The phonology, morphology, and syntax of Sundanese
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ABSTRACT: Sundanese is an indigenous language that is spoken in West Java, Indonesia. This study considers the phonology, morphology, and syntax of Sundanese based on a corpus of more than two hundred words. It specifically aims to contribute to the literature of the language by providing some linguistic characteristics of Sundanese and comparing results to what has been previously introduced in the literature. Some previous studies of Sundanese have extensively covered the syntactic and some morphological structures of the language, but only a few studies have covered the phonological aspects. This study aims to provide a comprehensive analysis of the morphological, syntactic, and phonological aspects of Sundanese based on the production of a native speaker of the language. The participant translated all words into Sundanese and provided the singular and the plural forms for each word in the list. The participant also produced sentences using the same words in the corpus. Data were then observed, and patterns were grouped and categorized for analysis. Results showed some similarities and differences to the findings of previous work in the field. Conclusions were drawn and comparisons were made where appropriate.

KEYWORDS: Sundanese; indigenous languages; phonetic features; Austronesian languages

1. Introduction
Sundanese, an indigenous language in Indonesia, is spoken in West Java and belongs to the family of Austronesian languages. Austronesian is one of the two largest language families in the world. The other language family is the Niger-Congo. Sundanese people form one of the largest ethnic groups in Indonesia, the second one after the Javanese. There are around 32 million speakers of Sundanese worldwide (Eberhard et al., 2019). One of the features of Sundanese is that it has speech levels. That is, it has different levels of politeness. To elders, parents, and younger generations, the polite form is preferred. When speaking to friends, a less polite speech is used. Impolite form of speech is only used when talking to animals, but not humans (Van Syoc, 1959). Recently, there has been a noticeable impact on the use of Sundanese speech levels by the younger generations which poses a threat to the stability of the language. Many Sundanese families prefer to teach their children the dominant languages, Indonesian and English, and gradually abandon their own native language (Indrayani, 2011). Wurm (2002) showed that a language becomes unsafe when it is used by the younger generations in limited domains only, not in all domains. In Wurm’s terms, Sundanese would be considered unsafe and potentially an endangered language as the youth preferred using the dominant languages, not their own. Alwasilah (2008) also supported that most Sundanese people were showing negative attitudes towards their mother tongues. Families showed a strong tendency towards teaching their children the ‘prestigious’ English language at...
the expense of their local languages (Zein, 2019). This, if continued, would pose a threat to the stability of Sundanese and result in causing the language to become endangered.

This paper sheds light on the Sundanese language and presents a comprehensive phonological, morphological, and syntactic analysis of Sundanese structures. The study aims to contribute to the literature of the language by providing some linguistic characteristics. The study also aims to compare the findings to what has been introduced in the literature regarding Sundanese linguistic characteristics.

In the literature on Sundanese, several studies have discussed syntactic, morphological, or discourse-oriented aspects of Sundanese (e.g., Robins, 1965; Hardjadibrata, 1985; Bangga and Doran, 2021). However, none of the previous works have included a focused and comprehensive analysis of syntactic, morphological, and phonological features of the language based on a set of words or corpus. This study aims to fill a gap and provide a comprehensive analysis including the phonology and phonotactic constraints of Sundanese by investigating more than two hundred words of the Swadesh list. In particular, the study aims to answer the following questions:

a) What are the phonotactic constraints of the Sundanese sound system?
b) How words, phrases, and sentences are formed in the language?
c) How does the analysis of the data provided in this study differ from what has been introduced in the literature on Sundanese?

Results presented here are expected to overlap quite significantly with previous studies in the field, though with some differences. Considering that the current study has a descriptive nature, and to avoid redundancy, the discussion of previous work on Sundanese will be saved for later and presented at the end of the paper in the discussion section where relevance to previous findings will also be made.

2. Method

This research employs a descriptive analysis of collected data to investigate how sounds, words, and sentences are structured in Sundanese. In particular, the analysis highlights the phonology, morphology, and syntax of Sundanese.

2.1. Participants

Data of this study is based on the production of a single male linguist who is a native speaker of Sundanese. The participant was born in Garut, a city located in the south of West Java, and spent his childhood in Pangandaran. The participant speaks three languages fluently: Indonesian, Sundanese, and English. He learned Indonesian at the age of six because it was the official language taught in schools and started learning English at the age of thirteen.

2.2. Research instruments

Two hundred words of the Swadesh list (see Appendix) were recorded by the participant who was a native speaker of Sundanese. The participant was asked to read the English word first, followed by its equivalent in the Sundanese language. Then, the participant provided the singular and plural forms for each word. Recordings were done using Praat software on MacBook. The microphone was placed 8” inches to the side of the speaker’s mouth. Words and sentences were then transcribed and provided in tables for analysis.

2.3. Procedures

The participant translated more than two hundred words of the Swadesh list into Sundanese and
provided different sentences including these words. Data were then transcribed by the author and revised by the participant for accuracy purposes. Structures were observed and analyzed and patterns were highlighted to provide a thorough phonological, morphological, and syntactic analysis of Sundanese. The phonological analysis covered the language inventory and highlighted some phonological processes that took place in Sundanese. The morphological analysis covered the affixation system that nouns, verbs, and adjectives underwent. Finally, the syntactic analysis investigated the syntactic representations and word order of nouns and prepositional phrases, relative clauses, and passive constructions in Sundanese.

3. Results

Results are presented below in three subsections: the phonology of Sundanese, the morphology of Sundanese, and finally the syntax of Sundanese.

3.1. The phonology of Sundanese

3.1.1. Consonants

Based on the transcription of the data provided, Table 1 presents the consonants that are found in the language inventory of Sundanese.

<table>
<thead>
<tr>
<th>Plosives</th>
<th>Bilabial</th>
<th>Labiodental</th>
<th>Dental</th>
<th>Alveolar</th>
<th>Post-alveolar</th>
<th>Palatal</th>
<th>Velar</th>
<th>Uvular</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plosives</td>
<td>p</td>
<td>b</td>
<td>t</td>
<td>d</td>
<td></td>
<td>k</td>
<td>g</td>
<td></td>
<td>?</td>
</tr>
<tr>
<td>Nasal</td>
<td>m</td>
<td></td>
<td></td>
<td>n</td>
<td></td>
<td>j</td>
<td>n</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fricative</td>
<td>s</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>j</td>
<td></td>
<td></td>
<td>h</td>
</tr>
<tr>
<td>Affricates</td>
<td>tʃ</td>
<td></td>
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<td></td>
<td></td>
<td>dʒ</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Tap</td>
<td>r</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Lateral</td>
<td>l</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>j</td>
<td>w</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approximant</td>
<td>w</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Data included seven stops: the voiceless bilabial /p/, the voiced bilabial /b/, the voiceless alveolar /t/, the voiced alveolar /d/, the voiceless velar /k/, the voiced velar /g/, and the voiceless glottal stop /ʔ/. Some consonants were found to be inserted in certain environments, such as the glottal stop /ʔ/, and the two glides /w/ and /j/. These environments will be discussed later when phonological processes are considered.

