## 1 PHONOLOGY

The phonemes are listed in Table 1 and are described below. For printing convenience digraphs are used for the alveopalatal stop and nasal.

TABLE 1
Phonemes

|  | bilabial | alveolar | alveopalatal | velar |
| :---: | :---: | :---: | :---: | :---: |
| stops nasals resonants semivowels | b | d | dj | g |
|  | m | n | nj | 9 |
|  |  |  | y | w |
|  |  | vowels |  | u |
|  |  |  | e | a |
|  |  | length | : |  |

/b/ [b] voiced lenis bilabial stop. This allophone always occurs following a nasal, and usually occurs elsewhere.
[b] voiced bilabial fricative. Sometimes occurs intervocalically or following $/ 1 /$.
$\left[\mathrm{p} / \mathrm{p}^{\mathrm{h}}\right]$ voiceless bilabial stop, sometimes aspirated. Occasionally occurs word initially or in a stressed syllable.
[b/p]inay
"ear'"
mubar 'black'
numbinj "house"
wul[b/b]ani "hid"
/b/contrasts with /w/.
bayni "hit" wa:nji "you(obj sg)"
/d/ [d] alveolar stop. All examples are voiced.
dulgal
bandan
"dirty"
$/ \mathrm{dj} /[\mathrm{d}]$ voiced alveopalatal affricate identical with English " j " ${ }^{3}$
[dy] voiced palatalised alveopalatal stop. Occurs in only two examples, both preceding /u:/.
gi $\left[d^{y} / \mathrm{g}\right] \mathrm{u}: \mathrm{m}$ "old man" [dy/g]u:m] "fog"
$/ \mathrm{dj} /$ contrasts with $/ \mathrm{d} /$ and $/ \mathrm{y} /$.
$\begin{array}{llll}\text { djangan } & \text { "lightning" } & \text { dangan } & \text { "fingernails" } \\ \text { djungun } & \text { "black snake" } & \text { dungunj } & \text { "fingers" } \\ \text { djagu:l } & \text { "stranger"4 } & \text { yagu:l } & \text { "bandicoot" } \\ \text { dja:na } & \text { "stand up" } & \text { ya:na } & \text { "sit down" }\end{array}$
$\mid g /[g]$ voiced lenis velar stop. Like the allophone [b] this allophone always occurs following a nasal, and usually occurs elsewhere.
[g] voiced lenis velar fricative. Sometimes occurs, particularly following a resonant, or preceding $/ \mathrm{u} /$. Word initially preceding $/ \mathrm{u} /$ it was sometimes perceived as /w/ or even / $\mathrm{y} / \mathrm{in}$ Culham's speech, though the three phonemes ( $/ \mathrm{g}, \mathrm{w}, \mathrm{y} /$ ) are in contrast. ${ }^{5}$
$\mathrm{k}\rfloor$ voiceless velar stop, occasionally occurring word initially. [g/k]uru:man "kangaroo"
$/ g /$ contrasts with $/ \mathrm{w} /$ and $/ \mathrm{n} / \mathrm{l} /$.

| gulanj | "scrub tick" | wulan |
| :--- | :--- | :--- | "leaf" $"$ "ynga: "in the water" $\quad$ wuna: $\quad$ "your(sg)"

Nasals are $/ \mathrm{m} /, / \mathrm{n} /, / \mathrm{nj} /$ (alveopalatal), and $/ \mathrm{n} /$. Word finally these sometimes liave a homorganic stop onset, i.e. the nasal passage is opencd just after the tongue (or lips) takes up its (or their) position.
wamgi:[nj/dnj] "come"

| mali | "that" | guyu:mgan | "stars" |
| :--- | :--- | :--- | :--- |
| nana:n | "sister" | djangan | "lightning" |
| njari | "name" | djunjgun | "clouds" |
| 万ali | "we" | djungun | "black snake" |

The following illustrate contrast between /n/ and /nj/.
nana:n "sister" njanay "leech"
djindi:n "a lot" mibinj "man (Aboriginal)"
/1/ [1] alveolar lateral.
/r/ [ $[\mathfrak{r}]$ alveolar trill, occurs mostly syllable finally.
[ri] alveolar flap, occurs mostly elsewhere.
[r] retroflexed continuant, often used by Culham in place of the flap or trill. ${ }^{6}$
/l/ and/r/can be shown to contrast.

| bilan | "oak" | biraŋ | "tattoo" |
| :--- | :--- | :--- | :--- |
| wulu | "ankle" | muru: | "nose" |
| walagan | "shoulder" | darigan | "bone" |
| yili | "where" | virimbam | "locust" |
| magil | "water lizard" | gabir | "hungry" |

Semivowels /w/ and $/ \mathrm{y} /$ arc as in English and are illustrated by the examples below.

