# On Defining Rime Categories and Rime Groups in Taiwanese Hokkien＊ 

## 1．Introduction

Roughly speaking，when two syllables are considered riming in Chinese literature，they must have at least the following in common：the nuclear vowel，the final ending，and，in Tang－style ＂contemporary＂poetry，the level tone．The case is not so simple in Taiwanese Hokkien，however． As the author（1989）has discovered，in this language，riming can be strict or loose depending on genre．Such a situation motivates the author to further examine rimes in Taiwanese and give phonological definitions of rime categories and rime groups．

Distinctive rime features（Chang Yü－hung 1988a）are employed in this paper for specifying individual categories．Syllables with identical feature specifications are defined as belonging to the same category．Those with the same syllabic，i．e．，the same nucleus in the syllable peak or the same nucleus and ending，but with different rime feature specifications，are grouped under one heading，called＂rime group＂．In total，there are twenty rime groups in Taiwanese in terms of the definition given in this paper．These and the specific rime categories are charted in thirty－five tables，which give a clear picture of how rimes are categorized and how they are grouped together．Hopefully，the charting here will provide new insights to future reviews of Chinese rime tables prepared in the Middle Ages and thereafter．

In the third area of this paper，these same definitions of rime categories and rime groups are applied to self－riming expressions，which serve as the best examples of riming，for there are no non－riming elements present to interfere with the observation．Some of the self－riming expressions have exactly the same feature specifications for all syllables，such as kiu－siu 仇傩 ＇enemy＇．Some have slightly different specifications，such as $i \hat{u}-h i u^{n}$ 油香＇offering to the temple＇． Some are counter to conventional expectations of riming，such as ông－kok 王國＇kingdom＇．

In the course of applying rime features to the definitions of rime groups and self－riming expressions，two problems have emerged．The first is whether there should be only nineteen groups of rimes rather than twenty．The second asks－since in practice，Taiwanese speakers would not rime a closed syllable specified by glottality with a closed syllable specified by nasality －on what grounds may linguists do analyses that seem to be counter－intuitive by combining syllables like $\hat{o} n g$ and kok into one rime group and considering ông－kok self－riming？These questions are not the main concern of this paper，but they are certainly problems that this paper will encounter．

## 2．Rime Categories

In the oral literary tradition of Taiwanese，the most favored riming is that between syllables with exactly the same segmentals，except for the initial consonant．In other words，these syllables have identical medials，if any，nuclear vowels，offglides or final endings，if any，and tone categories．Thus（1－3）below are considered perfect rimings；whereas（4－12）are not．${ }^{1}$ In the

