THE PHONOLOGY OF TAUSUG: A DESCRIPTIVE ANALYSIS

by

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We accept this thesis as conforming to the
required standard

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ABSTRACT

In the last few years there has been a steadily growing interest in linguistic science. As a result, more and more of the languages of the world are coming within the range of linguistic scrutiny. This interest is increasingly manifested in Philippine linguistics as evidenced by the number of languages and dialects of the country that have already been and are being explored.

Some Philippine languages have been extensively investigated, while others have been insufficiently explored. Linguistic investigation of Tausug (which is the native language of the investigator) is urgently needed. Except for the work entitled "The Phonemes of Tausug" by Seymour and Lois Ashley of the Summer Institute of Linguistics (SIL), no other linguistic studies of the language have been done. In view of the inadequacy, this present work on a synchronic descriptive analysis of Tausug phonology is here made available.

The purpose of this study is to give a sufficiently comprehensive description of the phonological phenomena of Tausug, with the end in view of providing basic explanations concerning the phonological system of the language which should be useful to those interested in Tausug linguistics. It is also hoped that the analysis will be of some pedagogical significance - in teaching a second language to native speakers of Tausug and in providing a theoretical foundation for future
modifications and innovations in the Tausug orthographical system.

In the main, the phonological analysis of Tausug centers on the dialect of Siasi town proper (STP), of which the investigator is a native speaker. Whenever possible, however, discussions of the dialectal varieties are included. An attempt is also made to provide for general categories valid for all dialects.

As suggested in the title, 'The Phonology of Tausug: A Descriptive Analysis', the method of approach to the study of the sounds of the language is descriptive. This is made possible by means of the physiological approach, and primarily the articulatory technique. Using the speech organs as a familiar frame of reference, the phonetic raw material of the language is analyzed and described first. Phonological analysis, however, goes beyond the phonetic level. The ultimate aim is to establish the phonemic system of the language, hence, the need for the classification of the phonetic raw material into functional units, i.e., the phonemes. Certain fundamental criteria such as phonetic similarity, complementary distribution, pattern congruity, and identity of function are observed in the phonemic classification. With the use of the contrasting pairs (minimal pairs, which differ only in one feature or phoneme), the establishment of the identity of each of the phonemes of
Tausug is further strengthened. To complete the analysis of Tausug phonology, brief discussions of the suprasegmental features and the morphophonemics of the language are included.

Although thoroughness and accuracy has been aimed at, the analysis is far from being exhaustive or complete. Completeness in any linguistic investigation is unattainable as long as language keeps on changing and knowledge of linguistic science keeps on advancing. And with the dearth to date of linguistic studies of the Tausug language, this present analysis of the phonological structure of the language permits no more than tentative conclusions.
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I wish to express my gratitude to several people without whose help this thesis would not have been possible; to Dr. Robert Gregg, my faculty adviser, who saw through the work from the formulation of the problem to the final accomplishment of the project; to Miss Ruth McConnell in whose class the writer gained encouragement and interest in making this study in modern linguistics; to Dr. Fred Bowers who carefully went over the final draft of this thesis; and to my friends, Misses Rosario Maminta and Georgina Rivera, who willingly helped proofread the manuscript.

The writer was initiated into the field of linguistics and second language teaching when she worked in the Elementary Education Division, Bureau of Public Schools, Republic of the Philippines. She was given all the necessary support and training by Miss Fe Manza, chief, English Section and Mrs. Catalina Velasquez-Ty, chief, Upper Primary Section. To them, I also express my appreciation.

This study was made possible through a scholarship grant from the External Aid Office, Government of Canada. The International House provided a home away from home for the writer. To these two institutions, I wish to express my sincere thanks and appreciation.
MAP OF THE PHILIPPINES SHOWING THE TAUSUG-SPEAKING PROVINCE (SHADEd)
1. INTRODUCTION

Of the two languages spoken in the Sulu Archipelago, a province at the southern tip of the Philippine Islands, Tausug is considered the prestige language of the area.\(^1\) It is spoken as a native language by approximately 304,612 people living throughout the scattered islands of the province and as a second language by many immigrants from various parts of the country.\(^2\) Most of the speakers of Tausug occupy the islands of Jolo, Siasi, Pandam, Lugus, Tapul, Pata, etc. A considerable number are scattered in some areas of Zamboanga, Basilan, Davao, Lanao, Bukidnon, Cotabato, and Palawan (see map).

1.1 Background of the Present Study

Present-day Tausug represents not only a cumulative native development but also an assimilation of words from various languages, notably Sanskrit, Malayan, Indonesian, Chinese, Arabic, Spanish, Japanese, and more recently English.

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\(^1\) Seymour and Lois Ashley, "The Phonemes of Tausug", Papers on Philippine Languages, (Manila: The University of the Philippines (UP) and the Summer Institute of Linguistics (SIL) Publication, 1963, p. 7. In this paper the authors state that there are three languages spoken in Sulu-Tausug, Samal, and Yakan. However, to the knowledge of the investigator, Yakan is not spoken anywhere in Sulu. It is the language of the neighboring city of Basilan. And since geographically as well as politically Basilan is not a part of Sulu, it is logical that Yakan should not be considered as one of the languages of the province.

\(^2\) The number of Tausug speakers is based upon the Census of 1960.
Words like *pansit* 'rice noodle', *madjong* 'mahjong', and *halikya* 'wooden shoes' are of Chinese origin. *Gitara* 'guitar' is Spanish, while *apa* 'thin wafer' is Japanese. A great number of Moslem names are Arabic, aside from lexical items such as *makru* 'taboo', *Ramadan* (month of fasting), *dakdak* 'to wash', *Jabur* 'book of Moses', etc.

Tausug words like *lupa* 'likeness', *walna* 'color', *mulka* 'curse', and *surga* 'heaven' seem to be of Sanskrit origin and correspond respectively to Sanskrit words *rupa* 'likeness', *varna* 'color' or 'caste', *murcha* 'to incite wrath', and *svarga* 'abode of light'. Loan words from English are *pulis* 'police', *iskul* 'school', *tarak* 'truck', *balibul* 'volleyball', *miting* 'meeting' or 'conference', etc.

Except in careful educated speech, more often than not, as evidenced by the examples given above, words adopted into the language lose their foreignism. They usually assimilate to the form of native words, the foreign sounds being replaced by approximate native equivalents.

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Due to unavailability of reference materials, the investigator is not in a position to give sufficient examples of lexical items borrowed from other languages. Influences of such languages are evident not only in the language but also in the culture of Tausug.
As one of the estimated eighty-seven languages of the Philippines, Tausug falls under the general classification of the Malayo-Polynesian family. It appears to have close phonological as well as syntactical resemblances with many Philippine languages like, for instance, Tagalog and Cebuano.

Unlike Tagalog, Cebuano, and other Philippine languages, not very many linguistic studies have yet been made of the Tausug language. If there has been any linguistic investigation at all, it is almost insignificant. The investigator is aware of only one linguistic study of the language and that is the work done by Seymour and Lois Ashley cited in footnote No.1. This pioneering investigation provides a summary description of the phonemes of Tausug, but it is not sufficiently comprehensive to give all the desired information concerning the phonological system of the language. In view of the inadequacy of linguistic materials on the Tausug language, and with today's seemingly growing interest in Philippine linguistics, it is imperative that a more comprehensive investigation of the language be made available.

1.2 Purpose of the Analysis

Whether any given analysis is desirable or successful depends primarily on the purpose for which it is intended. In this study, attempt is made to provide basic information on the phonological system of Tausug, modest though it may be, as
reference material for students of linguistics who may be interested in the Tausug language. Moreover, the analysis may be of use for pedagogical purposes. This includes applied linguistics and orthography.

This study offers neither a mass of detailed data nor any startling new theory but is an attempt to provide basic explanations concerning the phonological phenomena of Tausug. With the dearth of linguistic information on the language, the data included in this study should prove useful for those who have an inclination towards making further linguistic investigation of the Tausug language.

Basic knowledge of the phonological structure of Tausug is important in the teaching of a foreign language to native speakers of the language. Extensive experience has shown that better insights into the learning of a new language are gained by having an accurate knowledge of the native tongue. Better instructional materials and methods of teaching a foreign language are drawn from a systematic comparison of the learner's native tongue and the target language to be learned. The starting point, therefore, for an efficient program of second-language teaching for Tausug speakers is a scientific study of their native tongue.

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This study also intends to contribute something towards redefining the orthography of Tausug. In the past, Tausug has no established writing system of its own. Native speakers have used either the Arabic alphabet (in the case of those who are graduates of the Arabic school), or the Roman alphabet (in the case of those who are educated in the modern school). Of the two, the Roman alphabet has been the more widely used.

There have, however, been no fixed rules on the proper use of the Roman alphabet in relation to the language, so that diverse ways of representing phonemes that have no corresponding letters in the Roman alphabet have resulted. In representing the glottal stop (glottal catch) /ʔ/, for instance, some have used the accent mark /'/. Others have used the letter h when the glottal stop is word final. Still others have left it unmarked. A word like kaha ['kaha? ]'frying pan' has been orthographically represented as kaha, kahah, or kaha. Not one of the three representations of /ʔ/, however, shows any relationship or connection with the sound in question. Unless expressed orally or written in context, the form kaha, or kahah, is liable to be mistaken for kaha ['k ahah ]'safe' (for keeping valuables).

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5 It was only very recently, with the inclusion of the vernacul as the medium of instruction in the curriculum of Grades I and II, that some tentative rules have been laid down on the use of the Roman alphabet in writing textbooks in Tausug.

6 In the first pre-primer of the Tausug series, the glottal stop is left unmarked. For consistency the same orthographical representation will be used in this analysis.
In this study, the ultimate objective is to establish the phonemic system of the Tausug language, analyzing the vowel and consonant phonemes. To set up an orthographical system which is more representative of the phonemes of the language, the analysis undertaken here may prove useful and appropriate as a theoretical foundation.

1.3 Scope and Delimitation

On account of their number and the great distances between the islands of Sulu, marked dialectal variations are inevitable. Identifiable differences in speech are noticeable, for instance, between the dialects of Jolo and Siasi. By general observation, Tausug speakers of Jolo tend to speak with relatively faster tempo compared to the relatively slow and somewhat dragging pace characteristic of the dialect of Siasi. Further distinction is made also between the dialect spoken in Siasi Town proper (STP) and the dialect spoken in the rural areas, often referred to as Gimbahanun 'people from the farm'. The STP is spoken with less muscular tension than the Gimbahanun. In this thesis, particular attention is given to the dialect of STP which is the dialect spoken by the investigator. For convenience, the analysis of the sounds of Tausug will be restricted to the pronunciation of words found in the active vocabulary of the investigator. Another person's speech would be likely to yield an almost identical description although some of the examples might vary slightly.
Although most of the discussions that will soon follow apply to the dialect of STP and the idiolect of the investigator in particular, attempts will be made to provide for general categories which are valid for all dialects of the language. Whenever possible, inclusion of other dialectal varieties of the language will be made in the course of the discussions.

Following each Tausug example in the text is a gloss ('________') which gives an approximate meaning of the Tausug item in English. To give the exact meaning of the examples in English is, however, often difficult. Sometimes only rough translational equivalents are suggested. In working with a language that is as remote from the English culture as Tausug, the inadequacy of translational equivalents alone is obvious. The metaphors, associations and linguistic extensions are quite different in both languages.

As suggested in the title, the scope of this thesis will be limited to the phonological aspect of Tausug. The ultimate pursuit of this phonological analysis is the identity of the functional units of the sounds of Tausug; in other words; the establishment of its phonemic system. However, certain matters which are basic to an understanding of the structure of speech sounds and the processes of articulation need to be considered first. For this reason, this thesis will include some basic considerations underlying speech analysis (the organs of speech, the use of the IPA, and the criteria used in phonemic analysis), the
sounds of Tausug (i.e., the phonetic raw material), the syllable structure, the segmental phonemes, the suprasegmental features, and the morphophonemics of the language.

An exhaustive analysis of the suprasegmental features however, cannot possibly be achieved here. Unlike the segmentals, the suprasegmentals are not easy to analyze. Even the suprasegmental features of the English language which have been subject to linguistic investigation for many years cannot be said to have been fully established. For suprasegmentals are, in short, much more elusive than the segmentals.

Neither is there an attempt in this thesis to provide a complete description of the entire phonological system of the language. Completeness is impossible and can never be attained as long as linguistic investigations are going on. And since Tausug has been inadequately explored, this modest attempt at the analysis of the phonological structure of the language permits no more than a tentative formulation.

1.4 Method of Approach

Present-day linguistics offers several approaches to the phonological study of any given language. In point of time, a particular language may be studied from a diachronic or synchronic point of view. In terms of technique of analysis, it may either

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From a diachronic point of view, the study of the sounds of a language is made over a period of time. It is, in other words, historical. On the other hand, synchronic study of the language is done at a certain point of time. This thesis deals with the present status of the Tausug language.
be descriptive or comparative. As the title suggests, and with a language like Tausug which has no orthography of its own, and therefore no written accounts of the past language, this first attempt at a comprehensive study of the sound system of the language is purely a synchronic descriptive analysis.

To arrive at a description and analysis of the speech sounds of Tausug, two linguistic approaches are made available: The approach may be made from the physiological point of view of the articulatory organs and processes involved (Articulatory phonetics) and the study of the sound waves as perceived by the hearer's ears (auditory phonetics). The other approach, which is so recent that its "full impact on linguistics has not yet been felt", is primarily concerned with the physical characteristics of sounds as revealed by machines such as the sound spectrograph. It is known as acoustic phonetics.

Neither of the two approaches to the study of the speech sounds producible by the human voice can be categorically designated as the only approach to the exclusion of the other. Even linguists and phoneticians are not yet agreed on any one single framework to use in all linguistic investigations or descriptions. To a large extent, the merits of any one approach are determined by the study itself, especially the purposes for which it is intended. In view of this, the physiological or articulatory

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approach in particular, is believed to be the more suitable for the purposes set forth in the first part of this chapter.

There are good practical reasons for the arbitrary limitation to the use of the articulatory type of study which linguists have been using. It is the oldest and the best established means of describing a language with a full terminology based on familiar and observable physiological phenomena. For beginners in linguistics and for non-specialists, most of the terms are not difficult to comprehend.

Even without the use of elaborate equipment, the investigation can be carried on through the physiological approach. The organs of speech responsible for production and differentiation of speech sounds can be readily and profitably studied. They are fairly accessible to visual observation either directly or through the use of simple devices like a mirror or flashlight. Besides, many people, especially language teachers, are already acquainted with the vocal apparatus and its behavior, on which the descriptions of sounds are based.

Although, in the main, description and classification of speech sounds of Tausug are based on articulation, auditory consideration cannot be totally ignored. The presence or absence of

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audible friction, for instance, is an auditory criterion basic in consonant-vowel distinction. It supplements in a valuable way articulatory differentiations.

In the analysis of the suprasegmental features, the criteria used are fundamentally based on auditory judgment.

Preliminary to the classification of the speech sounds of Tausug into functional or relevant units, that is, phonemes, an analysis of the phonetic raw materials is undertaken. The phonemes of the language are established on the basis of certain fundamental criteria such as the distributional relationship existing between sounds, phonetic similarity, identity of function, pattern congruity (neatness of pattern), and economy of analysis.

For convenience of analysis of the phonological structure of Tausug, the investigator believes that the most logical order is to discuss first the preliminary considerations to speech analysis before the discussion of the sounds of the language follows. Next, to establish the syllable patterns of the language, which is thought to be useful as the basis for a better description and classification of the segmental phonemes of the language which follows immediately. Discussions of the segmental phonemes include the interpretation of the semivowels, description and classification of vowels, consonants, diphthongs, triphthongs,

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and consonant clusters. To complete the phonological analysis of the language, the suprasegmental features and the morphophonemics of the language are included. The final chapter contains a brief summary and some concluding statements on the analysis.

1.5 Definition of Terms

Some terms which are considered basic to a better understanding of the analysis of the phonological structure ought to be defined here.\(^{12}\)

The TAUSUG LANGUAGE refers to the means of communication used by a group of people (the Tausug) in the province of Sulu. Tausug is considered a language in its own right, not a dialect of any other Philippine language, since it is not mutually intelligible with any of the other language groups of the country. By DIALECT is meant "the variety of language spoken by the members of a single homogeneous speech community."\(^{13}\)

According to Hockett, a dialect is a collection of more or less similar idiolects. IDIOLECT refers to the totality of the speech habits of a single individual at a given point of time.\(^{14}\)

\(^{12}\)Whenever necessary, in the text, some other terms which need clarification are explained in the footnotes.

\(^{13}\)Francis, op. cit., p. 43.

\(^{14}\)Hockett, op. cit., p. 321.
Communication within a language group is carried on by means of utterances. An UTTERANCE is defined in this thesis as any stretch of speech produced by a person before and after which there is silence.\(^\text{15}\) It may be a one-syllable word or a long, complicated sentence.

Utterances are made up of sequences of speech sounds the study of which is known linguistically as PHONOLOGY. This includes both phonetic and phonemic, segmental and suprasegmental considerations and the corresponding categories involved. By PHONETIC is meant a general description of events of speech structures. These include all features of sounds whether relevant or non-relevant, distinctive or non-distinctive.

PHONEMIC, on the other hand is restricted as a term to refer to those speech sounds that are relevant and distinctive and that serve to bring out contrasts between word forms. Such speech sounds have differentiating features or characteristics which are called DISTINCTIVE FEATURES. In the text, distinctive feature does not always mean a choice between two polar qualities as described by Jakobson, Fant, and Halle in their Preliminaries to Speech Analysis.\(^\text{16}\) In the sense used here, any feature of speech which characterizes or distinguishes a phoneme from other phonemes is a distinctive feature of that phoneme.


\(^{16}\)For discussion of the binary analysis of the distinctive features of phonemes, refer to Jakobson, Fant, and Halle, *Preliminaries to Speech Analysis* (Massachusetts: MIT Press, 1965).
2. BASIC CONSIDERATIONS TO SPEECH ANALYSIS

Before attempting a descriptive analysis of the phonology of Tausug, certain matters which are considered important to better understanding of the structure of speech and the processes of speaking have to be discussed here. These includes (1) the use of the International Phonetic Alphabet (IPA)\(^\text{17}\), (2) the organs of speech, and (3) the criteria used in phonemic analysis.

2.1 The Use of the IPA

In discussing the phonological phenomena of any given language, it is necessary as well as convenient, to have consistent symbols of notation correlated with the sounds to be observed and classified, a representation that gives a one-to-one correspondence with the sounds to be represented.\(^\text{18}\) The IPA has been devised to meet such a need. Although it cannot be claimed as 'the' only possible and permissible means of recording speech sounds, the IPA is the best established and most widely used, hence its preferential use in this thesis. "To use different symbols for each new language", to quote Swadesh, would make linguistic science extremely difficult.\(^\text{19}\)


\(^\text{18}\)A set of graphic symbols giving a consistent representation of speech is known as phonetic transcription. For the purpose of accuracy in recording phonological phenomena, phonologists have developed what is called narrow transcription which indicate precisely every phonetic details, and broad transcription which indicate only the relevant or functional units of sound.

Only the portion of the IPA which is pertinent to the phonological analysis of Tausug will be used in this text, along with some of the modifying symbols which may be useful for showing several kinds of differences in articulation of sounds as in some of the dialects of the language. Other special symbols and sounds not found in the IPA manual, but which are currently used and are considered useful in representing some speech phenomena of Tausug are included. A few more symbols, whenever necessary, are explained as they are used in the text.

Table of Symbols and Signs

Vocoids and Contoids

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Tausug Example</th>
<th>Approximate Equipment in English</th>
</tr>
</thead>
<tbody>
<tr>
<td>[i]</td>
<td>pila [ˈpʰɪlah]</td>
<td>'how much'</td>
</tr>
<tr>
<td>[ɪ]</td>
<td>kalis [ˈkʰalIs]</td>
<td>'kris'</td>
</tr>
<tr>
<td>[ɨ]</td>
<td>pisu [ˈpʰisU?]</td>
<td>'sprain'</td>
</tr>
<tr>
<td>[a]</td>
<td>taas [ˈtʰaʔaʔas]</td>
<td>'height'</td>
</tr>
<tr>
<td>ɑ̃</td>
<td>kaun [ˈkʰaʔaʔUn]</td>
<td>'will get'</td>
</tr>
<tr>
<td>ə</td>
<td>baha [ˈbʰəhəʔ]</td>
<td>'maybe'</td>
</tr>
<tr>
<td>[u]</td>
<td>pulu [ˈpʰuləʔ]</td>
<td>'red'</td>
</tr>
<tr>
<td>[u]</td>
<td>bud [ˈbud]</td>
<td>'mountain'</td>
</tr>
<tr>
<td>[u]</td>
<td>subul [ˈsuʔul]</td>
<td>'young man' or 'bachelor'</td>
</tr>
<tr>
<td>[w]</td>
<td>buku [ˈbuʔkuʔ]</td>
<td>'not' or 'no' (negation)</td>
</tr>
<tr>
<td>[A]</td>
<td>buku [ˈbukAʔ]</td>
<td>'bone'</td>
</tr>
<tr>
<td>Symbol</td>
<td>Tausug Example</td>
<td>Approximate Equipment in English</td>
</tr>
<tr>
<td>--------</td>
<td>----------------</td>
<td>--------------------------------</td>
</tr>
<tr>
<td>[γ]</td>
<td>manghud ['mæŋhud]</td>
<td>'younger brother' or 'sister'</td>
</tr>
<tr>
<td>[p]</td>
<td>pasu ['p'asUh]</td>
<td>'flower pot'</td>
</tr>
<tr>
<td>[b]</td>
<td>basu ['basUh]</td>
<td>'drinking glass'</td>
</tr>
<tr>
<td>[β]</td>
<td>abaga ['ʔa'βagah]</td>
<td>'shoulder'</td>
</tr>
<tr>
<td>[t]</td>
<td>tau ['t'aUh]</td>
<td>'people'</td>
</tr>
<tr>
<td>[d]</td>
<td>daan ['daʔon]</td>
<td>'old' (of things)</td>
</tr>
<tr>
<td>[k]</td>
<td>kaan ['k'aʔon]</td>
<td>'get from' or 'get for'</td>
</tr>
<tr>
<td>[g]</td>
<td>gaan ['gaʔon]</td>
<td>'weight'</td>
</tr>
<tr>
<td>[ɣ]</td>
<td>agarun ['ʔa'ɣarUn]</td>
<td>'will follow'</td>
</tr>
<tr>
<td>[ʔ]</td>
<td>abal ['ʔaβal]</td>
<td>'current'</td>
</tr>
<tr>
<td>[h]</td>
<td>habal ['haβal]</td>
<td>'news'</td>
</tr>
<tr>
<td>[ř]</td>
<td>ahad ['ʔaħad]</td>
<td>'Sunday'</td>
</tr>
<tr>
<td>[s]</td>
<td>sabal ['saβal]</td>
<td>'stoic'</td>
</tr>
<tr>
<td>[m]</td>
<td>maug ['maʔUg]</td>
<td>'possessive'</td>
</tr>
<tr>
<td>[n]</td>
<td>nanug ['na'naʔUg]</td>
<td>'went down'</td>
</tr>
<tr>
<td>[ŋ]</td>
<td>ngan ['ŋa:n]</td>
<td>'name'</td>
</tr>
<tr>
<td>[l]</td>
<td>ladju ['ladjUh]</td>
<td>'farness'</td>
</tr>
<tr>
<td>[r]</td>
<td>radju ['radjUh]</td>
<td>'radio'</td>
</tr>
<tr>
<td>[k]</td>
<td>karna ['k'aʔmaʔ]</td>
<td>'that is why'</td>
</tr>
<tr>
<td>[j]</td>
<td>jaga ['jaʔah]</td>
<td>'guard'</td>
</tr>
<tr>
<td>[y]</td>
<td>yari ['yarIh]</td>
<td>'here' or 'it is here'</td>
</tr>
<tr>
<td>[w]</td>
<td>walu ['walUh]</td>
<td>'eight'</td>
</tr>
</tbody>
</table>
Suprasegmentals and Some Modifying Symbols

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
<th>Tausug Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>[']</td>
<td>Superior vertical tick used to symbolize prominence on following syllable on the phonetic level</td>
<td>anarun [ə'na:rUn] 'will learn'</td>
</tr>
<tr>
<td>[ ’ ]</td>
<td>Acute accent used to indicate primary stress on the phonemic level</td>
<td>anarun /anárun/</td>
</tr>
<tr>
<td>[ ]</td>
<td>Low pitch level</td>
<td></td>
</tr>
<tr>
<td>[ 2 ]</td>
<td>Normal pitch level</td>
<td></td>
</tr>
<tr>
<td>[ 3 ]</td>
<td>High pitch level</td>
<td></td>
</tr>
<tr>
<td>[ 4 ]</td>
<td>Extra high pitch level</td>
<td></td>
</tr>
<tr>
<td>[↓]</td>
<td>Falling intonation</td>
<td></td>
</tr>
<tr>
<td>[↑]</td>
<td>Rising intonation</td>
<td></td>
</tr>
<tr>
<td>[↑↓]</td>
<td>Sustained intonation</td>
<td></td>
</tr>
<tr>
<td>[↓↑]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Suprasegmentals and Some Modifying Symbols

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
<th>Tausug Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>[']</td>
<td>Superior vertical tick used to symbolize prominence on following syllable on the phonetic level</td>
<td>anarun [ə'na:rUn] 'will learn'</td>
</tr>
<tr>
<td>[ ’ ]</td>
<td>Acute accent used to indicate primary stress on the phonemic level</td>
<td>anarun /anárun/</td>
</tr>
<tr>
<td>[ ]</td>
<td>Low pitch level</td>
<td></td>
</tr>
<tr>
<td>[ 2 ]</td>
<td>Normal pitch level</td>
<td></td>
</tr>
<tr>
<td>[ 3 ]</td>
<td>High pitch level</td>
<td></td>
</tr>
<tr>
<td>[ 4 ]</td>
<td>Extra high pitch level</td>
<td></td>
</tr>
<tr>
<td>[↓]</td>
<td>Falling intonation</td>
<td></td>
</tr>
<tr>
<td>[↑]</td>
<td>Rising intonation</td>
<td></td>
</tr>
<tr>
<td>[↑↓]</td>
<td>Sustained intonation</td>
<td></td>
</tr>
<tr>
<td>[↓↑]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
<th>Tausug Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ]</td>
<td>Single bar juncture for short pauses within an utterance</td>
<td>Nami aku ista [bugas] iban sayul</td>
</tr>
<tr>
<td>[</td>
<td></td>
<td>]</td>
</tr>
<tr>
<td>[:]</td>
<td>Slightly aspirated articulation</td>
<td>ud [ʔuːd] 'worn'</td>
</tr>
<tr>
<td>[:]</td>
<td>Full length</td>
<td>subul [su.ʔu] 'young man' or 'bachelor'</td>
</tr>
<tr>
<td>[:]</td>
<td>Half length</td>
<td></td>
</tr>
<tr>
<td>[··]</td>
<td>Centralization</td>
<td>pisu [ˈpisu?] 'sprain'</td>
</tr>
<tr>
<td>[&quot;]</td>
<td>Labialization</td>
<td>kugan [ˈkʰuyon] 'will be happy'</td>
</tr>
<tr>
<td>[~]</td>
<td>Nasalization</td>
<td>mampailam [mãmˈpailam] 'mango'</td>
</tr>
<tr>
<td>[  ]</td>
<td>Brackets used to enclose phonetic transcription</td>
<td>taikud [ˈtʰaikud]</td>
</tr>
<tr>
<td>/ /</td>
<td>Slashes used to enclose phonemic transcription</td>
<td>taikud /ˈtʰaikud/</td>
</tr>
</tbody>
</table>

To facilitate description of the vocoids of Tausug, it is necessary to have a frame of reference such as the cardinal vowel chart to be used as a kind of standard measure.

\[^{21}\text{IPA, op.cit.}, pp. 4-9.\]
Figure 2: The Cardinal Vowel Chart

Front  Central  Back

Close

Half-close

Half-open

Open
The vowels represented in the above chart do not belong to any one language, but have been chosen by Daniel Jones to represent certain well-defined tongue positions. The cardinal [i] is the closest possible front vowel represented roughly in English by the vowel in the word see [si:]. The cardinal [a] is the most open of the back vowels found in Southern English pronunciation of far [far:]. The [e], [ɛ], and [a] as shown in the above chart belong to the front series, spaced out equally, and intermediate between [i] and [a], while [ɔ], [o] and [u] are vowels of the back series continuing the same scale of equal acoustic separation. A neutral vowel called schwa, [ə], is intermediate between the regions of cardinal [e-ɛ] and [o-ɔ] (See Figure 2).

Articulation of each of the cardinal vowels is accompanied by either a 'spread', 'neutral', or 'rounded' lip position. Cardinals [i, e, ɛ, a, ɔ] have 'spread' or 'neutral' lip positions, while [ɔ, o, u] are articulated with different degrees of lip rounding. The [ə] has normally a neutral lip position.

The sound which is produced with the mouth less open and the tongue raised toward the palate is referred to as a close or high vowel. Thus [i] and [u] are close vowels. They are the closest vowels that can be produced on the higher level, so that they are said to have reached the vowel limit. Opposite to the close vowels are the so-called open or low which are made with the mouth widely open and the tongue lying low in the mouth. The [a] and the [ɔ] vowels fall under this classification. Intermediate between a close and an open vowel are vowels which are called half-close, in the case of those nearest to the close vowels (i.e., [ɛ] and [ɔ]) and half-open, in the case of those midway between half-close and open vowels (i.e., [ɛ] and [ɔ]).
2.2 The Organs of Speech

The speech mechanisms which are universal to all human beings play a very important role in the process of speaking. In studying the speech sounds of any given language from the articulatory point of view, a detailed enumeration and classification of the organs of speech and the way they are used will prove useful as a frame of reference.

In general, for most languages like Tausug, for instance, speech sounds are usually made with outgoing breath from the lungs which is modified in one way or another by the organs of speech that it passes through. Discussions of the speech mechanisms will be made in the order in which the breath-stream passes them after having been released from the lungs through the bronchial tubes and the trachea.