Data also showed four nasal consonants: the bilabial /m/, the alveolar /n/, the palatal /ɲ/, and the velar /ŋ/, two fricatives: the alveolar /s/ and the glottal /h/, two approximant glides /w/ and /j/, a trill /r/ and a lateral /l/. Moreover, data included two affricates /tʃ/ and /dʒ/, as the following words show:

(1) tʃəpil ‘ear’
andʒən ‘you’ (singular)
sutʃaʔ ‘eye’
hidʒʔ ‘one’

All consonants of Sundanese are distinct phonemes. Consider the following examples of minimal pairs or near-minimal pairs:

(2) Alveolars
na.ɛʔ  ‘to go up’
sa.ɛʔ  ‘good’
ta.ʊn  ‘year’
da.ʊn  ‘leaf’
ra.hɨt  ‘swell’
la.wʊt  ‘sea’

(3) Bilabials
pun.bi.jaŋ  ‘mother’
bun.tut  ‘tail’
ma.wʊt  ‘die’
ba.paʔ  ‘father’

(4) Velars
ma.nuk  ‘bird’
gu.nuŋ  ‘mountain’
ʔən.dɔŋ  ‘egg’
tan.dok  ‘horn’

(5) Glottal
ʔə.wɔn  ‘bad’
ha.li.mʊn  ‘fog’

(6) Palatals
ŋu.jaŋ  ‘bite’
u.jaŋ  ‘salt’

(7) The glide /w/:  
ʔə.wɔn  ‘bad’
wa.dol  ‘lie’

Consonant clusters are possible in Sundanese. Consider the following words:

(8) manɛtŋaʔ  ‘he (singular)’
kandəl  ‘thick’
sampɪt  ‘narrow’
uraŋsararɛʔa?  ‘we’
istriʔ  ‘woman’
murankaliʔ  ‘child’
tanjkal  ‘tree’

3.1.2. Vowels

There are ten distinct vowels of Sundanese as presented in Figure 1.
Consider the following minimal or near-minimal pairs:

(9) tuŋ.kat  ‘stick’
dʒu.kut  ‘grass’
si̥.kit  ‘sharp’
tʃa.kat  ‘near’
bun.duk  ‘short’
tən.dok  ‘horn’
le.tah  ‘tongue’
lə.pər  ‘liver’
ŋəm.bah  ‘wash’
ŋəm.bəŋ  ‘float’
tʃə.liʔ  ‘ear’
tə.liʔ  ‘rope’

Acoustic analysis of the two vowels [o] and [ʊ] show that they sound very similar with the former being more rounded.

Vowel combinations are also possible in Sundanese. Consider the following words where the diphthong /aɪ/ is present:

(10) kat  ‘wood’
ʔoraɪ  ‘snake’
ŋodəɹəɪ  ‘swim’

Vowel clusters are also common in Sundanese. Consider the following words:

(11) uraŋsararəʔaʔ  ‘we’
ʃəˈæ  ‘water’

3.2. Syllable structure

According to the data collected, most Sundanese words consist of two syllables. However, words with one or more than two syllables are also acceptable. The minimum syllable structure that can exist in Sundanese is V. Sundanese syllables can either be V, CV, VC, or CVC. Examples of each form are provided below.

(12) V
i.tuʔ  ‘that’
u.jah  ‘salt’
(13) CV
li.ma? ‘five’
pi lah ‘split’

(14) VC
ən kək ‘vomit’
is triʔ ‘woman’

(15) CVC
lam biʔ ‘mouth’
nam piʔ ‘smell’

Onsets seem to be optional, as shown in (16), where both first and second syllables with no onsets exist in the data:

(16) a.kar ‘root’
a.guŋ ‘big’
o.pat ‘four’
wə.ʊs ‘tooth’
tə.ʊn ‘year’

There are some restrictions, however, on what segments can go in onset vs. coda positions in Sundanese roots. In CV.CVC syllable structure, almost any consonant is allowed to occur as the onset of either the first or second syllables, see Table 2. Only the glide /j/ does not appear as an initial onset in CVC syllable structure.

Table 2. Sundanese onsets in initial and medial syllable structures.

<table>
<thead>
<tr>
<th>Sounds</th>
<th>Initial onset CV.CVC</th>
<th>Medial onset CV.CVC</th>
<th>Sounds</th>
<th>Initial onset CV.CVC</th>
<th>Medial onset CV.CVC</th>
</tr>
</thead>
<tbody>
<tr>
<td>/t/</td>
<td>tan.dok ‘horn’</td>
<td>ɫɨ.tah</td>
<td>/s/</td>
<td>sal.dʒʊʔ ‘snow’</td>
<td>ɲʊ.sok ‘rub’</td>
</tr>
<tr>
<td>/k/</td>
<td>ko.lan ‘what’</td>
<td>su.ku?</td>
<td>/d/</td>
<td>du.wəʔ ‘two’</td>
<td>buŋ duk ‘short’</td>
</tr>
<tr>
<td>/n/</td>
<td>nu.ʒʊʔ ‘stab’</td>
<td>bi.nih</td>
<td>/h/</td>
<td>ɦi.ʒʊʔ ‘one’</td>
<td>ɲiŋ.hap ‘breathe’</td>
</tr>
<tr>
<td>/m/</td>
<td>mas.ta.kaʔ ‘head’</td>
<td>i.mah</td>
<td>/l/</td>
<td>li.maʔ ‘five’</td>
<td>ɲi lah ‘split’</td>
</tr>
<tr>
<td>/p/</td>
<td>pɨ.lah ‘split’</td>
<td>o.pat</td>
<td>/tʃ/</td>
<td>tʃə.liʔ ‘car’</td>
<td>su.tʃaʔ ‘eye’</td>
</tr>
<tr>
<td>/b/</td>
<td>bun.duk ‘short’</td>
<td>kəm.bəŋ ‘flower’</td>
<td>/dʒ/</td>
<td>dʒu.ku’t ‘grass’</td>
<td>an.dʒən ‘you’</td>
</tr>
<tr>
<td>/p/</td>
<td>ɲiŋ.hap ‘breathe’</td>
<td>nʊ.pəh ‘bite’</td>
<td>/r/</td>
<td>ra.hət ‘swell’</td>
<td>mu.ran.kaliʔ ‘child’</td>
</tr>
<tr>
<td>/g/</td>
<td>g t.tʃ ‘blood’</td>
<td>ə.guŋ ‘big’</td>
<td>/j/</td>
<td>NA</td>
<td>u.jah ‘salt’</td>
</tr>
<tr>
<td>/ŋ/</td>
<td>nʊ.ʒʊʔ ‘rub’</td>
<td>ɲiŋ.hap ‘breathe’</td>
<td>/w/</td>
<td>waʔs ‘tooth’</td>
<td>ma.wut ‘die’</td>
</tr>
<tr>
<td>/ʔ/</td>
<td>?ən.dog ‘egg’</td>
<td>buʔ.uk ‘hair’</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Moreover, the coda position of the first syllable in CV.CVC syllable structure or the first and second
syllables in CV(C).CVC.CVC is/are restricted to nasals (17), and few other segments such as: /r/, /h/, /l/ and /s/, as in (18) (these four words are the only ones found in the data that allow other segments to exist as codas).

(17) bun.duk ‘short’
    kəm.baŋ ‘flower’
    nįŋ.hap ‘breathe’

(18) ma.nė.h.naʔ ‘he’
    maš.ta.kaʔ ‘head’
    sal.dʒʊʔ ‘snow’
    ka.mig.kaʔan ‘full’

Most segments, on the other hand, can occur as codas for final syllables in Sundanese roots, with the exception of palatals /ɲ/ and /j/, affricates /tʃ/ and /dʒ/, the voiced stop /b/, and the glide /w/.