[^0]following examples，riming syllables are printed in bold．The + sign indicates that the preceding syllable maintains its tone value as in isolation－no tone change，to wit．
（1）Bô khá，iā chit－tō• pá．無巧也一肚飽。
＇Even without cooking skill，one can eat one＇s fill．＇
（2a） $\bar{U} h \hat{\imath}, \bar{u} \boldsymbol{b} \boldsymbol{a h}, m \bar{a}$ tiòh chhài $+\boldsymbol{k a h}$ ．有魚有肉，嘛著菜敆。
＇One needs vegetables，besides fish and meats，in one＇s meals．＇
（2b）Sin－nî $+\bar{m} c h i a h, p \hat{o}--a ́ g i a ̀ h$ ．新娘呣吃，婆仔額。
＇A bride＇s leftovers go to her maid．＇
（3a）Hâm－hong sa $\boldsymbol{n}^{\boldsymbol{n}}$ ，kóng kàu $\boldsymbol{t} \boldsymbol{a}^{\boldsymbol{n}}$ ．咸豐三，講屆今。
＇That anecdote＇s been told since the days of old．＇
（3b） $\bar{U} l \bar{o} \cdot+\bar{m} \boldsymbol{k i} \hat{a}^{\boldsymbol{n}}$ ，$k i \hat{a}^{n} \operatorname{soa}^{n}-\boldsymbol{p h i} \hat{a}^{\boldsymbol{n}}$ 。有路呣行，行山坪。
＇One takes not the trail but cuts across the hill＇s slope．＇
（4a）Ke－lāi＋bô bâ，niáu－chhí／－chhú＋ $\bar{e} k h i a u-k h a$ ．家內無貓，老鼠會蹺骹。 ＇The mice became unruly in the cat＇s absence from the house．＇
（4b）Ang－kong $+s i \grave{a}^{\boldsymbol{n}}, \bar{m}-t a \dot{a} t a n g-m a ́+\boldsymbol{t i} \bar{a}^{\boldsymbol{n}}$ 。廷公聖，呣值廷媽啶。 ＇An unchanging goddess is better than a mighty god．＇
（5）Chit jitt＋cháu pha－pha，chit mê＋tiám teng－làh．一日走抛抛，一暝點燈蠟。
＇One fools around in the day and stays up working at night．＇
（6）San $\bar{e} \boldsymbol{k} \overline{\boldsymbol{a}}, b \bar{o} e k i^{n} \overline{\boldsymbol{a}}^{\boldsymbol{n}}$ 。三下咬，未見饀。
＇Even after three bites，the filling could not be reached．＇
（7a）Sim $+\boldsymbol{c h i}{\underset{a}{ }}^{\boldsymbol{n}}, \bar{m}-k i a^{n} \operatorname{siâ}$ ．心正呣驚邪。
＇A virtuous person is not afraid of evil．＇
（7b）Khe，bô nôa；chén，bô kòa．溪無欄，井無蓋。
＇A river has no fence；a well has no cover．＇
（8a）Chhit－chàp，bô phah；peh－cháp，bô mā．七十無扑，八十無罵。
＇Beat not a seventy－year－old nor scold an eighty－year－old．＇
（8b）Phah－sí khit－chiàh，hó lâng＋pôe miā．扑死乞食，好人賠命。
＇A well－to－do person must pay even for taking a beggar＇s life．＇
（9）Koan－si＋hó phah，káu－sái＋hó chiàh．官司好扑，狗屎好吃。
＇Dog shit＇ll become edible，if suing is enjoyable．＇
（10）Bô $\boldsymbol{s} a^{\boldsymbol{n}}, \bar{e} \boldsymbol{k} \hat{o} \boldsymbol{a}^{\boldsymbol{n}}$ 。無衫會寒。
＇It＇s cold with no clothes．＇
（11）Chàp khá，bô－thang chiàh．十巧無通吃。
＇Too good a cook doesn＇t get to eat．＇
（12）Tang－koe：hó－khòa ${ }^{n}$ ，bô hó－chiàh．冬瓜好看無好吃。
＇A wax gourd is pretty but not tasty．＇
Whether a riming is perfect or not can be defined by syllable features．Chang Yü－hung （1988a）identifies several syllable features in monosyllabic tone languages．Of these features， tone，glottality，and nasality are relevant to Taiwanese riming．Medials，i．e．，［yotization］and ［labialization］，are also important factors． $\mathbf{0 0}, \mathbf{r}, \mathbf{x 2}, \mathbf{h}, \mathbf{l}, \mathbf{q}, \mathbf{g h}, \mathbf{r r}, \mathbf{r l}, \mathbf{l l}, \mathbf{r q}$, and $\mathbf{q q}$ are used in this paper to represent the tones that can be used in riming，and $\mathbf{Q}, \mathbf{N}, \mathbf{Y}$ and

[^1]W represent the presence of glottality, nasality, yotization, and labialization, respectively. ${ }^{2}$ Applying these symbols to the rhymes listed above, ${ }^{3}$ one can understand visually why some of them are considered perfect riming and some are not. In the following presentation, ( $1^{\prime}$ ) is a "feature analysis" of (1), (2') of (2), etc. Since $\mathbf{Q}$ is redundant, in a sense, in syllables, with $\mathbf{q}, \mathbf{g h}, \mathbf{r q}$, or $\mathbf{q q}$ tones, it is put in parentheses. ${ }^{4}$ Syllable peaks are of course the most basic feature that defines rime categories and thus are not shown in the following presentation.

