. the dynamic intransitive prefix *ne-/no-* ‘DY.RLS’), as well as the stative marker (i.e. prefix *nV-* ‘ST.RLS’). The set of triple-class roots is very limited, as can be seen in Table 10, which lists all examples found in the database.

Table 10. Morphological potential of nominal-verbal-stative triple-class roots

Nominal-verbal-stative root	Morphological marker of nominal roots		Stative marker	Verbal marker
	Noun marker <i>te=</i>	Verbalizer <i>nV--ong</i> ‘to have/own ...’ or ‘to be ...’	<i>nV-</i> ‘ST.RLS’	<i>ne-/no-</i> ‘DY.RLS’
<i>vevine</i> ‘woman/to be like a woman/to act like a playboy’	<i>tevevine</i> ‘woman’	<i>nevevineong</i> ‘to have a woman’	<i>nevevine</i> ‘to be like a woman’	<i>novevine</i> ‘to act like a playboy’
<i>langkai</i> ‘man/to be like a man/to act like a playgirl’	<i>telangkai</i> ‘man’	<i>nalangkaiaong</i> ‘to have a man’	<i>nalangkai</i> ‘to be like a man’	<i>nolangkai</i> ‘to act like a playgirl’
<i>anganak</i> ‘child/childish/to give birth’	<i>teanganak</i> ‘child’	<i>naanganakong</i> ‘to have a child/children’	<i>naanganak</i> ‘to be childish’	<i>noanganak</i> ‘to give birth’
<i>asu</i> ‘dog/be like a dog/to hunt with a dog’	<i>teasu</i> ‘dog’	<i>naasuong</i> ‘to have a dog’	<i>naasu</i> ‘to be like a dog’	<i>noasu</i> ‘to hunt with a dog’
<i>vivi</i> ‘lip/to be grumbling/grumble’	<i>tevivi</i> ‘lip’	<i>neviviong</i> ‘to be grumbling (to oneself)’	<i>nevivi</i> ‘to be grumbling (to oneself)’	<i>novivi</i> ‘to grumble’

2.2 Terminology of dual-/triple-class roots

I propose the term dual-class roots to refer to lexical roots that can take the morphological markers of two word classes. I believe this is necessary because the features of such roots in Tajio cannot, to my knowledge, be captured by existing terminology. In the remainder of this section, I will explain the reasoning behind this proposal by examining various arguments. This will lead me to the conclusion that dual-class roots are neither (a) polysemous, nor (b) multifunctional lexical bases, nor (c) homonyms, nor (d) two different lexemes. The behaviour of triple-class roots, on the other hand, seems to match the criteria proposed for precatatorial roots, as discussed under point (2.2.5) below.

2.2.1 Dual-class roots are not polysemous

Saeed (1997:64) defined a polysemous item as a lexicon entry with multiple senses where the senses are judged to be related. This definition does not accurately capture the characteristics of dual-class roots in Tajio. The nominal-stative root *vatu*, for example, has

two potential meanings: ‘stone’ or ‘to be stony’. The core meaning may be related, yet the meaning of the root cannot be determined before it is attached to a nominal or stative morphological marker.

Only once the root has taken the noun marker *te=* and become *tevatu* can its meaning (‘stone’) be interpreted. Similarly, it is only once the stative morphological marker *nV-*, ‘ST.RLS’, is affixed that the meaning of *navatu* (‘to be stony’) is accessible. Thus, one could argue that polysemous words differ from dual-class roots in that they are associated with more than one meaning, none of which is determined by morphological processes the way meanings of dual class roots in Tajio are.

In contrast, for dual-class roots, the possibility of having more than one meaning is because they can take the morphological markers of two word-classes.

2.2.2 Dual-class roots are not multifunctional lexical bases

Himmelman (2005:129) defined multifunctional lexical bases as “lexical bases which occur in a variety of syntactic functions without further affixation” (i.e. lexical bases that are not necessarily marked for voice or person). Quoting Durie (1985:44), he provided the example of the Acehnese base *jeu*, which allows verbal and nominal uses. As a verb, *jeu* means ‘to catch with a net’, and as a noun it refers to ‘a type of net’.