Consider the following words:

(19) an.dʒən ‘you’
    hi.dʒiʔ ‘one’
    sə.?ər ‘many’
    dʒu.kut ‘grass’
    gi.tih ‘blood’
    ?ən.dog ‘egg’
    hi.rup ‘live’
    nu.dʒʊs ‘stab’
    kəmbaŋ ‘flower’
    u.jah ‘salt’
    bun.duk ‘short’
    mmam ‘eat’

### 3.3. Phonological processes

#### 3.3.1. Dissimilation

The first phonological process observed in the data is dissimilation, where two sounds that are similar become different. Dissimilation in Sundanese takes place when a word’s root contains the sound /r/. One of the possible ways of forming plurals in Sundanese is by inserting the infex /ar/ (few) or /arar/ (many). However, when a word’s root has the sound /r/ in any position, /r/ dissimilates to /l/. Consider the following examples:

(20) Singular | Plural(few) | Plural(many) | Meaning
---|---|---|---
na.rik | n-al-arik | n-alal-arik | ‘pull’
si.riʔ | s-al-iriʔ | s-alal-iriʔ | ‘laugh’
ko.tor | k-al-otor | k-alal-otor | ‘dirty’
mi.kir | m-al-ikir | m-alal-ikir | ‘think’
ŋa.lir | ŋ-al-alir | ŋ-alal-alir | ‘flow’

#### 3.3.2. Assimilation

It seems that the insertion of the plural markers few and many, (-ar) and (-arar) respectively, not only dissimilates /r/ to /l/ when /r/ occurs anywhere in the root, but also assimilates to /al/ and /alal/ when
/l/ starts a word. Data show that unlike /r/, the position of /l/ in a word’s root matters. That is, when /l/ occurs word medially or finally, no changes take place (21). However, when /l/ occurs word initial, a process of assimilation takes place (22). Consider the following examples:

(21) Singular       Plural(few)       Plural(many)       Meaning  
\text{p\text{-}l\text{-}ah}       \text{p-ar\text{-}l\text{-}ah}       \text{p-arar\text{-}l\text{-}ah}       ‘split’  
\text{m\text{-}l\text{-}kol}       \text{m-ar\text{-}\text{\text{-}l\text{-}kol}}       \text{m-arar-\text{-}l\text{-}kol}       ‘turn’

Now consider the following examples where /l/ is initial:

(22) Singular       Plural(few)       Plural(many)       Meaning  
\text{l\text{-}l\text{-}mp}       \text{l-al\text{-}l\text{-}mp}       \text{l-alal\text{-}l\text{-}mp}       ‘walk’  
\text{l\text{-}mis}       \text{l-al\text{-}mis}       \text{l-alal\text{-}mis}       ‘smooth’

3.3.3. Nasal assimilation

When floating nasal consonants (such as the prefix/-n\text{a}/ or/-n/) are attached to verb roots in the active form, the nasal segment assimilates with the first consonant of the root to share the same place of articulation. In Sundanese, the passive form is formed by the attachment of the prefix /-di/ to the underlying representation of the root. Thus, it is always helpful to consider the passive structure to explain any phonological process that take place in the language. As indicated in the language inventory, there are four nasal consonants in Sundanese /m/, /n/, /ng/, and /\text{\text{-}n\text{a}}/. Examples for each case of nasal assimilation is presented below.

When a root starts with a voiceless bilabial stop /p/, the association of a nasal consonant will undergo an assimilation process and change to become a voiced nasal bilabial /m/ that shares the same place of articulation as /p/. Consider the following example:

(23) The voiced nasal bilabial /m/ + /pikir/  
mikir       ‘think’  
di-pikir       passive form

Similarly, when a root starts with a voiceless alveolar stop /t/, the nasal prefix /n\text{a}/ or /n/ assimilates and changes to the voiced alveolar nasal /n/, which shares the same place of articulation as /t/, as presented in (24).

(24) The voiced alveolar nasal /n/ + /t\text{\text{-}l\text{-}a}/?  
Word       Passive form       Gloss  
\text{n\text{-}la?}       di-t\text{-}l\text{-}a?       ‘see’

The voiced velar nasal /\text{\text{-}n}/, on the other hand, undergoes assimilation when added to roots that start with either the voiceless velar stop /k/ or the voiceless glottal stop /\text{\text{-}\text{-}}/:

(25) The voiced velar nasal /\text{\text{-}n}/ + /ku\text{\text{-}l\text{\text{-}a}}/ and /\text{\text{-}l\text{\text{-}a}/  
Word       Passive form       Gloss  
\text{n\text{-}l\text{-}a}       di-ku\text{-}l\text{-}a       ‘bite’  
\text{\text{-}l\text{\text{-}a}/}       di-\text{\text{-}l\text{\text{-}a}/}       ‘smell’  
\text{\text{-}l\text{\text{-}a}/}       di-\text{\text{-}l\text{\text{-}a}/}       ‘wipe’

Similarly, the nasal consonant in the prefix /-n/ is changed to the voiced palatal nasal /n/ when it is added to roots that start with either the voiceless alveolar stop /s/ or the post-alveolar affricate /t\text{\text{-}f}/. Consider example (26) below.

(26) The voiced palatal nasal /n/ + /si\text{\text{-}h\text{\text{-}a}}/ and /t\text{\text{-}f\text{\text{-}d\text{\text{-}u}}/
<table>
<thead>
<tr>
<th>Word</th>
<th>Passive form</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>pɨŋhap</td>
<td>di-sɨŋhap</td>
<td>‘breathe’</td>
</tr>
<tr>
<td>pɨdúh</td>
<td>di-tɨdúh</td>
<td>‘spit’</td>
</tr>
</tbody>
</table>

Only one word in the data disagrees with this dissimilation process presented here, and that is the word: /mam/ ‘eat’, where the passive form is /di-mam/. For this word, the nasal /m/ is allowed to occur as the first segment in the root in this exceptional case, and since it is the only word found in the data, it is not possible to make a generalization.

### 3.3.4. Insertion

Insertion or epenthesis is observed in four environments in the Sundanese data. The first environment is when the root of the verb starts with a vowel, a glottal stop is inserted when making the passive form by adding the prefix di- plus a glottal stop. Consider the following example:

(27) Word | Passive form | Gloss
---|--------------|-------|
ŋkɛk | di-ŋkɛk | ‘vomit’

Another environment of insertion takes place in open-syllable words. For such words, a glottal stop is being inserted after the last vowel, as exemplified in (28).

(28) didijə? | ‘here’
iə? | ‘this’
saka? | ‘who’
hatə? | ‘heart’
lima? | ‘five’
satu? | ‘animal’
istri? | ‘woman’

Moreover, a glottal stop is being inserted when two identical vowels occur in CV.CV syllable structures. Consider the following words:

(29) buʔuk | ‘hair’
ʔɛʔɛt | ‘drink’
tuʔur | ‘knee’
kəm rkaʔən | ‘full’
səʔər | ‘many’

The last environment of insertion is observed in the data when plural forms are considered. One way to form plurals is Sundanese is by reduplicating the first CV of the root and adding the suffix (-an) (more discussion on plurals is provided in the morphology subsection). Three different consonants might be inserted in the derived plural forms based on vowel quality: The glottal stop /ʔ/, and it is usually inserted as the coda for words that end with vowels, or used to separate two identical vowels, see (30):

(30) mastakaʔ? | ‘head’
mamastakaʔən | ‘heads’ [plural]

Second, the glide /j/ and it is usually inserted in words that end with the vowel /i/, see (31):

(31) tʃaliʔ? | ‘ear’
tʃətaxlijan | ‘ears’ [plural]

Third, the glide /w/ and it is usually inserted in words that end with the high back vowel /u/.
Consider the following words:
(32) suku? ‘leg’
susukuyan ‘legs’ [plural]

3.3.5. Vowel nasality

Sundanese vowels get nasalized after nasal consonants. This is the case with all vowels following or preceding nasal segments. Here are some words that include nasal vowels due to nasality spread:
(33) ŋõ sok ‘rub’
ʔaŋi’n ‘wind’
suŋɛ~? ‘river’
ŋödʒaŋ ‘swim’

4. The morphology of Sundanese

4.1. Nouns

Nouns in Sundanese can either be singular or plural. There are two ways to make nouns plural in Sundanese: a) reduplicate the first syllable CV of the root, then add it to the root and insert the suffix (-an) (35), and b) insert the infix (-ar) ‘few’ or (-arar) ‘many’ after the first segment of the root if it starts with a consonant, or as a prefix at the beginning of the root if it starts with a vowel (36).