| (1') | x 2 |  |  | (7a') | h, N, Y | (7b') | $\begin{aligned} & \text { r, N, W } \\ & \mathrm{h}, \mathrm{~W} \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | x 2 |  |  |  | r, Y |  |  |
| (2a') | q(Q) | (2b') | gh(Q), Y | (8a') | $\mathrm{q}(\mathrm{Q})$ | (8b') | gh(Q), Y |
|  | $\mathrm{q}(\mathrm{Q})$ |  | $\mathrm{gh}(\mathrm{Q}), \mathrm{Y}$ |  | $1, \mathrm{~N}$ |  | l, N, Y |
| (3a') | 00, N | (3b') | r, N, Y | (9') | $\mathrm{q}(\mathrm{Q})$ |  |  |
|  | 00, N |  | $\mathrm{r}, \mathrm{N}, \mathrm{Y}$ |  | gh(Q), |  |  |
| (4a') | r | (4b') | $\mathrm{h}, \mathrm{N}, \mathrm{Y}$ | (10') | 00, N |  |  |
|  | 00 |  | $1, \mathrm{~N}, \mathrm{Y}$ |  | $\mathrm{r}, \mathrm{N}, \mathrm{W}$ |  |  |
| ( $5^{\prime}$ ) | 00 |  |  | (11') | x 2 |  |  |
|  | $\mathrm{gh}(\mathrm{Q})$ |  |  |  | gh(Q), Y |  |  |
| (6') | 1 |  |  | (12') | h, N, W |  |  |
|  | $1, \mathrm{~N}$ |  |  |  | $\mathrm{gh}(\mathrm{Q}), \mathrm{Y}$ |  |  |

In each of the three perfect rimings (1-3), the riming syllables have exactly the same feature specifications. For instance, both syllables in (1) are $a[+$ high, + falling, -glottal, -nasal, -yotization, -labialization], where the first three features specify tone $\mathbf{x 2}$. Of the imperfect rimings, (4-6) are "once removed", (7-10) are "twice removed", (11) is "three-times removed", and (12) is "four-times removed". Here, tone is treated as a single rime feature no matter specified by how many different phonological tone features. For instance, in (7a), $\mathbf{h}$ is [-high, +central, -rising, -glottal] and $\mathbf{r}$ is [-high, -central, +rising, -glottal]. There are in total two differences between the two riming syllables in terms of distinctive phonological tone features, i.e., [central] ${ }^{5}$ and [rising]. Yet so far as riming is concerned, the two differences specifying the tones are considered 'sub-riming'. The riming in (7a) is treated as "twice removed" because of the [+nasal] in the first riming syllable and the [-nasal] in the second riming syllable, in addition to their tonal difference. The riming in (7b) is also considered in this way. By the same token, tone and nasality are the two features that distinguish the two rime categories in (8a), where the redundant glottality is considered a part of the tone $\mathbf{q}$.

Syllables with identical rime-feature specifications constitute an individual category of riming. For instance, $a[00](k a, t a, s a$, etc. $)$ is a rime category, $a[00, \mathrm{~N}]\left(k h a^{n}, t a^{n}, s a^{n}\right.$, etc.) another, and $a[00, \mathrm{~N}, \mathrm{Y}]\left(k i a^{n}\right.$, thia ${ }^{n}$, $i a^{n}$, etc.) yet another. The combination of the presence and absence of the sixteen rime features yields 600 possible rimes in Taiwanese. But owing to accidental gaps, most of which are attributed to the shallow time depth of the extra tones $\mathbf{r r}, \mathbf{r l}, \mathbf{l l}, \mathbf{r q}$, and $\mathbf{q q}$, the current count of attested rime categories is 428, excluding reduplicatives, intimate address terms, and uncommon loan words. These categories and their specifications can be consulted in the tables appended to this paper. ${ }^{6}$

[^2]
## 3．Rime Groups

Riming exclusively within the same category is not practical，however．The high number of riming categories makes it very difficult to find suitable words for perfect rimings，especially in long rhymes．As a result，riming between different categories of the same group cannot be avoided．The foregoing examples show that，although perfect riming is preferred in this language，coming to wit＇s end，a composer cannot but mar the perfection a little bit．The author＇s first hand experience clearly witnesses the urge to rime exactly and the unwillingness to use imperfect rimings．When it happens that no such ideal rimes are available，the priority of violation is as follows：tone，glottality，nasality，medial．This native speaker intuition is statistically true，as is shown in Chang Yü－hung（1989）．Other Taiwanese did and will do the same in riming．