Except for nominal roots, all roots in Tajio must have their own morphological markers to occur in their respective syntactic functions. For example, verbal-stative roots can only have the syntactic distribution of verbs and statives; but they cannot have the syntactic distribution of nouns. Therefore, dual-class roots are not multifunctional lexical bases.

2.2.3 Dual-class roots are not homonyms

Saeed (1997:63–64) defined two or more expressions as homonyms if “they share the same pronunciation but have different and unrelated meanings, and are treated as different lexical entries in dictionaries”.

The various realizations of a dual-class root are not homonyms because their meanings have a shared origin and are semantically related. The meanings of dual-class roots are not completely different, as is the case for words that are considered homonyms. For example, the nominal-stative root *lenda* has two possible meanings based on the morphological markers it takes. It means ‘length’ when it takes the noun marker *te=*, and ‘long’ when it takes the stative marker *nV-* ‘ST.RLS’. Plainly, ‘length’ and ‘long’ are semantically related; thus dual-class roots are not homonyms.

2.2.4 Dual-class roots are not two different lexemes

One possible analysis of dual-class roots is their classification as different lexemes. Classifying a single root into two different lexemes, however, is not a particularly parsimonious analysis because there are many such dual-class roots. This would effectively litter the lexicon with entries that are clearly related on semantic grounds. In addition, zero derivation cannot be productively applied to change the classification of dual-class roots because, as previously discussed, they must always occur with their respective morphology. To assume that dual-class roots undergo zero derivation would also be problematic as it is difficult to decide which word-class is the basis and which is the derivation. Suppose we have a nominal-verbal root. It would be arbitrary to propose that, for example, the nominal

meaning is more basic than the verbal or vice versa because the meaning of a word cannot be determined before a morphological marker is assigned. The word *lapi* means ‘spouse’ if it takes the noun marker *te=* and ‘to marry’ if it takes the verbal marker *no-*. However, is the spouse more basic or the event? In cases like these, one could probably argue for both, which in the end renders such a take on dual-class roots practically useless.

Furthermore, the diagnostic morphological markers that are used to classify word classes in Tajio are not derivational markers. They cannot be used productively to change the word class of roots; rather, they themselves classify the roots. If, for example, the stative marker *nV-* ‘ST.RLS’ were a derivational prefix, one would expect any root to be able to take this prefix and derive a new stative. The same would be true for the nominal marker and the verbal marker. However, in fact, only roots that are lexically subcategorized for the stative prefix can take the stative prefix, and the same holds for nominal and verbal morphology. Therefore, it is more reasonable to classify roots based on their morphological markers rather than analyse them as two different lexemes and then argue, without recourse to evidence, that one of them has undergone zero derivation.

2.2.5 Triple-class roots are precategorical

Himmelman (2008:274) stated that ‘precategorical’ has two interpretations. The first interpretation relates to the definition introduced by Verhaar (1984:2), as cited in Himmelman (2008:274). According to this definition, *precategorical* applies to bound roots (i.e. roots that do not occur without affixation) if these roots can be assigned to different lexical or syntactic categories, for example, to both nominals and verbals, without being clear that one of the assignments is more basic than the other. In the second interpretation, it may refer to roots, although not necessarily bound ones, that are categorically indistinct regarding grammatical features. That is, all kinds of derivations – nominal, verbal, stative, etc. – are possible from a given root (Himmelman 2008:274), again without clear evidence for claiming that one derivation or usage of the unaffixed root is more basic than another.

The preceding two definitions of ‘pre-categoriality’ seem to prove satisfactory for an analysis of Tajio triple-class roots. In contrast to the other two types of roots, triple-class roots form the only root type that can take the morphological markers of all root-classes, that is, nominal, stative, and verbal roots. Still, use of the term “precategorical” is avoided here, as I consider the term “triple-class” more suitable as it fits the terms *single-class* and *dual-class* roots.