The first resonance chamber that the breath-stream goes through is a box-like structure of cartilage at the upper end of the trachea called the larynx, or more commonly, the 'Adam's apple'. It contains two membranes known as the vocal bands which can be relaxed and kept apart, leaving a narrow passage so that the air passing through produces audible friction like the [h] at the beginning of English hand and the Tausug ['hagül] 'blanket'. The vocal bands can also be drawn tightly together or only partially opened. When completely closed, so that air is

---

23 It should be made clear that the organs of speech referred to are only functioning secondarily as such. The primary functions of these organs are eating and breathing.
Figure 3: A cross section of the head showing the organs of speech
not allowed to pass and then opened suddenly, the resultant sound is a glottal stop [?] which occurs as the initial and final sounds of Tausug word asibi [ʔaˈsiβiʔ] 'small' and also in the English emphatic exclamation ouch! [ʔaʊtʃ]. When the vocal bands are partially opened, the current of air forces itself through, causing them to vibrate. The sound waves caused by the vibration of the vocal bands is known as voice, and sounds formed with the accompaniment of the laryngeal vibration are referred to as voiced sounds. Those sounds made without accompaniment of voice are called voiceless sounds.\textsuperscript{24}

According to Hall and Hockett, the vocal bands determine the pitch, and the force with which the current of air is expelled from the lungs determines the volume of sound.\textsuperscript{25}

From the laryngeal resonance chamber, the current of air goes through the pharynx where it may be modified by means of constriction made by the back of the tongue brought close or in contact with the back wall of the throat, resulting in what is called the pharyngeal or pharyngealized sound. This type of sound, however, does not occur in Tausug.

Just above the pharynx is the velum from which hangs the fleshy tip called the uvula. The back most part of the velum is known as the velic,\textsuperscript{26} which determines whether a sound is pronounced with nasal resonance or not. When the velic is opened, the breath-stream is allowed to escape through the nose,

\textsuperscript{24}All vowels and certain consonants are always voiced. Certain consonants are always voiceless.

\textsuperscript{25}Hall, op. cit., p. 42. 
Hockett, op. cit., p. 66.

\textsuperscript{26}Hall loc. cit., p. 42.
resulting in a nasal articulation. When it is closed, the current of air is channeled through the oral cavity exclusively.

Most of the points at which the breath-stream can be modified are found in the mouth or oral cavity. The tongue, an extremely flexible and movable organ, plays the major role. As illustrated by the diagram of the organs of speech on page 22, the tongue has five parts to it, which phoneticians distinguish as important in speech production. Any of these parts can be raised or lowered, fronted or retracted. Any articulation in which the tongue is raised toward the roof of the mouth is called close or high and one in which the tongue is lowered is called open or low. In like manner, the terms front and back correspond respectively to the forward and backward movements of the tongue. When the surface of the tongue is suppressed so that a trough is formed through which the air passes, creating a hissing noise, the resultant sounds are known as sibilants. On the other hand, where the tongue surface is pressed against the roof of the mouth and air is allowed to pass on one or both sides of the tongue, the articulation made is called a lateral.

There are other areas of articulation in the oral cavity such as the series of regions in the roof of the mouth. From back to front are the velum or soft palate, the hard palate, the gum-ridge or alveolum, and the back surface of the upper front teeth. Customarily, sounds made in each of these regions
are described as velar, palatal, alveolar, and dental. On occasion, a sound may involve more than one region, so that a combination of adjectives is used to describe such articulations. A sound, for instance, made intermediate between the alveolium and the hard palate is referred to as an alveo-palatal sound. A sound which is made with the tip of the tongue pushed out in between the upper and lower teeth is formed as an interdental sound.

The articulation of a sound may involve the use of the lips, so that a sound produced with both lips participating is called a bilabial. A neutral or a spread lip position, or a projection and rounding of the lips may accompany the articulation of a sound.

It should be mentioned, however, that except for the vocal bands, it is difficult to make sharply defined limits for all the regions of the organs of speech just discussed. Their areas in the anatomical tract are only approximately identified. In such a case, "it is not", says Hall, "possible to identify the place of articulation of any given sound with mathematical precision".

2.3 Criteria Used in Phonemic Analysis

In analyzing the phonological structure of a given language, the first consideration is to describe the phonetic raw material as produced by the speech organs, the sounds which
make the actual events of speech. The ultimate aim of a phono- logical analysis, however, is to go beyond the level of the raw materials, to find adequate and clearly defined categories into which the physical events or phones (speech sounds) can be classified. In other words, to identify the functional units of sounds which are called phonemes. In so doing, certain criteria such as the following are normally observed in the process of classification.

1. **Criterion of distribution.** Distribution applies to the sum of contexts under which speech sounds occur, i.e., the position in which the speech elements are found with respect to each other and to other phones. If two elements of speech stands in the same position with respect to each other but function differently, they are said to be in contrast with each other. Thus, in Tausug, [pʰ] and [b] in pasu ['pʰasUh] 'flower pot' and basu ['basUh] 'drinking glass' have the same phonetic environment in that both occur word initial. However, they cannot be classified to the same phoneme since they contrast with each other phonetically as well as semantically. In such a case, [pʰ] and [b] are said to be in contrastive distribution.

But when two or more phones occur in the same phonetic environment (as in the case of [i] and [I] in pidpid ['p'idpId] 'trembling'), and do not contrast with each other, they are said to be in non-contrastive distribution. In cases where one
phone occurs and the other does not, and vice versa, so that they complement each other, the phones are said to be in complementary distribution. The normal phenomenon in Tausug is for the [i] phone to occur in stressed syllables and the [I] vocoid to appear in unstressed syllable as in the above example, pidpid ['p’idpId]. However, in some Tausug speech, these two phones alternate freely in both stressed and unstressed syllable. In such a case, [i] and [I] are said to be in free variation or free alternation.

2. Criterion of Phonetic Similarity. To be considered as similar enough for purposes of classification as members of the same phoneme, a group of phones must share the same phonetic feature or features which are not shared by other phone-types in the language. The Tausug [i] and [I] share the same high-front tongue position and the relatively moderate lip spreading. Both are voiced sounds. Similarly, [t’] and [t] in tahud ['t’ahUd] 'spur on roosters’ legs' and duhat['duhat] 'a kind of fruit', although distributionally they belong to different environments, are grouped under the same phoneme because of their intrinsic similarity in point of articulation as well as voicelessness.

3. Criterion of Identity of Function. As a corollary to the criteria of distribution and phonetic similarity, a group of phones may be classified on the basis of their identity of function. To illustrate this, reference to the preceding examples. The [t’]
and [t] sounds in ['t'chUd] and ['duhɒt] although functioning in two different environments do not necessarily suggest that they belong to different phonemes since the use of one for the other does not change the meaning of the words, although the phenomenon may not be common in the language. But when another dental sound like [l] is used in place of the [t] in ['duhɒt], the resultant word is duhal ['duhal] 'to hand over' (something). This criterion of identity of function serves to prevent grouping of disparate speech sounds on the basis of distribution and phonetic similarity. Thus, Tausug [m, p, b] in mugmug ['mugmUg] 'to gurgle' pugpug ['p'ugpUg] 'softened by pressure', and bugbug ['bugbUg] 'porridge' although they are phonetically similar as bilabials and have identical distribution, cannot, however, be grouped into one phoneme since they differ in function and contrast with one another as manifested by the differences in meaning.

4. **Criterion of Pattern Congruity.** Although according to Sapir there is no language that forms a water-tight system, and that we should be suspicious if too pretty a picture results from the phonemic analysis of phonetically asymmetrical situations, nevertheless, in every phonemic system 'skewness' is often avoided and the tendency toward 'symmetry' is sought. In Tausug, for instance, there is the problem of whether to interpret the initial sounds of juwalan 'fried banana' as a single phoneme, /j/, or a

\[25\] Hall, op. cit., p. 97.
cluster of two consonants, /dʒ/. Using, however, the criterion of neatness of pattern, the sound is interpreted as a single phoneme, since interpreting it otherwise would render the phoneme different from other consonants in the language which appear only singly in word initial position, never in clusters.

Another example to illustrate the working of this criterion of pattern congruity is the grouping together of [p'] and [p] in pukul ['p'ukUl] 'armless' or 'fingerless' and lukup ['lukUp] 'to scrub the mossy substance from . . .' and [k'] and [k] in kitab ['k'itab] 'bible' and battik ['battIk] "Indonesian fabric" into phonemes /p/ and /k/ respectively in congruity with the [t'] and [t] in tahud and duhat which are grouped into the phoneme /t/.
3. THE SPEECH SOUNDS OF TAUSUG

The whole range of Tausug phonetic raw material made by the organs of speech may be conveniently divided into two main types: those in which the organs of speech are used to form resonance chamber through which the breath-stream passes without any audible friction, and those in which the current of air is obstructed in one way or another resulting in a complete block or audible friction. These two classes of speech sounds are referred to as vocoids and contoids respectively.

3.1 Vocoid

A vocoid is a type of sound which involves primarily resonance. The most important single factor responsible for the production of the vocoids is the position of the tongue in the oral cavity. Normally, vocoids are described according to three factors: the tongue height (high or low), the tongue advancement (front to back), and the lip position (spread, neutral, or rounded).

With the use of the schematic representation of the organs of speech on page 22 and the cardinal vowel chart on page 19, and with the use of some English keywords that roughly represent some of the cardinal sounds (IPA manual, p.9), the vocoids of Tausug may be conveniently discussed.

Starting with the high front vocoid, the most commonly heard variety is the medial sound of Tausug word bid [bi:d] 'hill' which closely approximates the tongue position
of the cardinal [i] in English keyword bead [biːd]. Compared to English, however, the front of the tongue surface is not raised so high in the mouth. The tongue is relatively less tense for Tausug and the lips are not so spread as they are in English. In terms of quality of sound, Tausug [i] in the example cited above is relatively shorter in duration than that of English. However, lengthening of the vocoid in Tausug does not have any significant effect on the word, so that [biːd] or [bid] are equally acceptable. Vowel length, in other words, is non-phonemic in the language.

Normally, the vocoid [i] occurs in stressed syllables, which is usually the 'penultimate' (or second to the last) syllable in a word. As illustrated in the examples following, [i] patterns freely with almost all contoids of Tausug, except that it does not occur after [y].

<table>
<thead>
<tr>
<th>Word</th>
<th>Pronunciation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>pila</td>
<td>[ˈpɪlah]</td>
<td>'how much'</td>
</tr>
<tr>
<td>tinga</td>
<td>[ˈtɪnəh]</td>
<td>'extra appendage'</td>
</tr>
<tr>
<td>kila</td>
<td>[ˈkɪlah]</td>
<td>'to recognize'</td>
</tr>
<tr>
<td>bilas</td>
<td>[ˈbɪləs]</td>
<td>'sore eyes'</td>
</tr>
<tr>
<td>dila</td>
<td>[ˈdɪlaʔ]</td>
<td>'tongue'</td>
</tr>
<tr>
<td>gila</td>
<td>[ˈgiləh]</td>
<td>'careless'</td>
</tr>
<tr>
<td>ila</td>
<td>[ˈɪləh]</td>
<td>'birth mark'</td>
</tr>
<tr>
<td>hilla</td>
<td>[ˈhɪləʔ]</td>
<td>'to pull'</td>
</tr>
<tr>
<td>miskin</td>
<td>[ˈmɪskɪn]</td>
<td>'poor'</td>
</tr>
</tbody>
</table>
niyat [niyat] 'desire' or 'ambition', etc.
ngilu [njilU?] 'gum' (in the mouth)
sila [silah] 'they' (subjective case)
jilun [jilUn] 'to put in jail'
lilla ['lilla?] 'to give up' or 'to surrender'
riha [rihah] 'to put it here'
bawi-a [ba'wi-?ah] 'retrieve it'

The distinctive quality of the [i] sound, whether the duration is long or short, is retained in stressed syllables. However, in cases where the stress shifts to another syllable as a result of suffixation, like kila ['k'ilah] 'to recognize' becoming kilahun [k'I'lahUn] 'will recognize' the weaker stress leads to a perfectly acceptable normal substitution, the [I] vocoid. This variety is much lower and somewhat more centered than [i]. The tongue is more lax and the lips are less spread. The [I] sound is relatively shorter in duration than [i]. Position-wise, [I] is intermediate between cardinals [i] and [e]. A sample of the environmental conditions in which [I] occurs in relation to the contoids of Tausug is listed below:
tapil ['t'apIl] 'to put side by side'
bati ['batI?] 'awake'
pikil ['p'ikIl] 'to think'
sabit ['saBIt] 'to hook' (something on . . . )
landi ['landI?] 'coquettte'
tag:i ['t'ayIh] 'fondness for . . . . '
As obviously manifested by the above samplings, [I] patterns with all contoids of the language except that it never follows [y].

A third variety of the high-front vocoid is heard in words like liag [lyag] 'was being looked up', kait [k'ayt] 'safety pin', kiait [k'yayt] 'was pinned', etc., which is represented by [y]. It has a tongue position higher than [i], and much closer to that of the cardinal [i]. The muscles of the tongue for [y] are more tense and the position of the lips is usually conditioned by its phonetic environment, the sound preceding or following it. Thus, in liag, the lips are loosely spread, while in kiait, both [y] are more drawn to the sides of the mouth than the [y] in [lyag]. In a word like biusan ['byusan], the lip position for [y] anticipates that of the vocoid [u] which is rounded.
In the high back range, there are as many vocoids as there are in the high front series. Starting from the highest possible variety, there is the [w] vocoid which parallels the high front vocoid [y] in tongue height. This sound is heard in words like buad [bward] 'to dry' laum [lawm] 'inside', buaun [brawn] 'to rock a baby to sleep, etc., It approximates very closely the tongue position of cardinal [u] in English too [tu:], although for [w] the lips are more pushed forward and the muscles of the tongue are relatively more tense.

Another vocoid of the high-back series is heard in words like bud [bud] 'mountain', kuta ['kuta?] 'fort', uban ['?ilan] 'white hair', subul ['su3Ul] 'young man' or 'bachelor', etc., which has a tongue position just a little lower and moved more toward the center than that of cardinal [u] in English too [tu:]. For Tausug, this vocoid (which is symbolized as [u]) has a more relaxed tongue position, loosely spread lips, and the duration of the sound is relatively shorter than that of English. Like [i], its high-front counter-part, [u] may be lengthened or shortened without losing its distinctive quality, neither the long nor the short quality affecting significantly the words where it occurs. Such a vocoid is commonly found in a stressed syllable and is observed to occur with almost all the contoids of the language, except [w].
Thus:

<table>
<thead>
<tr>
<th>pulak</th>
<th>[p'ulak]</th>
<th>'abortion'</th>
</tr>
</thead>
<tbody>
<tr>
<td>tulak</td>
<td>['t'ulak]</td>
<td>'to push'</td>
</tr>
<tr>
<td>kulang</td>
<td>['k'ulaŋ]</td>
<td>'lacking'</td>
</tr>
<tr>
<td>burak</td>
<td>['burak]</td>
<td>'powder'</td>
</tr>
<tr>
<td>dusa</td>
<td>['dusah]</td>
<td>'sin' or fault'</td>
</tr>
<tr>
<td>gula</td>
<td>['gula?]</td>
<td>'molasses' or 'nectar'</td>
</tr>
<tr>
<td>ulan</td>
<td>['?ulan]</td>
<td>'rain'</td>
</tr>
<tr>
<td>hula</td>
<td>['hula?]</td>
<td>'place'</td>
</tr>
<tr>
<td>mula</td>
<td>['mulah]</td>
<td>'will become red'</td>
</tr>
<tr>
<td>nunuk</td>
<td>['nunUK]</td>
<td>'balete tree'</td>
</tr>
<tr>
<td>nguya</td>
<td>['ŋuya?]</td>
<td>'to chew'</td>
</tr>
<tr>
<td>subul</td>
<td>['suβUl]</td>
<td>'young man' or 'bachelor'</td>
</tr>
<tr>
<td>juba</td>
<td>['juβa?]</td>
<td>'robe'</td>
</tr>
<tr>
<td>lura</td>
<td>['lura?]</td>
<td>'sputum' or 'to spit'</td>
</tr>
<tr>
<td>ha ruhul</td>
<td>[ha'ruhUl]</td>
<td>'at the end'</td>
</tr>
<tr>
<td>yubus</td>
<td>['yuβUs]</td>
<td>'was finished'</td>
</tr>
</tbody>
</table>

A lower variety of [u] is observable in some of the examples listed above like, for instance, nunuk ['nunUK], subul ['suβUl], ha ruhul [ha'ruhUl], and yubus ['yuβUs]. It is apparent that the vocoid [U] occurs in unstressed syllables. To illustrate further its occurrence in such phonetic context, a list of words are provided below. Save for [w], the [U] variant is shown to pattern with almost all contoids of the language.
Positionwise, the [U] vocoid stands intermediate between cardinal [u] and [o], that is just a little lower and more central than the vocoid [u]. It resembles very closely the articulation of the vocoid in English put [pUt], except that for Tausug [U], the muscles of the tongue are more lax and the lips are less rounded.

All the vocoids just discussed are made with the tongue raised high in the mouth, but with the tongue laid low in the oral cavity, in central position, and with the lips unrounded and
relaxed, a vocoid transcribed as [a] is produced. This sound is normally found in words such as the following:

- **pais** ['p'a?Is] 'skin'
- **taas** ['t'a?qas] 'height'
- **balu** ['balUh] 'widow' or 'widower'
- **dahun** ['dahnUn] 'leaf'
- **manis** [;manIs] 'charm'
- **nanaug** [na'na?Ug] 'went down'
- **sabun** ['sabUn] 'soap'
- **jaga** ['jayaŋ] 'guard'
- **lara** ['larah] 'pepper'
- **radju** ['radjuh] 'radio'
- **yari** ['yarIh] 'here'

In comparison to the cardinal [a] in the Northern English pronunciation of **pan** ['pan], the Tausug vocoid in ['p'a?Is], is not so low in the mouth. Approximately, its location in the cardinal vowel chart is intermediate between cardinals [a] and [ɑ], but a little raised (see Figure 4).

It has been interestingly observed that the [a] vocoid occurs following either a bilabial, dental or alveopalatal contoids. In cases where the preceding sound is a velar or a glottal contoid, another variety which is more back and somewhat lower than [a] has been noted to occur. The vocoid in question resembles very closely the cardinal [a] in Southern English pronun-

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25See section 3.2 for discussion of the contoids of Tausug.
elation of far [far], and is, therefore, represented with the same symbol, [a]. A sampling of words where this sound occurs are provided below:

- kaun [ˈkɑːn] 'will get'
- anarun [ˈɑːnarən] 'will learn'
- gadja [ˈɡadə] 'elephant'
- nγan [ˈnγn] 'name'
- habul [ˈhɑbul] 'blanket'
- pakain [pɑkɑn] 'where' (Interrogative pronoun)
- maandum [ˈmɑʔundəm] 'cloudy'
- agarun [ˈɑɡərən] 'will follow'
- mangadji [ˈmɑʔədəjiʔ] 'will read the Koran'
- mahaba [ˈmɑʔabaʔ] 'long'
- jawabun [ˈjaʔabaʔun] 'will bargain' or 'to answer back'
- kakas [ˈkɑkɑs] 'ringworn'
- paa [ˈpɑʔə] 'thigh'
- abaga [ʔɑʔəgəʔ] 'shoulder'
- paha [ˈpɑʔə] 'band for the navel'
- lawa [ˈlɔwaʔ] 'spider'

In some types of informal speech, a more centered and raised sound than [a], which is just directly below the cardinal [a] fluctuates freely with either one of the two varieties of the low central vowel already discussed ([a] and [a]). This vocoid is symbolized as [e] and may be heard in words such as baha [ˈbехə]

The precise position for the [ə] sound may vary among Tausug speakers, with the tongue being relatively higher than [a].

To visualize better the approximate positions of the vocoids discussed above, the cardinal vowel chart is drawn below with the vocoids of Tausug roughly indicated on it. The smaller dots (.) represent the vocoids of the language, while the bigger (©) are representative of the cardinal sounds (Figure 4).

Figure 4: A modified Cardinal Vowel Chart showing the approximate location of the Tausug vocoids.
As clearly illustrated in the above diagram, there are a total of nine vocoids that are commonly heard in the Tausug of STP, equally apportioned into the high-front, high-back, and low-centered ranges.

On occasion, any of the vocoids of Tausug may be modified in contact with the adjacent sounds. The most frequent modification is nasalization. In words like, *mampallam* 'mango', for example, the vocoid in the first syllable is pronounced with slight degree of nasalization as a consequence of the two nasal sounds preceding and following the vocoid. Thus *mampallam* may be transcribed as \[m\dddot{a}m'pallam\] with the symbol \[\sim\] used to represent nasalization.

Another dimension of variation in vocoid is length. Although it has been pointed out in preceding discussions that shortening and lengthening of vocoids is non-phonemic in Tausug, phonetically, there is considerable difference between a vocoid in a stressed and unstressed syllables. In the Tausug word *ahad* 'Sunday', for instance, the \([\alpha]\) in the first stressed syllable is relatively longer than the vocoid in the second unstressed syllable. Compared to *ad* 'fence', however, the first \([\alpha]\) in *ahad* is relatively shorter. Thus, *ahad* is transcribed as \[/\alpha.h\dot{a}d/\] and *ad* \([?a:d]\).

Vocoids usually form the syllabic centers, being the most sonorous sounds, normally voiced and produced without impediment
in the oral cavity. In cases where two vocoids occur in the
same syllable, so that one is more sonorous than the other, the
less sonorous is classified as semivocoid and forms what is
known as a phonetic diphthong with the full vocoid. The semi-
vocoids correspond to the high-front vocoid [y] and the high-
back vocoid [w]. These two sounds function only as such and
never as full vocoids. Sometimes the semivocoids are referred
to as glides due to their characteristic movements which are
made by rising or falling from one point to another with swift
transition.

The more commonly heard phonetic diphthongs of Tausug
which occur immediately following or preceding contoids are
listed below with examples:

<table>
<thead>
<tr>
<th>[ya]</th>
<th>piara</th>
<th>['p’yarah']</th>
<th>'was sent'</th>
</tr>
</thead>
<tbody>
<tr>
<td>bia</td>
<td>['bya?']</td>
<td>'as if'</td>
<td></td>
</tr>
<tr>
<td>giaus</td>
<td>['gya?Us']</td>
<td>'could afford to . . .'</td>
<td></td>
</tr>
<tr>
<td>hiatud</td>
<td>['hyatUd']</td>
<td>'escorted' or 'returned'</td>
<td></td>
</tr>
<tr>
<td>niat</td>
<td>['nyat']</td>
<td>'desire' or 'aspiration'</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>[ay]</th>
<th>paigu</th>
<th>['paygÜ?']</th>
<th>'to take a bath'</th>
</tr>
</thead>
<tbody>
<tr>
<td>taikud</td>
<td>['t’aykUd']</td>
<td>'back' or 'behind'</td>
<td></td>
</tr>
<tr>
<td>dain</td>
<td>[dayn]</td>
<td>'from'</td>
<td></td>
</tr>
<tr>
<td>saing</td>
<td>[sayn]</td>
<td>'banana'</td>
<td></td>
</tr>
<tr>
<td>lain</td>
<td>[layn]</td>
<td>'to transfer'</td>
<td></td>
</tr>
</tbody>
</table>
kait [k'ayt] 'safety pin'
gaid [gayd] 'as a matter of course'
qil [?ayl] 'moslem way of cleansing before prayer time'
hain [hayn] 'to put something on ...'
puasa ['p'wasah] 'fasting'
luan [lwan] 'cargo'
tuangun ['t'wɑŋUn] 'will pour'
suat [swat] 'to dry'
paus [p'aws] 'to chew sugarcane'
daugdug ['dawgdUg] 'thunder'
biula ['byulah] 'violin'
jiuk [jyuk] 'answered back with sarcasm'
piunug ['p'yunUg] 'fainted'
biugan ['k'uyan] 'was happy'
piunug ['p'yunUg] 'coconut palm tree'
biugan ['k'uyan] 'will relate something' (gossips, news, etc.)
A possible variation of [yu] is [yU] which might be heard sometimes in stressed syllables like in the above given examples. The [yU] diphthong is, however, often heard in unstressed syllables in the following words:

- piulakan [p'yUlakan] 'deliberate abortion'
- titiu ['t'i7yU?] 'very little'
- kiulangan [k'yUlangan] 'was decreased' or 'reduced'
- diugalan [dyU'gulan] 'was angry'
- jiwalan [jyU'walan] 'was fried' (of banana)
- siulayan [syU'layan] 'tried'
- hiugasan [hyU'yasan] 'was washed'
- liura?an [lyU'ra?an] 'spat on . . . '

As clearly shown in the foregoing examples, the syllabic element in a diphthong is always lower than the glide. The diphthongal movement for [ya], for example, starts from the position of [y] which is a little above the vocoid [i], then moves in the direction of the low central vocoid [a]. Sometimes in informal speech, the [a] vocoid may be heard instead of [a]. The gradual opening of the jaw is obvious as articulation shifts from one sound to the next, so is the change in lip position from spread to neutral.

The diphthongal movement of [ay] is just the opposite of [ya]. Articulation proceeds from the position of vocoid [a], then
moves rapidly but smoothly in the direction of the high front semivocoid [y]. The same directional movement is also observable with the [ɔy] diphthong except that in the latter, the starting point is the vocoid [ɔ] instead of [a]. The closing movement of the jaw and the change from neutral to spread lip position are characteristics of these diphthongs. The [ay] diphthong is observed to occur only when following bilabial, dental, or alveopalatal contoids. In the case of [ay], it is found to occur following velar or glottal contoids.

Symmetrically opposed to [ya] is the diphthong [wa]. The articulatory movement begins from the high back semivocoid [w], then moves to the position for that of [a]. In gliding downward, the opening movement of the jaw is again noticeable. The change from rounded to neutral lip position can also be observed.

Like the [ay] diphthong, the [aw] counterpart starts articulatory movement with the low central vocoid [a], but glides up into the high-back semivowel [w] instead of the high-front [y]. The lips change from a neutrally opened to a rounded position. In the case of [aw], diphthongal movement is related to [a] in the same way [ɔy] is related to [ay].

The [yu] diphthong has a starting point that is practically the same as the [ya] diphthong. However, with [yu], movement is made in the direction of the high back vocoid [u]. Change in lip position from spread to rounded is observable.
A parallel articulation is valid for the \([\text{w}[\text{i}]\] diphthong in words like \([\text{mwi}]\) 'to go home', but movement starts with the high-front semivocoid heading toward the vocoid quality for \([i]\), although perhaps sometimes a little lower, nearer to \([\text{I}]\). The lips change from rounded to loosely spread position.

A phonetic diphthong has been observed as a combination of one semivocoid and a full vocoid. In cases where two semivocoids and a full vocoid are involved within the same syllable, the resultant combination is called a phonetic triphthong. The commonly distinguished phonetic triphthongs of Tausug are the following:

\[
\begin{array}{lll}
[\text{yay}] & \text{kiait} & [\text{kyayt}] & \text{'safety pin'} \\
[\text{liain}] & [\text{lyayn}] & \text{'was transferred'} \\
[\text{waw}] & \text{duawn} & [\text{dwnwn}] & \text{'to double' (something)} \\
[\text{buaun}] & [\text{bwawn}] & \text{'to rock a baby to sleep'} \\
[\text{yaw}] & \text{siaud} & [\text{syawd}] & \text{'was received (with receptacle)} \\
[\text{biaus}] & [\text{byaws}] & \text{'was bargained'} \\
[\text{way}] & \text{buaih} & [\text{byaih}] & \text{'to place rattan on something'} \\
[\text{kuaich}] & [\text{kweyh}] & \text{'to wind'} \\
\end{array}
\]

The \([\text{yay}]\) triphthong is articulated with movement starting from the \([\text{y}]\) position, then moving towards the syllabic vocoid \([\text{a}]\) and back to where articulation started. Movement from one sound to the other sound is so fast that the transition between each sound is hardly noticeable. Starting with the high-back semivocoid, the same articulatory movement for \([\text{waw}]\) is made.
Symmetrically opposed to each other in articulatory movements are the triphthongs [yaw] and [way]. For [yaw], articulation proceeds from the position for [y], then moves quickly towards the position for the low central vocoid [a], then glides up again into the direction for [w]. The opposite articulatory movement is valid for [way].

3.2 Contoids

As has already been expressed earlier in the chapter, a contoid is a sound involving audible turbulence of the current of air at one point or another in the vocal tract, or else a complete interruption of the air-stream in the resonance chambers.

Basically contoids are described on the basis of three major criteria: the point of articulation, the manner of articulation, and the presence or absence of voice.

By point of articulation is meant the place in the resonance chamber where articulation of a contoid takes place. Usually a pair of articulators serve to define the basic points of articulation. Contoids made with the upper and the lower lips brought together, like the Tausug [p,b,ζ,m] in pila ['pilah] 'how much', basu ['basU] 'drinking glass', abaga ['a'baγa] 'shoulder' and maas ['ma?as] 'old' (refers to person) respectively, are referred to as bilabials. While [p,b,m] are articulated with the lips completely closed, [ζ] is made with a small aperture which permits the air-stream to pass through causing audible friction. This sound is observed to occur only in intervocalic position as in
the example abaga [ʔɑ'baɣa].

A large number of Tausug contoids such as [t] in tau ['taʔUh] 'people', [d] in daan ['daʔon] 'old' (referring to things), [s] in sabal ['saʔal] 'stoic', [n] in nanaug [na'naʔUg], 'went down', [l] in ladju ['ladjUh] 'farness', and [r] in radju ['radjUh] 'radio' can be classified in dentals since the articulatory organs involved are usually the tip of the tongue and the back of the upper teeth coming in contact with each other. However, there is considerable variation in the exact point of articulation. In the case of [t] for instance, articulation is usually interdental as in tau ['t'aʔUh] 'people', tubu ['t'uɓUh] 'sugar-cane' and timul ['t'ɪmUl] 'north'. The first [t] of tas tas ['tastas] is also interdental, but the second one, due to the influence of the preceding [s] sound, is articulated at the back surface of the teeth. With [d] and [n] in daan ['daʔon] and nanaug [na'naʔUg] respectively, the tongue tip is at the base of the teeth, sometimes closer to the alveolar area. The [s] in sabul ['saʔUl], [l] in ladju ['ladjUh], [r] in radju ['radjUh] are articulated with the tip of the tongue on the alveolar ridge just behind the base of the teeth. In some words of Sanskrit origin, a variety of [r] made with tip of the tongue curled toward, but not touching, the alveopalatal region is heard. This is transcribed as [ɾ] as in the words karna ['k'aʔnaʔ] 'that is why', warna [wa'naʔ] 'color', and parman ['p'aʔmaʔ] 'word (of God), or 'message'.
When the front of the tongue is pushed against the extreme front of the palate but close to the alveoli, an alveopalatal sound is made, which is symbolized as [j] as in the initial sound of jaga [‘jaygh] 'guard' juba [‘juhgha?] 'robe', jambanan [jam’banan] 'plant', etc.