| wamgi:nj | "come" | ya:na | "sit down", |
| :--- | :--- | :--- | :--- |
| djiwa: | "goanna" | baya:r | "centipede" |
| bugaw | "stink" | dagay | "white man"" |

if [i] high front vocoid. Occurs between two alveopalatal consonants (viz. /dj, nj, y/).
$\left[i^{v}\right]$ slightly lowered from [i]. Occurs elsewhere.
(e) [ $\epsilon]$ mid front vocoid. With rare exceptions this vowel only occurs with the length phoneme $/: / .^{7}$
/a/ [a] low central vocoid. Occurs in all environments in free variation with other listed allophones.
$\left\lfloor a^{\mathrm{i}}\right\rfloor$ usually occurs preceding / $\mathrm{n} \mathrm{j} /$.
$\left[æ^{i}\right]$ may occur preceding $/ \mathrm{y} /$.
$[æ / \epsilon]$ low to mid front vocoid. Usually occurs following an alveopalatal consonant, also preceding /ya/ and following /ay/.
[a/o] low to low-mid back vocoid. May occur following a velar consonant (viz. /g, $\mathrm{h}, \mathrm{w} /$ ).
[ o ] mid back vocoid. May occur preceding /w/.
$/ \mathbf{u} /\left[\mathbf{u}^{\mathbf{v}}\right]$ high-mid back vocoid. Occurs in all environments.
[o] mid back vocoid. May occur following /aw/.
Because of the rarity of $/ e /$ without length, contrast of vowels is shown with lengthened vowels also.

| girinj | "tired" | bare:nj | "chips" | djurunj | "eel" |
| :---: | :---: | :---: | :---: | :---: | :---: |
| mi:ybar | "thundering" |  |  | mu:n | "belly" |
| dire:n | "stormbird" | bira: | "wide" |  |  |
| mure :r | "spotted gum" | gura:r | "long" |  |  |
| gili | "this(close)" | gali | "this" |  |  |
| mali | "that" | muli | "hill" |  |  |

$\mid: /$ length may occur with vowels. Impressionistically it doubles the length of the syllable nucleus, though sometimes the effect is less marked.

| biran | "tattoo", | bira:n | "wide" |
| :--- | :--- | :--- | :--- |
| gun | "water" | mu:n | "belly," |
| wulu | "'ankle" | muru: | "nose"" |
| djali | "tree", | manaldja:li | "Beaudesert" |
| mibinj | "man" | dji:binj | "stinging tree" |

Alternate analyses of the vowels and length are possible if occurrences of [ $\epsilon$ ] without length are regarded as allophones of /i/ and /a/ or are omitted from the data. ${ }^{8}$

## Distribution of phonemes

A syllable contains as nucleus a vowel with or without length. Stress occurs on the first syllable of the word, or on the first long syllable if such is present. Syllable patterns are of the form $\mathrm{CV}(:)(\mathrm{C})$, and words contain from one to five syllables. No one syllable words of the form CV were obtained, and no uninflected word or root had more than four syllables.

The resonants $/ 1 /$ and $/ r /$ do not occur word initially.
Stops do not occur syllable finally. ${ }^{9}$ The phoneme /d/ does not occur intervocalically. ${ }^{10}$ The least frequent consonant phonemes are / $\mathrm{d} /$ and $/ \mathrm{w} /$.

The combinations $/ \mathrm{e}: /$ and $/ \mathrm{a}: /$ occur very commonly in verbs; /e:/ is rather rare elsewhere. The occurrences of /e/ (without length) are restricted to a few words ending in /le/, ${ }^{7}$ and to verbs where a hypothetical /e:/ resulting from affixation is realised as a short vowel due to co-occurrence restrictions on long syllables.

$$
\begin{aligned}
& \text { yange }: n=\underset{\text { yana }}{\text { "went" }}=\underset{\text { "go" }}{\text { "wast tense }} \\
& \text { ya:ngen } \\
& \text { "sat" }
\end{aligned}
$$

Frequency counts were made of vowels with and without length. One count was of 487 words in dictionary form, another was of a sample of 376 words in sentences (many of which were inflected for case, tense, etc.). The percentages of occurrences of each vowel with and without lēngth āre listed in Table 2. Of all possible CV(:) sequences, only /ne:/,/ne:/ and /wi:/ were not obtained.

Consonant clusters (CC only) can occur word medially. Combinations are restricted by the distribution of consonants in syllables noted above. Geminate consonant clusters do not occur. Most nasal stop clusters occur, homorganic clusters being far more common than heterorganic. Clusters of different nasals occur. The only clusters with semivowels were /yb/ (fairly common), /ym/, /ly/, and /lw/ (rare). The frequency of clusters of resonant followed by $/ \mathrm{b} /$ or $/ \mathrm{g} /$ rivalled that of the homorganic nasal stop clusters. ${ }^{11}$ One example of the cluster /ldj/ occurred, but there were no other clusters of resonant followed by $/ \mathrm{d} /$ or $/ \mathrm{dj} /$.

TABLE 2
Frequency of vowel phonemes

|  | Dictionary | Sentences |
| :---: | :---: | :---: |
| No. of words | 487 | 376 |
| No. of syllables | 1053 | 956 |
| a | 42\% | $44 \%$ |
| u | 26 | 18 |
| i | 16 | 14 |
| a | 6 | 13 |
| u | 5 | 5 |
| e: | 2 | 5 |
| i | 3 | 1 |

# A Description of the Yugumbir Dialect of Bandjalang 

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Price: $\$ 1.60$

University of Queensland Papers
Faculty of Arts
Volume I
Number 8
UNIVERSITY OF QUEENSLAND PRESS
St. Lucia
14 February 1969