Tone ${ }^{7}$ It is easier for short rhymes，such as sayings，and time－honored verses，such as nursery rhymes，to use syllables of the same tone throughout．It is impossible in many cases，however， owing to the size of many semantic fields and the unavailability of lexical items therein．For an $a$ nucleus with［gh，Y］specifications，the common lexical items are only chiadh 吃＇eat＇，liadh掠＇capture＇，giàh 額 ‘amount＇，and hiadh 額＇forehead＇and compound words ending with these morphemes．Their chances of occurrence are further limited by the meaning of the whole verse． For examples of imperfect riming differing in tones，see（4a，4b）．

Glottality Since glottality is concomitant with tones $\mathbf{q}, \mathbf{g h}, \mathbf{r q}$ ，and $\mathbf{q q}$ ，it is considered a redundant feature of these tones．They are mostly so treated by the native speakers．Yet the shortness of the two＂regular＂tones $\mathbf{q}$（D1）and $\mathbf{g h}$（D2）meanwhile makes the natives aware of their peculiarity，and glottality is thus considered significant in perfect riming．Nevertheless， owing to its entanglement with the tones，it is often ignored quite readily，almost as the tones are．For an example of such imperfect riming，see（5）．

Nasality Hokkien is a language in which nasality is the primary factor for distinguishing syllable nuclei．In other words，Hokkien syllables are either nasalized or non－nasalized （cf．J．Tung（1988）），except for syllabic consonants，which are always nasalized．The dominant function of nasality naturally makes the feature very distinctive in riming．Nasalized syllables are preferred to be paired with their own kind．So are non－nasalized syllables．But the pattern is occasionally broken，such as in（6）．

Medial Peculiar to Taiwanese riming，and probably Hokkien riming as a whole，is that syllables with and without a medial are of very different species，the pairing of which is avoided in most cases．As a matter of fact，the author has failed in finding a saying with riming nuclear vowel $a$ that enter either of the following patterns，which are to be placed between（6）and（7）：
（13）T，Y
T
（14）T，W
T

Furthermore，（12）is hardly considered riming by native speakers．It is far beyond the popular expectation of riming．In spite of their＂hard－lined position＂，however，the medials behave amicably in occasional rimes of necessity，with the composers frowning at the rimes．See（9）， （10），and（11）for examples．

In short，perfect rimings are not always available．Second－class rimings，third－class rimings， and whatever come next take their place．The further up the scale of riming priority（i．e．，＇with the same medial＇，＇with or without nasality＇，etc．all the way down to＇with and without a

[^3]medial' and 'with different medials') the higher the "class"; the further down the scale of lineage closeness (once removed, twice removed, etc.) the lower the "class". There is yet no indication of how these two scales are to be combined into one scale of measurement, but one thing is very clear: the rime categories that are defined by the presence and absence of the rime features are not mutually exclusive in the riming schemes in this language. As illustrated above, in spite of the native preference for perfect riming, violations do occur, though not without constraints. These categories are thus organized into groups, under one condition: In each group, the syllabic (i.e., the syllable peak and the point of articulation of the final ending, if any) must be the same. Take Group $\boldsymbol{a}$ for example. The following syllables, among others, are permitted to rime with each other:

| (15) | a | $\mathrm{a}^{\mathrm{n}}$ | ah | $\mathrm{ah}^{n}$ |
| :--- | :--- | :--- | :--- | :--- |
| (16) | ia | ia |  |  |
| (17) | oâ | iah | iah $^{n}$ |  |
| oâ | oah | oah $^{n}$ |  |  |

The paradigm is to be read as the following in terms of features:

| $\left(15^{\prime}\right)$ | $a[00]$ | $a[00, \mathrm{~N}]$ | $a[\mathrm{q}, \mathrm{Q}]$ | $a[\mathrm{q}, \mathrm{Q}, \mathrm{N}]$ |
| :--- | :--- | :--- | :--- | :--- |
| $\left(16^{\prime}\right)$ | $a[00, \mathrm{Y}]$ | $a[00, \mathrm{~N}, \mathrm{Y}]$ | $a[\mathrm{q}, \mathrm{Q}, \mathrm{Y}]$ | $a[\mathrm{q}, \mathrm{Q}, \mathrm{N}, \mathrm{Y}]$ |
| $\left(17^{\prime}\right)$ | $a[\mathrm{r}, \mathrm{W}]$ | $a[\mathrm{r}, \mathrm{N}, \mathrm{W}]$ | $a[\mathrm{q}, \mathrm{Q}, \mathrm{W}]$ | $a[\mathrm{q}, \mathrm{Q}, \mathrm{N}, \mathrm{W}]$ |

In other words, the rime features are only decorations or mars, so to speak, added to the syllabic, which is the core of a rime group.