(34) Singular Plural Gloss
buwah bu-buwah-an ‘fruit’
tuŋkat tu-tuŋkat-an ‘stick’

(35) Singular Plural(few) Plural(many) Gloss
wɔŋj ar-w-ɔŋj w-aroŋj ‘night’
gunŋ g-ar-unŋ d-arar-unŋ ‘mountain’
ɔŋkɛk ar-ɔŋkɛk arar-ɔŋkɛk ‘vomit’
ebug ar-ebug arar-ebug ‘sleep’

To indicate Agentive nouns, nouns that do the action described by verbs, the word tukaŋ must precede the noun to modify it, see examples below.

(36) tukaŋ tfau?
modifier banana ‘banana seller’
tukaŋ ɲaʤar
modifier teacher ‘teacher’
tukaŋ gəlut
modifier fighter ‘fighter’

An interesting observation of this study is on the attachment of the suffix (-na), a possessive marker, to nouns to indicate possessiveness for the third person only, unless if it is followed by the first-person singular pronoun sim kuriŋ to indicate the first singular pronoun ‘my’. Consider the following example where the singular possessive marker (-na) is attached to the word tuŋkal ‘tree’:
(37) tuŋkal sim kuriŋ
tree-possessive my
‘My tree’
tuŋkal-na sim kuriŋ
tree-possessive my (owned by me)
'My tree'

Or just:
(38) taŋkal-na
tree-possessive
'His/Her tree'

In example (38), the possessive marker (-na) is attached to the noun with no other pronouns following it. Thus, the meaning is understood to be for the third person pronouns only.

Now consider the same sentences for the plural word taŋkal-an ‘trees’ where the possessive marker /-na/ becomes nana for noun-possessive marker agreement: (note that the first syllable is reduplicated for plurality).

(39) taŋkal-an sim kuriŋ
tree-(plural) my
'My trees'
taŋkal-an-nana sim kuriŋ (more definite)
tree-(plural)-possessive my (owned by me)
'My trees'

Or just:
(40) ? taŋkal-an-nana
tree-(plural)-possessive
'His/Her trees'

But not:
(41) * taŋkal-an-na sim kuriŋ

Furthermore, the previous examples show that there must be an agreement of nouns and possessive markers; that is, the singular possessive marker /-na/ must be attached to singular nouns, and the plural possessive marker /nana/ must be attached to plural nouns. Violations of this rule lead to ungrammatical sentences (41).

Not only agreement is important here, but also the order of the plural circumfix (reduplicated syllable+root+an) and the possessive marker /nana/. The plural possessive marker /nana/ must always follow the circumfix, and never precede it or even precede a portion of it. Consider the following:

(42) taŋkal-an-nana sim kuriŋ
tree-(plural)-possessive my (owned by me)
'My trees'

(43) * taŋkal-nana-an sim kuriŋ
tree-(plural)-possessive my (owned by me)
'My trees'

A final point to make here about nouns is the Subject-Verb agreement. Nouns in Sundanese must always agree with verbs; that is, singular subjects require singular verbs, and plural subjects require plural verbs, as the following examples indicate.

(44) gogog lumpat di imah
dog-singular run-singular in house
'The dog runs inside the house'
(45) səʔər gogog lu-lumpat-an di imah
 many-plural dog run-plural in house
 ‘The dogs run inside the house’

(46) *gogog lu-lumpat-an di imah
dog-singular run-plural in house
 ‘The dog runs inside the house’

Example (46) shows that it is ungrammatical to have a singular subject followed by a plural verb. Similarly, nouns must also agree in number with adjectives. See (47) and (48) below.

(47) Plural nouns and adjectives:
iʔ-imah-an anu b-al-ərəsih
house-SUF (plural) that-REL clean-Infix(plural)
 ‘Many houses are clean’

(48) Singular nouns and adjectives:
imah anu bərəsih
house(singular) that-REL clean-Adj(singular)
 ‘A clean house’

4.2. Adjectives

Sundanese adjectives can also be singular or plural. Consider the following examples:

(49) Singular adjectives
bodas ‘white’
basih ‘wet’
biɾim ‘red’
puruk ‘rotten’

(50) Plural adjectives
<table>
<thead>
<tr>
<th>Plural (few)</th>
<th>Plural (many)</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>b-ar-odas</td>
<td>b-arar-odas</td>
<td>‘white’</td>
</tr>
<tr>
<td>b-ar-asih</td>
<td>b-arar-asih</td>
<td>‘wet’</td>
</tr>
<tr>
<td>b-ar-trim</td>
<td>b-arar-trim</td>
<td>‘red’</td>
</tr>
<tr>
<td>p-al-uruk</td>
<td>p-alal-uruk</td>
<td>‘rotten’</td>
</tr>
</tbody>
</table>

Example (50) shows that adjectives can be pluralized by the infixation of (-ar/al) or (-arar/alal) after the first consonant of the word.

Moreover, to form verbs that are derived from adjectives (e.g., ‘to become’), the circumfix (ŋə + Adj + an) is used. Note, however, that no objects must be present with this circumfix, as shown in the following sentences:

(51) imah-na Abul ŋə-bodas-an
house-Possessive name to become (causative)-white
 ‘Abul’s house becomes white’

(52) bal ŋə-birim-an
ball to become (causative)-red
 ‘The ball becomes red’

The attachment of the possessive marker /-na/ to the word imah in example (51) indicates that it refers to the third person, which happens to be ‘Abul’ in this sentence or just ‘his/her house’ when no
overt noun is present.

However, for causative forms, a different circumfix is used (ŋa + Adj + kɨn). This circumfix, which indicates the meaning of ‘to make something be something’, requires an object following it. Consider the following example where square brackets indicate optionality:

(53) sim kuriŋ ŋa-bodas-kiŋ imah-na [Abul]
    I to make(kausative)-white house-Possessive name

‘I make Abul’s house white’

Comparative and superlative adjectives are of another case. To form comparative adjectives, the word laŋkuŋ must precede the adjective. As shown in (54) and (55) below:

(54) bal birim vs. bal laŋkuŋ birim
    ball red    ball comparative redder

‘The ball is red’ ‘The ball is redder’

(55) badʒiŋ bodas vs. badʒiŋ-na laŋkuŋ bodas
    squirrel white squirrel-the comparative white

‘A squirrel is white’ ‘The squirrel is whiter’

Interestingly, the suffix /-na/ that is attached to the word badʒiŋ-na ‘squirrel’ in example (55) differs from the possessive marker /-na/. /-na/ as it is used in example (55) serves a different function, and that is to refer to a specific entity. In other words, ‘a specific squirrel’ compared to badʒiŋ ‘a squirrel’.