Some contoids are made further back in the mouth with the back surface of the tongue moved toward the velum or soft palate. Such contoids are known as velars and to this classification belongs the contoids [k.g.y.n] in words like kalis [‘k’alis] 'kris', gandum [‘gandUm] 'earn', agad [‘?yad] 'to follow', and ngan [ŋa:n] 'name'. Unlike [k.g.n], the contoid [ɣ] is limited in distribution. It occurs only in intervocalic environment, never elsewhere.

Another point of articulation is found in the laryngeal area where the closing, then exploding of the vocal bands results in a glottal catch [ʔ]. This is the sound heard at the beginning and the end of the word asibi [ʔa’siβi?] 'small'. A less prominent (or even potential) glottal stop is heard in intervocalic position, i.e., hambuuk [ham’bu?uk] 'one'.

When the vocal bands are widely opened so that the airstream passes out with some friction through it without obstruction, the [h] contoid which is the initial sound in habul ['həbUl] is produced. A partially voiced variety of [h], transcribed as [ʰ], has been observed to occur between vocoids as in the examples
The second criterion used in characterizing as well as differentiating contoids is the manner in which they are produced. Generally, on the basis of such criterion, contoids are classified into stops and continuants. Stops refer to contoids characterized by momentary closure of the passage of air. Following is a list of Tausug contoids classified under stop sounds. Examples showing their occurrences in various phonetic environments are also provided:

<table>
<thead>
<tr>
<th>Syllable initial:</th>
<th></th>
<th>Syllable final preceding another stop</th>
</tr>
</thead>
<tbody>
<tr>
<td>pisu</td>
<td>['p'isU?]</td>
<td>taptap</td>
</tr>
<tr>
<td>tilu</td>
<td>['t'ilU?]</td>
<td>patta</td>
</tr>
<tr>
<td>kilu</td>
<td>['k'ilUh]</td>
<td>pukpuk</td>
</tr>
<tr>
<td>bilu</td>
<td>['bilUh]</td>
<td>sabtu</td>
</tr>
<tr>
<td>dugu</td>
<td>['duyU?]</td>
<td></td>
</tr>
<tr>
<td>gandum</td>
<td>[gandUm]</td>
<td></td>
</tr>
<tr>
<td>andum</td>
<td>['?andUm]</td>
<td></td>
</tr>
<tr>
<td>jaum</td>
<td>[jawm]</td>
<td></td>
</tr>
</tbody>
</table>

Examples:
- pisu ['p'isU?] 'sprain'
- tilu ['t'ilU?] 'to throw'
- kilu ['k'ilUh] 'kilo'
- bilu ['bilUh] 'blue'
- dugu ['duyU?] 'blood'
- gandum [gandUm] 'corn'
- andum ['?andUm] 'cloud'
- jaum [jawm] 'needle'
- taptap ['t'aptap] 'always'
- patta ['p'atta?] 'picture'
- pukpuk ['p'ukpUK] 'to pound' or 'to hammer'
- sabtu ['sabtu?] 'Saturday'
Normally, there are three phases to a stop: the catch or implosion, the hold or occlusion, and the release or explosion. In syllable initial, all stop contoids are released. Some like [p,t,k] are slightly aspirated. Thus, the symbol ['] immediately following each of them in syllable initial is used to indicate stops with released and slightly aspirated articulation. When occurring in syllable final preceding another stop (see second set of examples), or when occurring in word final position (of last set of examples), the stop contoids are unreleased.

Contrary to the stops, the continuants are characterized not only by constriction but also with some degree of aperture at one point of articulation. They are produced by restricting
but not completely obstructing the flow of air from the lungs. Among the contoids of Tausug, different types of continuants are distinguished according to the various ways in which the breath-stream may be channeled, to produce audible friction.

The so-called fricative contoids are produced with the organs of speech involved brought nearly together and the breath forced out equally over the entire region of near contact, thus, causing audible friction. To this category, the Tausug \([\beta,s,y,h,\dot{h}]\) are classified. Contoids \([s]\) and \([h]\) occur in unlimited distribution - syllable initial as well as syllable final. On the other hand, \([\beta,y,\dot{h}]\), as has already been pointed out, are limited in their distribution. They occur only in inter-vocalic environments.

Nasal is another type of continuant which is produced when the air is impeded at some point in the oral cavity and channeled through the nose, thus producing a nasal resonance. The contoids \([m,n,n]\) fall under this classification and they are observed to occur in unlimited distribution.

Another type of continuant is made with the air passing out at one or both sides of the tongue. The term lateral is used to designate such type of sound. In Tausug, only the \([l]\) contoid falls under this category as in the words \(\text{lapal} ['\text{lapal} '] 'words'\), or 'message', \(\text{palpal} ['p'alpal'] 'deaf', \text{sabal} ['\text{sagal} '] 'stoic', etc.\)
The last type of continuant is known as flap. It is articulated by rapid movement of the tongue tip against the alveolar region. The dental-alveolar flap [r] is commonly heard in intervocalic position in native words such as ha ran [ha'ran] 'on the road', parang ['p'araŋ] 'grass', baran ['baran] 'body', iru ['?irU?] 'dog', purul ['p'urUl] 'pure', etc. The [r] occurs initially and finally in words of foreign origin like radju ['radjUh] 'radio', ruhul kudus [ruhUl 'k'udUs] 'holy spirit', kapir ['k'apIr] 'heathen', Jabur ['jaßUr] 'writings of Moses', etc. The alveopalatal [a] occurs also in loan words, in syllable final position, preceding contoids like [m] and [n] in such words as parman ['p'arman] 'word of God' and warna [wa'una?] 'color', respectively.

Finally, the contoids of Tausug are characterized, differentiated and classified on the basis of voicing. Contoids made with the accompaniment of vibration of the vocal bands are classified as voiced. To this group a large series of the contoids of the language are categorized: [b,β,d,ɡ,ɣ,m,n,n,l,r,u,ɦ]. The voiceless contoids are [p,t,k,ʔ,s,h].

As a general summary of the discussions of the speech sounds of Tausug, the charts below which show the entire range of Tausug vocoids, phonetic diphthongs and triphthongs, as well as contoids have been drawn up:
Figure 5: A Chart of Tausug Vowels

<table>
<thead>
<tr>
<th>Front</th>
<th>Central</th>
<th>Back</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>[y]</td>
<td>[w]</td>
</tr>
<tr>
<td></td>
<td>[i]</td>
<td>[u]</td>
</tr>
<tr>
<td></td>
<td>[ɪ]</td>
<td>[u]</td>
</tr>
<tr>
<td></td>
<td>[ɛ]</td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>[a]</td>
<td>[a]</td>
</tr>
</tbody>
</table>

**Phonetic Diphthongs**

- [yu]
- [ya]
- [ay]  [aw]
- [ay]  [aw]

**Phonetic Triphthongs**

- [yay]
- [yaw]
- [waw]
- [way]
**Figure 6: A Chart of Tausug Contoids**

<table>
<thead>
<tr>
<th>Subtype</th>
<th>Bilabial</th>
<th>Dental-Alveolar</th>
<th>Alveo-palatal</th>
<th>Velar</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stop</td>
<td>p</td>
<td>b</td>
<td>t</td>
<td>d</td>
<td>j</td>
</tr>
<tr>
<td>Fricative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flap</td>
<td></td>
<td></td>
<td></td>
<td>r</td>
<td>a</td>
</tr>
</tbody>
</table>
4. THE SYLLABLE

Language sounds occur in patterned sequences; they are never in isolation. The most important and probably the smallest sequence of sounds which bears significance in the phonological analysis of Tausug is the syllable. Many facts on the phonological units of the language are largely dependent on their distribution with reference to the syllable and its matrix. The initial sound in *pisu* [p'isU?] 'sprain' and *piara* ['p'yaarah]', for instance, is different from the final sound of the word *atup* [?'atUp] 'palm leaf roofing'. In the first two examples, [p'] is released and slightly aspirated, while in the latter, [p] is unreleased and unaspirated. Such differences between [p'] and [p] evidently shows a simple function of position or distribution within the syllable.

Although Tausug stress is non-phonemic, that is, it bears no significance with regard to meaning, there are subtle differences in force and length between vowels in stressed and unstressed syllables. All Tausug vowels have forms varying in relative loudness and length depending on their positions in a given syllable. Generally, vowels in stressed syllables are relatively louder and longer than those in unstressed syllables.

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27 A hypen is used here to mark syllable division within a word.
The first [a] in *lara [la.-rah]* 'pepper', for instance, is considerably louder and longer than the [a] in the second. In *larahan [la-ra.-han]* 'to put pepper', however, where there is a shift in stress as a result of suffixation, the second [a] is relatively longer than the first and also than the third.\(^{28}\) Other similar examples are *bata [ba.-ta?]* 'child', *lapal [la.-pal]* 'message', and *pasal [pa.-sal]* 'market'.

The syllable is also a useful criterion in the classification of sounds whose status cannot be easily defined, as to whether they fall under the vowel category or the consonant category.\(^{29}\) Reference is made here to the nonsyllabic vowel-like sounds [y] and [w] in Tausug. It is often difficult to tell whether [y] and [w] are to be classified as vowel or consonants until we have them in distribution and in contrast in a syllable and see how they pattern with other vowels and consonants in the language. Their status is established only according to their contextual function,\(^{30}\) i.e., what they do within a syllable.

In order therefore to establish a satisfactory basis for description as well as classification of both the segmental and the suprasegmental phonemes of Tausug, it is necessary to define at this point the structure of the syllable as it occurs in the language.

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\(^{28}\) Refer to section 6.3 for further discussions on lengthening of vowels.


\(^{30}\) Ibid., p. 73. Daniel Jones also used 'contextual function' as criteria in vowel classification but in more varied ways than Pike.
Linguists are not always in agreement as to their definition and/or description of the syllable due to their differences in point of views. Pierre Fouche and Maurice Grammont, for instance, define the syllable in physiological terms, characterizing it in terms of the growing and decreasing of tension of the muscles of the voice-producing mechanism. Stetson, on the other hand, describes the syllable in terms of 'chest pulses' whereas Ferdinand de Saussure bases his discussion on the degree of opening of sounds. Other criteria advanced for defining the syllable are those of 'relative loudness of phoneme' (Bloomfield), 'prominence' - made up of inherent sonority, length, stress, intonation, and a combination of these (Jones, Pike) and 'sonority' (Kenyon, Hall, Jespersen).

For purposes of this phonological analysis of Tausug, it proves convenient to analyze the syllable in terms of a single unit of prominence (peak of sonority), such that the most

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32 Ibid., pp. 68-69.
38 Hall, op. cit., pp. 61-63.
outstanding (sonorous) sound constitute the nucleus or center of a syllable. This nucleus always corresponds to the vowels (on vocoids on the phonetic level), because vowels are usually more sonorous than consonants (contoids). They are normally voiced and are produced without impediment in the oral cavity.

There are as many syllables as there are vowels in a Tausug utterance. A native speaker of the language recognizes instinctively the number of syllables in a given utterance by the number of vocoids present. In a word like malingskat "beautiful" for instance, all native speakers will recognize that there are three syllables: [ma-lin-kat]. It has been already pointed out in previous discussions (on phonetic level) that in cases where two vowels occur in the same syllable - a semivowel with a full vowel - a diphthong is formed. Such a combination makes a single syllabic center. Thus, the word miattu ['myat-tuh] 'went there' has only two syllables, with a diphthong in the first.

A close examination of the examples given in preceding paragraph, ['p'i-su'], ['p'ya-rah'], ['m-tup'], ['ba-ta?'], [ma- 'lin-kat], and ['myat-tuh] shows that some syllables end in a vocoid, while others end in contoids. Syllables ending in vocoid are termed free or open syllables. Those that have contoid margins at the end are referred to as checked or closed syllables. Thus, in ['p'i-su] the first syllable is 'free' whereas the second one is 'checked'.
Further investigation of the above data will reveal that a free syllable always occurs in word initial or word final position. A checked syllable, on the other hand, shows unlimited distribution. It can occur initially, medially, and finally. This observation can be further strengthened by looking at some examples such as the following:

- **taas** [ˈtʰa-tɑs] 'height'
- **anarun** [ʔa-ˈnarUn] 'will learn'
- **ubu** [ʔu-ʔUh] 'cough'
- **mabiskay** [ma-ʔis-kay] 'fast'
- **kaun** [ˈkʰaʔUn] 'will get'
- **larutan** [la-ru-tan] 'will pull'
- **suatun** [ˈswaʔ-tUn] 'will dig'
- **haturan** [ˈha-tu-ran] 'will return'
- **paagarun** [pʰa-ʔa-ʔa-ʔa-rUn] 'will take along with'
- **ingatun** [ʔi-ʔa-ʔa-tUn] 'ought to know'
- **manghud** [ˈmaŋ-ʔUd] 'younger brother' or 'sister'
- **sambi** [ˈsam-bIʔ?] 'to change'
- **lawa** [ˈla-wah] 'left' (hand corner, etc.)
- **tahi** [ˈtaʔ-hIʔ?] 'to sew'

Although in the written form it seems that some Tausug syllables begin with vowels like the first syllable of **anarun** [ʔa-ʔa-ʔa-rUn] 'will learn', **ingatun** [ʔi-ʔa-ʔa-tUn] 'ought to learn',
and the second syllable in taas ['t'aʔs] 'height', and that some syllables appear to end in vowels too (see ubu ['ʔuʔUh] 'cough', sambi ['sam-bIʔ] 'to change', etc.), in actual speech, this is not so. Syllables are always initiated by consonants, including the glottal stop which is assumed to be present even when no consonant is indicated on the orthography. In word final, syllables always require final consonants, including [ʔ] and [h] which are not represented in writing.

The justification for the existence of [ʔ] before vowels and either [ʔ] and [h] after vowels at the end of syllables in word final position is established on the basis of the phonemic status of both sounds in Tausug. Substituting one sound for the other, or any consonant for that matter, results in another native word or a non-existing one. Thus, the following words are listed to show the phonemic contrast between [ʔ] and [h] in all possible distributions:

**Word initial**

<table>
<thead>
<tr>
<th>Word</th>
<th>Pronunciation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ilu</td>
<td>['ʔi-1Uh']</td>
<td>'orphan'</td>
</tr>
<tr>
<td>hilu</td>
<td>['hi-1Uh']</td>
<td>'dizzy' or 'drunk'</td>
</tr>
<tr>
<td>ug</td>
<td>[ʔuʔg]</td>
<td>'hold something dear'</td>
</tr>
<tr>
<td>hug</td>
<td>[hug]</td>
<td>'change' (money)</td>
</tr>
<tr>
<td>abal</td>
<td>['ʔa-βal']</td>
<td>'whirlpool'</td>
</tr>
<tr>
<td>habal</td>
<td>['ha-βal']</td>
<td>'news'</td>
</tr>
</tbody>
</table>
Word medial

<table>
<thead>
<tr>
<th>Word</th>
<th>[IPA]</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>nailu</td>
<td>[na-'?i-lUh]</td>
<td>'became orphan'</td>
</tr>
<tr>
<td>nahilu</td>
<td>[na-'hi-iUh]</td>
<td>'became drunk'</td>
</tr>
<tr>
<td>paa</td>
<td>['p'a-?ah]</td>
<td>'thigh'</td>
</tr>
<tr>
<td>paha</td>
<td>['p'a-hah']</td>
<td>'band for the navel'</td>
</tr>
<tr>
<td>dayahan</td>
<td>[da-'ya-han]</td>
<td>'rich'</td>
</tr>
<tr>
<td>dayaan</td>
<td>[da-'ya-?an]</td>
<td>'surface up'</td>
</tr>
</tbody>
</table>

Word final

<table>
<thead>
<tr>
<th>Word</th>
<th>[IPA]</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>di</td>
<td>[di:?]</td>
<td>'no' (does not like)</td>
</tr>
<tr>
<td></td>
<td>[di:h]</td>
<td>'here'</td>
</tr>
<tr>
<td>badju</td>
<td>[badju?]</td>
<td>'dress' (general form)</td>
</tr>
<tr>
<td></td>
<td>['badjUh']</td>
<td>'storm' or 'typhoon'</td>
</tr>
<tr>
<td>dugu</td>
<td>['duyU?]</td>
<td>'blood'</td>
</tr>
<tr>
<td></td>
<td>['duyUh']</td>
<td>'corner'</td>
</tr>
</tbody>
</table>

Unlike [?] , the [h] contoid at the end of words like, badju ['badjUh] 'storm' and dugu ['duyUh] 'corner' seems to be realizable as zero, or at least it is often not audible enough to be noticed. However, if a suffix like an 'to cause to', 'to put . . .', etc. is added to each of the words above, the realization of [h] becomes perfectly clear. Thus:

badju + an 'becomes' (> ) badjuhan[bad-'juh'n] 'to cause to storm'  
dugu + an >duguhan[du-'yu-han] 'to put corner (s) on something'  

The above word contrast phonemically with  
badju + an >badjuan[bad-'ju?an] 'to put a dress on . . .'  
dugu + an >duguan[du-'yu-?an] 'to put blood on . . .'  

The use of an instead of han in the first set of examples rests on the assumption that [h], like [ʔ], is already found at the end of each word, badu and dugu, although orthographically [h] is not represented. The phenomenon of [h] becoming a part of the added syllable is normal in Tausug. Any final consonant, for that matter, in word final position, unless the suffix begins with a consonant, forms the initial consonant of the new syllable. To justify this claim more examples are listed here:

sulat + an > sulatan

[bU- 'ra-kon]

'powder' > 'will powder'

habul + an > habulan

[ha-'bu-lan]

'blanket' > 'to put a blanket'

sumbung + un > sumbungun

[sUm-bu-ŋUn]

'report' > 'will make a report'

juwalan + un > juwalanun

[ju-wa-'la-nUn]

'fried banana' > 'to fry banana'

salam + un > salamun

[sa-'la-mUn]

'hand shake' > 'to shake hands'
In the above examples it is clearly shown with complete consistency that final consonants become initial consonants of new added syllables. These regular occurrences confirm therefore, the assumption postulated above.

On the basis of the preceding discussions, the syllable patterns of Tausug are stated here in terms of permissible combinations of consonants (C) and vowels (V). It has been noted that only two basic patterns exist in the language. The first is a sequence of consonant-vowel (CV) found in the front syllables of anarun [ʔa-nə-rUn]. This syllable pattern corresponds to the 'free' syllable discussed in previous paragraph. The second syllable pattern consists of consonant-vowel-consonant (CVC) combination, i.e., the first, the second, and the third syllables of magsumping [mag-'sum-piŋ] 'to bear flowers'. The (CVC) syllable pattern corresponds to the 'checked syllable and
is the only syllable pattern that can stand alone as an utterance. Hence, the words \( u \), \( sa \), \( di \), \( sin \) 'head', 'fault', 'here', 'money', etc.

Sequences of two or more vocoids, as in the case of diphthongs and triphthongs, are treated as combination of a full vowel and semivowel (\( S \)). On the basis of the permitted vowel-semivowel combinations in the language, the following are listed as secondary syllable patterns of Tausug:

**CSV** -
- \( siukat \) ['syu-kat] 'was being demanded'
- \( tiaun \) ['\( t'ya-?Un \] 'was married'
- \( antuili\) [\( ?an-'twi-las \] 'sequins'
- \( pwasa \) ['p'wa-sah] 'fasting'

**CVS** -
- \( kaitan \) ['k'ay-tan] 'to put a pin on . . .'
- \( lainan \) ['lay-nan] 'you transfer it . . .'
- \( kauna \) ['k'awnah] 'put it' (there, back, etc.)
- \( saura \) ['sawrah] 'catch it with . . .'
  or 'receive it with . . .'

**CSVC** -
- \( siam \) ['syom] 'nine'
- \( tiadtad \) ['\( t'yadtad \] 'split bamboos for walling'
- \( buad \) ['bwad] 'to dry'
- \( mui \) ['mwi?] 'to go home'

**CVSC** -
- \( kait \) ['k'ayt] 'safety pin'
- \( lain \) ['layn] 'to transfer'
- \( baus \) ['baws] 'to bargain'
- \( taumpa \) ['t'awmpa?] 'shoes'
With the syllable pattern of Tausug already established, two important points relative to the interpretation of consonant clusters will have to be observed. First, since consonants occur only singly in a syllable, no consonant clusters therefore exist in the language except across syllable boundaries. A consonant cluster which occurs across a syllable boundary is always to be interpreted as sequences of two consonants which divided into the successive syllables as in taumpa ['t'awm-pa?] 'shoes'. To classify [mp] in the above cited example as belonging to either of the two syllables would render it foreign to the language's syllable-structure. Second, consonant clusters can occur only in word medial position, not anywhere else.
What constitutes a syllable are sequences of discrete functional units of speech sounds known as segmental or linear phonemes. According to linguistic theory, the number of segmental phonemes in a given language is relatively small in comparison with the total number of possible sounds uttered by a speaker. Only sounds which give meaningful contrasts in a particular language are regarded as phonemes of that language. Even if the same phonemes, or the same group of phonemes, are found in any two given languages, these phonemes will not necessarily have the same function. For instance, both Tausug and English have the sounds [d] and [r] which are quite similar from the phonetic stand-point. However, the relationship of the two sounds to each other is very different in the phonological system of Tausug as compared with that of English. /d/ and /r/ in English are clearly in contrast with each other, in that they serve to distinguish meanings between words like dust [dast] and rust [rast]. In Tausug, however, the situation is different. [d] and [r] are in complementary distribution [d] being replaced by [r] when preceded and followed by vowels. The contrast is shown in the examples: in dan[?in'dan] 'the road', and ha ran [ha 'ra:n] 'on the road'. The relationship between the two sounds in Tausug does

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not parallel that of English.

Moreover, sounds which are variants of one phoneme in one language may be two or more distinct phonemes in another. The vocoids [i] and [I] are variants of the phoneme /i/ in Tausug. In English, however, these two sounds are distinct phonemes as in the minimal pair beat /bit/ and bit /bIt/.

In general, phonemes are distinguished and characterized by their defining attributes or so-called 'bundles of features' which linguists term 'phonological components' or 'distinctive features'. Jakobson, Fant, and Halle say that "any one language code has a finite set of distinctive features and a set of rules for grouping them into phonemes and also for grouping the later into sequences . . . . The distinctive features are the ultimate distinctive entities of a language since no one of them can be broken down into smaller linguistic units."\(^{38}\)

The phonemic system of Tausug is established on the basis of these distinctive features in consonance with the criteria of phonemic analysis set forth in section 2.4. So far, the investigator has analyzed only twenty segmental phonemes of Tausug. Such analysis discounts the claim of Lois and Seymour Ashley to twenty-one phonemes existing in the language. The /ñ/ which the Ashleys' claim to be a separate phoneme cannot be established as such since sequences

\(^{38}\)Jakobson, Fant, and Halle, op. cit., pp. 3-4.
of a consonant and a semivowel are permissible in the language. By analogy, the initial sounds of Ñuli 'a singing bird' and Ñawa 'life' pattern with the initial sounds of words like piunung ['p’yunûn] 'fainted', tiuran ['t’yuran] 'pushed', biusan ['byusan] 'borrowed', diugalan ['dyûgalan] 'was angry', miula ['myulah], etc.. Ñuli and Ñawa may, therefore, be interpreted as ['nyulIh] and ['nyawah], respectively.

On the phonetic level, the speech sounds of Tausug are classified into vocoids and contoids. On the phonemic level, the twenty segmental phonemes are categorized into vowels and consonants depending on their phonetic characteristics and their distributions. However, there are some phonemes like /y/ and /w/ whose status is intermediate between vowels and consonants, so that they are referred to as either semivowels or semiconsonants. It is their partaking of the nature of or their sharing with the structural habits of vowels and consonants which classifies them in such an ambivalent category.

Before starting to discuss each of the twenty segmental phonemes and their corresponding bundles of distinctive features, their variants, distributional as well as oppositional relationship to each other, it is convenient to establish first the status of the semivowels or semiconsonants as they stand in the phonological system of the language.
5.1 The Interpretation of the Semivowels or Semiconsonants

It has been mentioned in the discussion of the syllable that the status of the vowel-like [y] and [w] as consonants or vowels is determined primarily on the basis of their contextual function with reference to their position in a given syllable or utterance. In other words, the determining criterion is pattern congruity (cf. section 2.3).

Because of the fact that in Tausug (see section 4) consonant clusters do not occur in syllable initial or syllable final positions, the suspect sounds [y] and [w] when immediately following an initial consonant or immediately preceding a final consonant is to be interpreted as vocalic. Thus, the following examples of all possible sequences of two vocoids show instances of [y] and [w] functioning vocalically:

liag  [lyag] 'was looking for'
kait  [k'ayt] 'safety pin'
siu   [syuh] 'who' (interrogative pronoun)
suat  [swat] 'to cultivate' (soil)
laum  [lawm] 'inside'
mui   [mwi?] 'to go home'

Phonetically, there are sequences of two different vocoids in each of the words listed above. Although from a listener's point of view, these sequences of two vocoids give a 'monolithic impression' (due to the rapid movement or glide made from one
sound to another), they are, however, interpreted as a combination of a pure vowel and a semivowel, with the semivowel functioning as a secondary or subordinate member to the full vowel.

Such sequences of two vocoids cannot otherwise be considered as two independent pure vowels since, normally, no two such vowels can occur in sequence in the language without an intervocalic consonant coming between them. The examples given above cannot be interpreted as having an intervocalic \([h]\) or \([?]\) because they would contrast with words such as:

- **lian** [\(\text{*li?an}\)] 'senile'
- **kahig** [\(\text{k'ahIg}\)] 'scratch' (the ground with the feet)
- **siub** [\(\text{si?ub}\)] 'blanket'
- **suan** [\(\text{su?an}\)] 'to light something'
- **kaun** [\(\text{ka?Un}\)] 'will get'
- **Muin** [\(\text{mu?In}\)] (a name of a person)

Another possible interpretation of the above examples which show sequences of two different vocoids is that \(y\) or \(w\) may be used to separate the vowel clusters, thus giving rise to two-syllable words instead of one-syllable words:

- \([\text{lyag}] > [\text{'liyag}]\)
- \([\text{syuh}] > [\text{'siyUh}]\)
- \([\text{swat}] > [\text{'suwat}]\)
- \([\text{mwi?}] > [\text{'muwI}]\)
This interpretation is, however, limited to words where the high vocoids [i] and [u] are first in the vowel clusters, but not when they come after another vowel as in kait and saum. It is not normal in the language, even in artificial slow speech to say *[k'ayIt] for [k'ayt] and * [sawUm] for [sawm]. Besides, 'native reaction strongly resists such interpretation'.

For consistency in analysis and in congruity with kait and saum, the first interpretation of liag, siu, suat, and mui will be considered here. Differences between the monosyllabic and dissyllabic interpretation of the examples in question is only a matter of timing, i.e., the speed in which the words are pronounced. In normal rapid speech, the most commonly heard are the monosyllabic forms [lyag], [syuh], [swat], and [mwi].

The limitation of the occurrences of [y] and [w] in relation to kait and saum given above brings into focus another important point concerning the interpretation of the semivowels. Where [y] is present in a given syllable, the vocoid [i] is absent. [y] and [w] are never in direct opposition with [i] and [u] respectively. There is no instance where [y] and [i] or [w] and [u] shows contrast in the language. Hence, it is justifiable to conclude that [y] and [i] are not two separate phonemes but positional variants, since they are non-contrastive,
phonetically similar, and complementarily distributed, each with its own pattern in the language, but fulfilling the same function. Similarly, [w] and [u] are to be classed together as belonging to the same phoneme.

Assuming that the sequences of vocoids in liag, siu, suat, and mui were to be interpreted as two-syllable words (which is possible), [y] and [w] which separate the sequences of vocoids no longer function as vowels.

Distributionally, they are in the position of consonants. In [li-yag] and [si-yuh], for instance, [y] becomes the initial consonants of the second syllables. A similar phenomenon is true with [w] with regards to ['su-wat] and ['mu-wi?]. Both [y] and [w] thus structure with the vowels and also enter into the same function as other consonants in such series as litag ['litag] 'bird's trap', kabit ['kahIt] 'to attach', siku ['sikUh] 'elbow', sukat ['sukat] 'to demand', kaun ['ka?Um] 'to get', and muti ['mutI?] 'to become white,' etc.

Further examples show [y] and [w] functioning as consonants. On the basis of the syllable patterns of Tausug established in section 4, [y] and [w] when occurring word initial and word final are to be interpreted as consonants. Hence the following sample listing:

**Word initial**

[y] yaun ['ya?Un] 'that one'

[y] yari ['yarIh] 'here'
Since clusters of more than two consonants do not occur in the language, in medial syllable position, [y] in words like Maimbung [maymbUn] (a name of a place in Jolo, Sulu) and kaiman [k'ay?man] 'fifty', and [w] in baumbang ['bawmbang] 'checkered' and taumpa ['t'awmpa?] are to be interpreted as vowels instead of consonants.

By analogy with the sequences of vocoids in kait [kayt] and laum lawm, [y] and [w] are to be interpreted as vowels in words such as saitan ['say-tan] 'will remove water from boat', lainan ['lay-nan] 'will transfer something from', saukun ['sawkun] 'will fetch water', saurun ['sawrUn] 'will receive something with receptacle' which are derived from base words sait [sayt] 'to remove water from boat', lain [layn] 'to transfer', sauk [sawk] 'to fetch water', and saud [sawd] 'to catch or receive something with receptacle'.