2.3 Syntactic distribution of nouns and verbs

As mentioned in the previous section, nouns and verbs comprise the open word classes of Tajio with verbs being further divided into intransitive verbs (dynamic intransitive verbs and statives) and dynamic transitive verbs.

Predicate function, which can be used to distinguish verbs from nouns in European languages, cannot be similarly applied in Tajio because nouns can be used as predicates without a copula. In such cases, their function becomes indistinguishable from intransitives. Examples (1), (2), and (3) show this.

- (1) *siia teguru*
siia te=guru
 3SG NM=teacher
 ‘She/he is a teacher.’
- (2) *siia nelinjok*
siia ne-linjok
 3SG DY.RLS-run
 ‘She/he ran.’
- (3) *siia noturu*
siia nV-turu
 3SG ST.RLS-sleep
 ‘She/he slept.’

Although the use of a noun as a predicate results in a distributional overlap between nouns and verbs, there are several restrictions on syntactic position that can be used to distinguish nouns from verbs, and, within the supra-class of verbs, intransitives from transitives. The positions that only nouns can occupy are: (a) prepositional phrases, as in example (4); and (b) genitive phrases, as in example (5).

- (4) *teanganaknya nongodung i kadera*
te=anganak=nya noN-odung i kadera
 NM=child=3SG.GEN AV.RLS-sit LOC chair
 ‘His/her child sat on the chair.’
- (5) *tedoda nukadera sima teraa*
te=doda nu=kadera sima te=raa
 NM=red GEN=chair same NM=blood
 ‘The redness of the chair is the same as blood.’

Modifiers are typically stative verbs, but there is no syntactic restriction on the use of a dynamic intransitive as the modifier of a noun phrase. Therefore, stative verbs cannot be clearly distinguished from dynamic intransitive verbs syntactically. Example (6) presents the stative root *basag* ‘to be big’ and example (7) presents the dynamic intransitive verb *ndiis* ‘to take a bath’, which are both used as modifiers in noun phrases.

- (6) *tevonua nabasag eua tevonua’u*
te=vonua nV-basag eua te=vonua=’u
 NM=house ST.RLS-big DIST NM=house=1SG.GEN
 ‘That big house is my house.’
- (7) *teanganak nendiis eua teompongnya*
te=anganak ne-ndiis eua te=ompong=nya
 NM=child DY.RLS-bath DIST NM=stomach=3SG.GEN
- nabasag pia*
nV-basag pia
 ST.RLS-big very
 ‘That child who has taken a bath, his stomach is very big.’

In addition, there are examples in which the relative marker *to=* is used with intransitive verbs to modify their head nouns, as seen in examples (8) and (9). However, the use of the relative marker *to=* for intransitive verbs is optional.

- (8) *tevonua* [tonabasag] *eua* *tevonua* 'u
te=vonua [to=nV-basag] *eua* **te=vonua**='u
NM=house [REL=ST.RLS-big] DIST **NM=house**=1SG.GEN
 'That big house is my house.'
- (9) *teanganak* [tonendiis] *eua* *teompongnya*
te=anganak [to=ne-ndiis] *eua* **te=ompong**=nya
NM=child [REL=DY.RLS-bath] DIST **NM=stomach**=3SG.GEN
- nabasag* *pia*
 nV-basag *pia*
 ST.RLS-big very
 'That child who has taken a bath, his stomach is very big.'

Unlike intransitives, transitive verbs need the relative marker *to=* in order to modify a noun in a relative clause. In this case, the relative marker *to=* is obligatory, as seen in example (10). Without the relative marker, the sentence is ungrammatical, as in (11).