Furthermore, when comparing one item to another, the circumfix (laŋkuŋ + Adj + ti batan) is used. Consider the following examples:

(56) A laŋkuŋ gîlis ti batan B
    name more- comparative beautiful than- comparative name

‘A is more beautiful than B’

(57) badʒiŋ laŋkuŋ bodas ti batan sim kuriŋ
    squirrel more-comparative white than-comparative me

‘A squirrel is whiter than me’

On the other hand, to form superlative adjectives, the circumfix (paŋ+adj+na) is attached. Consider the following:

(58) imah anu paŋ bodas-na
    house that superlative white-superlative

‘The whitest house’

(59) imah anu paŋ agŋ-na
    house that superlative big- superlative

‘The biggest house’

(60) bal-na Abul paŋ birim-na
    ball- Possessive name superlative red-superlative

‘The reddest ball is Abul’s’

4.3. Verbs

Just like nouns and adjectives, plural verbs are formed by the insertion of (ar) ‘few’ and (arar) ‘many’ or their alternations (al) and (alal), respectively. In roots that start with consonants, (ar) and (arar) are inserted after the first consonants (61). On the other hand, when roots start with vowels, (ar) and (arar)
are prefixed to the roots (62):

<table>
<thead>
<tr>
<th></th>
<th>Singular</th>
<th>Plural(few)</th>
<th>Plural(many)</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>mawut</td>
<td>m-awut</td>
<td>ma-arar-awut</td>
<td>‘die’</td>
<td></td>
</tr>
<tr>
<td>nali?</td>
<td>n-arali?</td>
<td>n-arar-ali?</td>
<td>‘tie’</td>
<td></td>
</tr>
<tr>
<td>ɔŋkɛk</td>
<td>ar-ɔŋkɛk</td>
<td>arar-ɔŋkɛk</td>
<td>‘vomit’</td>
<td></td>
</tr>
<tr>
<td>ɛbug</td>
<td>ar-ɛbug</td>
<td>arar-ɛbug</td>
<td>‘sleep’</td>
<td></td>
</tr>
</tbody>
</table>

Morphemes can be attached to Sundanese verbs to indicate different meanings and functions. For example, among the different functions of the suffix /-an/ in Sundanese, it can be added to the active form of verbs to indicate repetition:

(63) words word + (-an) Gloss
   (once) (more than once)
   ɲarəʔ ɲarəw-an ‘sweep’
   mɛser mɛser-an ‘buy’
   mɨlah  mɨlah-an ‘split’

However, the addition of this suffix requires verbs to be plural or to have plural objects (64). If the meaning is intended for a singular object, then /-an/ must not be attached to the verb (65).

(64) sim kuriŋ ɲiksa?-an ɗʒalmi
   I hurt-repeat people (plural)
   ‘I hurt people many times’

(65) * sim kuriŋ ɲiksa?-an Katie
   I hurt-repeat name-(singular)
   ‘I hurt Katie many times’

Moreover, the attachment of the suffix /-an/ requires verbs to have complements; otherwise, the sentence will be ungrammatical. Consider the following example:

(66) sim kuriŋ mərəsih-an imah-na nini
   I clean(active)-suffix house-Possessive grandma
   ‘I clean grandma’s house’

(67) sim kuriŋ ɲinum-an tʃai
   I drink(active)-suffix water
   ‘I drink water’

But not:

(68) * sim kuriŋ mərəsih-an

* sim kuriŋ ɲinum-an

Imperative verbs are formed by using the underlying root of the verb when no argument is required, or when the verb is followed by one argument only. For example:

(69) pasak!
   cook-imperative ‘Cook’

(70) pasak kaŋgo bapa
   cook-imperative for father ‘Cook for father’

(71) pasak lauk
cook-imperative  fish
‘Cook fish’

However, when there are two arguments following the verb, a suffix /-kɨn/ must be attached to the verb, see (72):

(72) pasak-kɨn lauk kaŋgo bapa
cook (imperative)-suffix  fish  for  father

But not:

(73) *pasak lauk kaŋgo bapa

In (72), there are two arguments following the imperative verb pasak ‘cook’: the direct object lauk ‘fish’, and the prepositional phrase kaŋgo bapa ‘for father’. Thus, the suffix /-kɨn/ is attached. The same sentence will be ungrammatical if /-kɨn/ is not attached to the root of the verb, as shown in (73).

The benefactive verbs in Sundanese are formed in two ways depending on the position of the direct and the indirect objects, (DO) and (IO), respectively. The first way is formed following this structure: S V (active) DO [kaŋgo IO]. This structure shows that when the direct object immediately follows the verb, the active form of the verb is used along with the word kango ‘for’ that should precede the indirect object, as exemplified in examples (74) and (75).

(74) andʒɨn parantos masak lauk kaŋgo sim kuriŋ
you past  cook-active  fish-do  for-preposition  me-io
‘You cooked fish for me’

(75) sim kuriŋ meser atʃuk kaŋgo andʒɨn
I  buy(active) clothes  for-preposition  you
‘I bought clothes for you’

The second way to form benefactive verbs is by the insertion of the circumfix [maŋ + V(active) + kɨn] when the benefactor appears between the verb and the direct object, following this structure: S maŋ- V(active)-kɨn IO DO:

(76) andʒɨn parantos maŋ-masak- kɨn sim kuriŋ lauk
you past  benefactive -cook-benefactive  me-io  fish-do
‘You cooked me a fish’

Moreover, with this benefactive circumfix, it is ungrammatical to use kango ‘for’ to refer to the benefactor, as shown in (77) below:

(77) *sim kuriŋ maŋ-doroŋ-kɨn korsi  *kaŋgo Katie
I  benefactive-push-benefactive chair  for  name
‘I push the chair for Katie’

Data also show that this circumfix is only used with verbs:

(78) maŋ + V + kɨn
maŋ + masak + kɨn  ‘cook’
maŋ + doroŋ + kɨn  ‘push’

Moreover, when an intransitive verb is used where only IO appears in a prepositional phrase preceded by kango, the following simple structure is used: S V(active) [kaŋgo IO]. See examples below:

(79) Amy  ŋahlîŋ  kango  kaluwargi-na
name sing(active) for family-possessive
‘Amy sings for her family’

(80) andʒiŋ parantos masak kaŋgo sim kuriŋ
you past cook-active for me
‘You cooked for me’

Finally, to express the causative form of verbs in Sundanese, the word miwaraŋ ‘make’ is used before both the verb in its active form and the object of the sentence. Here are some examples:

(81) sim kuriŋ miwaraŋ Jolio mɛsɛr afʃuk
I make(causative) name-do buy(active) clothes
‘I make Jolio buy clothes’

(82) sim kuriŋ miwaraŋ andʒiŋ mɪlah kadu
I make(causative) you-do split(active) durian
‘I make you split durian’

5. The syntax of Sundanese

5.1. Noun phrases (NPs)

In NPs, nouns always precede all other determiners, adjectives, genitives, and possessive pronouns. Below are examples for each case.