In the final analysis, therefore, [y] and [w] as variants of the phonemes /i/ and /u/ are not included in the Vowel
Words like liag [lyag], kait [k'ayt], suat [swat], mui [mwi?], saitan ['saytan], lainan ['laynan], saukun ['sawkUn], saurun [sawrUn], etc. are to be interpreted phonemically as /liag/, /kait/, /suat/, /mui?/, /'saitan/, /'lainan/, /'saükün/, and /'saurun/ respectively. As consonants, however, /y/, and /w/ are included in the schematic representation of consonants on page 105. The fact that they both show contrasts with other consonants in the phonological system of the language and because of the pressure of syllable pattern discussed in the preceding chapter, means that /y/ and /w/ are given full phonemic status.
5.2 THE VOWELS

Earlier in this section, it has been mentioned that the analysis of the Tausug phonemic system has shown it to have twenty segmental phonemes. Of these, three are categorized as vowels and the remaining seventeen are classified as consonants.

The vowel phonemes are:

/i/ as in bid /bɪd/ 'hill'
/a/ as in bat /bɑt/ 'sea cucumber'
/u/ as in bud /bʊd/ 'mountain'

Those categorized as consonants are:

/p/ as in pula /pʊlah/ 'red'
/t/ as in tuba /tʊba?/ 'a kind of drink made from palm'
/k/ as in kula /kʊla?/ 'pleats'
/?/ as in ulan /ʊulan/ 'rain'
/b/ as in bula /bʊla?/ 'bamboo split'
/d/ as in dulan /dʊlan/ 'to grant' (something)
/g/ as in gula /gʊla?/ 'nectar'
/j/ as in juba /jʊba?/ 'robe'
/m/ as in mula /mʊlah/ 'will become red'
/n/ as in nunuk /nʊnuk/ 'balete tree'
/n/ as in ngan /ŋan/ 'name'
/s/ as in 'sulab /sʊlab/ 'blade'
/h/ as in hula /hʊla?/ 'place'
/l/ as in lura /lʊra?/ 'sputum'
The distinction between vowels and consonants cannot be made to rest purely on what goes on in the oral cavity. Differences are acoustic or impressionistic rather than strictly articulatory. Description and classification of both vowels and consonants are made on auditory judgment in addition to articulatory information. From the auditory point of view consonants are characterized by plosion or audible friction. From the articulatory point of view, vowels are produced by a free passage of air through the oral cavity. In the case of some consonants, there is constriction or complete obstruction of the breath stream or current of air at one or more points on the way out from the lungs, or in the case of a group of consonants called somants (l,r,y,w), the breath-stream is constricted in such a way that it fails to produce friction.

In characterizing the segmental phonemes of Tausug, our first concern is to describe the repertory of distinctive features which serve to differentiate one phoneme from another, before discussing the interrelationship of these contrasts between the phonemes, as well as their distributional relationship.
5.1.1 Description and Classification

Like the vocoids, on the phonetic level, the vowel phonemes are described and classified on the basis of two functional factors: the position of the tongue and the shape of the lips. The position of the tongue which is the more important factor varies in two dimensions: the tongue height and the tongue advancement. When characterizing the vowels of Tausug according to the height of the tongue, two classes of vowels are distinguished: the high vowels and the low vowels. But using as criterion the advancement of the tongue, three classes of vowels are distinguished: front, central, and back which correspond respectively to /i/, /a/, and /u/. If the position of the three vowels and their relationship to each other is shown by means of a schematic representation, the resultant diagram is a triangle (See figure 7 below) which is known traditionally as the 'Vowel Triangle'.

Figure 7: The Vowel Triangle of Tausug

Front         Central         Back

High  /i/          /u/

Low  /a/
With the above diagrammatic representation, the two-dimensional contrasts in terms of tongue height and tongue advancement are better illustrated between the three vowels. /i/ is shown above as a high-front vowel which contrasts with the low central /a/ and the high-back vowel /u/.

Although vowel quality is chiefly dependent on the position of the tongue, it is affected to a considerable extent by the spreading or rounding of the lips. The high-front vowel /i/ is articulated with the lips moderately spread and unrounded. The parallel vowel in the high-back range, /u/, has a moderately rounding of the lips, which are pursed and pushed a little forward. The central low vowel /a/ has an unrounded, neutral lip position.

The state of the tongue as regards muscular tension is another characteristic which is to be considered in differentiating as well as determining vowel quality. Vowels are either lax or tense. In the case of the high vowels /i/ and /u/, articulation is made with relatively strong muscle tension, so that they are classified as tense vowels. On the other hand, the vowel of the low central area, /a/, is articulated with the muscle of the tongue held loosely and relaxed, so that it is considered as a lax vowel.

The generalized summary description and classification of the vowel phonemes according to their distinctive qualities are
listed below:

/i/ - high-front, tense, unrounded
/a/ - low-central, lax, unrounded
/u/ - high-back, tense, rounded

5.1.2 Phonemic Contrast

Phonemes are distinguished from one another not only in the light of their physical properties or features but also as elements which stand in contrast with each other in the phonological system of the language. Hockett in his book, *A Course in Modern Linguistics*, emphasizes this when he says that the "sounds and differences between them have one and only one function in the language: to keep utterances apart". The essential quality of contrast or distinctiveness, therefore, gives each of the vowel phonemes of Tausug its phonemic identity.

In establishing the phonemic status of the vowels of Tausug, minimal pairs or pairs of words, each having a different meaning and differing by only one phoneme or in only one feature are conclusive and convincing evidence in showing that two sounds do not belong to the same phoneme. Thus, the following pairs of words which show phonemic oppositions of front-versus-back and high versus-low vowels are hereby listed alphabetically. The examples are arranged according to their occurrences of the vowel phonemes in utterances:

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39Hockett, op. cit, p. 15.
/i/ - /u/

Word initial position

- iban /?íban/ 'companion'
- uban /?úban/ 'white hair'
- ig /?ig/ 'to get out' or 'to remove'
- ug /?ug/ 'possessiveness'
- inum /?ínun/ 'to drink'
- unum /?únun/ 'six'
- ipat /?ipat/ 'to take care'
- upat /?úpat/ 'four'
- Isa /?ísah/ 'Jesus Christ'
- usa /?úsah/ 'deer'

Word medial position

- bid /bid/ 'hill'
- bud /bud/ 'mountain'
- hilug /hílug/ 'to scrub the body'
- hulug /húlug/ 'to fall' or 'to drop'
- kita /kítaʔ/ 'to see'
- kuta /kútaʔ/ 'fort'
- pilak /pílak/ 'peso' (Philippine currency) or 'silver'
- pulak /púlak/ 'abortion'
<table>
<thead>
<tr>
<th>Word</th>
<th>Pronunciation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>sibu</td>
<td>/sɪˈbu/</td>
<td>'equal'</td>
</tr>
<tr>
<td>subu</td>
<td>/sʊˈbu/</td>
<td>'to feed' (a person)</td>
</tr>
<tr>
<td>kapil</td>
<td>/káˈpi/</td>
<td>'heathen' (those outside the Moslem faith)</td>
</tr>
<tr>
<td>kapul</td>
<td>/káˈpul/</td>
<td>'to embalm'</td>
</tr>
<tr>
<td>lahi</td>
<td>/láˈhi/</td>
<td>'a variety of bamboo'</td>
</tr>
<tr>
<td>lahu</td>
<td>/láˈhu/</td>
<td>'eclipse'</td>
</tr>
<tr>
<td>lanit</td>
<td>/láˈnit/</td>
<td>'to remove by force something that has been fastened'</td>
</tr>
<tr>
<td>lanut</td>
<td>/láˈnut/</td>
<td>'abaca'</td>
</tr>
<tr>
<td>sabil</td>
<td>/sáˈbil/</td>
<td>'to run amuk'</td>
</tr>
<tr>
<td>sabul</td>
<td>/sáˈbul/</td>
<td>'dirty' or 'sloven'</td>
</tr>
<tr>
<td>kami</td>
<td>/káˈmi/</td>
<td>'we'</td>
</tr>
<tr>
<td>kamu</td>
<td>/káˈmu/</td>
<td>'you' (2nd person plural number)</td>
</tr>
<tr>
<td>lahi</td>
<td>/láˈhi/</td>
<td>'a variety of bamboo'</td>
</tr>
<tr>
<td>lahu</td>
<td>/láˈhu/</td>
<td>'eclipse'</td>
</tr>
<tr>
<td>landi</td>
<td>/láˈndi/</td>
<td>'flirt'</td>
</tr>
<tr>
<td>landu</td>
<td>/láˈndu/</td>
<td>'very much'</td>
</tr>
<tr>
<td>tapi</td>
<td>/táˈpi/</td>
<td>'to dry dock'</td>
</tr>
<tr>
<td>tapu</td>
<td>/táˈpu/</td>
<td>'to alight'</td>
</tr>
</tbody>
</table>
tibi /tibi/? 'chip'
tibu /tibu/? 'to box someone on the chest or back'

/i/ - /a/

Word initial position

ibut /ʔibut/ 'verb implying 'please never forget'
abut /ʔəbut/ 'to catch up' or 'to reach'
ig /ʔig/ 'to get out' or 'to remove'
ag /ʔag/ 'considerateness'
ingat /ʔiŋat/ 'intelligence'
angat /ʔaŋat/ 'to lift'

Word medial position

ipu /ʔipu/? 'to pick' (flower, fruit, etc.)
apu /ʔapu/? a term for 'grandparents' or 'grandchildren'

ilu /ʔilu/? 'orphan'
alu /ʔaluh/ 'dew' or 'drought'

libut /ʔibut/ 'to go around'
labut /ʔabut/ 'to serve'
pila /ʔiluh/ 'blue'
balu /ʔaluh/ 'widow' or widower'

libut /ʔibut/ 'to go around'
labut /ʔabut/ 'to serve'
pila /ʔiluh/ 'how much'
pala /ʔaluh/ 'shovel'
**silat** /sílat/  'Moslem self-defence dance similar to 'judo'  
**salat** /sálat/  'barely enough'  
**tilam** /tílam/  'mattress'  
**talam** /tálam/  'tray'  

**Word final position**  
**basi** /bási?/  'steel'  
**basa** /bása?/  'wet'  
**bati** /báti?/  'awake'  
**bata** /báta?/  'child' or 'young'  
**kami** /kámi?/  'we'  
**kama** /káma?/  'mattress' or 'bed'  
**lupi** /lúpi?/  'to fold'  
**lupa** /lúpa?/  'soil'  
**mami** /mámi?/  'will select'  
**mama** /máma?/  'betel nut with other mixture'  
**masi** /mási?/  'still'  
**masa** /mása?/  'time' or 'era'  
**sapi** /sápi?/  'cow'  
**sapa** /sápa?/  'lake'  
**tagi** /tági?/  'fondness'  
**taga** /tága?/  'you call'
### Word initial syllable

<table>
<thead>
<tr>
<th>Word</th>
<th>Syllable</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ubat</td>
<td>/ʔúbət/</td>
<td>'medicine'</td>
</tr>
<tr>
<td>abat</td>
<td>/ʔábat/</td>
<td>'bedevilled'</td>
</tr>
<tr>
<td>ubu</td>
<td>/ʔúbuh/</td>
<td>'cough'</td>
</tr>
<tr>
<td>abu</td>
<td>/ʔábuh/</td>
<td>'ashes'</td>
</tr>
<tr>
<td>ug</td>
<td>/ʔug/</td>
<td>'possessiveness'</td>
</tr>
<tr>
<td>ag</td>
<td>/ʔag/</td>
<td>'considerateness'</td>
</tr>
<tr>
<td>unud</td>
<td>/ʔúnud/</td>
<td>'flesh'</td>
</tr>
<tr>
<td>anud</td>
<td>/ʔánud/</td>
<td>'to drift'</td>
</tr>
<tr>
<td>utas</td>
<td>/ʔútəs/</td>
<td>'at the point of exhaustion'</td>
</tr>
<tr>
<td>atas</td>
<td>/ʔátas/</td>
<td>'responsible for' or 'stand for'</td>
</tr>
</tbody>
</table>

### Word medial position

<table>
<thead>
<tr>
<th>Word</th>
<th>Syllable</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>kulang</td>
<td>/kúlaŋ/</td>
<td>'not sufficient'</td>
</tr>
<tr>
<td>kalang</td>
<td>/kálaŋ/</td>
<td>'to sing'</td>
</tr>
<tr>
<td>lubu</td>
<td>/lúbuh/</td>
<td>'an edible part of the intestine of a seacucumber'</td>
</tr>
<tr>
<td>labu</td>
<td>/lábuh/</td>
<td>'gourd'</td>
</tr>
<tr>
<td>pusa</td>
<td>/púsaʔ/</td>
<td>'banana blossom'</td>
</tr>
<tr>
<td>pasu</td>
<td>/pásuʔ/</td>
<td>'heat'</td>
</tr>
<tr>
<td>sulat</td>
<td>/súlat/</td>
<td>'letter' or 'to write'</td>
</tr>
<tr>
<td>salat</td>
<td>/sálat/</td>
<td>'barely enough'</td>
</tr>
<tr>
<td>tabu</td>
<td>/tábuʔ/</td>
<td>'market'</td>
</tr>
<tr>
<td>tubu</td>
<td>/túbuʔ/</td>
<td>'to grow'</td>
</tr>
<tr>
<td>Word</td>
<td>Pronunciation</td>
<td>Meaning</td>
</tr>
<tr>
<td>--------</td>
<td>---------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>dahun</td>
<td>/dáhun/</td>
<td>'leaf'</td>
</tr>
<tr>
<td>dahan</td>
<td>/dáhan/</td>
<td>'will bring for'</td>
</tr>
<tr>
<td>gapus</td>
<td>/gápus/</td>
<td>'embrace'</td>
</tr>
<tr>
<td>gapas</td>
<td>/gápas/</td>
<td>'gauze'</td>
</tr>
<tr>
<td>kapul</td>
<td>/kápul/</td>
<td>'to embalm'</td>
</tr>
<tr>
<td>kapal</td>
<td>/kápal/</td>
<td>'thickness'</td>
</tr>
<tr>
<td>lubug</td>
<td>/lábug/</td>
<td>'disturbed water' (not clear)</td>
</tr>
<tr>
<td>lubag</td>
<td>/lábag/</td>
<td>'grime'</td>
</tr>
<tr>
<td>sabul</td>
<td>/sábul/</td>
<td>'dirty' or 'sloven'</td>
</tr>
<tr>
<td>sabal</td>
<td>/sábal/</td>
<td>'stoic'</td>
</tr>
<tr>
<td>bisu</td>
<td>/bísuh/</td>
<td>'deaf'</td>
</tr>
<tr>
<td>bisa</td>
<td>/bísah/</td>
<td>'pain'</td>
</tr>
<tr>
<td>kaku</td>
<td>/káku?/</td>
<td>'mine'</td>
</tr>
<tr>
<td>kaka</td>
<td>/káka?/</td>
<td>'appellation given to older sister or brother'</td>
</tr>
<tr>
<td>kilu</td>
<td>/kiluh/</td>
<td>'kilo'</td>
</tr>
<tr>
<td>kalu</td>
<td>/káluh/</td>
<td>'quarrel'</td>
</tr>
<tr>
<td>lasu</td>
<td>/lásu/</td>
<td>'ribbon'</td>
</tr>
<tr>
<td>lasa</td>
<td>/lásah/</td>
<td>'love'</td>
</tr>
<tr>
<td>layu</td>
<td>/láyu?/</td>
<td>'farness'</td>
</tr>
<tr>
<td>laya</td>
<td>/láya?/</td>
<td>'flat surface'</td>
</tr>
</tbody>
</table>
Some linguists refer to the series of oppositions which are based on the same features (like the examples listed above) as a series of correlation. Hence, the vowels of Tausug are illustrated to show correlations in tongue position (front/back and high/low) and lip shape (spread/unrounded, as well as lax/tense).

5.2.3 Allophonic Variation

A close examination of the vowels of Tausug as sounds rather than as units (in the list of minimal pairs above) reveals, microscopic though they may be, that there are quite a number of variants in their pronunciation. Even when repeated by the same person, no two realizations of a given phoneme, according to
linguists and phoneticians, are in every respect identical.\textsuperscript{40} A phoneme is, therefore, viewed as a distinctive unit made up of several members (phones) which are technically referred to as 'allophones', a term coined from the Greek \textit{allo} - ("other") plus - \textit{phone} ("sound") which means sounds which function as members of a phoneme.\textsuperscript{41}

With a three-point vowel system like Tausug, it can be expected that the vowels of the language have wide ranges of variation which make them allophonically complex. It is, however, often difficult to demonstrate the entire range of variants that occurs in the language, although it should theoretically be possible. A native speaker of the language usually restricts his actual usage within a certain range. Discussions of the phonetic variants of Tausug will, then, be limited only to existing allophones observable among native speakers of the language.

Some of the allophonic variations of the vowel phonemes simply reflect individual differences among speakers, often of a dialectal nature. Primarily, however, they are the result of the influence of phonetic context, that is, the production of the sound in question is affected by its environment or, more precisely, the nature of the sound which precedes or follows it. In other words, the phonetic realizations of each of the vowel phonemes of Tausug results from differing distributions in given utterances.

\textsuperscript{40}A.C. Gimson, \textit{An Introduction to the Pronunciation of English} (London: Arnold Ltd., 1962), p. 46.

\textsuperscript{41}Hall, op. cit., p. 26.
The [i] allophone of the high-front vowel normally occurs in stressed syllables as in the examples bid [bi:d] 'hill', pila ['p'ilah] 'how much', iban ['?iban] 'companion', and lindung ['lindUŋ] 'shade'. In an unstressed syllable, a more lax and lowered variety, [I], is often heard such as the vowel in the second syllable of sakit ['sakIt] 'sickness', tagi ['t'aylh] 'fond of', kubing ['k'uŋIŋ] 'beetle', and pikpik ['p'ikpIk] 'wing'. For some Tausug speakers, the complimentary distribution of the [i] and [I] allophones in stressed and unstressed syllable, respectively, is consistent. Among other speakers, however, the two allophones may be used interchangeably or in free variation since the use of either one for the other does not render a person's speech unacceptable, neither does it affect the meaning of a given word. A word like inum 'to drink' may, then, be heard pronounced as ['?inUm] or ['?InUm] with equal acceptability. Preference for the use of either one of the allophones depends on the habitual pronunciation of the speakers. At times it may be difficult to decide whether a certain pronunciation belongs to the [i] or [I] allophone.

The semivowel [y], which has been interpreted as one of the variants of the vowel /i/, may occur in either a stressed or unstressed syllable following or preceding a full vocoid as in kait [k'ayt] 'safety pin' and bia ['bya?] 'as if'. Because of its nature as a glide, it functions only as a secondary member to a
full vowel and never as a syllabic center.

Parallel to the allophonic variants of the high-front vowel are the allophones of the high-back vowel, /u/. Like [i] and [I], the [u] and [U] variants of the /u/ occur respectively in stressed and unstressed syllables. Typical examples are words such as bukuŋ ['buküŋ] 'bone', subul ['suðul] 'young man' or 'bachelor', pukpuk ['puŋkpuŋ] 'to hammer', and tubu ['tuðu?] 'to grow'. The allophone [U] may be replaced occasionally by the variant [u], or vice versa, in certain idiolects and dialects. Except for the considerably more lip-rounding for [u] than [U], distinction between the two variants is not necessarily great, so that one may be used freely in place of the other in actual usage. Thus, manghud 'younger brother or sister' may be heard as ['manhud] or 'manhùd]. Sometimes a sound close to [y] as in the unrounded pronunciation of the vowel in book [bvk] is occasionally heard in North American English, or [A] in the English word cup [kap], or [ə] as in the many unstressed vowels of English may be heard in some types of informal rapid pronunciation. The example manghud may, then, be heard as [manhùd], manhùd], or [manhèd].

The [w] variant of /u/ behaves in like manner to the [y] allophone of /i/. It functions only as a secondary member to a full vocoid as in the words baus [baws] 'to bargain', mui [wwi?]
'to go home', buad [bwad] 'to dry', etc.

Among some Tausug speakers of STP of Gimbahanun origin or influence, a centered [i] and an unrounded [u] are heard as a realization of /i/ and /u/ respectively. These sounds are symbolized as [i] and [u] respectively. The [i] is made with a less spread lip position than [i], while [u] has an unrounded lip position as compared with [u]. These vowels occur in words like pisu ['p'isw?] 'sprain', bihun ['b'ihwun] 'will buy', igun ['?i?wn] 'will remove', bukun ['bukwn] 'not' or 'no' (negation), bukug ['bukug] 'bone', and maisug [ma'?iswg] 'brave'.

In the case of the low central vowel, a more front variety, [a], has been observed to occur following a bilabial or dental consonant and a more back and lower variant [a] is found to occur following either a velar or a glottal sound. A raised central allophone, [e], which patterns with any consonants may be heard in some types of informal speech, so that words like basu ['basUhl] 'drinking glass', dagan ['dayon] 'to run', kalam ['kala?] 'to sing' or 'gravel', and abu ['?apUh] 'ashes' may be heard as [easU], [eayon], [elam], and [?apU] respectively. In this respect, the variants [a] and [a] are said to be in complementary distribution, while [e] is in free variation with either of the two allophones, [a] and [a].

3.2.4 Distribution

In a given language, some phonemes are of frequent
occurrence, some are not. Some occur in all positions, while others are restricted. Sometimes disparity in relative frequency is great. Sometimes a phoneme occurs in only a few isolated words. With vowels, however, the frequency of occurrence is usually greater than with certain consonants, as vowels are the sounds directly concerned in forming syllabic centers.

The vowels of Tausug have unrestricted distribution. They occur both in open syllable, CV, (as in pila /pi-lah/ 'how much', pala /pa-lah/ 'shovel', and pula /pu-lah/ 'red') and in closed syllable, CVC, (i.e., tinda /tin-dah/ 'store', tand-a /tanda/ 'proof', and punda /pundah/ 'pillow case').

Except for /y/, the high-front vowel /i/ follows all consonants of the language. In the same way, the high-back vowel /u/ occurs following all other consonants, except /w/. The low central vowel /a/ has unrestricted occurrence. It structures with all consonants of the language (cf. section 3.1).

5.2.5 The Diphthongs

In connection with the semivowels, a brief description has been given of the diphthongs of Tausug. It has been pointed out that when the semivowel [y] or [w] structures with a full vowel, within the same syllable forming a complex nucleus, the resultant combination of two sounds is interpreted as a diphthong. On this premise, the following are classified as diphthongs of Tausug:
Phonemically, all the diphthongs of Tausug are to be interpreted as consisting of two separate single vowel phonemes, a pure vowel (V) and a glide phoneme or semivowel (S), thus resulting in complex nuclei: S + V and V + S. These clusters of vowel could have been interpreted as single phonemic units because of their close-knit nuclei which make distinction between the sequences of sounds hardly noticeable. In addition, from the listener’s point of view, such close-knit nuclei give a monolithic effect. However, with simplicity as the working principle in this analysis, such an interpretation is not advisable. A monophonemantic interpretation of the diphthongs of Tausug would mean adding six additional phonemes to the
phonological inventory of the language. Moreover, a new set of symbols to represent the six phonemes would also be needed to distinguish them from the simple vowels. "It cannot be said", however (to use Swadesh's words) "that the unit treatment is basically wrong or inadequate, yet there is a difference which can be described as one of simplicity."

An alternative interpretation of the sequences of two sounds (discussed above as a diphthong) would be to treat them as a combination of a consonant and a vowel (i.e., C + V or V + C), so that the consonant element forms a cluster, instead, with the marginal consonant that precedes or follows it. Such interpretation, however, is not possible, since the syllable structures of the language (cf. section 4) do not permit clusters of consonants in syllable initial or syllable final positions.

It should be mentioned at this point that the biphonematic interpretation of the diphthongs does not mean that the combination of vocalic sounds are made up of pure vowel phonemes. Such combination is impossible in the language without an intervocalic consonant resulting (cf. p. 85).

Since in Tausug a syllable carries only one stress, the syllabic center in a diphthong is the pure vowel while the glide which functions only as a secondary element is non-syllabic.

With regards to the syllabic and non-syllabic parts of a diphthong, a distinction is made between so-called 'rising' and 'falling' diphthongs. According to Francis, "the terms refer to
the position in time of the stressed, syllabic part of the diphthong in relation to that of the glide." Thus in Tausug, diphthongs which consist of preliminary 'on-glides' are called 'rising diphthongs'. They are referred to as such, due to the relative increase in intensity of stress as the syllable progresses. On the contrary, diphthongs which consist of syllabic vowels plus off-glides are called falling diphthongs, because of the decrease in intensity of syllable stress. On the strength of these distinctions, Tausug diphthongs are grouped as follows with the stress mark [·] showing the syllabic center:

**Rising diphthongs**

<table>
<thead>
<tr>
<th>iá</th>
<th>iá</th>
</tr>
</thead>
<tbody>
<tr>
<td>uá</td>
<td>uí</td>
</tr>
</tbody>
</table>

**Falling diphthongs**

<table>
<thead>
<tr>
<th>ái</th>
</tr>
</thead>
<tbody>
<tr>
<td>áu</td>
</tr>
</tbody>
</table>

As shown in the above listing of diphthongs, stress is predictable. It falls on the more open vowel, /a/, in the case of /iá/, /uá/, /ái/, and /áu/. But where there are two high vowels as in /uí/ and /iá/, the stress falls on the second component of the diphthongs.

To some extent, all vowels of Tausug may be diphthongized, although the result is a somewhat affected style of speech. Unlike the true diphthongs discussed above, a diphthongized vowel

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Francis, op.cit., p. 106.
is non-distinctive or non-phonemic, in the sense that when it replaces a pure vowel of the same category as for instance, /u/ becoming [uʌ] or [uʌ] in bud [bud] [buʌd] or [buʌd]'mountain', there is no change in meaning involved. In the case of the high-front vowel, diphthongization sometimes results in /i/ becoming [il] or [iæ] as in sin [sin] [siIn] or [siʌn]'money'. With the low central vowel, /a/, possible diphthongized forms are [æ] or [aa] in lak [lak] [laæk] or [laʌk]'muscles'. It has been observed that the various diphthongized forms of the vowel phonemes result from lengthening of the vowel sounds. The transition from one phoneme to the next usually results in a central or centralized glide sound.

5.3. The Triphthongs

A triphthong in Tausug consists of a pure vowel and two semivowels occurring within one single syllable. Thus, the following combinations of vowel phonemes are listed as triphthongs of the language:

/iai/  kiait  /kiait/  'was pinned'
      siait  /siait/  'water was removed from the boat'
/uau/  duaun  /duaun/  'by two's'
      buaun  /buaun/  'will rock to sleep'
/uai  buaih  /buaih/  'place rattan' (on something-request or command)
      kuaih  /kuaih/  'wind it' (request or command)
/iau/  biaus  /biaus/  'bargained'
      siaud  /siaud/  'to receive something with receptable'
Although, from a listener's point of view, there seems to be an indivisible movement from one vowel to the other in a triphthong, so that it is sometimes difficult to analyze the complicated nucleus as made up of independent vowels, however, basically this sequence of sounds consists of three separate vowel phonemes. For instance, /iau/ is a combination of the vowels /i + a + u/, although it should be made clear here that the peripheral vowels /i/ and /u/ function as semivowels but not as a pure vowel.

As obviously shown in the above list, the central element in all the triphthongs of Tausug is the low central vowel /a/. Since the low central or 'open' vowel is more sonorous than the high or close vowels, and since a syllable in Tausug carries only a single peak of prominence, it is predictable that the vowel phoneme, /a/, forms the syllabic center of a triphthongal nucleus, while the marginal vowels /u/ and /i/ in /uau/, /iau/, and /uai/ function as secondary members. Thus, the words kait, duuan, siaud, and buaih are respectively transcribed as /kiait/, /duaun/, /siaud/, and /buaih/ with the accent mark showing the prominent sound.

5.3 The Consonants

The process of finding out and formulating the phonemic system of Tausug consists in applying the criteria of distribution, phonetic similarity, identity of function, and pattern congruity to all the phone-types of the language, thus combining the
latter whenever circumstances allow into functional units. In other words, the classificatory process involves subsuming certain phones under the category of one phoneme as, for instance, \([p]\) in \(\text{pais} \ [\text{'p'a?Is}] \ '\text{skin}' \) and \([p]\) in \(\text{atup} \ [\text{a?atup}] \ '\text{palm leaf roofing}'.\) Both sounds are grouped under the consonant phoneme, /p/, in view of their being phonetically similar, complementarily distributed, and having an identical function. On the same organizational procedure, contoids \([t^\ast] - [t], \ [k^\ast] - [k], \ [b] - [\beta], \ [g] - [\gamma],\) and \([r] - \ [\text{x}]\) are classified into consonant phonemes /t/, /k/, /b/, /\beta/, /g/, and /r/ respectively. As a whole, the contoids on page 54 are conveniently grouped into seventeen consonant phonemes (cf. section 5.2).

5.3.1 Description and Classification

While the vowel phonemes of Tausug are described, classified, and contrasted according to the position of the tongue and the shape of the lips, description, classification, and differentiation of the consonants (like the contoids of the language) are made mainly on two dimensional criteria: point and manner of articulation. In the case of stop consonants, there is a further contrast made in the absence or presence of voicing.

Normally, the contrastive features that characterize as well as differentiate one consonant from another are grouped together in 'bundles' of several features at a time such as the following:
/p/ - voiceless bilabial stop  
/t/ - voiceless dental stop  
/k/ - voiceless velar stop  
/ʔ/ - voiceless glottal stop  
/b/ - voiced bilabial stop  
/d/ - voiced dental stop  
/g/ - voiced velar stop  
/j/ - voiced dental affricated stop  
/s/ - voiceless dental fricative  
/h/ - voiceless glottal fricative  
/m/ - voiced bilabial nasal  
/n/ - voiced dental nasal  
/ŋ/ - voiced velar nasal  
/l/ - voiced dental lateral  
/r/ - voiced dental flap  
/w/ - voiced labio-velar semiconsonant  
/y/ - voiced palatal semiconsonant

In surveying the list of Tausug consonants above, a two-way distinction in voicing is observable among the stops. Voiceless stop consonants /p, t, k/ show contrast with their voiced counterparts /b, d, g/ in pairs such as:

pilu /pílu/ 'tightly rolled'  
bilu /bílu/ 'blue'
In each case, the voiced-voiceless distinction appears as one which sets up Tausug stops in opposed pairs, one member of each pair differing from the other only in the absence or presence of voice. With the other consonants - the affricated stop /j/, the nasals /m, n, ɳ/, the lateral /l/, the flap /r/, and the semivowels /y, w/ which are normally voiced, the voice feature ceases to be distinctive in other words. The latter group do not have corresponding voiceless consonants which would allow us to set them up in contrastive pairs. The same is true with the voiceless consonants /w/ and /h/ which have no contrastive voiced counterparts.