In this matter, twenty rime groups have been identified as the following, where $\mathrm{B}, \mathrm{D}$, and $G$ stands for labial, dental, and velar finals, respectively.

|  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $(18)$ | a | e | i | u | o | o |

aB iB uB oB

| aD | eD | iD | uD |  |
| :--- | :--- | :--- | :--- | :--- |
| aG | eG |  | uG | oG |

## 4. Rime Tables

For easy viewing, each rime group is subdivided by the specifications of the rime features and entered in tables. Rime categories without a medial occupy a single table, yotized categories another, and labialized yet another. For instance, Group a occupies the first three tables. Table 1 contains all categories without a medial. Table 2 contains those with a medial $\mathbf{Y}$, and the categories in Table 3 all have a medial $\mathbf{W}$. The tables are numbered in the following way:

| (19) | 1. a | 15. e | 19. i | $23 . \mathrm{u}$ | 29. о | 31. o• |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\text { 2. } \mathrm{a}(\mathrm{Y})$ |  |  | $\text { 24. } \mathrm{u}(\mathrm{Y})$ | 30. o(Y) | $\text { 32. } \mathrm{o} \cdot(\mathrm{Y})$ |
|  | 3. $\mathrm{a}(\mathrm{W})$ | 16. $\mathrm{e}(\mathrm{W})$ | 20. $\mathrm{i}(\mathrm{W})$ |  |  |  |
|  | 4. aw |  |  |  |  |  |
|  | 5. aw (Y) |  |  |  |  |  |
|  | 6. aj |  |  |  |  |  |
|  | 7. aj(W) |  |  |  |  |  |
|  | 8. aB |  | 21. iB | 25. uB |  | 33. oB |
|  | 9. $\mathrm{aB}(\mathrm{Y})$ |  |  |  |  |  |
|  | 10. aD | 17. eD | 22. iD | 26. uD |  |  |
|  |  |  |  | 27. $\mathrm{uD}(\mathrm{Y})$ |  |  |
|  | 11. $\mathrm{aD}(\mathrm{W})$ |  |  |  |  |  |
|  | 12. aG | 18. eG |  | 28. uG |  | 34. oG |
|  | 13. $\mathrm{aG}(\mathrm{Y})$ |  |  |  |  | 35. oG(Y) |
|  | 14. $\mathrm{aG}(\mathrm{W})$ |  |  |  |  |  |

Moving along the scale of riming priority, the next division of a rime group is nasality. This division can be seen in the appended tables. In each table, columns 1 and 2 are [-nasal], and columns 3 and 4 are [+nasal]. Both [-nasal] and [+nasal] subgroups are then further broken down according to glottality, with columns 1 and 3 bearing [-glottal] and columns 2 and 4 bearing [+glottal]. These columns are cut across by rows of the twelve tones. As such, each table has 48 slots, maximally 24 of which can be filled. ${ }^{8}$ Systematic gaps are shaded, and accidental and unattested gaps are left blank.

The tables are of three major patterns. Open syllables are the most evenly distributed in the tables in terms of the presence and absence of nasality and glottality. Closed syllables are limited to either [ + glottal, -nasal] or [-glottal, +nasal] ${ }^{9}$ Syllabic nasals are another kind of [-open] syllables, ${ }^{10}$ but their pattern of distribution in the [+nasal] portion of the tables is identical with that of open syllables. It is askew.

There is yet another pattern that shows up askew. Neither Table 29 ( o [-yotized]) nor Table $32(o \cdot[+$ yotized $])$ has [+nasal] syllables. ${ }^{11}$ In five other places, $a$ [+glottal, +nasal, +labial] (in Table 3), u [-yotized, -glottal, +nasal] (in Table 23), uD [+yotized, -glottal, +nasal] (in Table 27), o [+glottal, +nasal, +yotized] (in Table 30), and $o \cdot[+$ glottal, -nasal, +yotized] (in Table 32) are also without meaningful lexical items. Since these sets of categories are permissible, however, the gaps are considered accidental and are not shaded.