(83) Determiners:
   a. buku iji
      book this
      ‘This book’
   b. afʃuk nu sanesna
      clothes other
      The other clothes’
   c. istri ɛta
      woman that(nearby)
      ‘That woman’
   d. di bumi iitu
      house that (further way)
      ‘That house’

(84) Adjectives:
   a. bal biriŋ
      ball red-adjective
      ‘The red ball’
   b. bal ʔəbih
      ball far-adjective
      ‘The ball is far’

(85) Possessive pronouns:
   a. kaluwarga sim kuriŋ
      family I-possessive
      ‘My family’
   b. kamidʒ andʒiŋa
shirt his-possessive
‘His shirt’

(86) Genitives:
   a. taŋkal-na
tree-possessive
   ‘His/Her tree’
   b. imah nini
house grandmother
   ‘Grandmother’s house’

Numbers and agentive modifiers, on the other hand, do not follow this rule; that is, they precede other nouns:

(87) Numbers:
   a. dua dʒalmi
two people
   ‘Two people’
   b. səʔər dʒalmi
many people
   ‘Many people’

(88) Agentive Modifiers:
   a. tukaŋ gəlut
Modifier fighter
   ‘Fighter’
   b. tukaŋ tʃauʔ
Modifier banana
   ‘Banana seller’

5.2. Prepositional phrases (PPs)

In the data of this study, there are seven Sundanese prepositions as listed in (89):

(89) Preposition Gloss
   ka ‘to’
   ku ‘by’
   kaŋgo ‘for’
   di ‘in/at’
   ti ‘from’
   sarəŋ ‘with’
   tə disarəŋən ‘without’

Similar to NPs, prepositions always precede nouns, noun phrases, and any modifiers of the noun phrases. Consider the following examples:

(90) sim kuriŋ didijə? di sakala
I here at school
‘I am at school’

(91) buku ijo? kaŋgo Amy
book this for name

17
This book is for Amy'

(92) apartmen sim kuriŋ di handap-in apartmen andʒini
apartmen my-possession at below-suffix apartment your
‘My apartment is below yours’

Moreover, the preposition di ‘in/at’ precedes a set of adverbs to indicate location, see (93).

(93) di łəbət/ na əbət ‘inside’
di hondap-in ‘under/below’
di sobudɨr-in ‘around’
di luhur-iŋ ‘on (top of)/above’

The appearance of all these listed adverbs is always associated with the preposition di in the data, as the following sentences show:

(94) sim kuriŋ nudʒu aja di łəbət bəs
I am exist inside bus
‘I am on a bus’

(95) ufṣiŋ aja di hondop-ɨn kotak
cat exist under box
‘The cat is under the box’

The adverb di luhur-iŋ indicates the meaning of ‘something is on top of something else’. The underlying root luhur is attached to the suffix /-ɨn/, which also appears in other adverbs like hondap-iŋ and sobudɨr-iŋ. Note that when the root luhur appears as a verb or a verb-like, different suffixes are attached to it. See (96) below:

(96) Katie nja-luhur-an Abul kango syntax
name active-root-active name for syntax
‘Katie gets higher grade than Abul in Syntax’

In several sentences in the data, the word aja ‘exist/here’ shows up before prepositions, see (97) and (98). The presence of aja is important; otherwise, the meaning will not be conveyed.

(97) andʒiŋ aja di pasar
She exist at market
‘She is at the market’

(98) sim kuriŋ aja di sakala
I exist at school
‘I am here at school’

The word aja, which denotes the meaning of existence, seems to appear in sentences with no main verbs around; however, this is not consistent as there are instances where neither main verbs nor aja appear in a sentence (99). Thus, the presence of this word remains unknown.

(99) lampu di luhur-iŋ andʒina
light under you
‘The light is above you’

Interestingly, the word aja must agree with the subject in terms of number. In other words, singular subjects require singular form of aja, and plural subjects require plural form of aja. Since the word aja starts with a vowel, the infix (ar/arar) is prefixed to the word, instead of inserted. Consider the following
example:
(100) simut aja di sabud të-nil andʒîn
blanket exist in around-suffix you
‘The blanket is around you’

(101) s-ar-imut arar-aja di sabud të-nil andʒîn
blanket-(plural) (plural)-exist in-around-suffix you
‘The blankets are around you’

A final point to mention here is the use of tə to indicate negation in Sundanese. Two words in the data are found to function as negation markers ‘not’: həntə and tə. The former is used with verbs and adjectives, (102) and (103), while the latter only appears with the preposition tə disarəŋan ‘without’ (104).

(102) andʒîn na həntə dʒaŋkəŋ
he not-negation tall-adjective
‘He is not tall’

(103) andʒîn na həntə sumpiŋ
he not-negation come-verb
‘He doesn’t come’

(104) andʒîn na uwih ka bumi tə di-sarəŋ-an ku John
she go to home not be accompanied by name
‘She went home without him’

5.3. Declarative sentences

Sundanese is an SVO language. That is, subjects always precede verbs and objects while prepositional phrases or complements follow verbs. See examples below:

(105) sim kuriŋ masak
I cook
‘I cook’

(106) sim kuriŋ masak lauk
I cook fish-
do
‘I cook fish’

(107) sim kuriŋ masak lauk kaŋgo Katie
I cook fish do [for name]io
‘I cook fish for Katie’

(108) andʒîn parantos ḉaduruk kai
she past burn wood-
do
‘She burned the wood’

5.3.1. Reflexives

There are six different reflexive pronouns in Sundanese. Reflexives are always followed by the word ɲalira, which means ‘self’.

(109) Reflexives Gloss
andʒîn ɲalira ‘yourself’
andʒîn salarea ‘yourselves’
sim kuriŋ ɲalira ‘myself’
In the data collected, same personal pronouns that function as the main subject of the sentence are repeated and followed by the word ɲalira to indicate reflexiveness in Sundanese. Here are some examples:

(100) andžina parantos ɲadʒar andžina ɲalira piano
she past teach she self-reflexive piano
‘She taught herself the piano’

(101) andžina ɾosəp ɲarios ɲərkawis andžina ɲalira
he love to talk about he self-reflexive
‘He loves talking about himself’

Interestingly, two other words that indicate the reflexive meaning ‘self’ are found in the data: sora ɲan and diri. The participant indicated that both words ɲalira and diri are reflexives of people (112) while the word sora ɲan is used for non-humans (113).

(112) sim kuriŋ ɲalira diři
I hurt self-reflexive I self-reflexive
‘I hurt myself’

(113) utʃiŋ sim kuriŋ nudʒu gagaro sora ɲan
cat my progressive scratch self-reflexive
‘My cat is scratching itself’

The only difference found between the reflexives ɲalira and diri is that ɲalira follows the pronoun it describes while diri always precedes it. It even precedes the word ɲalira when both occur in one sentence, See (112).

Furthermore, when reflexives refer to objects ‘things’ like the word masin ‘machine’, for example, only the reflexive word ɲalira is used with no repeated pronouns. Consider the following example:

(114) masin par+ım ɲalira pas parantos ətosan
Machine switch off self-reflexive past finish
‘The machine switches itself off when it’s finished’.

Another interesting observation on reflexives is the use of intensive pronouns. When reflexives are used as intensive pronouns, reflexives must appear at the beginning of the sentence followed by a relative clause to indicate the meaning of ‘myself is the one who made this’, as exemplified below:

(115) sim kuriŋ ɲalira anu parantos ɲadəmәl kue iʃə
I self that-relative past make cake this
‘I myself made this cake’.

(116) maranehna ɲalira anu di-ɲәnәri
they self that-relative passive-hurt(intensive)
‘They themselves were hurt’.

(117) uraŋ salarea anu parantos ɲawaʃɨn iməh iʃə
we that-relative past build house this
‘We ourselves built this house’.