In regard to manner of articulation, there is a seven-dimensional contrast among Tausug consonants:

1. Stops: /p, t, k, ?, b, d, ɡ/

A stop is a consonant produced with the air-stream completely blocked at some point in the speech tract by closure of the passage through which the air flows.

2. Affricated Stop: /j/

This is a consonant articulated like the stop /d/ above but immediately followed by a relatively slow
release which allows the air to escape slowly producing audible friction.

3. Fricatives: /s,h/

When a consonant is made by constricting the passage so that the current of air escapes with audible friction, the resultant sound is called a fricative.

4. Nasals: /m,n,ŋ/

A nasal consonant is made with the oral cavity completely closed, and the velum lowered to allow the air-stream to escape through the nasal passage, thus producing nasal resonance.

5. Lateral: /l/

This is a consonant made with complete closure at the front and in the middle line of the oral cavity, i.e. by the contact of the tongue tip against the middle part of the alveolar ridge, but leaving an opening at one or both sides of the tongue to allow the escape of the air.

6. Flap: /r/

A flap is a consonant articulated by the very rapid contact of the tongue tip against the alveolar ridge, often repeated to produce a trill, sometimes restricted to a very short flap-like stop.
7. Semiconsonants: /y,w/

The semiconsonants are intermediate between a consonant and a vowel partaking in the nature of both. They are voiced sounds generally articulated without friction and made rapidly—never sustained. Their articulation corresponds to that of the high vowels, /i/ and /u/ respectively, but they have shorter duration and are characterized by constant movement or transition, rising or falling from one point to another with swift frequency change.

A six-way distinction would have been an economical analysis, having /j/ grouped along with the other stop sounds. Such classification, however, is not possible since contrast between /j/ and the dental stop /d/ exists in words like ja /jah/ (a native cake made from rice flour) vs. da /dah/ 'to carry' or 'to bring', jaga /jâgah/ 'guard' vs. daga /dâgah/ 'female', jabul /jâbul/ 'to do mischief' vs. dabul /dâbul/ 'moro dance performed by stamping the feet'. Both /j/ and /d/ share relatively the same point of articulation as well as the voiced feature. The only distinguishing characteristic is the manner in which each is produced, i.e. /j/ is made with slight affrication, while /d/ is articulated without it. In addition, like all other consonants of the language, /j/ clusters with the semivowel variant of /i/ in words like juwalan /jiwâlân/ 'was fried' (of banana) which is different from the word juwalan.
/juwálan/ 'fried banana' (noun). The /j/ sound cannot be interpreted as a /d/ plus the semivowel variant of /i/ since contrast between /d + i/ + V and /j + i/ + V are found in such words as diandi /diandih/ 'cotton fabric' and jianji /jiáńji/ 'was promised to', diahan /díáhan/ 'brought something for' and jiahan /jiáhan/ 'made 'ja' for' (for 'ja' see last paragraph of preceding page).

When differentiating consonants according to articulatory positions, a four-way distinction is observable among the voiceless stops /p,t,k,ʔ/. From front to back, distinction is made between bilabial, dental (including alveolar), velar, and glottal positions. Such contrasts are found in series of words like pilu /píluh/ 'tightly rolled', tilu /tíluʔ/ 'to throw', kilu /kíluh/ 'kilo', and ilu /ʔíluh/ 'orphan'. With the voiced stops /b,d,g/, there is a three-way contrast involving bilabial, dental, and velar articulation observable in words like bula /búlaʔ/ 'bamboo split', dulang /dúlan/ 'a tray of food', and gula /gúlaʔ/ 'molasses'.

The /j/ consonant is phonetically categorized as an alveopalatal sound, but simplicity is one of the working principles in phonemic analysis and to avoid skewness in patterning, the problem has been solved by classifying /j/ as a phoneme among the dental stops. It is believed that such classification does not in any way (to paraphrase Hall) do violence to the phonetic facts of the language; neither does it force completely disparate elements into artificial parallelism.43

43 Hall, op. cit., p. 97.
Like the voiced stops, the nasal consonants /m, n, ñ/ have the three-way distinction in point of articulation. /m/ being a bilabial, /n/, a dental, and /ñ/, a velar in examples like mabi /mábih/ 'can buy', nabi /nábih/ 'prophet', and ngani /ñáníh/ 'give a name'.

With fricative consonants /s/ and /h/ and the semi-consonants /y/ and /w/, there is a two-way contrast in articulatory position. The fricatives /s/ and /h/ are respectively dental and glottal, while /y/ is generally described as front or more precisely a sound starting from the front position on or near the vowel limit, and the /w/ in like manner can be described as starting from the back position likewise on or near the vowel limit. There are no fixed positions for /y/ and /w/, although sometimes they are classified as alveopalatal and labiovelar respectively. With simplicity again as the working principle, /y/ is classified under dentals, while /w/ is categorized with bilabials.

In the case of the affricated stop /j/, lateral /l/, and flap /r/, point of articulation does not function as a contrasting feature since they do not have contrasting counterparts.

In the above discussions of Tausug consonants, it has been pointed out that they are distinguished from one another by a relatively few articulatory differences or contrastive features. These features are arranged in such a way that each consonant phoneme shares some contrastive feature with other consonants.
although each of them is set off from every other consonant by a difference in at least one distinctive quality. Contrast between the consonant phonemes according to their contrastive features gives a diagrammatic arrangement as shown in Figure 7 (see next page).

Although it is not of the essence of phonemic analysis, the schematic representation is useful in understanding better the functional relationships between the consonant phonemes in terms of their relevant features. Figure 7 conveniently illustrates a series of intersecting classifications according to the absence and presence of voice, point of articulation, and manner of articulation. As shown in the diagram, Tausug consonants differ by one or more of these contrastive features. To make such differences evident, lines are drawn along each dimensions of phonemic contrasts, pointing out the differences by means of diagonal lines (slanting lines) in the case of voiced-voiceless distinction (i.e., the voiceless stop /p,t,k/ as respectively opposed to their voiced counterparts /b,d,g/), vertical lines for contrast in manner of articulation (i.e., from stop, affricated stop, fricative, nasal, lateral, flap, to semiconsonant), and horizontal lines to show differences in articulatory positions. (i.e., from bilabial to dental, velar, and on to glottal).

Unlike the vowel system, it is relatively difficult and rare to find the entire consonant system to be perfectly symmetri-

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44 Ibid., p. 79.
Figure 8: The Consonant Diagram for Tausug
cal throughout. Some gaps - or 'holes' as linguists term them - exist in the system. The stop consonants, for instance, have a perfect balance between the voiceless and voiced stops from bilabial to dental, and to velar. However, since a corresponding voiced glottal stop is an articulatory impossibility, the voiceless glottal consonant is unmatched, thus, a hole is said to exist in the system. With the voiceless /h/ consonant, however, in the same articulatory position as /ʔ/, the problem of symmetry in patterning is solved.

5.3.2 Phonemic Contrast

It has been alluded to in previous discussions that a phoneme as a linguistic phonemenon derives its function from being in opposition with other comparable phenomena in the sound system of the language. Thus, /p/, for instance, obtains its special function from the fact that in the matter of voicing, it contrast with /b/ in words like pais /paʔis/ 'skin' versus bais /bâʔis/ 'flirtiness'. In manner of articulation, /p/ is in opposition to /m/ in a pair like pasa /pâsad/ 'swear' and masa /mâsad/ 'period of time' or 'era', while in point of articulation, it is opposed to /t/, /k/, and /ʔ/, i.e., pilu /pîlu/ 'rolled tightly', tilu /tíluʔ/ 'threw', kilu /kîlu/ 'kilo', and ilu /ʔîluʔ/ 'orphan'. In short, contrast is the fundamental criterion in giving a consonant phoneme its functional or phonemic status. De Saussure went even as far as to say that what really
matters in a language are the differences between one language entity and another.

To differ distinctively, two consonant phonemes must be able to occur in the same position and environment. Again, this is where the discovery of minimal pairs, which differ in only one phoneme or feature, is a convincing piece of evidence. The minimal pairs are listed and arranged below in alphabetical order according to their position in an utterance and according to the three fundamental criteria used in differentiating them.

**Voiceless Vs. Voiced**

/p/ - /b/

**Word initial position**

- **pay** /pay/ 'unhusked rice'
- **bay** /bay/ 'house'
- **pais** /païs/ 'skin'
- **bais** /baïs/ 'flirtiness'
- **pilu** /pïlu/ 'tightly rolled'
- **bilu** /bïlu/ 'blue'
- **puad** /puad/ 'to cut down' (a tree, post, etc.)
- **buad** /buad/ 'to dry'

**Word medial**

- **apas** /aïpas/ 'to run after'
- **abas** /aïbas/ 'a kind of irritation of the skin'
**Word final position**

- **kutup** /kútup/  'to bite' (one's lip or tongue)
- **kutub** /kútub/  'beating' (of the heart)
- **lukup** /lúkup/  'to scrap the mossy substance on the sides of a boat'
- **lukub** /lúkub/  'cover' (of a thing)
- **silap** /sílap/  'crazy'
- **silab** /sílab/  'sudden flame'

**/t/ - /d/**

**Word initial position**

- **tabul** /tábul/  'germ of a coconut fruit'
- **dabul** /dábul/  'moro dance' (stamping of the feet)
- **taga** /tága/  'you call' (him or her)
- **daga** /dága/  'has reached age of puberty'
- **tahun** /táhun/  'hear'
- **dahun** /dáhun/  'leaf'
ti /tih/ 'tea'
di /dih/ 'here'

tilam /tílam/ 'mattress'
dilam /dílam/ 'precious stones'

tung /tuŋ/ (a term used in gambling set aside as rent for card, mahjong, etc.)
dung /duŋ/ 'the front part of a ship'

tungug /tuŋug/ 'tan bark'
dungug /díŋug/ 'to listen'

Word final position

labut /lábut/ 'to serve'
labud /lábud/ 'millipede'

lahut /láhut/ 'a kind of knife'
lahud /láhud/ 'mark left after one has been whipped'
sabut /sábut/ 'understand'
sabud /sábud/ 'to throw something in spray'

/k/ - /ɡ/

Word initial position

kaban /kában/ 'coffin'
gaban /gában/ 'to come up'
katas /kátas/ 'paper'
gatas /gátas/ 'milk'
kila  /kílah/    'to recognize'
gila  /gílah/    'careless'
kula  /kúla?/    'pleats' (on a curtain, dress, etc.)
gula  /gúla?/    'molasses'
kulung /kúluŋ/    'curl' or 'curly'
gulung /gúluŋ/    'wheel'

Word medial position

ikut  /?ikut/    'selfishness'
igut  /?igut/    'oil gland of a chicken'
sukal  /súkal/    'sugar'
sugal  /súgal/    'playing card'
tukas  /túkas/    'to find out'
tugas  /túgas/    'hardness'
tukun  /túkun/    'to press down' (something)
tugun  /túgun/    'order'

Word final position

bulak /búlak/    'unripe'
bulas /bulag/    'a disease of the eyes' (a white spot)
sulak /súlak/    'to refuse'
sulag /súlag/    'piece'
Manner of Articulation

Voiceless stop vs. Voice fricative

/t/ - /s/

<table>
<thead>
<tr>
<th>Word initial position</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>tamal /talam/</td>
<td>'tray for serving'</td>
<td></td>
</tr>
<tr>
<td>salam /salam/</td>
<td>'hand shake'</td>
<td></td>
</tr>
<tr>
<td>tapal /tapal/</td>
<td>'protection', 'shield'</td>
<td></td>
</tr>
<tr>
<td>sapal /sapal/</td>
<td>'by-product from grated coconut'</td>
<td></td>
</tr>
<tr>
<td>tibi /tibi/</td>
<td>'chip'</td>
<td></td>
</tr>
<tr>
<td>sibi /sibi/</td>
<td>'smallness'</td>
<td></td>
</tr>
<tr>
<td>tud /tud/</td>
<td>'to push'</td>
<td></td>
</tr>
<tr>
<td>sud /sud/</td>
<td>'a special kind of comb used for removing lice'</td>
<td></td>
</tr>
<tr>
<td>tung /tun/</td>
<td>(gambling term for money set aside as rent for cards, mahjong, etc.)</td>
<td></td>
</tr>
<tr>
<td>sung /sun/</td>
<td>'to move forward'</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Word medial position</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>batu /batuh/</td>
<td>'stone'</td>
<td></td>
</tr>
<tr>
<td>basu /basuh/</td>
<td>'drinking glass'</td>
<td></td>
</tr>
<tr>
<td>patu /patu/</td>
<td>'goose'</td>
<td></td>
</tr>
<tr>
<td>pasu /pasu/</td>
<td>'heat'</td>
<td></td>
</tr>
</tbody>
</table>
Patung /pátʊŋ/ 'bamboo'
Pasung /páˈsʊŋ/ 'a kind of native cake wrapped
in banana leaf'

Kaput /káˈpʊt/ 'to hold'
Kapus /káˈpʊs/ 'not enough', 'lacking'
Lanut /lánʊt/ 'abaca'
Lanus /lánʊs/ 'withered'
Laput /láˈpʊt/ 'thin' (sauce, starch, etc.)
Lapus /láˈpʊs/ 'all around' (filled with something)
Panit /páˈnɪt/ 'tuna fish'
Panis /páˈnɪs/ 'has become acidic' or 'spoiled' (food)

Abal /ʔáˈbʊl/ 'whirlpool'
Habal /háˈbʊl/ 'news'
Atud /ʔáˈtʊd/ 'to look at'
Hatud /háˈtʊd/ 'to escort' or 'to return'
Ilu /ʔíˈlu/ 'orphan'
Hilu /híˈlu/ 'dizzy'
Ug /ʔu/ 'possessiveness'
Hug /hug/ 'change' (money)
Word medial position

dayaan /dayáʔan/ 'put surface up'
dayahan /dayáhan/ 'rich'
nailu /naʔiluh/ 'become orphan'
nahilu /nahíluh/ 'got drunk' or 'become dizzy'
paa /páʔah/ 'thigh'
paha /páhaʔah/ 'band' (for navel)

Word final position

badju /báджuʔ/ 'dress'
badju /báджuʔ/ 'storm'
dugu /dúguʔ/ 'blood'
dugu /dúguh/ 'corner'

Voiced stop vs. Voiced affricated stop
/d/ - /j/

Word initial position

da /dah/ 'to carry'
ja /jah/ 'a native cake made from rice flour'
dabul /dábul/ 'a moro dance made by stamping of the feet'
jabul /jábul/ 'to make mischief'
daga /dáʔah/ 'has reached age of puberty'
jaga /jáʔah/ 'guard'
jahan /jáʔah/ 'will make 'ja' (a native cake)
dahan /dáʔah/ 'will bring for'
Voiced affricated stop vs. Voiced nasal

/j/ - /n/

**Word initial position**

ja /jah/ 'a native cake made from rice flour'

na /nah/ (an expression implying that you have done something wrong)

jaga /jagah/ 'guard'

naga /nagah/ 'dragon'

janap /janap/ 'a kind of bolo'

nanap /nanap/ 'crawl'

Voiced nasal vs. Voiced lateral

/n/ - /l/

**Word initial position**

naga /nagah/ 'dragon'

laga /lagah/ 'flame'

nara /narah/ 'narra' (tree)

lara /larah/ 'peper'

nunuk /nunuk/ 'balete tree'

lunuk /lunuk/ 'softness'

**Word medial position**

manas /manas/ 'beriberi' or 'swelling of the skin'

males /malas/ 'out of luck'

sanam /sanam/ 'ant'

salam /salam/ 'handshake'
Word final position

ipun /ɪˈpʊn/ 'teech
ipul /ɪˈpʊl/ 'leper'
sabun /səˈbʌn/ 'soap'
sabul /səˈbul/ 'dirty'

**Voiced lateral vs. Voiced flap**

/l/ - /r/

Word initial position

ladju /læˈdʒu/ 'farness'
radju /ræˈdʒu/ 'radio'
latag /ləˈtag/ 'search around'
Ratag /rəˈtag/ 'a name of a place in Siasi, Sulu'.

Word medial position

balan /ˈbɑːlən/ 'steel'
baran /ˈbɑːrən/ 'body'
pala /ˈpɑːlə/ 'shovel'
para /ˈpɑːrə/ 'stop'
palang /ˈpɑːlɑŋ/ 'multicolored mat'
parang /ˈpɑːrəŋ/ 'grass'
pali /ˈpɑːli/ 'wound'
pari /ˈpɑːri/ 'priest'

**Point of Articulation**

Voiceless Bilabial vs. Voiceless Dental
### Word initial position

<table>
<thead>
<tr>
<th>Word</th>
<th>Pronunciation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>palang</td>
<td>/pálan/</td>
<td>'multicolored mat'</td>
</tr>
<tr>
<td>talang</td>
<td>/tálan/</td>
<td>'a kind of game done by tossing 2 coins'</td>
</tr>
<tr>
<td>pasa</td>
<td>/pásah/</td>
<td>'swear'</td>
</tr>
<tr>
<td>tasa</td>
<td>/tásah/</td>
<td>'drinking cup'</td>
</tr>
<tr>
<td>pinda</td>
<td>/píndah/</td>
<td>'change' (of place or appearance)</td>
</tr>
<tr>
<td>tinda</td>
<td>/tíndah/</td>
<td>'store'</td>
</tr>
<tr>
<td>pukul</td>
<td>/púkul/</td>
<td>'fingerless', 'armless'</td>
</tr>
<tr>
<td>tukul</td>
<td>/túkul/</td>
<td>'hammer'</td>
</tr>
<tr>
<td>pulak</td>
<td>/púlak/</td>
<td>'abortion'</td>
</tr>
<tr>
<td>tulak</td>
<td>/túlak/</td>
<td>'to push'</td>
</tr>
</tbody>
</table>

### Word medial position

<table>
<thead>
<tr>
<th>Word</th>
<th>Pronunciation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>apas</td>
<td>/ápas/</td>
<td>'to run after'</td>
</tr>
<tr>
<td>atas</td>
<td>/átas/</td>
<td>'to guarantee for'</td>
</tr>
<tr>
<td>gapas</td>
<td>/gápas/</td>
<td>'guaze'</td>
</tr>
<tr>
<td>gatas</td>
<td>/gatas/</td>
<td>'milk'</td>
</tr>
<tr>
<td>sapal</td>
<td>/sápal/</td>
<td>'by-product from grated coconut'</td>
</tr>
<tr>
<td>satal</td>
<td>/sátal/</td>
<td>'to sew a mattress'</td>
</tr>
</tbody>
</table>

### Word final position

<table>
<thead>
<tr>
<th>Word</th>
<th>Pronunciation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>silap</td>
<td>/sílap/</td>
<td>'crazy'</td>
</tr>
<tr>
<td>silat</td>
<td>/sílat/</td>
<td>'a moro dance similar to judo'</td>
</tr>
</tbody>
</table>
lukup /ˈlʊkʌp/ 'moss on the side of a boat'
lukut /ˈlʊkʌt/ 'an edible sea product'

Voiceless Bilabial vs. Voice Velar

/p/-/k/

Word initial position

palang /ˈpʌlæŋ/ 'multicolored mat'
kalang /ˈkʌlæŋ/ 'to sing'
panit /ˈpʌnit/ 'tuna fish'
kanit /ˈkʌnit/ 'to unfasten something fastened or pasted'
patu /ˈpʌtu/ 'goose'
katu /ˈkʌtu/ 'ours'
pilu /ˈpɪlʊ/ 'rolled tightly'
kilu /ˈkɪlʊ/ 'kilo'
pula /ˈpʊlə/ 'red'
kula /ˈkʊlə/ 'to bleach'
kutu /ˈkʊtu/ 'lice'
putu /ˈpʊtu/ 'a kind of native food'

Word medial position

bapa /ˈbæpə/ 'a term used to call an uncle, as a sign of respect'
baka /ˈbækə/ 'tartar'
sapat /ˈsəpət/ 'something not thrown in the right place'
sakat /ˈsəkat/ 'to go up'
suka  /sukaʔ/  'venigar'
supa  /súpaʔ/  'to chew'
tapu  /tápuʔ/  'to alight'
taku  /tákuʔ/  'chin'
tupas  /túpas/  'cake or cookies that goes with coffee or tea'
tukas  /túkas/  'to reveal'

Voiceless Bilabial vs. Voiceless Glottal

/p/ - /ʔ/

Word initial position

pasu  /pásuh/  'flower pot'
asu  /ʔásuh/  'smoke'
pata  /pátaʔ/  'one bundle' (of firewood)
ata  /ʔátah/  'slave'
pila  /pílah/  'how much'
ila  /ʔílah/  'birth mark'
pilu  /píluʔ/  'rolled tightly'
ilu  /ʔíluʔ/  'orphan'
punung  /púnunŋ/  'faint'
unung  /ʔununŋ/  'will follow wherever one goes' (come what may)
putang  /putaŋ/  'dried coconut'
utang  /ʔutaŋ/  'credit'
### Word medial position

<table>
<thead>
<tr>
<th>Word</th>
<th>Pronunciation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>kaa</td>
<td>/káʔah/</td>
<td>'get it'</td>
</tr>
<tr>
<td>kapa</td>
<td>/káʔah/</td>
<td>'axe'</td>
</tr>
<tr>
<td>lapus</td>
<td>/láʔus/</td>
<td>'all around filled with gold teeth'</td>
</tr>
<tr>
<td>laus</td>
<td>/láʔus/</td>
<td>'continue' or 'extend'</td>
</tr>
<tr>
<td>sapat</td>
<td>/sáʔat/</td>
<td>'something thrown not in proper place'</td>
</tr>
<tr>
<td>saat</td>
<td>/sáʔat/</td>
<td>'proper timing'</td>
</tr>
</tbody>
</table>

### Word final position

<table>
<thead>
<tr>
<th>Word</th>
<th>Pronunciation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>alup</td>
<td>/ʔalup/</td>
<td>'harm made on the skin due to the wind and the sun'</td>
</tr>
<tr>
<td>alu</td>
<td>/ʔaluʔ/</td>
<td>'dew'</td>
</tr>
<tr>
<td>kulap</td>
<td>/kulap/</td>
<td>'a kind of skin disease'</td>
</tr>
<tr>
<td>kula</td>
<td>/kúlaʔ/</td>
<td>'pleats' or 'shearing on a dress or curtain'</td>
</tr>
</tbody>
</table>

### Voiceless dental vs. Voiceless velar

/t/ - /k/

### Word initial position

<table>
<thead>
<tr>
<th>Word</th>
<th>Pronunciation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>tabang</td>
<td>/táʔban/</td>
<td>'help'</td>
</tr>
<tr>
<td>kabang</td>
<td>/káʔban/</td>
<td>'spotted'</td>
</tr>
<tr>
<td>talang</td>
<td>/táʔlan/</td>
<td>'a kind of game tossing coin'</td>
</tr>
<tr>
<td>kalang</td>
<td>/káʔlan/</td>
<td>'to sing'</td>
</tr>
<tr>
<td>tapa</td>
<td>/táʔpaʔ/</td>
<td>'to roast'</td>
</tr>
<tr>
<td>kapa</td>
<td>/káʔpaʔ/</td>
<td>'axe'</td>
</tr>
</tbody>
</table>
tapal /ˈtɑːpəl/ 'protection' or 'shield'
kapal /ˈkɑːpəl/ 'thickness'
tula /ˈtʊːləʔ/ 'a native recipe'
kula /ˈkʊləʔ/ 'pleats' or 'shears' (on dress or curtain)

Word medial position

bati /ˈbɑːtiʔ/ 'awake'
baki /ˈbɑːkiʔ/ 'a kind of fish'
katas /ˈkɑːtas/ 'paper'
kakas /ˈkɑːkas/ 'ringworm'
katu /ˈkɑːtuʔ/ 'ours'
kaku /ˈkɑːkuʔ/ 'mine'

Word final position

kaput /ˈkɑːpʊt/ 'to hold'
kapuk /ˈkɑːpʊk/ 'kapok'
laput /ˈlɑːpʊt/ 'thin' (of sauce, starch, etc.)
lapuk /ˈlɑːpʊk/ 'crispiness'
silat /ˈsɪlɑːt/ 'a moro self-defence dance similar to 'judo'
silak /ˈsɪlɑːk/ 'radiance'

Voiceless Velar vs. Voiceless glottal

/k/ - /ʔ/
<table>
<thead>
<tr>
<th>Word initial position</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>kapas</td>
<td>/kapah/</td>
<td>'axe'</td>
<td></td>
</tr>
<tr>
<td>apa</td>
<td>/?ápa/</td>
<td>'thin wafer'</td>
<td></td>
</tr>
<tr>
<td>katas</td>
<td>/káta/</td>
<td>'paper'</td>
<td></td>
</tr>
<tr>
<td>atas</td>
<td>/?átas/</td>
<td>'will guarantee'</td>
<td></td>
</tr>
<tr>
<td>kila</td>
<td>/kilä/</td>
<td>'to recognize'</td>
<td></td>
</tr>
<tr>
<td>ila</td>
<td>/?íla/</td>
<td>'birth mark'</td>
<td></td>
</tr>
<tr>
<td>kilu</td>
<td>/kilu/</td>
<td>'kilo'</td>
<td></td>
</tr>
<tr>
<td>ilu</td>
<td>/?ílu/</td>
<td>'orphan'</td>
<td></td>
</tr>
<tr>
<td>kug</td>
<td>/kug/</td>
<td>'joy' or 'happiness'</td>
<td></td>
</tr>
<tr>
<td>ug</td>
<td>/?ug/</td>
<td>'possessiveness'</td>
<td></td>
</tr>
<tr>
<td>kulung</td>
<td>/kúlu/</td>
<td>'curl' or 'curly'</td>
<td></td>
</tr>
<tr>
<td>ulung</td>
<td>/?ulu/</td>
<td>'pity'</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Word medial position</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>makug</td>
<td>/mákug/</td>
<td>'happy'</td>
<td></td>
</tr>
<tr>
<td>maug</td>
<td>/má?ug/</td>
<td>'selfish'</td>
<td></td>
</tr>
<tr>
<td>nakilu</td>
<td>/nakílu/</td>
<td>'was weighed'</td>
<td></td>
</tr>
<tr>
<td>nailu</td>
<td>/naílu/</td>
<td>'became orphan'</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Word final position</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>bulak</td>
<td>/búlak/</td>
<td>'unripe'</td>
<td></td>
</tr>
<tr>
<td>bula</td>
<td>/búla/</td>
<td>'bamboo split'</td>
<td></td>
</tr>
<tr>
<td>sapak</td>
<td>/sápak/</td>
<td>'an expression implying</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&quot;It is just fitting and proper&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>sapa</td>
<td>/sápa/</td>
<td>'lake'</td>
<td></td>
</tr>
<tr>
<td>Word</td>
<td>Pronunciation</td>
<td>Meaning</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>---------------</td>
<td>------------------------------</td>
<td></td>
</tr>
<tr>
<td>sipak</td>
<td>/sɪˈpak/</td>
<td>'to split (something) to pieces'</td>
<td></td>
</tr>
<tr>
<td>sipa</td>
<td>/sɪˈpa/</td>
<td>'kick'</td>
<td></td>
</tr>
</tbody>
</table>

Voiced bilabial stop vs. Voiced labio-velar semiconsonant

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>/b/</td>
<td>-</td>
<td>/w/</td>
</tr>
</tbody>
</table>

### Word Initial Position

<table>
<thead>
<tr>
<th>Word</th>
<th>Pronunciation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>balu</td>
<td>/bəˈlu/</td>
<td>'widow' or 'widower'</td>
</tr>
<tr>
<td>walu</td>
<td>/wəˈlu/</td>
<td>'eight'</td>
</tr>
<tr>
<td>bay</td>
<td>/bɛi/</td>
<td>'house'</td>
</tr>
<tr>
<td>way</td>
<td>/weɪ/</td>
<td>'none'</td>
</tr>
</tbody>
</table>

### Word Medial Position

<table>
<thead>
<tr>
<th>Word</th>
<th>Pronunciation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>laba</td>
<td>/ləˈba/</td>
<td>'salable'</td>
</tr>
<tr>
<td>lawa</td>
<td>/ləˈwa/</td>
<td>'left' (hand, side, etc.)</td>
</tr>
<tr>
<td>labay</td>
<td>/ləˈbaɪ/</td>
<td>'to pass by'</td>
</tr>
<tr>
<td>laway</td>
<td>/ləˈweɪ/</td>
<td>'saliva'</td>
</tr>
<tr>
<td>sabay</td>
<td>/səˈbaɪ/</td>
<td>'to go together'</td>
</tr>
<tr>
<td>saway</td>
<td>/səˈweɪ/</td>
<td>'to give critical comment'</td>
</tr>
<tr>
<td>suba</td>
<td>/ˈsuːba/</td>
<td>'inlet'</td>
</tr>
<tr>
<td>suwa</td>
<td>/ˈsuːwa/</td>
<td>'oranges'</td>
</tr>
</tbody>
</table>

### Word Final Position

<table>
<thead>
<tr>
<th>Word</th>
<th>Pronunciation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>lanab</td>
<td>/ləˈnaːb/</td>
<td>'delicious', 'palatable'</td>
</tr>
<tr>
<td>lanaw</td>
<td>/ləˈnaːw/</td>
<td>'lake' or 'canal'</td>
</tr>
<tr>
<td>sabab</td>
<td>/səˈbaːb/</td>
<td>'cause' or 'because'</td>
</tr>
<tr>
<td>sabaw</td>
<td>/səˈbaːw/</td>
<td>'soup'</td>
</tr>
</tbody>
</table>
Voiced bilabial nasal vs. Voiced labio-velar semiconsonant