## 5. Self-riming Expressions ${ }^{12}$

The categorization of rimes originated from the studies of the riming schemes in Taiwanese Hokkien. The riming schemes, of course, reflect the native speakers' intuition about rimes. The schemes were induced, in the author's 1989 study, by means of statistics. The categories are

[^4]defined in terms of the presence and absence of certain rime features modifying the syllabic peaks．

Since all rime features except the syllabic are allowed to be optional in the rime schemes，the syllable nucleus－or syllable nucleus plus an ending－without these features present becomes the core of a rime．It is like a sun ornamented with its satellites，in its own unique solar system． It has its own retinue，which forms the rime group．Within the group，different categories are permitted to rime with each other．Therefore，there is a variety of rimes in the same group， within which syllables are allowed to rime with each other，ranging from that of the strictest sense of riming，or riming within the same category（1－3），to the loosest（12）．

The selfsame concept of rime features and their operations in defining categories and groups is also applicable to the definition of self－riming expressions．With regard to this special class of lexical items and phrases that attract some attention in Chinese poetic studies，the same question can be asked：Which of the polysyllabic expressions in the lexicon of the language are self－riming？The answer dwells in the twenty rime groups．Any polysyllabic expression whose syllables fall into the same rime group is self－riming．Therefore，the following expressions are qualified．All the syllables are in Rime Group a．
（20）a－cha＇dirty＇
（21）ká－chhá 絞吵＇to annoy＇
（22）bá－tah＇butter＇
（23）$k a^{n}-n a ́$ 橄欖＇olive’
（24）lâ－giâ＇large house spider＇
（25）kha－chiah 尻脊＇back of body＇
（26）ki $\hat{a}^{n}$－tàh 行踏＇behavior＇
（27）odh－chôa ${ }^{n}$ 活泉＇flowing fountain＇
（28）koan－chhâ 棺柴＇coffin＇
（29）tōa－tán 大膽＇bold＇
（30）oadh－liadh 活掠＇to catch alive＇
（31）chián $-k o a^{n}$＇unsalted dried vegetables＇
（32）tòa－niá 帶領＇to lead＇

These self－riming expressions also range from perfect riming（20－21）to four－times removed riming（32）．

Rime Group o contains categories that are modified by $\mathbf{Y}$（io）， $\mathbf{Q}$（oh）， $\mathbf{Y Q}$（ioh），and $\mathbf{Y N}\left(i o^{n}\right)$ ，besides being modified by tones．On the other hand，Group $\boldsymbol{o} \cdot$ has categories that are modified by $\mathbf{Y}(i o \cdot), \mathbf{Q}(o \cdot h), \mathbf{N}\left(o^{n}\right)$ ，and $\mathbf{N Q}\left(o h^{n}\right)$ ，besides being modified by tones．${ }^{13}$ They are almost in complementary distribution．The only obstacle is the presence of yotization． Nevertheless，there are only a meager of three items in the $i o \cdot$ rime categories，hiò；liò ，and $i \check{o} \cdot-\dot{o} \cdot(\mathrm{cf}$ ．Table 32）．They are all contracted forms and can therefore be treated as in their
 yielding disyllabic words，the second syllable of which belonging to Rime Group $\boldsymbol{o}$ ：Furthermore， none of the three contracted items can form compounds，for all of them are either particles or interjections．If one insists on the principle of＂once a phoneme，always a phoneme＂，one would not ignore these minorities．But if one prefers to see how self－riming works，it would be better

[^5]to discard the three exceptions for the occasion．The two groups can then be combined as in the following，interpreting $o[-$ yotized $]$ as $o$［ + labial］and $o[+$ yotized $]$ as $o[+$ yotized］：

|  |  | Y | W |
| :---: | :---: | :---: | :---: |
|  | o＜o＇＞ | io | uo＜${ }^{\text {¢ }}$ |
| Q | oh 〈oh＞ | ioh | uoh 〈oh＞ |
| N | $\mathrm{o}^{\text {n }}$ | io ${ }^{\text {n }}$ | － |
| NQ | oh ${ }^{\text {n }}$ | ioh ${ }^{\text {n }}$ | － |

Translating these into examples，we have the following items qualified as self－riming：