5.3.2. Passive construction

As indicated earlier in the morphology part, the passive form of the verb is formed by attaching the prefix (di-) to the underlying root, see (118):

(118) ən̂dʒɪnuploader
you passive-push
‘You are pushed’

The presence of the agent ku sim kuriŋ ‘by me’ following the verb di-dɔrɔŋ is optional. Also, it is optional to have compliments.

(119) ən̂dʒɪn uploaðer [ku sim kuriŋ] [ka sɔlokan]
you passive-push by-PREP me-agent to ditch
‘You were pushed [by me] [to the ditch]’

There are different affixes that are attached to the verb in its passive form. The first of which is the suffix /-an/. When it is added to the passive verb, the presence of agents becomes obligatory (120). Absence of agents in such cases will render ungrammatical sentences (121).

(120) ən̂dʒɪn di-dɔrɔŋ-an ku sim kuriŋ [ka sɔlokan]
you passive-push-suffix by me-agent to ditch
‘You were pushed by me [to the ditch]’

But not:

(121) *ən̂dʒɪn di-dɔrɔŋ-an [ka sɔlokan]
you passive-push-suffix to ditch
‘You were pushed [to the ditch]’

Another important suffix that can be added to the verb in the passive form is the suffix /-kɪn/. The addition of this suffix requires the sentence to have a locative complement. Unlike the suffix /-an/, the presence of the agent here is optional.

(122) ən̂dʒɪn di-dɔrɔŋ-kɪn ka sɔlokan [ku sim kuriŋ]
you passive-push-suffix to ditch by me-agent
‘You were pushed to the ditch [by me]’

But not:

(123) *ən̂dʒɪn di-dɔrɔŋ-kɪn [ku sim kuriŋ]
you passive-push-suffix by me-agent
‘You were pushed [by me]’

Similarly, the passive benefactive structure is formed by adding the prefix /di-/ to the root of the verb, and the presence of the agent is optional here, as exemplified in (124).

(124) lauk parantos di-pasak [ku sim kuriŋ] kango Katie
fish past passive-cook by me for name
‘The fish was cooked (by me) for Katie’

However, when the circumfix (di + root + an) is used for passive form, the presence of the agent becomes obligatory, see (125).

(125) lauk parantos di-pasak-an ku sim kuriŋ kango Katie
fish past passive-cook-suffix by me for name
‘The fish was cooked (by me) for Katie’

*lauk parantos di-pasak-an kaŋgo Katie

‘The fish was cooked for Katie’

Furthermore, to form passive with benefactive verbs, the circumfix (di + paŋ + V(active) + kɨn) is used, see (127). Note that the occurrence of the suffix /kɨn/ with the passive form requires a complement:

andʒɨn di-paŋ-masak-kɨn lauk ku sim kuriŋ
you passive-benefactive-cook-benefactive fish by me
‘You were cooked a fish by me’

Another important issue to be covered here is the difference between passive verbs in terms of intentional vs. accidental events. To indicate the accidental form of the passive forms, the prefix /ka-/ is attached instead of /di-/. Consider the following accidental passive verbs:

maranehna ɲalira anu ka-ɲəŋari
they self that-relative accidental-hurt
‘They themselves were hurt’ (Accidentally)

ramo sim kuriŋ ka-potoŋ
finger my- possessive accidental-cut
‘My finger got cut’

Now consider the same examples with intentional passive verbs:

maranehna ɲalira anu di-ɲəŋari
they self that-relative intentional-hurt
‘They themselves were hurt’ (Intentionally)

ramo sim kuriŋ di-potoŋ
finger my- possessive intentional-cut
‘My finger was cut’

5.3.3. Temporal adverbs

Temporal adverbs are adverbs that immediately precede main verbs or sometimes adjectives to indicate the time reference for the event in the sentence. Each tense has its own temporal adverbs in Sundanese. To indicate the past tense in Sundanese, the adverb parantos is used, as exemplified below:

sim kuriŋ parantos masak
I PAST cook(ACTIVE)
‘I cooked’

sim kuriŋ parantos bəθərasih kaŋgo kaluwarga sim kuriŋ
I PAST clean for family I-POSSESSIVE
‘I cleaned for my family’

However, when adjectives are involved, the temporal adverb kapuŋkur is used, instead, to indicate the past time of the event:

maranəŋha kapuŋkur bagdʒa
they were-PAST happy-ADJECTIVE
‘They were happy’

imah kapuŋkur bodas
house was-PAST white-ADJECTIVE
‘The house was white’

The temporal adverb nudʒu, on the other hand, is used to refer to the progressive form of verbs in Sundanese. Consider the two following examples:

(136)  sim kurijnudʒumasakiṇa
       I PROGRESSIVE cook(ACTIVE) now
       ‘I am cooking now’

(137)  sim kurijnudʒubəbərasih
       I PROGRESSIVE clean(ACTIVE)
       ‘I am cleaning’

For the future tense, there are two adverbs used: bade and bakal. The only difference between the two is that the former is used to refer to immediate or near future actions (138) and (139), and the latter is used for later or far future actions (140) and (141).

(138)  sim kurijnbadebəbərasih
       I FUTURE clean
       ‘I will clean now’

(139)  sim kurijnbademasaki
       I FUTURE cook
       ‘I will cook now’

(140)  sim kurijnbakaldi-rivas-kinkuimpēnanandʒin
       I FUTURE PASSIVE-surprise-SUFFIX by dream your
       ‘I will be surprised by your dream’

(141)  sim kurijnbakalmasakmijongonpajun
       I FUTURE cook(ACTIVE) next week
       ‘I will cook next week’

5.3.4. Relative clauses

The word anu ‘that/who/which’ is used to indicate relative clauses in Sundanese. It immediately follows the subject/object it relativizes. There are different structures of relatives depending on whether subjects or objects are being relativized. Only three possible structures of relative clauses are found in the data collected:

(142)  Relative clause structures
       a. S V Oi [S V ti]
       b. S V Oi [ti V O]
       c. S i [ti V O] V O

In (142a), the object of the main clause is relativized to become the object of the relative clause. A topicalization takes place where the object of the relative clause is fronted to become the subject of the clause. In such case, two ways are possible to from the relative clause:

(143)  Object of the main clause is relativized, object in relative clause
       a. anu + di(passive)-V(root) + ku + agent (pronoun)
       b. anu + agent(pronoun) + V(root)
       *but not agent(noun) + V(root)

Consider the following examples that illustrate these two structures, respectively:

(144)  sim kurijnhojоn niŋgal imah [anu di-waŋun ku andʒin]
I want to see the house that you built.

But not:

*I want to see the house that the father built.*

The second relative clause structure, as illustrated in (142b), shows that the object of the main clause is relativized to become the subject of the clause. In this case, the word *anu* immediately follows the object of the main clause, and it must be followed by the verb and a complement if the verb has a transitive nature. Consider the following examples:

(147) sim kuriŋ hojoŋ mɛsɛr lauk [anu ɲərət buku ɪʝə]  
I want to buy fish that-relative swim it very fast  
*I want to buy the fish that swims very fast.*

(148) istri [anu ɲərət buku ɪʝə] biasa sumpɪŋ ka imah sɪm kʊrɪŋ  
woman that write book this usually come to house my  
*The woman who wrote this book usually comes to my house.*

(150) lalaki [anu nuwaran tɑŋkal sɪm kʊrɪŋ] liŋɡɨ hɨ bumi itu  
man that cut tree my live in house that  
*The man who cut my tree lives in that house.*

A final point to make here is that both nouns and adjectives can be relativized in Sundanese. Noun phrases are relativized to indicate possessiveness (151) while adjectives are relativized to distinguish between intentional vs. unintentional actions (152).