/m/ - /w/

Word initial position

<table>
<thead>
<tr>
<th>Word</th>
<th>Pronunciation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>may</td>
<td>/mæ/</td>
<td>'why'</td>
</tr>
<tr>
<td>way</td>
<td>/we/</td>
<td>'none'</td>
</tr>
</tbody>
</table>

Word medial position

<table>
<thead>
<tr>
<th>Word</th>
<th>Pronunciation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>kamas</td>
<td>/ˈkæməs/</td>
<td>'to scratch'</td>
</tr>
<tr>
<td>kawas</td>
<td>/ˈkæwəs/</td>
<td>'sudden and strong rain'</td>
</tr>
<tr>
<td>lamay</td>
<td>/ˈlæməj/</td>
<td>'viand'</td>
</tr>
<tr>
<td>laway</td>
<td>/ˈlæwe/</td>
<td>'saliva'</td>
</tr>
</tbody>
</table>

Word final position

<table>
<thead>
<tr>
<th>Word</th>
<th>Pronunciation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>sanam</td>
<td>/səˈnæm/</td>
<td>'ant'</td>
</tr>
<tr>
<td>sanaw</td>
<td>/səˈnæw/</td>
<td>'to grope'</td>
</tr>
<tr>
<td>sulam</td>
<td>/ˈsʊləm/</td>
<td>'sliver'</td>
</tr>
<tr>
<td>sulaw</td>
<td>/ˈsʊləw/</td>
<td>'a bracelet made from a sea shell'</td>
</tr>
</tbody>
</table>

Voiced dental stop vs. Voiced dental nasal

/d/ - /n/

Word initial position

<table>
<thead>
<tr>
<th>Word</th>
<th>Pronunciation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>daga</td>
<td>/dæˈɡa/</td>
<td>'has reached age of puberty'</td>
</tr>
<tr>
<td>naga</td>
<td>/næˈɡa/</td>
<td>'dragon'</td>
</tr>
<tr>
<td>daug</td>
<td>/dəˈuɡ/</td>
<td>'to win'</td>
</tr>
<tr>
<td>naug</td>
<td>/nəˈuɡ/</td>
<td>'to go down'</td>
</tr>
<tr>
<td>datu</td>
<td>/dəˈtu/</td>
<td>'daty' or a 'chieftain'</td>
</tr>
<tr>
<td>natu</td>
<td>/nəˈtu/</td>
<td>'ours'</td>
</tr>
</tbody>
</table>

Voiced dental stop vs. Voiced dental nasal

/d/ - /n/

Word initial position

<table>
<thead>
<tr>
<th>Word</th>
<th>Pronunciation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>daga</td>
<td>/dæˈɡa/</td>
<td>'has reached age of puberty'</td>
</tr>
<tr>
<td>naga</td>
<td>/næˈɡa/</td>
<td>'dragon'</td>
</tr>
<tr>
<td>daug</td>
<td>/dəˈuɡ/</td>
<td>'to win'</td>
</tr>
<tr>
<td>naug</td>
<td>/nəˈuɡ/</td>
<td>'to go down'</td>
</tr>
<tr>
<td>datu</td>
<td>/dəˈtu/</td>
<td>'daty' or a 'chieftain'</td>
</tr>
<tr>
<td>natu</td>
<td>/nəˈtu/</td>
<td>'ours'</td>
</tr>
<tr>
<td>Word</td>
<td>Pronunciation</td>
<td>Meaning</td>
</tr>
<tr>
<td>------------</td>
<td>---------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>diyat</td>
<td>/díyat/</td>
<td>'to pay for a damage done to a person'</td>
</tr>
<tr>
<td>niyat</td>
<td>/níyat/</td>
<td>'desire' or 'ambition'</td>
</tr>
<tr>
<td>dunuk</td>
<td>/dúnuk/</td>
<td>'strong flow of water from the mountain after raining'</td>
</tr>
<tr>
<td>nunuk</td>
<td>/núnuk/</td>
<td>'balete tree'</td>
</tr>
<tr>
<td>lagud</td>
<td>/lágud/</td>
<td>'slime'</td>
</tr>
<tr>
<td>lagun</td>
<td>/lágun/</td>
<td>'will look for'</td>
</tr>
<tr>
<td>sabud</td>
<td>/sábud/</td>
<td>'to throw something in spray'</td>
</tr>
<tr>
<td>sabun</td>
<td>/sábun/</td>
<td>'soap'</td>
</tr>
<tr>
<td>tagad</td>
<td>/tágad/</td>
<td>'to wait'</td>
</tr>
<tr>
<td>tagan</td>
<td>/tágan/</td>
<td>'will call'</td>
</tr>
<tr>
<td>tahud</td>
<td>/táhud/</td>
<td>'spines on the rooster's legs'</td>
</tr>
<tr>
<td>tahun</td>
<td>/táhun/</td>
<td>'year'</td>
</tr>
<tr>
<td>tikud</td>
<td>/tíkud/</td>
<td>'heel'</td>
</tr>
<tr>
<td>tikun</td>
<td>/tíkun/</td>
<td>'gizzard'</td>
</tr>
<tr>
<td>tukud</td>
<td>/túkud/</td>
<td>'to guess'</td>
</tr>
<tr>
<td>tukun</td>
<td>/túkun/</td>
<td>'to press down'</td>
</tr>
<tr>
<td>tuud</td>
<td>/tú?ud/</td>
<td>'to do something deliberately'</td>
</tr>
<tr>
<td>tuun</td>
<td>/tú?un/</td>
<td>'a wager' or 'bet'</td>
</tr>
</tbody>
</table>

**Voiced dental stop vs. Voiced dental lateral**

/d/ - /l/
Word initial position

daga /dágah/ 'has reached age of puberty'
lagu /lágah/ 'flame'
dagun /dágün/ 'will climb'
lagun /lágun/ 'will look for . . .' 
dasu /dasuʔ/ 'an expensive kind of fabric'
lasu /lasuʔ/ 'ribbon'
daya /dayʔaʔ/ 'surface up'
laya /láyaʔ/ 'flat surface'
duhul /dúhul/ 'end' or 'edge'
luhul /lúhul/ 'a wide piece of cloth hang above a bed to keep dirt from falling'

dupa /dúpah/ 'the length from finger tip to finger tip when hands are stretched.'
lupa /lúpah/ 'appearance'

Word final position

alud /ʔáľud/ 'cry baby' or 'irritable'
alul /ʔálul/ 'raft'
luhud /lúhud/ 'to kneel'
luhul /lúhul/ 'wide piece of cloth hang above a bed to keep dirt from falling'
sabud /sábud/ 'to throw something in spray'
sabul /sábul/ 'dirty' or 'sloven'
tukud /túkud/ 'to guess'
tukul /túkul/ 'hammer'

Voiced dental stop vs. Voiced high-front semiconsonant /d/ - /y/

Word final position
anad /?ánad/ 'to learn'
anay /?ánay/ 'termites'

buad /buad/ 'to dry'
buay /buay/ 'rattan'

labad /labad/ 'to wave something rapidly'
labay /lábay/ 'to pass by'

subad /súbad/ 'mackerel'
subay /súbay/ 'it should be'

Voiced dental affricated stop vs. Voiced dental lateral /j/ - /l/

Word initial position
jaga /jágah/ 'guard'
laga /lágah/ 'flame'

jakat /jákat/ 'money or things given as tithe'
lakat /lákat/ 'mess' (of water, sticky substance, etc.)
juba /juba/? 'divine curse'
luba /lúba/? 'much more'
jukup /júkup/ 'complete'
lukup /lúkup/ 'to scrub mossy substance on the sides of boats.'

Voiced dental affricated stop vs. Voiced high-front semi consonant /j/ - /y/

Word initial position
jari /jári/ 'then . . .'
yari /yári/ 'here'
jabutan /jabutan/ 'fibrous:" (of seed after pulp has been removed)
yabutan /yabutan/ 'was reached'

Voiced dental nasal vs. Voiced high-front semi consonant /n/ - /y/

Word initial position
nari /nári/ 'has been placed here'
yari /yári/ 'here'
natud /nátud/ 'has been pushed'
yatud /yátud/ 'was being stared at'

Word medial position
anad /?ánad/ 'to learn'
ayad /?áyad/ 'to be careful' or to be cautious'
lana /lánah/ 'oil'
laya /láyah/ 'fishing net'
<table>
<thead>
<tr>
<th>Word</th>
<th>Pronunciation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>lanu</td>
<td>/lanuʔ/</td>
<td>'fineness' or 'cleanliness'</td>
</tr>
<tr>
<td>layu</td>
<td>/layuʔ/</td>
<td>'farness'</td>
</tr>
<tr>
<td>luuna</td>
<td>/luʔuna/</td>
<td>'to put in . . .'</td>
</tr>
<tr>
<td>luuya</td>
<td>/luʔuya/</td>
<td>'ginger'</td>
</tr>
<tr>
<td>indan</td>
<td>/ʔindan/</td>
<td>'marker' or 'reminder'</td>
</tr>
<tr>
<td>inday</td>
<td>/ʔinday/</td>
<td>(an expression of negation implying- 'I do not know')</td>
</tr>
<tr>
<td>katan</td>
<td>/ʔatan/</td>
<td>'all'</td>
</tr>
<tr>
<td>katay</td>
<td>/ʔatay/</td>
<td>'one who goes from one house to another - no fixed place to stay'</td>
</tr>
<tr>
<td>luun</td>
<td>/luʔun/</td>
<td>'content'</td>
</tr>
<tr>
<td>luuy</td>
<td>/luʔuy/</td>
<td>'pity' or 'sweet' (of song)</td>
</tr>
<tr>
<td>pantan</td>
<td>/pantan/</td>
<td>'wharf'</td>
</tr>
<tr>
<td>pantay</td>
<td>/pantay/</td>
<td>'plain'</td>
</tr>
<tr>
<td>panun</td>
<td>/panun/</td>
<td>'friend'</td>
</tr>
<tr>
<td>panuy</td>
<td>/panuy/</td>
<td>'will relate' or 'will gossip'</td>
</tr>
</tbody>
</table>

Voiced dental lateral vs. Voiced high-front semiconsonant

/ʔ/ - /y/

<table>
<thead>
<tr>
<th>Word</th>
<th>Pronunciation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>labut</td>
<td>/labut/</td>
<td>'to serve'</td>
</tr>
<tr>
<td>yabut</td>
<td>/yabut/</td>
<td>'to reach for'</td>
</tr>
<tr>
<td>Word</td>
<td>Pronunciation</td>
<td>Meaning</td>
</tr>
<tr>
<td>--------------</td>
<td>---------------</td>
<td>----------------------------------------------</td>
</tr>
<tr>
<td>lubu</td>
<td>/lubuh/</td>
<td>'edible part inside a seacucumber'</td>
</tr>
<tr>
<td>yubu</td>
<td>/yubuh/</td>
<td>'is having a cough'</td>
</tr>
<tr>
<td>kalug</td>
<td>/kəlʊŋ/</td>
<td>'ascaris'</td>
</tr>
<tr>
<td>kayug</td>
<td>/kəyʊŋ/</td>
<td>'thinness' or 'slimness'</td>
</tr>
<tr>
<td>sila</td>
<td>/sɪlɑ/</td>
<td>'they'</td>
</tr>
<tr>
<td>sîya</td>
<td>/sɪyɑ/</td>
<td>'he' or 'she'</td>
</tr>
<tr>
<td>talum</td>
<td>/təlʊm/</td>
<td>'eggplant'</td>
</tr>
<tr>
<td>tayum</td>
<td>/ˈtæjʊm/</td>
<td>'a variety of sea urchin with long spines'</td>
</tr>
<tr>
<td>atal</td>
<td>/ʔatəl/</td>
<td>'lipstick'</td>
</tr>
<tr>
<td>atay</td>
<td>/ʔatəy/</td>
<td>'heart'</td>
</tr>
<tr>
<td>kapal</td>
<td>/kəpɑl/</td>
<td>'thickness'</td>
</tr>
<tr>
<td>kapay</td>
<td>/kəpɑy/</td>
<td>'rudder'</td>
</tr>
<tr>
<td>sampal</td>
<td>/sæmpɑl/</td>
<td>'measles'</td>
</tr>
<tr>
<td>sampay</td>
<td>/ˈsæmpɑy/</td>
<td>'to hang' (of clothes especially)</td>
</tr>
</tbody>
</table>

Voiced bilabial vs. Voiced dental stop

/b/ - /d/

<table>
<thead>
<tr>
<th>Word</th>
<th>Pronunciation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>baus</td>
<td>/baʊs/</td>
<td>'to bargain'</td>
</tr>
<tr>
<td>daus</td>
<td>/dɑs/</td>
<td>'close to' (some facilities)</td>
</tr>
<tr>
<td>basu</td>
<td>/ˈbɑsu/</td>
<td>'drinking glass'</td>
</tr>
<tr>
<td>dasu</td>
<td>/ˈdɑsu/</td>
<td>'a kind of cloth'</td>
</tr>
</tbody>
</table>
bi  /bih/  'to buy'
di  /dih/  'here'

bihun  /bíhun/  'will buy'
dihun  /díhun/  'will put it here'

bulang  /bulan/  'cockfight'
dulang  /dulan/  'a tray of food'

bung  /buŋ/  'a kind of fish'
dung  /dun/  'front part of a boat'

Word final position

lub  /lub/  'unredeemed'
lud  /lud/  'to come downtown from the rural area'

masub  /masub/  'fond of' (a kind of food)
masud  /másud/  'can be entered'

taub  /ta’ub/  'high tide'
taud  /ta’ud/  'quantity'

Voiced bilabial vs. Voiced velar

/b/  -  /g/

Word initial position

baran  /baran/  'body'
garan  /garan/  'a kind of gun'
bata  /bata'/  'child'
gata  /gata'/  'coconut mild'
baus /baʕus/ 'to bargain'
gaus /gáʕus/ 'can afford to'
bula /búlaʔ/ 'bamboo'
gula /gúlaʔ/ 'molasses'
butas /butas/ 'to make a hole'
gutas /gútas/ 'starving'

Word medial position

baba /bábaʔ/ 'the lower part' (of something)
baga /bágaʔ/ 'lung'
iban /ʔíban/ 'companion'
igan /ʔígan/ 'to remove' or 'to transfer'
ibut /ʔíbut/ 'never forget to'
igut /ʔígut/ 'back part of the chicken where the oil is stored.'

labba /lábah/ 'salable'
laga /lághaʔ/ 'flame'
labut /lábut/ 'to serve'
lagut /láɡut/ 'to stab'
sabu /sábuh/ 'while'
sagu /ságuh/ 'sap'
sabul /sábul/ 'dirty' or 'untidy'
sagul /sáɡul/ 'to mix things together' (a kind of native recipe)
### Word final position

<table>
<thead>
<tr>
<th>Word</th>
<th>Pronunciation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>lab</td>
<td>/lab/</td>
<td>'a disease wherein the skin becomes redish'</td>
</tr>
<tr>
<td>lag</td>
<td>/lag/</td>
<td>'to look for'</td>
</tr>
<tr>
<td>sub</td>
<td>/sub/</td>
<td>'fondness for' (something to eat)</td>
</tr>
<tr>
<td>sug</td>
<td>/sug/</td>
<td>'current'</td>
</tr>
<tr>
<td>sulab</td>
<td>/sulab/</td>
<td>'blade'</td>
</tr>
<tr>
<td>sulag</td>
<td>/sulag/</td>
<td>'piece'</td>
</tr>
</tbody>
</table>

### Voiced dental vs. Voiced velar stop

/d/ - /g/

### Word initial position

<table>
<thead>
<tr>
<th>Word</th>
<th>Pronunciation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>dabul</td>
<td>/dábul/</td>
<td>'moro dance' (stamping the feet)</td>
</tr>
<tr>
<td>gabul</td>
<td>/gábul/</td>
<td>'haziness'</td>
</tr>
<tr>
<td>daan</td>
<td>/da?an/</td>
<td>'old' (of things)</td>
</tr>
<tr>
<td>gaan</td>
<td>/ga?an/</td>
<td>'weight'</td>
</tr>
<tr>
<td>daran</td>
<td>/dáran/</td>
<td>'often' or 'frequent'</td>
</tr>
<tr>
<td>garan</td>
<td>/gáran/</td>
<td>'a kind of fun'</td>
</tr>
<tr>
<td>daus</td>
<td>/da?us/</td>
<td>'close to' (facilities)</td>
</tr>
<tr>
<td>gaus</td>
<td>/ga?us/</td>
<td>'can afford to do something'</td>
</tr>
</tbody>
</table>

### Word final position

<table>
<thead>
<tr>
<th>Word</th>
<th>Pronunciation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ad</td>
<td>/?ad/</td>
<td>'fence'</td>
</tr>
<tr>
<td>ag</td>
<td>/?ag/</td>
<td>'considerateness'</td>
</tr>
<tr>
<td>pad</td>
<td>/pad/</td>
<td>'instead'</td>
</tr>
<tr>
<td>ad</td>
<td>/?ad/</td>
<td>'fence'</td>
</tr>
<tr>
<td>Word</td>
<td>Phoneme</td>
<td>Meaning</td>
</tr>
<tr>
<td>---------------</td>
<td>---------</td>
<td>--------------------------------------------</td>
</tr>
<tr>
<td>sud</td>
<td>/sud/</td>
<td>'to enter' or 'a special kind of comb for removing lice'</td>
</tr>
<tr>
<td>sug</td>
<td>/sug/</td>
<td>'current'</td>
</tr>
<tr>
<td>tuhud</td>
<td>/tuhud/</td>
<td>'knee'</td>
</tr>
<tr>
<td>tuhug</td>
<td>/tuhug/</td>
<td>'to string'</td>
</tr>
<tr>
<td>ud</td>
<td>/?ud/</td>
<td>'worm'</td>
</tr>
<tr>
<td>ug</td>
<td>/?ug/</td>
<td>'possessiveness'</td>
</tr>
</tbody>
</table>

**Voiceless dental vs. Voiceless glottal fricative**

/s/ - /h/

**Word initial position**

<table>
<thead>
<tr>
<th>Word</th>
<th>Phoneme</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>sabal</td>
<td>/sábal/</td>
<td>'stoic'</td>
</tr>
<tr>
<td>habal</td>
<td>/hábal/</td>
<td>'news'</td>
</tr>
<tr>
<td>sabul</td>
<td>/sábul/</td>
<td>'dirty' or 'untidy'</td>
</tr>
<tr>
<td>habul</td>
<td>/hábul/</td>
<td>'blanket'</td>
</tr>
<tr>
<td>subu</td>
<td>/súbu?/</td>
<td>'to feed' (someone)</td>
</tr>
<tr>
<td>hubu</td>
<td>/húbu?/</td>
<td>'naked'</td>
</tr>
<tr>
<td>sug</td>
<td>/sug/</td>
<td>'current'</td>
</tr>
<tr>
<td>hug</td>
<td>/hug/</td>
<td>'change' (money)</td>
</tr>
<tr>
<td>sula</td>
<td>/s ula/?</td>
<td>'divine punishment'</td>
</tr>
<tr>
<td>hula</td>
<td>/h ula/?</td>
<td>'place' or 'country'</td>
</tr>
<tr>
<td>sulat</td>
<td>/sulat/</td>
<td>'letter'</td>
</tr>
<tr>
<td>hulat</td>
<td>/hulat/</td>
<td>'plug'</td>
</tr>
</tbody>
</table>

**Word medial position**

<table>
<thead>
<tr>
<th>Word</th>
<th>Phoneme</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>basa</td>
<td>/bása/?</td>
<td>'wet'</td>
</tr>
<tr>
<td>baha</td>
<td>/báha/?</td>
<td>'maybe'</td>
</tr>
</tbody>
</table>
kasig /kásig/ "a species of fish"
kahig /káhig/ "to remove something from"
lusa /lúsa?/ "to subside" (of disease like chicken pox)
luha /lúha?/ "tears" (of eyes)
pasa /pásah/ "to sign" (of divorce)
paha /páhah/ "band" (for the navel)
pisak /písak/ "mud"
pihak /píhak/ "ancestry" or "race"

Word final position

apas /?ápas/ "to run after"
apa /?ápah/ "ice cream cone" or "a kind of cookies"
atas /?átas/ "to guarantee for"
ata /?átah/ "slave"
paus /pá?us/ "to chew sugar cane"
pau /pá?uh/ "the head part of something"
kakas /kákas/ "ringworm"
kaka /kákah/ "to make rhymical sound on the side of a boat with a wand"

Voiced bilabial vs. Voiced dental: Nasal

/m/ - /n/
Word initial position

mabi /mábih/ 'can be bought'

nabi /nábih/ 'prophet'

maga /mága/ 'dawn'

naga /nága/ 'dragon'

makawa /makáwa/? 'can be taken'

nakawa /nakáwa/? 'was taken'

masakit /masákit/ 'painful'

nasakit /nasákit/ 'was sick'

maug /ma?ug/ 'selfish'

naug /na?ug/ 'to go down'

Word medial position

guma /gúmah/ 'rubber'

guna /gúnah/ 'has use for'

mamis /mamis/ 'a variety of coconut'

manis /manis/ 'charm' (when smiling, talking etc.)

sumud /sumud/ 'will enter'

sunud /sunud/ 'to follow'

uma /?umah/ 'farm'

una /?unah/ 'first'

Word final position

alum /?álum/ 'bruise'

alun /?alun/ 'wave' (of the sea)
Voiced bilabial vs. Voiced velar nasal

/m/ - /ŋ/

<table>
<thead>
<tr>
<th>Word initial position</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>man</strong> /man/</td>
<td></td>
<td>(a particle used to mark an adjective)</td>
</tr>
<tr>
<td><strong>ngan</strong> /ŋan/</td>
<td></td>
<td>'name'</td>
</tr>
<tr>
<td><strong>manga</strong> /mɑŋa/</td>
<td></td>
<td>(a particle marking a plural noun)</td>
</tr>
<tr>
<td><strong>nganga</strong> /ŋɑŋa/</td>
<td></td>
<td>'to open wide the mouth'</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Word medial position</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>mama</strong> /mɑmɑʔ/</td>
<td></td>
<td>'beetle nut'</td>
</tr>
<tr>
<td><strong>manga</strong> /mɑŋaʔ/</td>
<td></td>
<td>'will get' (something)</td>
</tr>
<tr>
<td><strong>mami</strong> /mɑmɪʔ/</td>
<td></td>
<td>'will select'</td>
</tr>
<tr>
<td><strong>mangι</strong> /mɑŋiʔ/</td>
<td></td>
<td>'bad'</td>
</tr>
<tr>
<td><strong>tuma</strong> /tʊmɑʔ/</td>
<td></td>
<td>'a specie of lice that are usually found in clothes'</td>
</tr>
<tr>
<td><strong>tunga</strong> /tʊnɑʔ/</td>
<td></td>
<td>'to stick one's nose out of the water'</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Word final position</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>itum</strong> /ʔɪtum/</td>
<td></td>
<td>'black'</td>
</tr>
<tr>
<td><strong>itung</strong> /ʔɪtʊŋ/</td>
<td></td>
<td>'to count'</td>
</tr>
<tr>
<td><strong>palam</strong> /pɑlɑm/</td>
<td></td>
<td>'a kind of native recipe'</td>
</tr>
<tr>
<td><strong>palang</strong> /pɑlɑŋ/</td>
<td></td>
<td>'multicolored mat'</td>
</tr>
<tr>
<td><strong>talam</strong> /tɑlɑm/</td>
<td></td>
<td>'tray'</td>
</tr>
<tr>
<td><strong>talang</strong> /tɑlɑŋ/</td>
<td></td>
<td>'a game played by tossing up 2 coins'</td>
</tr>
</tbody>
</table>
tikam /tikam/ 'a small card with chinese character'
tikang /tikang/ 'stop'

Voiced bilabial vs. Voiced velar nasal
/n/ - /ŋ/

Word medial position
mana /manah/ 'to inherit'
manga /maŋah/ (a particle marking plural noun)
nana /nanaʔ/ 'pus'
nanga /naŋaʔ/ 'got' (something)
lanaw /lanaw/ 'stagnant water'
langaw /laŋaw/ 'housefly'
manug /manug/ 'will sleep in someone's house'
mangug /maŋug/ 'to admire' or 'to court'
suna /sunah/ 'to inquire immediately'
sunga /sunəŋah/ 'to blow one's nose'

Word final position
agum /aŋ gun/ 'to feel like' (doing something)
agung /aŋ gun/ 'going'
kaban /ka̱ban/ 'coffin'
kabang /ka̱baŋ/ 'spotted'
sampen /sampan/ 'chinese junk'
sampang /sampan/ 'to meet'
taban /təˈban/ 'to rob someone's property'
tabang /təˈbaŋ/ 'help'
bagun /bəˈɡun/ 'vine'
bagung /bəˈɡʊŋ/ 'a kind of vegetable'
lawan /ˈlaʊən/ 'to play with a baby'
lawang /ˈlaʊəŋ/ 'door'

Voiced high-back vs. Voiced high-front semiconsonant
/w/ - /y/

Word medial position
lawa /ˈlaʊə/ 'spider'
laya /ˈlaɪə/ 'flat' (of plate)

/pawas /ˈpawas/ 'one who always lose something' or 'careless'

payas /ˈpɛyas/ 'a shell of a clam'
sawa /ˈsəwə/ 'python'
saya /ˈsəyə/ 'skirt'

Word final position
lanaw /ˈlaˈnəw/ 'stagnant water'
lanay /ˈləˈnə/ 'satin cloth'
sabaw /ˈsəˈbəw/ 'soup'
sabay /ˈsəˈbəj/ 'to go together'
sangbaw /ˈsəŋˈbəw/ 'a specie of crab'
sangbay /ˈsəŋˈbəj/ 'to give compliment'
It has already been seen in the above list of minimal pairs that the essence of a phoneme is contrast or distinctiveness. The consonant system of Tausug has been established by reference to the environment of maximal contrast. However, not all oppositions between one consonant and another operate in all phonological environments. For instance, contrasts between /d/ with either /b/, /g/, /n/, or /l/ occur only in word initial and final positions but not in intervocalic position. In the case of /d/ vs. /y/, opposition seems to be found only in word final position, while contrast between /j/ vs. /l/ or /y/ is observed to occur in initial position. The consonant /n/ contrasts with /ŋ/ in word medial as well as final positions but not initially.

Except for the pair pakid /paːkid/ 'to the side' vs. pakir /paːkir/ 'moslem religious leader', contrast between /d/ and /r/ does not seem to occur in pure Tausug words. Between vowels or semivowels, the /r/ consonant phoneme occurs, but never /d/, so that the two sounds could possibly be interpreted as variants of the same phoneme, /d/. However, since "the borrowings from Arabic into Tausug" to quote the Ashleys', "are numerous enough and so generally used by all Tausug speakers as to warrant their acceptance as a new Tausug pattern", the two sounds are regarded as independent phonemes. The importance of this consideration is seem
in the attitude of Tausug speakers to the incorrect use of either sound for the other in certain words. Using /d/ instead of /r/ in words like ruku /r'ukuh/ 'position for praying', makru /m'akruh/ 'taboo', Jabur /ja'bur/ 'book of Moses', etc., would be felt to be unusual. So is the use of /r/ for /d/ in words such as pahid /p'ahid/ 'to wipe', lubid /l'ubid/ 'rope', luhud /l'uhud/ 'to kneel', bud /bud/ 'mountain', etc.

Subminimal pairs occur like Jabur /ja'bur/ 'book of Moses' vs. sabud /s'abud/ 'to throw something in spray', ruku /r'ukuh/ 'position for praying' vs. dugu /d'uguh/ 'corner', murka /m'urka/ 'curse' vs. sud kaw /s'ud kaw/ 'come in', etc.

5.3.3 Allophonic Variation

A phoneme as shown in previous discussions is a group of one or more phone-types that are phonetically similar, are in complementary distribution, and perform an identical function. These phone-types, or allophones by which term they are better known, are actualized in different ways according to their varying phonetic environments, so that they are referred to sometimes as positional variants.

In syllable initial, the voiceless /p/ has a slightly aspirated released allophone [pʰ] found in words like padpad [p'adp'ad] 'instead' or 'a kind of medicinal plant', pasu [p'asUh] 'flower pot', kapal [k'ap'al] 'thickness', etc.

(It should be mentioned here, however, that in word medial, a
syllable initial [p'] is less aspirated than one in word initial position). An unreleased variety is found in word final position as in latap [\'lat\'ap] 'flood' and when followed by another stop consonant as in dapdap [\'dapdap] 'fire tree'.

The voiceless dental stop /t/ has allophones [t', t] in much the same distributional pattern as the similar allophones of /p/ in words such as tadtad [\'t\'adt\'ad] 'badly mutilated', tahun [\'t\'ahUn] 'year', suntuk [\'sunt\'ük] 'box', kilat [\'k\'ilat] 'lightning', and katkat [\'k\'atk\'at] 'saw' (carpenter's tool).

The voiceless velar stop /k/ has a set of allophones parallel to /p/ and /t/: [k', k] in similar distribution, i.e., kita [\'k\'it\'a?] 'saw' (verb), kagkag [\'k\'agk\'ag] 'thinness', alak [\'\?alak] 'wine', and pikpik [\'p\'ikp\'Ik] 'wing'. In the company of the front vowel, it has been observed that the allophone [k'] is considerably fronted, and with the back vowel, it is retracted.

Unlike the other three voiceless stops [p, t, k], the voiceless glottal stop, /ʔ/, has three principal allophones: released, which is found in prevocalic position like atup [\'ʔatUp] 'palm leaf roofing', ilu [\'ʔilUh] 'orphan', ud [\ʔu:d] 'worm'; unreleased [ʔ] found in words like bata [\'bata?] 'child',
kita [ 'k'itâ] 'saw' (verb), tuka [ 't'uka] 'bill' (of bird) and a weakly but completely articulated glottal stop which occurs only in intervocalic position as in lian [ 'liyan] 'senile', maas [ 'maas] 'old'; niun [ 'pi?Un] 'will select'.