- (10) *tevevine* [tonongoli] *tebau* *siina* 'u
te=vevine **to=noN-oli** **te=bau** *si=ina*='u
NM=woman **REL=AV.RLS-buy** **NM=fish** **HON=mother**=1SG.GEN
 'The woman who bought fish is my mother.'
- (11) **tevevine* [nongoli] *tebau* *siina* 'u
te=vevine **noN-oli** **te=bau** *si=ina*='u
NM=woman **AV.RLS-buy** **NM=fish** **HON=mother**=1SG.GEN
 For: 'The woman who bought fish is my mother.'

3. Conclusion

The classification of words in Tajio must be carried out on two levels: the morphosyntactic level and the lexical level. Regarding the morphological potential of its lexical roots, Tajio distinguishes three classes: (a) single-class roots, (b) dual-class roots, and (c) triple-class roots. Single-class roots are roots that can be clearly classified as either nominal, stative, or dynamic verbal roots. Dynamic intransitive and dynamic transitive roots are classified as a single class (i.e. verbal roots), because both are semantically dynamic and their morphological potential partially overlaps. The second type of root, the dual-class root, can be divided into three types: nominal-stative, nominal-verbal, and verbal-stative roots. Roots that are classified as triple-class roots are nominal-verbal-stative roots.

On the morphosyntactic level, open word classes in Tajio consist of nouns and verbs, with verbs being further divided into intransitive verbs (dynamic intransitive verbs and statives) and dynamic transitive verbs. In Tajio, predicate function cannot distinguish nouns from verbs because nouns can be used as predicates without a copula. Other restrictions on syntactic positions that can be used to distinguish nouns from verbs, and, within the supra-class of verbs, intransitives from transitives are (a) prepositional phrases and (b) genitive phrases. Those positions can only be occupied by nouns. Further, stative verbs cannot be

clearly distinguished from dynamic intransitive verbs because both can be used as noun phrase modifiers. Syntactic distribution, which differentiates intransitive verbs from transitive verbs, is the use of the relative marker in noun phrase modifiers. To modify the head nouns, the use of the relative marker *to=* is optional with intransitive verbs. In contrast, with transitive verbs, the use of relative marker *to=* is obligatory.

Abbreviations

3SG	third-person singular
AV	actor voice marker
DIST	distal
DY	dynamic
GEN	genitive
HON	honorific
LOC	locative
NM	nominal marker
REL	relative
RLS	realis
ST	stative

References

- Anward, Jan. 2000. A dynamic model of part-of-speech differentiation. In Petra M. Vogel & Bernard Comrie (eds.), *Approaches to the Typology of Word Classes*. 3–45. Berlin: Mouton de Gruyter.
- Durie, M. 1985. *A Grammar of Acehnese on the Basis of a Dialect of North Aceh*. Dordrecht: Foris.
- Himmelman, N. P. 2001. *Sourcebook on Tomini-Tolitoli Languages. General Information and Word Lists*. Canberra: Pacific Linguistics.
- Himmelman, N. P. 2005. The Austronesian Languages of Asia and Madagascar: Typological Characteristics. In A. Adelaar & N. P. Himmelman (eds.), *The Austronesian Languages of Asia and Madagascar*. 110–181. London/New York: Routledge.
- Himmelman, N. P. 2008. Lexical Categories and Voice in Tagalog. In P. K. Austin & S. Musgrave (eds.), *Voice and Grammatical Relations in Austronesian Languages*. 247–293. Stanford: CSLI.
- Mayani, Luh Anik. 2013. *A Grammar of Tajio, A Language in Central Sulawesi*. PhD Thesis, The University of Cologne.
- McKenzie, R. 1991. Sociolinguistic Survey of the Tajio Language. *Working papers in Indonesian Languages and Cultures* 11. 19–34.
- Saeed, J. I. 1997. *Semantics*. Oxford: Blackwell.
- van den Berg, R. 1989. *A Grammar of the Muna Language*. PhD Thesis, The University of Leiden.

- Verhaar, J. 1984. The Categorial System in Contemporary Indonesian: Verbs. *Towards a Description of Contemporary Indonesian: Preliminary Studies* Part 1, ed. B. Kaswanti Purwo, 27–63. NUSA 18.