(151) imah-na Katie  
house-possessive name  
*Katie’s house*  

Becomes:

imah-na anu Katie  
house that-relative name  
*Katie’s house* literally (The house that is Katie’s)

(152) sim kuriŋ nulak korsi əɡəŋ  
I push chair big  
*I pushed a big chair*  

Becomes:
sim kuriŋ nulak korsi anu agəŋ
I push chair that-relative big
‘I pushed the chair that is big’

6. Discussion

Regarding the three research questions of the study, the results’ section provided detailed answers to the first two questions about the phonotactic constraints of the Sundanese sound system, and the formation of words, phrases, and sentences. The current discussion section will address the third question by providing an interpretation of the current study’s findings and their relevance to the findings of previous work on Sundanese.

Phonologically, all the consonants found in the data were distinct phonemes, except for the glottal stop that was found to be inserted in certain environments. In Sundanese, glottal stops were inserted in three environments: at the beginning of words that start with vowels, at the end of words that end with vowels, and in the middle of some words to separate two identical vowels. As for vowels, data showed that, unlike previous findings that viewed the two vowels [o] and [ʊ] were acoustically similar with the former being more rounded. Regarding consonant and vowel clusters, data showed that both were allowed in Sundanese. Anderson (1972) explained that consonant clusters were not common in Sundanese, but he did not deny the possibility of their existence. Data from this study, although limited, showed that many words in Sundanese had clusters. This finding contradicts the claim of Anderson regarding the uncommonness of consonant clusters in the language.

Some phonological processes such as assimilation and dissimilation were observed in the data when nasals or plural markers (-ar and -arar) were involved. Particularly, when words contained approximants or nasal consonants. Data also showed that nasal consonants affected the following and preceding vowels due to nasality spread. Similarly, Anderson (1972) discussed nasality spread in his study and showed that nasality spread to affect all vowels following the nasalized consonant when a word contained a nasal consonant. Sometimes, the spread extended to affect vowels of adjacent syllables. He supported this claim by citing examples from (Robins, 1957, p. 91):

(153)   a. maro [mãro]   ‘to halve’
   b. maneh [màne̞h]   ‘you’
   c. ɲiar [ɲi̞̞ər]   ‘to seek’
   d. naian [nài̞ən]   ‘to wet’

Most Sundanese words consist of two syllables. However, words with one or more than two syllables were allowed in the language. The minimum syllable structure that could exist in Sundanese was V. Hanafi (1997) and Müller (2001), among others, agreed with this finding. Almost any consonant is allowed to occur as an onset except for the glide /j/. Moreover, the coda position of the first and second syllables in Sundanese are restricted to nasals, and a few other segments in the language. Due to the limited set of data, other studies were observed to check consistency. Van Syoc (1959) confirmed that restrictions on consonants applied in Sundanese where certain sound combinations were not allowed in the language.

Morphologically, Wessing (1976) explained that all Sundanese nouns, verbs, and adjectives could be pluralized. He showed that nouns were pluralized by reduplication while adjectives and verbs were pluralized by the infixation of (-ar/al). He added that only a few nouns like mass nouns could be pluralized using the same infixes of verbs and adjectives. However, data collected in this paper
contradicted this finding. Most Sundanese nouns, if not all, were pluralized by the infixations of (-ar/al) just like verbs and adjectives. Reduplication was also a way of making nouns plural in Sundanese. Furthermore, results showed that the agreement of nouns with verbs and adjectives in number as well as the order of affixes within words or sentences matter in the language. Some interesting observations that were noticed in the data included the attachments of certain affixes in Sundanese. Some affixes, like /-an/, required verbs to have objects or complements, otherwise they would be ungrammatical. Other affixes were attached to verbs only when more than one argument was involved, for example, the suffix /-kin/.

Moreover, some forms of verbs require certain words to precede or follow them in Sundanese sentences. For example, in the benefactive verbs, the word kango ‘for’ must follow the verb and precede the indirect object. In the causative form of verbs, the word miwaran ‘make’ preceded both the verb and the object.

Syntactically, results showed that nouns preceded all other determiners, adjectives, genitives, and possessive pronouns. Numbers and agentive modifiers, on the other hand, did not follow this rule; that is, they preceded other nouns. Furthermore, Sundanese is an SVO language; that is, subjects always precede verbs and objects while prepositional phrases or complements follow verbs. These results were similar to what have been found in previous literature (e.g., Hardjadibrata, 1985; Müller, 2001; and Doran and Bangga, 2022). Interestingly, the word aja ‘exist/here’, which denotes the meaning of existence, was present before prepositions in some sentences of the data, and it seemed to appear in sentences with no overt main verbs. This finding was not previously discussed in the literature of Sundanese, at least to the author’s knowledge. Since only a few sentences contained this word, rules that govern the presence of this word remained unknown and required further investigations.

Regarding reflexives, both nouns and adjectives could be relativized in Sundanese. Noun phrases were relativized to indicate possessiveness while adjectives were relativized to distinguish between intentional and unintentional actions. Reflexives were always followed by the word ḣalira, which means ‘self’. Interestingly, two other words were used in the data to indicate the reflexive ‘self’: soraŋan and diri. The two words ḣalira and diri were used for people while soraŋan was used for non-humans. The only difference found between ḣalira and diri was that ḣalira followed the pronoun it described while diri always preceded it. It even preceded the word ḣalira when both occurred in one sentence.

Another interesting finding about Sundanese syntactic structures was observed in the use of Sundanese temporal adverbs. To indicate the past tense, the adverb parantos was used. However, when adjectives were involved, a different temporal adverb was used, kapuŋkur. For the future tense, two adverbs were used in the language: bade and bakal. The adverb bade was used for immediate or near future actions, while bakal was used for far future actions.

7. Conclusion

This paper provides a morphological, syntactic, and phonological analysis of Sundanese, an indigenous language that is spoken in West Java, Indonesia. Sundanese people, although they form one of the largest ethnic groups in Indonesia, showed a tendency towards teaching their younger generations Indonesian and English instead, the two official languages in the country. This, if continued, would pose a threat to the stability of Sundanese and result in causing the language to become endangered. More than two hundred words of the Swadesh list were translated, transcribed, and used in sentences by a male informant who is a native speaker of the language. The current study aims to contribute to the literature...
of the language by providing some linguistic characteristics of Sundanese and comparing results to what has been introduced in the literature. Data were observed, and patterns were grouped and categorized for analysis. Results showed some similarities and differences to the findings of other previous works in the field. Conclusions were drawn and comparisons were made where appropriate.

Acknowledgments

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Conflict of interest

The author declares no conflict of interest.

References


## Appendix

Table A1. Swadesh list chart.

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<th>English word</th>
<th>Singular</th>
<th>Plural</th>
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<td>dilaləlbət</td>
<td></td>
</tr>
<tr>
<td>with</td>
<td>sarəŋ</td>
<td>saraɾəŋ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>and</td>
<td>dʒiŋ</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>if</td>
<td>?upəmiʔ?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>because</td>
<td>komargiʔ?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>name</td>
<td>nəmiʔ((polite)  nəraʃ</td>
<td>narami</td>
<td>naramaɾi</td>
<td>dinami</td>
</tr>
</tbody>
</table>

(Continued)