The voiced bilabial stop /b/ has two principal allophones, [ b] which occurs in prevocalic and post-vocalic position, i.e., bata [ 'bata] 'child' and sabab [ 'sabab] 'because' or 'cause', and [ p] which occurs only in intervocalic position like in the examples ubat [ 'u?at] 'medicine', sibu [ 'siBu?] 'equal' and tubu [ 'tuBUn] 'tube' or 'sugarcane'.

Like the voiced bilabial stop, the voiced dental stop has two positional variants with similar distribution. Preceding and following a vowel sound the [ d] variant is heard as in dahun [ 'dahUn] 'will carry' or 'leaf' and lubid [ 'luBid] 'rope'. When occurring between vowels, the [ r] variant is observable. This observation is made evident when an affix is added to the root words beginning or ending in /d/, i.e., pa dahun parahun [p'a'rahUn] 'will send' or 'will have it carried', lubid an lubiran [lu?iran] 'will put a rope on'.

In the case of the voiced velar stop /g/, there are two main allophonic variants, [ g] which occur in prevocalic and postvocalic positions like gadja [ 'gadjah] 'elephant' and tubig [ 't'uBjg] 'water', and [ y], a variant found only in intervocalic environment as in agarun [ 'ajarUn] 'will follow', buga [ 'bu?ga] 'fear', ijan [ 'iyan] 'will remove', etc.

The intervocalic ? is said to be completely articulated in that it includes both the 'catch' (onset) as well as the
A number of the consonant phonemes like the voiced affricated stop /j/, the voiceless fricative /s/, the voiced nasals /m, n, n/, and the voiced lateral /l/ have each only one allophone.

The voiceless fricative glottal /h/ has the voiceless variant [h] when preceding or following a vowel as in habul [ˈhaβuɬ] 'blanket', lupa [ˈlupah] 'appearance', and a voiced variety [h] when found in intervocalic position as in the words ahad [ˈʔaχad] 'Sunday', bihung [ˈbihʊn] 'will buy', duhal [ˈduɬal] 'to hand over' and uhan [ˈʔuχan] 'to put a head on'.

It has been observed that the dental-alveolar flap /r/ has three allophones. Generally the [r] variant may appear as in ruku [ˈrukʊɬ] 'position for praying' makru [ˈmakrʊɬ] 'taboo', parang [ˈparəŋ] 'grass', and Jabur [ˈjaβʊr] 'book of Moses'. The second allophonic variant of /r/, i.e., [u] has been observed to occur with the following nasal consonants, [m, n], the voiced and voiceless velar stops /ɡ/ and /k/ as in karna [ˈkʰɑnaʔ] 'that is why', warna [ˈwɑnaʔ] 'color', parman [ˈpʰaɾmɑn] 'message', surga [ˈsuɾɡaʔ] 'heaven' and murka [ˈmuɾkɑʔ] 'curse'. A third variant of /r/ is /l/ which freely alternates with allophones [r] in word final position, i.e., pakir [ˈpʰakɪr] ~ [ˈpʰakɪl] and [u] in words like warna [ˈwɑnaʔ] ~ [ˈwɑlmaʔ], surga [ˈsuɾgaʔ] ~ [ˈsulgaʔ], etc.

'release' (code) articulation, while the allophone in word initial has only the 'release'. The allophone in word final has only the 'catch'. 
The labiovelar semiconsonant /w/ has allophones which may be described as having more lip rounding in the case where there is a preceding or following high-front vowel /i/ and less lip rounding following a low central vowel /a/. A parallel case is observable with the front semiconsonant /y/. There is more lip spreading when preceding and following a front vowel and relatively less when preceding and following a low central vowel.

5.3.4 Distribution.

It is clearly shown in the list of minimal pairs in section 5.3.2 that some consonants of Tausug are unlimited in their distribution, i.e., they occur initially, medially, and finally, while others are restricted only to certain positions or environments. In word initial and medial position, all consonants are without limitation of occurrence. Except for /j/, all consonants appear in word final position. Every one of them except with /w/ and /y/ structures with any of the three vowel phonemes of the language. The semiconsonant /w/ structures only with /i/ and /a/, never with /u/. On the other hand, /y/ structures with /u/ and /a/, never with /i/. A sample listing of words showing the possible distributions of each of the consonant phonemes is provided below:

Word initial position

pila /p'ilah/ 'how much'
<table>
<thead>
<tr>
<th>Word</th>
<th>Pronunciation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>tinda</td>
<td>/tinda/</td>
<td>'store'</td>
</tr>
<tr>
<td>kalu</td>
<td>/kælu/</td>
<td>'trouble' or 'quarrel'</td>
</tr>
<tr>
<td>ugab</td>
<td>/ʌgæb/</td>
<td>'coconut shell'</td>
</tr>
<tr>
<td>bisu</td>
<td>/bɪsu/</td>
<td>'deaf'</td>
</tr>
<tr>
<td>dagat</td>
<td>/dæɡæt/</td>
<td>'sea'</td>
</tr>
<tr>
<td>gabun</td>
<td>/gæbʊn/</td>
<td>'clouds'</td>
</tr>
<tr>
<td>juba</td>
<td>/jʊba/</td>
<td>'robe'</td>
</tr>
<tr>
<td>sulat</td>
<td>/sʊlæt/</td>
<td>'letter'</td>
</tr>
<tr>
<td>habal</td>
<td>/hæbal/</td>
<td>'news'</td>
</tr>
<tr>
<td>manis</td>
<td>/mænis/</td>
<td>'charm'</td>
</tr>
<tr>
<td>niyug</td>
<td>/niyʊg/</td>
<td>'coconut palm'</td>
</tr>
<tr>
<td>nguya</td>
<td>/ŋʊya/</td>
<td>'to chew'</td>
</tr>
<tr>
<td>lupa</td>
<td>/lʊpæ/</td>
<td>'appearance'</td>
</tr>
<tr>
<td>radju</td>
<td>/rædju/</td>
<td>'radio'</td>
</tr>
<tr>
<td>yubus</td>
<td>/yʊbus/</td>
<td>'was consumed'</td>
</tr>
</tbody>
</table>

**Word medial position**

<table>
<thead>
<tr>
<th>Word</th>
<th>Pronunciation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>kapul</td>
<td>/kæpuːl/</td>
<td>'to embalm'</td>
</tr>
<tr>
<td>bata</td>
<td>/bæta/</td>
<td>'child'</td>
</tr>
<tr>
<td>lakit</td>
<td>/lækit/</td>
<td>'rock'</td>
</tr>
<tr>
<td>taas</td>
<td>/tæʔas/</td>
<td>'height'</td>
</tr>
<tr>
<td>tabu</td>
<td>/tæbʊ/</td>
<td>'market'</td>
</tr>
<tr>
<td>lindung</td>
<td>/lɪndʊŋ/</td>
<td>'shade'</td>
</tr>
<tr>
<td>baga</td>
<td>/bæɡɑ/</td>
<td>'ember'</td>
</tr>
<tr>
<td>panji</td>
<td>/pænji/</td>
<td>'flag'</td>
</tr>
<tr>
<td>Term</td>
<td>Pronunciation</td>
<td>Meaning</td>
</tr>
<tr>
<td>------------</td>
<td>---------------</td>
<td>------------------</td>
</tr>
<tr>
<td>pansul</td>
<td>/pãnsul/</td>
<td>'faucet'</td>
</tr>
<tr>
<td>mahaba</td>
<td>/mahaba/</td>
<td>'long'</td>
</tr>
<tr>
<td>kama</td>
<td>/kãmah/</td>
<td>'mattress'</td>
</tr>
<tr>
<td>lanut</td>
<td>/lãnut/</td>
<td>'abaca'</td>
</tr>
<tr>
<td>mangi</td>
<td>/mãji/</td>
<td>'bad'</td>
</tr>
<tr>
<td>kalas</td>
<td>/kâlas/</td>
<td>'pink'</td>
</tr>
<tr>
<td>laring</td>
<td>/lãrin/</td>
<td>'knife'</td>
</tr>
<tr>
<td>layu</td>
<td>/lãyu/</td>
<td>'farness'</td>
</tr>
<tr>
<td>pawas</td>
<td>/pãwas/</td>
<td>'one who always loses things'</td>
</tr>
</tbody>
</table>

**Word final position**

<table>
<thead>
<tr>
<th>Term</th>
<th>Pronunciation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>latap</td>
<td>/lãtap/</td>
<td>'flood'</td>
</tr>
<tr>
<td>kilat</td>
<td>/kîlat/</td>
<td>'lightning'</td>
</tr>
<tr>
<td>balik</td>
<td>/bâlik/</td>
<td>'return'</td>
</tr>
<tr>
<td>layu</td>
<td>/lãyu/</td>
<td>'farness'</td>
</tr>
<tr>
<td>kitab</td>
<td>/kîtab/</td>
<td>'bible'</td>
</tr>
<tr>
<td>luhud</td>
<td>/lûhud/</td>
<td>'to kneel'</td>
</tr>
<tr>
<td>kabig</td>
<td>/kãbig/</td>
<td>'crooked'</td>
</tr>
<tr>
<td>gatas</td>
<td>/gãtas/</td>
<td>'milk'</td>
</tr>
<tr>
<td>kula</td>
<td>/kûlah/</td>
<td>'to bleach'</td>
</tr>
<tr>
<td>sanam</td>
<td>/sãnam/</td>
<td>'ant'</td>
</tr>
<tr>
<td>baran</td>
<td>/bãran/</td>
<td>'body'</td>
</tr>
<tr>
<td>parang</td>
<td>/pãran/</td>
<td>'gross'</td>
</tr>
<tr>
<td>kappal</td>
<td>/kâppal/</td>
<td>'boat'</td>
</tr>
<tr>
<td>jabur</td>
<td>/jãbur/</td>
<td>'book of Moses'</td>
</tr>
<tr>
<td>sabaw</td>
<td>/sãbaw/</td>
<td>'soup'</td>
</tr>
<tr>
<td>bay</td>
<td>/bay/</td>
<td>'house'</td>
</tr>
</tbody>
</table>
Reduplicated words such as the following illustrate better the occurrence of some consonants in word initial and medial positions:

- padpad /pädpad/ 'instead' or 'a kind of medicinal plant'
- tastas /tästas/ 'to untangle'
- kabkab /käbkab/ 'far'
- ud-ud /ʔudʔud/ 'worm' (diminutive)
- bugbug /bäbug/ 'porridge'
- dugdug /dägdug/ 'to box someone on the chest or back'
- gisgis /gäsgis/ 'toothbrush'
- jag jag /jägjag/ 'to disarrange' or 'to scatter'
- sadsad /sädsad/ 'to feel' or 'to grope'
- hudhud /hädhud/ 'to pour something out on'
- mugmug /mëgmug/ 'to gargle'
- naknak /näknak/ 'running car'
- nganga /nänäng/ 'to open wide the mouth'
- lublub /lëblëblub/ 'to wallow in the mud'

The following reversals also show initial and final distribution of some consonants like:

- padpad /pädpad/ 'instead' or 'a kind of medicinal plant'
- dápdp /däpdap/ 'fire tree'
<table>
<thead>
<tr>
<th>English Meanings</th>
<th>Tagalog Words</th>
</tr>
</thead>
<tbody>
<tr>
<td>'to push'</td>
<td>tudtud /tu\textipa{d\textipa{d}}/</td>
</tr>
<tr>
<td>'to suck'</td>
<td>dutdut /d\textipa{u\textipa{d\textipa{d}}}/</td>
</tr>
<tr>
<td>'to unearth'</td>
<td>kadkad /k\textipa{\acute{a}\textipa{k\textipa{d\textipa{d}}}/</td>
</tr>
<tr>
<td>'to wash' (clothes)</td>
<td>dakdak /d\textipa{\acute{a}\textipa{k\textipa{d\textipa{d}}}/</td>
</tr>
<tr>
<td>'sulking'</td>
<td>ad-ad /\acute{a}\textipa{d\textipa{d\textipa{d}/</td>
</tr>
<tr>
<td>'fence' (diminutive)</td>
<td>dada /d\textipa{\acute{a}\textipa{d\textipa{a}/</td>
</tr>
<tr>
<td>'termite'</td>
<td>bukbuk /b\textipa{\acute{u}\textipa{k\textipa{b\textipa{u}}/</td>
</tr>
<tr>
<td>'to bite something' (fruit)</td>
<td>kubkub /k\textipa{\acute{u}\textipa{b\textipa{k\textipa{b}}/</td>
</tr>
<tr>
<td>'grumbling'</td>
<td>dubdub /d\textipa{\acute{u}\textipa{b\textipa{d\textipa{b}}/</td>
</tr>
<tr>
<td>'miniature mountain'</td>
<td>budbud /b\textipa{\acute{u}\textipa{b\textipa{b\textipa{d}}/</td>
</tr>
<tr>
<td>'faded'</td>
<td>gasgas /g\textipa{\acute{a}\textipa{s\textipa{g\textipa{g}}/</td>
</tr>
<tr>
<td>'will be torn apart'</td>
<td>sagsag /s\textipa{\acute{a}\textipa{g\textipa{s\textipa{g}}/</td>
</tr>
<tr>
<td>'to trim rough edges'</td>
<td>sapsap /s\textipa{\acute{a}\textipa{p\textipa{s\textipa{p}}/</td>
</tr>
<tr>
<td>'to shake off dirt from'</td>
<td>paspas /p\textipa{\acute{a}\textipa{s\textipa{p\textipa{p}}/</td>
</tr>
<tr>
<td>'to gurgle'</td>
<td>mugmug /m\textipa{\acute{u}\textipa{g\textipa{m\textipa{g}}/</td>
</tr>
<tr>
<td>'to gurgle'</td>
<td>gumgum /g\textipa{\acute{u}\textipa{m\textipa{g\textipa{m}}/</td>
</tr>
<tr>
<td>'becoming thin'</td>
<td>nisnis /n\textipa{i\textipa{n\textipa{s\textipa{n}}/</td>
</tr>
<tr>
<td>'money' (diminutive)</td>
<td>sin-sin /s\textipa{\acute{i\textipa{n\textipa{s\textipa{n}}/</td>
</tr>
<tr>
<td>'always smiling'</td>
<td>ngit-ngit /n\textipa{\acute{g\textipa{i\textipa{n\textipa{t\textipa{t}}/</td>
</tr>
<tr>
<td>'ringing of the bell'</td>
<td>tingting /t\textipa{n\textipa{t\textipa{t\textipa{t}}/</td>
</tr>
<tr>
<td>'to wallow in the mud'</td>
<td>lublub /l\textipa{\acute{u}\textipa{l\textipa{b\textipa{b}}/</td>
</tr>
<tr>
<td>'hair of the body'</td>
<td>bulbul /b\textipa{\acute{u}\textipa{l\textipa{b\textipa{b}}/</td>
</tr>
</tbody>
</table>
5.3.5 Consonant Clusters

A cluster as defined by Archibald Hill is a sequence of two or more phonemes of the same class without the intervention of a phoneme of another class. A consonant cluster is, therefore, a sequence of two or more consonants without a vowel or juncture phoneme intervening.

With reference to the permitted syllable patterns of Tausug discussed in section 4, the language has no consonant clusters since consonant phonemes occur only singly in initial and final syllable positions. Groupings of consonants may be said to occur only across syllable boundaries or morpheme boundaries, but they are to be interpreted as sequences of two consonants which divide into the preceding and following syllables, although in some cases there seem to be a loss of syllable divisions between consonants, thus making them seemingly appear like real clusters as in the word iklug /?fklug/ 'egg', iskul /?fskul/ 'school' makru /mâkruh/ 'taboo', etc.

Among the possible groupings of consonants across syllable boundaries, the following has been observed in Tausug:

\[
\begin{array}{llll}
\text{/pt-/-} & \text{taptap} & /\text{tâptap/} & \text{'always'} \\
\text{/pk-/-} & \text{kupkup} & /\text{kûpkup/} & \text{'to hold tight'} \\
\text{/p?-/-} & \text{ap-ap} & /\text{?âp?ap/} & \text{a skin disease scientifically known as \text{tinea flava'}}
\end{array}
\]
to curse
'soften by too much pressure'
'to suck'
'the sound of a machine'
(of boat)
'picture'
'saw'
'to carry with the hand'
'to suck'
'a way of calling somebody’s attention'
'always smiling'
'silk'
'wing'
'to strike something with...
'wise'
'termite'
'to wash'
'dandruff'
'witness'
'small pieces of cloth left after cutting a dress'
'help a person by holding him on the elbow, arms, etc.'
'curse'
/-kl-/ lukluk /lu’kluk/ 'owl'
/-?l-/ nagtata /na’gtat’/ 'walking on something with bare feet'
/-?k-/ magkeka /ma’gka’ka’/ 'to get some things habitually'
/-?d-/ dada /da’da’/ 'to sulk'
/-?g-/ gaga /ga’ga’/ 'to talk in anger'
/-?s-/ nagsasa /na’g’sa’/ 'committing mistake deliberately'
/-?n-/ kanu /ka’n’/ 'when'
/-bt-/ sabtu /sa’btu’/ 'Saturday'
/-bk-/ kabbad /ka’b’/ 'fan'
/-bb-/ abbuhan /a’bbuhan/ 'proud'
/-bj-/ abjan /a’bjan/ 'to mind'
/-bs-/ magsibsib /ma’sibs’/ 'peeping'
/-bh-/ hubhub /hu’hub’/ 'influenza'
/-bl-/ lublub /lu’lub’/ 'to wallow'
/-dp-/ padpad /pa’dpad/ 'instead or a kind of medicinal plant'
/-dt-/ tadtad /ta’tdad/ 'badly mutilated'
/-dk-/ kadkad /ka’kad’/ 'to unearth'
/-d?-/ ad-ad /a’da’d/ 'fence' (diminutive)
/-db-/ badbad /ba’bad’/ 'raveled'
/-dd-/ addun /a’dun’/ 'the mixing of ingredients'
/-dg-/ gidgid /gi’dgid/ 'to rub'
/-dj-/ gadja /ga’dja’/ 'elephant'
/-ds-/ sadsad /sa’sad/ 'to grope for something'
<table>
<thead>
<tr>
<th>Sound</th>
<th>Root Word</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>/-dh-/</td>
<td>hudhud</td>
<td>'to pour something out on'</td>
</tr>
<tr>
<td>/-dl-/</td>
<td>adlaw</td>
<td>'day'</td>
</tr>
<tr>
<td>/-gp-/</td>
<td>tugpa</td>
<td>'to jump'</td>
</tr>
<tr>
<td>/-gt-/</td>
<td>magtu</td>
<td>'is leaking'</td>
</tr>
<tr>
<td>/-gk-/</td>
<td>nagkugkug</td>
<td>'was admiring at'</td>
</tr>
<tr>
<td>/-g?-/</td>
<td>mag-ad</td>
<td>'will put a fence'</td>
</tr>
<tr>
<td>/-gj-/</td>
<td>nagjanji</td>
<td>'promised'</td>
</tr>
<tr>
<td>/-gs-/</td>
<td>nagsihil</td>
<td>'announcement of a man’s intention to marry a girl'</td>
</tr>
<tr>
<td>/-gh-/</td>
<td>taghuy</td>
<td>'whistle'</td>
</tr>
<tr>
<td>/-gm-/</td>
<td>mugmug</td>
<td>'to gurgle'</td>
</tr>
<tr>
<td>/-gn-/</td>
<td>tagna</td>
<td>'to start'</td>
</tr>
<tr>
<td>/-gn-/</td>
<td>pagnagan</td>
<td>'named ______'</td>
</tr>
<tr>
<td>/-gb-/</td>
<td>tigbas</td>
<td>'to stab with a bladed weapon'</td>
</tr>
<tr>
<td>/-gd-/</td>
<td>sagda</td>
<td>'to comment on . . .'</td>
</tr>
<tr>
<td>/-gg-/</td>
<td>sagga</td>
<td>'quarrel' or 'misunderstanding'</td>
</tr>
<tr>
<td>/-gl-/</td>
<td>sigla</td>
<td>'fastness'</td>
</tr>
<tr>
<td>/-gw-/</td>
<td>sagwa</td>
<td>'but'</td>
</tr>
<tr>
<td>/-sp-/</td>
<td>paspasan</td>
<td>'hurried it up'</td>
</tr>
<tr>
<td>/-st-/</td>
<td>yastulan</td>
<td>'was angry'</td>
</tr>
<tr>
<td>/-sk-/</td>
<td>iskutan</td>
<td>'selfish'</td>
</tr>
<tr>
<td>Code</td>
<td>Word</td>
<td>Pronunciation</td>
</tr>
<tr>
<td>------</td>
<td>------</td>
<td>---------------</td>
</tr>
<tr>
<td>/-sb-/</td>
<td><em>tasbi</em></td>
<td>/t̪ʼasbi̞h/</td>
</tr>
<tr>
<td>/-sg-/</td>
<td><em>gisgis</em></td>
<td>/gɪsɡɪs/</td>
</tr>
<tr>
<td>/-ss-/</td>
<td><em>bassa</em></td>
<td>/bɑs̪ɑ/</td>
</tr>
<tr>
<td>/-sh-/</td>
<td><em>hashas</em></td>
<td>/hɑs̪ɑs/</td>
</tr>
<tr>
<td>/-sn-/</td>
<td><em>nisnis</em></td>
<td>/nɪs̪nɪs/</td>
</tr>
<tr>
<td>/-sl-/</td>
<td><em>maaslag</em></td>
<td>/mɑs̪ɑsl̪ɑ/</td>
</tr>
<tr>
<td>/-mp-/</td>
<td><em>ampun</em></td>
<td>/ɑm̪ʊn/</td>
</tr>
<tr>
<td>/-mt-/</td>
<td><em>tumtum</em></td>
<td>/t̪ʊmt̪ʊm/</td>
</tr>
<tr>
<td>/-kn-/</td>
<td><em>sukna</em></td>
<td>/sʊkna/</td>
</tr>
<tr>
<td>/-kl-/</td>
<td><em>lukluk</em></td>
<td>/lʊlkʊl̪ʊk/</td>
</tr>
<tr>
<td>/-?t-/</td>
<td><em>nagtata</em></td>
<td>/nɑɡt̪ɑt̪ɑ/</td>
</tr>
<tr>
<td>/-?k-/</td>
<td><em>magkaka</em></td>
<td>/mɑɡkɑkɑ/</td>
</tr>
<tr>
<td>/-?d-/</td>
<td><em>dada</em></td>
<td>/d̪ɑdɑ/</td>
</tr>
<tr>
<td>/-?g-/</td>
<td><em>gaga</em></td>
<td>/ɡɑɡɑ/</td>
</tr>
<tr>
<td>/-?s-/</td>
<td><em>nagsasa</em></td>
<td>/nɑɡs̪ɑs̪ɑ/</td>
</tr>
<tr>
<td>/-?n-/</td>
<td><em>kanu</em></td>
<td>/kɑnʊ/</td>
</tr>
<tr>
<td>/-bt-/</td>
<td><em>sabtu</em></td>
<td>/sɑb̪tu/</td>
</tr>
<tr>
<td>/-bk-/</td>
<td><em>kabkab</em></td>
<td>/kɑb̪kɑb/</td>
</tr>
<tr>
<td>/-bb-/</td>
<td><em>abbuhan</em></td>
<td>/ɑb̪b̪ʊhɑn/</td>
</tr>
<tr>
<td>/-bj-/</td>
<td><em>abjan</em></td>
<td>/ɑb̪jɑn/</td>
</tr>
<tr>
<td>/-bs-/</td>
<td><em>magsibsib</em></td>
<td>/mɑɡsɪb̪sɪb/</td>
</tr>
<tr>
<td>/-bh-/</td>
<td><em>hubhub</em></td>
<td>/hʊbʊbʊ/</td>
</tr>
</tbody>
</table>
/-bl-/ lublub /lʊəblʊə/ 'to wallow'
/-dp-/ padpad /pɑdˈpad/ 'instead' or 'a kind of medicinal plant'
/-dt-/ tadad /tʌdˈtad/ 'badly mutilated'
/-dk-/ kadkad /kɑdˈkad/ 'to unearth'
/-d?-/ ad-ad /ʔədʔad/ 'fence (diminutive)
/-db-/ badbad /bɑdˈbad/ 'raveled'
/-dd-/ addun /ʔədˈduːn/ 'the mixing of a cake'
/-dg-/ gidgid /ɡɪdˈɡɪd/ 'to rub'
/-dj-/ gadja /ɡɑdˈjah/ 'elephant'
/-ds-/ sadsad /sɑdˈsɑd/ 'to feel something or 'to grope for'
/-mk-/ kumkum /kʌmˈkʌm/ 'to hold something tightly inside the fist'
/-mb-/ lambung /lɑmbʊŋ/ 'shadow'
/-md-/ dumdum /dʊmˈdʊm/ 'every night'
/-mg-/ gumgum /ɡʊmˈgʊm/ 'to gurgle'
/-ms-/ sumsuman /sʊmsʊˈman/ 'meat' or 'any food that goes with wine'
/-mm-/ malamma /məlˈɑmaː/ 'weak'
/-ml-/ lumlumun /lʊmˈlʊmʊn/ 'to swallow'
/-mr-/ samra /sæmˈraː/ 'a native blouse worn ordinarily by moslem women'
/-np-/ punpun /pʊnˈpʊn/ 'sea worm use as bait'
/-nt-/ suntuk /sʊntʊk/ 'to box'
The table contains the following entries:

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Word</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>nk</td>
<td>kinkin</td>
<td>'to raise skirt up when wading in the sea'</td>
</tr>
<tr>
<td>nb</td>
<td>bianban</td>
<td>'a native food made from cassava'</td>
</tr>
<tr>
<td>nd</td>
<td>masandal</td>
<td>'enduring'</td>
</tr>
<tr>
<td>nj</td>
<td>jamji</td>
<td>'promise'</td>
</tr>
<tr>
<td>ns</td>
<td>lansang</td>
<td>'nail'</td>
</tr>
<tr>
<td>nn</td>
<td>bunnal</td>
<td>'It is true'</td>
</tr>
<tr>
<td>ny</td>
<td>sinyal</td>
<td>'signal'</td>
</tr>
<tr>
<td>np</td>
<td>hangpu</td>
<td>'ten'</td>
</tr>
<tr>
<td>nt</td>
<td>malangtu</td>
<td>'the taste of cassava when it has been dried of its juice'</td>
</tr>
<tr>
<td>nk</td>
<td>tangkay</td>
<td>'handle'</td>
</tr>
<tr>
<td>nb</td>
<td>sangbay</td>
<td>'to give admiring comments'</td>
</tr>
<tr>
<td>nj</td>
<td>pangjuri</td>
<td>'something use to teasing a person'</td>
</tr>
<tr>
<td>ns</td>
<td>angsa</td>
<td>'swan'</td>
</tr>
<tr>
<td>nh</td>
<td>manghud</td>
<td>'younger brother or sister'</td>
</tr>
<tr>
<td>nj</td>
<td>bangngas</td>
<td>'a kind of crab used as medicine for asthma'</td>
</tr>
<tr>
<td>nl</td>
<td>sianglag</td>
<td>'tapioca'</td>
</tr>
<tr>
<td>lp</td>
<td>palpal</td>
<td>'deaf'</td>
</tr>
<tr>
<td>lt</td>
<td>sultan</td>
<td>'sultan' or 'king'</td>
</tr>
<tr>
<td>lk</td>
<td>mulka</td>
<td>'curse'</td>
</tr>
</tbody>
</table>

The text explains some words in the context of their meanings and uses.
the pain felt from wound
'thread'
has been pampered by allowing her to do what she likes
'heaven'
'fake'
a kind of native recipe
'color'
'bracelet'
'curse'
'heaven'
'message' or 'word of God'
'that is why'
'why'
'back'
'miniature house or 'toy house'
'to take a bath'
'black peper'
'face'
'to accept'
'immediately'
/-pd-/ sapda /säpdah/ 'curse'
/-pg-/ pugpug /pägpug/ 'soften by too much pressure'
/-ps-/ supsup /stöpsup/ 'to suck'
/-tp-/ putput /pütput/ 'the sound of a machine (of boat)
/-tt-/ patta /pätta?/ 'picture'
/-tk-/ katkat /kätkat/ 'waw' (carpenter's tool)
/-tb-/ bitbit /bitbit/ 'to carry' (with the hand)
/-td-/ dutdut /dütduh/ 'to suck'
/-ts-/ sutut /sötut/ 'a way of calling somebody's attention'
/-tn-/ ngitngit /ŋitŋit/ 'always smiling'
/-tl-/ sutla /sötla?/ 'silk'
/-kp-/ pikpik /pïkpïk/ 'wing'
/-kt-/ tiktik /tïktïk/ 'to strike something with'
/-kk-/ maakkal /ma?akkal/ 'wise'
/-kb-/ bukbuk /bökbu?/ 'termite'
/-kd-/ dakdak /da?dkak/ 'to wash' (clothes)
/-kg-/ hagkgik /hagïkgik/ 'dandruff'
/-ks-/ saksi /säksi?/ 'witness'
/-kh-/ hikhik /hïkhïk/ 'small pieces of clothes left after cutting a dress'
/-km-/ takmayun /takma?yun/ 'help someone by allowing her to hold on to one's arms'
/yl-/ nagpaylu /nagpayluh/ 'denied'
/yr-/ wayruun /wayruun/ 'There is none'.
/wp-/ sawpama /sawpama/ 'to suppose'
/wk-/ sawkat /sawkat/ 'just because'
/wb-/ tawbat /tawbat/ 'repentance'
/ws-/ kawsun /kawsun/ 'brown'
/sh-/ kawhaan /kawhaan/ 'twenty'
/wn-/ sawnu /sawnu/ 'immediately attended to'
/wl-/ bawlu /bawlu/ 'a native cake'
/ww-/ sawwal /sawwal/ 'trousers'
6. SUPRASEGMENTAL FEATURES

Up to this point discussions of the sound system of Tausug has been made on the assumption that the stream of speech is divided into segments, each of which can be assigned to a given phoneme. In this connection, therefore, the term 'segmental phoneme' has been used when referring to the relevant units of speech which seem to follow each other in linear sequence.

Speech, on the whole, is, however, a continuum, not a series of individual sounds placed alongside each other like the letters in a printed sentence such as those found in this page. The functional value of the phonemes of a language is realized only as a result of their relationship to one another and because of certain important features of speech which do not emerge until a purposeful contrast is made between meaningful utterances. Reference is made to the variables of speech which extend clearly over a series of several segmental groupings which are known linguistically as suprasegmental features. They are called by this name because they seem to be like an extra layer of structure superimposed on the segmental phonemes. A synonymous term which some linguists use when referring to suprasegmental features is prosodic features.\(^{45}\)

\(^{45}\)The use of 'suprasegmental features' rather than 'prosodic features' in this analysis is just a matter of choice. For purpose of parallelism with the term 'segmental' phonemes, the use of suprasegmental' is preferred here.
The suprasegmental features include variables of stress, pitch, length, and juncture. Any complete utterance, monosyllabic or polysyllabic, has these features of speech. It should be made clear here, however, that the absolute measurements of these features are less useful than an assessment of the relative function of each of them. For instance, it is irrelevant to attempt to measure the precise absolute pitch since linguistically it is less important than the pitch relationships. In the following analysis of the suprasegmental features of Tausug, therefore, the notation will present only functional categories abstracted from concrete expressions.

6.1 Stress

In this analysis, stress (which is better known to many as accent) refers to the intensity or significant force or loudness with which a syllable is articulated within an utterance. A stressed sound or syllable is said to involve relatively great effort and muscular energy, resulting in great intensity and is thus perceived by the listener as greater loudness.

There are two distinctive degrees of stress recognizable in Tausug: the primary stress which is the stronger is marked by a superior vertical tick, [\textsuperscript{'}], on the phonetic level and by an acute accent, /\acute{}/, on the phonemic level, and the secondary or weak stress which is left unmarked. Phonetically, the primary stress is marked immediately preceding the stressed syllable as
as in sabal 'sabal 'stoic'; phonemically, however, the stress
mark is placed just above the vowel phoneme of the stressed
syllable. Thus, the word sabal is phonemically transcribed
as /sâbal/.

The two degrees of stress just mentioned are non-contras-
tive in the sense that they do not contrast with each other.
If only one of them occurs (as in all monosyllabic words), it
is always the primary stress. When both, however, occurs in
words of more than one syllable, the stronger stress is always
observed to fall on the penultimate (second to the last) syllable.

It is predictable that the syllable which follows and those which
may precede the stressed syllable have the weak stress. The
very fact of the automatic occurrence of stress accounts for
its non-phonemic status in the language. And for stress to be
phonemic, according to Hall, there should be "contrasts based on
the position of the intensity". This is not so in Tausug. At
times some individual words may seem to have the primary stress
on the penult and sometimes on the ultima. This does not, however,
change the meaning of words.

The predictability of the occurrence of stress in the
dialect of STP serves rather as a marker to indicate word boundary.
Each time a heavy stress is heard one can anticipate that the word
is going to end in the next syllable.

---

47 This observation is true of the dialect of the investiga-
tor. Other dialects may have different stress pattern like the
dialect of Parang which according to the Ashley's has the stress
predictably falling on the last syllable of a word. (op.cit., p.14)

In the normal pronunciation of polysyllabic Tausug words, therefore, it can be said that there is an inherent stress pattern in that one and the same syllable, i.e., the penult, always has the stronger stress than the other or others. A rough representation of this stress pattern may be \(/\hat{\text{x}}/\) in which \(/\hat{\text{x}}/\) represents the stressed syllable and \(/\text{x}/\) the unstressed one. This basic stress pattern can be better illustrated and consistently observed in the following words which are derived forms of a single base morpheme.

Base word: dagan (dágan) 'to run'
   nagdagan (nagdágan) 'ran'
   nagdaragan (nagdarágan) 'was running'
   nagdaganan (nagdagánan) 'ran away'
   nagdagandaganan (nagdagandagánan) 'has been running & running' (more of a game)

In spite of affixation, it is obvious in the examples given above that the basic pattern \(/\hat{\text{x}}/\) remains constant, although a change of syllable where the primary stress falls and an addition of unstressed syllables preceding the stressed one are evident.

6.2 Pitch and Intonation

Closely allied to stress is one of the other important suprasegmental features of an utterance, pitch. Normally, in Tausug, the highest pitch falls on the syllable with primary stress. Nevertheless, although this kind of correlation
between pitch and stress is common, it is not - according to Hill - absolute, so that it remains necessary to treat each of them independently. 49

Pitch is often described in terms of high or low tones which are produced by varying the rapidity of the vibration of the vocal bands. It is - according to Mario Pei-"the frequency of vibration in the musical sound of the voice".50

Pitch has to be thought of as relative. Each individual person has a characteristic pitch range for his voice. However, the relative levels of pitch are found to be more or less parallel for all speakers. As there are varieties in the range of pitch, there are also varieties within certain pitch ranges. However, only relative pitch and changes in pitch that influence meaning are considered important here.

Four significant levels of pitch are recognizable in Tausug. They can be most simply represented if one imagines a four-line staff whose lines are numbered one to four (1-4) from the bottom up, i.e., number 1 represents the lowest pitch level, 2 - normal, 3 - high, and 4 - extra high. These numbers placed above the segmental phonemes are used in phonemic transcription to indicate as simply and unambiguously as possible the span covered by each pitch level. Hence, the examples:

49 Hill, op. cit., p. 27.
50 Pei, op. cit., p. 208.
malingkat /məlɪŋkæt/ 'beautiful'

Malingkat in badju /məlɪŋkæt in bədju/?

(beautiful the dress) 'The dress is beautiful'.

In normal speech such as the above examples, one seldom says an utterance without any change in pitch. The shift in pitch is principally among the first three levels. The extra high pitch, level 4, is usually reserved for emphatic and emotional speech, so that the above examples when expressed emphatically will have the /41/ pitch pattern instead of /31/.

Pitch is phonemic in Tausug. Although it does not change the inherent or referential meaning of a word, it gives added meaning usually identified with attitude and emotion.

The example malingkat 'beautiful' which normally has the /31/ pitch pattern when expressed with the /13/ pattern, that is, /məlɪŋkæt/ would mean 'beautiful and there is no doubt about it'. This may be an answer to a person questioning or arguing about the beauty of some persons or things.

The contrastive significance of the relative pitch levels of Tausug are best analyzed as belonging to a larger meaningful linguistic unit, rather than just to a single word. It is, therefore, assumed here that the pitch levels are arranged in contours which are combined with the terminal junctures (which will be discussed in section 6.4) to form what may be called intonation patterns.
Intonation as defined by Pike, "constitutes the abstracted characteristic sentence melodies which every sentence, every word, and every syllable is given when it is spoken". 'It is the rise and fall in pitch of the speaking voice, the modulation of voice, the tone quality and melody of speech particularly when used to make syntactical and emotional distinction' according to Bloch and Trager. 51

No attempt is made here to provide a full analysis of the intonation contours of Tausug, but it is felt desirable to give enough information of the role of intonation and the range of the contour types in the language. The simplest way to do this is to discuss the intonational possibilities of a few ordinary sentences such as:

1. Yari hi Inda. /yari hi ?inda?/
   (here (article) Inda) "Inda is here"

   (where going you) "Where are you going?"

In normal Tausug speech, a matter-of-fact statement like, for instance, the first sentence

/yari hi ?inda? \(^3\)

has a \(2 3 1\downarrow\) intonation pattern. The voice starts from the average normal pitch (2), goes up to the high pitch level (3) on the second to the last syllable, and finally drops off to the

\[51\text{Pei, op. cit. p. 131.}\]
low pitch (1) on the last syllable. This type of intonation contour signifies finality of thought and is, therefore, the most commonly heard in ordinary conversation. It is referred to as falling intonation and has a characteristic fall of the voice at the very end of the pattern, graphically represented above as /↓/.

When the voice is sustained on pitch level three in the above given sentence, a non-final intonation pattern results, i.e., /2 3→/:

/yari hi ìndã?/ 'Inda is here', (and so . . .)  
(but . . ., etc.)

This is known as 'sustained intonation, /←/; which is normal at the end of an medial breath group, but not in utterance-final position. This type of intonation gives the listener a feeling of incompleteness, suspense, and sometimes hesitation.

The same sentence without changing any word may be converted into a question by making a marked rise in pitch at the end of the final syllable, thus:

/yari hi ìndã?↑/ 'Is Inda here?'

This is referred to as the rising intonation, /↑/, and is commonly heard with questions answerable by 'yes or 'no', a genuine question in particular needing an answer. If the speaker needs only confirmation from the listener, the /232↑/ intonation contour is likely to be heard, i.e.:
'Is Inda here?' (I just want to make sure)
The speaker probably has already a notion that Inda is around, but he just wants to make sure or just wants assurance.

When the speaker asks the above question with surprise or fear, the /2 4↑/ or the /2 4 2↑/ pattern is heard in place of /2 3↑/ or /2 3 2↑/.

The second sentence which is a question initiated by an interrogative word has normally the /2 3 1↓/ intonation pattern:

/paka?in 31kaw↓/ 'Where are you going?'

like any ordinary matter-of-fact sentence. A speaker, however, who seems to be curious or interested as to where a person is really bound for, because he is probably interested to join him or send something through him, or for any other similar reason, would likely used a /3 1 2↑/ intonation contour:

/paka?in 12kaw↑/ 'Where are you going?'

But when a speaker would like to reiterate the question because the answer was not clear to him, he will use a /l 3↑/ intonation pattern

/paka?in 3kaw↑/ "Where did you say you are going?"

Any of the intonation patterns discussed above may have 'pitch-displacement depending on what word the speaker would like

52 In casual greeting, among acquaintances, the above sentence with the falling intonation /2 3 1↓/ is often heard. It is equivalent to the English 'Hi' or 'How are you?'. A Tausug speaker when asking the question does not mean to be nosy about other people’s business.
to call the attention of his listener to. By pitch-displacement is meant the transference of the highest pitch of a sentence to some syllable other than the one on which it is most customary for the pitch to be highest. This means that the pitch prominence in a given sentence is always on the syllable on which there is a potential change of pitch.

From the preceding discussions it is clear that sentences in Tausug may be spoken with several different contours, each of which has an identifiable range of semantic values. In some cases the contours and their meanings differ strikingly so that they can be conveniently arranged in pairs. As such, intonation is said to have contrastive significance in Tausug.

6.3 Length

Another factor of speech, closely associated with stress and pitch (in that they all contribute to make a sound or syllable prominent) is length, which is sometimes referred to or equated with 'duration' or 'quantity'. It is defined as the relative amount of time during which the vocal organs stay in the position required for articulation in question.

In Tausug, relative differences in vowel length are observable in stressed and unstressed syllables. Normally, vowels in stressed syllables are relatively longer than those in unstressed syllables. This is clearly shown in reduplicated forms listed below where the relatively long vowel is symbolized by /ː/. 
Comparatively longer vowels than those given above are found in monosyllabic words which will be phonetically transcribed here with the full length sign [], Thus,

<table>
<thead>
<tr>
<th>Word</th>
<th>Transcription</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>bang</td>
<td>[baːŋ]</td>
<td>'earrings'</td>
</tr>
<tr>
<td>kat</td>
<td>[kaːt]</td>
<td>'a species of fish'</td>
</tr>
<tr>
<td>pis</td>
<td>[piːs]</td>
<td>'a piece of cloth used by moslem men as head piece'</td>
</tr>
<tr>
<td>sin</td>
<td>[siːn]</td>
<td>'money'</td>
</tr>
<tr>
<td>bud</td>
<td>[buːd]</td>
<td>'mountain'</td>
</tr>
<tr>
<td>kup</td>
<td>[kuːp]</td>
<td>'early'</td>
</tr>
</tbody>
</table>

The difference between /a:/ and /ː/ are better observed if the two sets of examples above are said in pairs such as:

- [baːŋ] - [baŋban]
- [kaːt] - [ka.tkat]
- [piːs] - [pi.spIs]
- [siːn] - [si.nsIn]
- [buːd] - [bu.dbUd]
- [kuːp] - [ku.pkUp]
Vowel length is non-phonemic in Tausug. Contrast does not exist between, for instance, [baːŋ] with [ba.ŋ] or [baŋ]. A vowel may be lengthened or shortened in an utterance without semantic significance, although if so altered, in some cases, the pronunciation may be felt to be unnatural.

In the case of consonants, lengthening occurs in word-medial position as in the words akkal [ˈʔakkal] 'wisdom', assang [ˈʔssan] 'dove', kappal [ˈkˌapal] 'boat' and patta [ˈpˌattaʔ] 'picture' and is produced by prolonging of the 'hold' (tenue) or complete closure preceding the release of each consonant. The interpretation of this phenomenon, however, involves the theory of geminate consonants, i.e., sequences of two identical consonant phonemes which divide into the preceding and the following syllables respectively. The above consonants could be conceivably interpreted as lengthened rather than geminated, which would establish /ː/ as a phonemic feature since contrast between words like akkal [ˈʔakkal] and akal [ˈʔakal] 'by-product from coconut-oil making', assang [ˈʔssan] and asang [ˈʔasan] 'gills', kappal [ˈkˌapal] and kapal [ˈkˌapal] 'thickness', and patta [ˈpˌattaʔ] and pata [ˈpˌataʔ] 'serves him right' exist. But for purposes of simplicity and economy of analysis, and because syllable patterns do not allow the lengthened consonants to belong to just one of the syllables - they must belong to both - the interpretation of the consonant as geminates is maintained.
6.4 Juncture

Although speech is observed to be continuous flow and not a series of distinct sounds grouped into clearly distinguishable morphemes or morpheme sequences, some slight pauses or retardations of tempo are noticeable. These pauses or transitions between morphemes are what are termed here junctures. They contribute greatly to better understanding of utterances. Even when all the phonemes (vowels and consonants) and the stress and pitch patterns of a given utterance have been identified, it is still occasionally, necessary, for intelligibility, to recognize the boundaries between words, phrases, and sentences.

Two significant junctures, which are often referred to as terminal junctures, are recognized in Tausug: a short pause which is marked by a single bar, /\/, and a longer pause represented by a double bar, /||/.

The single-bar juncture usually occurs within utterances and is used in introducing an idea or in emphasizing an idea that follows as in the examples below:

1. *Kitaa in dung sin kappal, naghihibal.*
   /kita?ah in duŋ sin kάppal | naghihibal/
   'See the front part of the boat, it is moving.'.

2. *Way kasusahan, ha surga*
   /Way kasusáhan | hah sûr̰a?/
   'There is no sorrow, in heaven.'
This juncture is significant in Tausug since a difference in meaning would result if the / | / were omitted in the above examples. Thus:

1. /kita?ah in dun sin kappal | naghihibal/
   'See the front of the boat, it is moving'.
   \vs
   /kita?ah in dun sin kappal naghihibal/
   'See the front of the boat moving'.

2. /way kasusahan | hah surga?/
   'There is no sorrow, in heaven'.
   \vs
   /way kasusahan hah surga?/
   'There is no sorrow in heaven'.

At the end of sentences in which the speaker lapses into silence, the double bar juncture, / || /, is found. It is used to signal the end of an utterance as in:

1. /kita?ah in dun sin kappal | naghihibal||/
   or
   /kita?ah in dun sin kappal naghihibal||/

2. /way kasusahan | hah surga??/
   or
   /way kasusahan hah surga??/

Although the suprasegmental features do not change the lexical meaning of an utterance, they do add concomitant information through their conventional acceptance by Tausug speaking people - information provided by their emotive, attitudinal, and directive uses.
7. Morphophonemics

The phonemes of a language as has already been stated are more than simply individual units to be individually identified and described; it is rather an element in the system of a language (like Tausug, for instance) having a characteristic set of interrelationships with each of the other elements in the system. These interrelationships are of various kinds, one of which may be reflected in morphophonemic changes.

The term 'morphophonemics' is defined by some linguists as the field of linguistic analysis which bridges the gap between the morphological and the phonemic levels. It is essentially concerned with phonemic changes or phoneme alternations within morphemes. In its broadest sense, it includes all alternations of phonemes, whether they are predictable or not, or whether they are meaningful or not.

By the predictable alternations of a phoneme is meant an automatic or formal alternation which is determined by the phonemes of the accompanying form, which can be described in terms of phonetic modification, and which applies to all morphemes in general when they occur in that particular conditioned environment.53 For a sample illustration of this idea, reference is made to an earlier discussion (cf. section 5.3) of a change in

speech sound brought about by environmental conditions. The consonant /d/, for instance, when occurring in intervocalic position, whether within words or across morpheme boundaries, automatically becomes /r/. Thus:

- *ma* + dagan
- *pa* + dahun
- *tagad* + an
- *ha* + ddiuhul
- *ha* + dagat
- *pa* + dugu

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<tbody>
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<td>---</td>
</tr>
<tr>
<td><strong>ma</strong></td>
<td><strong>dagan</strong></td>
<td><strong>maragan</strong></td>
<td>/maragan/</td>
</tr>
<tr>
<td><strong>pa</strong></td>
<td><strong>dahun</strong></td>
<td><strong>parahun</strong></td>
<td>/parahun/</td>
</tr>
<tr>
<td><strong>tagad</strong></td>
<td><strong>an</strong></td>
<td><strong>tagaran</strong></td>
<td>/tagaran/</td>
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<tr>
<td><strong>ha</strong></td>
<td><strong>ddihul</strong></td>
<td><strong>haruhul</strong></td>
<td>/haruhul/</td>
</tr>
<tr>
<td><strong>ha</strong></td>
<td><strong>dagat</strong></td>
<td><strong>haragat</strong></td>
<td>/haragat/</td>
</tr>
<tr>
<td><strong>pa</strong></td>
<td><strong>dugu</strong></td>
<td><strong>parugu</strong></td>
<td>/parugu/</td>
</tr>
</tbody>
</table>

From the above examples, /d/ and /r/ are said to be 'in alternation' with each other, i.e., /d/ ~ /r/. The ~ symbol is used here to mean 'in alternation with' or 'alternates with'.

In continuous rapid speech there are certain combinations of sounds which are quite difficult to pronounce in sequence because of the articulatory adjustments involved. The general tendency is therefore to avoid such difficulties by altering or modifying one or more of the sounds so that the speaker can move from one sound to another more quickly and with a minimum of effort. This phenomenon is observed, for instance, with /n/ moving to /k/ as in *dain kanila* 'from them'. The tongue could not move rapidly from the /n/ to the /k/ because the former is made with the tip of the tongue against the teeth while the latter is produced with the back part against the velum. It is much easier to go from /ŋ/ to /k/ since both sounds are velars, so that the natural tendency of a Tausug speaker is to say
/daiŋ kanílah/ instead of /dain kanílah/. A similar conditioned alternation is observed with the following phonemes:

/n/~/m/ before bilabials /p, b, m/:

- *in pula* /in póula/ > /im póula/ 'the red'
- *sin pilak* /sin pilak/ > /simpîlak/ 'it was money'
- *in badju* /in bádju?/ > /im bádju?/ 'the dress'
- *tagun bata* /tagun báta/ > /tagum báta?/ 'young'
- *in manghud* /in máŋhud/ > /im máŋhud/ 'the younger'
  brother or sister
- *sin malagu* /sin malaggwu?/ > /sim málaggu?/ 'It's big'

/n/~/ŋ/ when following velar /k, g, h, w/:

- *in kusug* /in kúsug/ > /ŋ kúsug/ 'the strength'
- *dain kamu* /dain kámu?/ > /daiŋ kámu?/ 'from us'
- *in gabun* /in gábun/ > /ŋ gábun/ 'the cloud'
- *lain gula* /lain gúla?/ > /lain gúla?/ 'different type
  of molasses'
- *dain habud* /dain ha bud/ > /daiŋ ha bud/ 'from the
  mountain'
- *sin haba* /sin hába?/ > /sin hába?/ 'the length'
- *in waktu* /in waktuh/ > /ŋ waktuh/ 'the time'
- *sin walu* /sin wáluh/ > /sin wáluh/ 'it is eight'

The phenomenon of a sound (or sounds) acquiring a characteristic in common with the neighboring sound (or sounds) is often referred to as assimilation. In the preceding examples, assimilation is said to be regressive since the sound which is being influenced follows that which causes the influence.
The reverse is true with progressive assimilation, i.e., the sound which is being influenced follows that which causes the influence as in the dialectal pronunciation of /bikin/ for /bikin/ 'a variety of clams'. The /n/ pronunciation results as an influence of the preceding velar consonant, /k/. This latter alternation of phonemes is, however, not predictable (non-automatic), neither is it distinctive in Tausug. It is limited only to a few words.

There are other non-automatic morphophonemic alternations which are of more functional significance such as those which are manifested as features of derivation and inflection. Verbs derived from nouns, for instance, show such types of alternation.

/p/ ~ /m/

/pulah/ 'red' ~ /mulah/ 'will become red'
/púti?/ 'white' ~ /múti?/ 'will become white'

/b/ ~ /m/

/báhu?/ 'bad odor' ~ /máhu?/ 'will smell bad'
/búga?/ 'fear' ~ /múga?/ 'will be afraid'

Other functional non-automatic alternation are observable among some verbs such as the alternation between the initial consonant of the infinitive form and the future tense:

/p/ ~ /m/

/pánaw/ 'to walk' ~ /máñaw/ 'will take a walk'
/pátay/ 'to kill' ~ /mátay/ 'will die'
/púsa/ 'to hatch' ~ /músa?/ 'will hatch'
Some morphophonemic alternation which occur without accompanying changes in meaning are noted in the examples below:

/Ciy/ ~ /Cy/

/miyuga?/ ~ /myuga?/ 'was afraid'

/siyam/ ~ /syam/ 'nine'

/tiyan/ ~ /tyan/ 'stomach'

/Cuw/ ~ /Cw/

/huwis/ /hwis/ 'judge'

/muwi?/ /mwi?/ 'to go home'

/suwat/ /swat/ 'to dig' (the soil)

The loss of a vowel phoneme as in the examples enumerated is termed syncope. The insertion of a vowel on the other hand, to break up troublesome consonant cluster is known as anaptyxis and the vowel inserted is called an anaptyctic vowel. This phonemenon of anaptyxis is commonly observed with foreign words adopted into the language such as truck, cross, school, etc., which are pronounced respectively as /tārak/, /kūrus/ and /tiskul/ by many Tausug speakers, the uneducated ones in particular.

There are some alternations of phonemes which are considered stylistic, in that they are representative of certain dialects. They are however, non-linguistic, non-distinctive, as well as non-functional variations in speech. Examples of this kind of alternation are /n/~/?/ as in /bukun/~/buku?/ 'no' (negation) and /l/~/?/, i.e. /bakul/~/bakuŋ/, 'basket'. This alternation is characteristic of the Gimbahanun dialect.
8. SUMMARY and CONCLUSION

A synchronic analysis of the phonological system of Tausug has been the main concern of this thesis. An attempt has been made to provide a sufficiently detailed description of the phonetic raw material of the language, to identify and classify it according to relevant functional linguistic units. As a necessary complementary addition to the phonological analysis, discussions of the suprasegmental features and the morphophonemics of the language have been included.

The phonemes of Tausug have been established on the basis of the criteria of phonetic similarity, complementary distribution, pattern congruity, and identity of function which are applied to all phone-types of the language. As a result, an inventory of twenty segmental phonemes has been drawn up: three vowels, /i, a, u/, and seventeen consonants, /p, t, k, ?, b, d, g, j, s, h, m, n, ŋ, l, r, w, y/. The classification of /w, y/ as consonant phonemes depends on their contextual function with reference to their position within the syllable. Whenever their distribution is the same as that of the other consonants of the language, they are treated as such; otherwise, in other positions, they are interpreted as semivowels.

Tausug has two basic syllable patterns: CV and CVC. With permitted combinations of pure vowels and semivowels, however, such as the diphthongs /ia, ai, ua, au, iu, ui/ and the triphthongs /iai, uau, iau, uai/, other secondary syllable patterns are added: CSV, CVS, CSVC, CVSC, CSVS, and CSVSC.
The most prominent sound, which normally corresponds to a pure vowel, constitutes the syllabic nucleus. There are certain factors, besides the inherent sonority, which contribute to the prominence of a sound. Such factors involve the correlated suprasegmental features of stress, pitch, and length.

Suprasegmentally, Tausug has two distinct, but non-phonemic levels of stress: primary */* and weak (unmarked), four contrastive levels of pitch, /1 2 3 4/, i.e., low, normal, high, and extra high and non-significant lengthening of vowels and consonants (the latter being treated as gemination). In addition, two important terminal junctures are recognizable: the single bar juncture, /|/, which is found at the end of a breath group within an utterance, and the double bar / || /, which is usually found in utterance final position.

Although all of the twenty segmental phonemes of Tausug have their phonemic identity, there are instances, however, where some sound changes or phoneme alternations are observable within morphemes or across morpheme boundaries. Such changes or alternation of sounds have been referred to under the heading of morphophonemics. They are the results of phenomena such as assimilation, syncope, anaptyxis, etc. Among the morphophonemic changes or alternations observed in the language are: /d/ ~ /r/, /n/ ~ /m/, /n/ ~ /ŋ/, /p/ ~ /m/, /b/ ~ /m/, /Ciɣ/ ~ /Cy/ , and /Ciɭ/ ~ /Cw/. The fact that some phonemes undergo modifications does not diminish,
or alter their functional values as individual phonemes once their phonemic status has been established.

It has already been pointed out in previous discussions that speech is a continuum. Therefore, the best way to observe the linguistic elements that make up the phonological system of Tausug is to have them in normal operation in a running text like the Tausug version of the linguistically popular tale of the 'The Northwind and the Sun' provided below in both phonetic and phonemic transcriptions. The transcribed text also serves as a general summary of Tausug phonology.

**Phonetic transcription**

\[
\begin{align*}
\text{2} & \quad \text{?In hognIn 'timUl ?1gan 'suyah} \\
\text{The wind north and sun} \\
\text{2} & \quad \text{hambu?UK 'adlaw hIna?Uh nagsagga?} \\
\text{One day while disputing} \\
\text{3 2} & \quad \text{?In hognIn 'timUl} \\
\text{3 2} & \quad \text{hambu?UK 'a?Uh lIma?ay ?1gan k'ommUt} \\
\text{and sun one man passed by and overcoat} \\
\end{align*}
\]

The Tausug version of the above text is based on the IPA manual, page 21.

"The northwind and the sun were arguing one day about which of them was stronger, when a traveller came along wrapped up in his overcoat. They agreed that the one who could make the traveller take his coat off would be considered stronger than the other one. Then the northwind blew as hard as he could, but the harder he blew, the tighter the traveller wrapped his coat around him, and at last the northwind gave up trying. Then the sun began to shine hot, and right away the traveller took his coat off, and so the northwind had to admit that the sun was stronger than he was."
his it was agreed upon them that whoever the

one who can the overcoat the man that (ligature) the take off

strong of them blow then the wind north

in strength his but the more will stronger he the

blowing the more also hold tightly the man the overcoat

his at end stopped the wind north

started the sun the heat not long time

remove then the man the overcoat his this

the proof strength the sun believe already the

wind north that the sun really strong than
Phonemic transcription

'?in hanjin 3\(\frac{2}{2}\) timul iban 3\(\frac{1}{1}\) sugah

2 hambu?uk 3\(\frac{2}{2}\) hadlaw 2 hinabuh nagsagga? ?in hanjin

3\(\frac{2}{2}\) timul iban 3\(\frac{2}{2}\) sugah 2 hambu?uk ta?uh limabay

iban kammut 3\(\frac{1}{1}\) niyah 2 kyangmawpakkat an nilah na

hisiyuh ?im makapa?ig sin kammut sin

3\(\frac{2}{2}\) ta?uh 2 amuhh nah ?im makusug hah 3\(\frac{1}{1}\) kamilah

2 timiyup nah ?in hanjin timul hah kakusugan

3\(\frac{2}{2}\) niyah 2 sagwa? gam kusugan niyah in 3\(\frac{2}{2}\)

2 gam ?isab kupkupan sin ta?uh ?in kammut

3\(\frac{1}{1}\) niyah 2 hah hulihan 2 himundun ?in hanjin

3\(\frac{1}{1}\) timul 2 tyagnan?an sin sugah ?im 3\(\frac{1}{1}\) pasu

2 bukun 3\(\frac{2}{2}\) maugay 2 inigan nah sin ta?uh ?in

kammut 3\(\frac{1}{1}\) niyah 2 inih ?in tandah kusug

sin 3\(\frac{1}{1}\) sugah 2 nagsabunnal nah ?in hanjin

timul nah ?in sugah takdil makusug dayn

3\(\frac{1}{1}\) kaniyah
The system of three vowels and seventeen consonants which has been presented in this analysis is shared virtually by all dialects of Tausug. If there are differences between the dialects, they are principally variations in the nature and distribution of the allophones of the different phonemes though there is some variation in the distribution of the phonemes themselves. The intervention of foreign sounds into some dialects like those of the educated speakers may also account for dialectal differences. Otherwise, virtually all dialects of Tausug seem to use the same set of twenty segmental phonemes.

This study of Tausug phonology does not presume to be exhaustive, or complete, although thoroughness and accuracy has been aimed at in the analysis. With language constantly changing, it is doubtful that any definitive work can be attained. Further, with the influx of new knowledge and discoveries in linguistic theory, better and improved techniques of linguistic investigation as well as refinements in the interpretation of data can be expected.

The primary purpose of this study is to provide a basic understanding of Tausug phonology. If this intention has been attained here, the attempt has not been in vain. With the dearth of linguistic materials on the language, this analysis, although it is not a complete description, helps to cope with an urgent present need. The public presentation of the data as well as the conclusions makes it possible for others to conduct.
further investigations on the language and check on the accuracy of the analysis.\textsuperscript{55}

Concomitant with the pedagogical help which is to be derived from this study is its social significance. In the 'preface' of the \textit{Papers on Philippine Languages}, No. 1, Alfredo T. Morales, a Philippine educator, has this to say:

"... They [the linguistic papers] are new data about Philippine culture. With more data of this kind, we foster not only improved linguistic science but also a deeper Filipino consciousness, in terms of more mastery over our own Philippine material for scholarly study, and better preparation for a genuine understanding of all the peoples, especially the neglected communities, that makes up the Filipino nation.\textsuperscript{56}

With the present linguistic investigations, it is hoped that increased interest, not only in Tausug, but in Philippine linguistics, in general, will continue.

\textsuperscript{55}Hockett, \textit{op. cit.}, p. III.

\textsuperscript{56}SIL, \textit{op. cit.} p. IV.
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