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\(h \hat{o}=l \hat{o}\)-葫蘆 'gourd'
Hóh-ló 鶴老 ‘Taiwanese Hokkien’
\(h \hat{o}=c h i o\) 胡椒 ‘black/white pepper’
\(o\)-chó 烏棗 ‘dateplum persimmon’
chioh-ko 石膏 'plaster stone'
\(h \grave{o}^{n}-\grave{o}\)-好惡 'like and dislike’
poh-móh 薄膜 ‘membrane’
\(k o-t i \bar{o}^{n}\) 姑丈 'husband of father's sister'
to-chhio \({ }^{n}\) 刀槍 'swords and spears'
chióh-chhiôn 石牆 'stone wall'
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Another circumstance in favor of eliminating Group $o$ is that all vowels，except $o$ ，can be followed by an ending（see 18）．That is，if $i o \cdot$ is not taken into account，$o$ can be interpreted as in complementary distribution with $o$ ；in terms of syllable endings．

## 6．Analysis and Intuition

The collapsing of Group $\boldsymbol{o}$ and Group $\boldsymbol{o} \cdot$ above seems to be a clear indication that mechanical scientific analysis and native speaker intuition might sometimes be at odds．As seen in Section 5， this collapsing is not unfounded．Nevertheless，except for speakers whose phonological system does not distinguish $o$ from $o$ ；Groups $o$ and $o$ are strictly considered two separate rime groups that allow no border－crossing．The definition through which（36）and（37）are treated as self－riming expressions remains a lab experiment．Genetic engineering can create monsters； so could the application of linguistic analysis．Expressions（36）and（37）are not acceptable as self－riming in verse，whether oral or written．${ }^{14}$

Another species of monstrous－looking creatures is that with big tails，i．e．，closed syllables． In terms of the current analysis based on syllable features，syllable finals are classified according to the point of articulation，disregarding the manner of articulation．For example，kap and kam belong to the same Group $\boldsymbol{a B}$ ，kat and kan belong to the same Group $\boldsymbol{a} \boldsymbol{D}$ ，and kak and kang belong to the same Group $a G$ ．

[^6]|  | Q | N |
| :---: | :---: | :---: |
| $B$ | -p | -m |
| $D$ | -t | -n |
| $G$ | -k | -ng |

The grouping，analogous to the grouping of $a h$ and $a^{n}$ under $a$ ，is in effect beautiful，but it is not the author＇s invention．It has been practiced by Chinese philologists for centuries．Even up to this day，linguists still follow the same path．In analyzing the rime features of syllables， the author unwittingly did the same．Apparently，there is a natural inclination to combine syllables with homorganic endings into the same rime group．Hence，expressions including the following are theoretically considered self－riming：
（45）chàp－liām 雜念＇nagging＇
（46）kiàm－kiap 劍俠＇knight－errant＇
（47）koat－tòan 決斷＇decisive＇
（48）thôan－tàt 傳達 ‘doorman’
（49）kak－phang 角蜂＇wasp＇
（50）
liāng－iak 諒約＇approximate＇
Monstrous as these big－tailed rimed groups may seem，they are in fact not the brainchild of phonological analysis．Rather，they are simply the natural products of native speaker intuition solicited by means of phonological applications of rime features．As mentioned above，the grouping reflects the feeling of Sinitic speakers toward closed syllables．If this is true，there is no conflict between the phonological grouping and the nonoccurrence of some supposed－to－be rimings，for both the definition of rime groups and the actual riming are equally intuitional． The disagreement is between linguistics and literature．It is one intuition against another．

## 7．Conclusion

Identifying features that are distinctive in specifying the whole syllable does not only offer a clearer view of syllables（Chang Yü－hung 1988a）but also helps to explain the rime schemes （Chang Yü－hung 1989）．The categorization of rimes in terms of rime features defines the inventory of rimes in a language．As stated in Section 2，in Taiwanese Hokkien，there are as many as 600 possible rimes so defined，though about one third of them are not substantiated with lexical items．The grouping of rime categories on the basis of the same syllabic，i．e．，the same nucleus in the syllable peak or the same nucleus and ending，agrees with the rules by which certain rime categories are allowed to rime．That is，identical rime－feature specifications are preferred but not essential in determining rimings．What is essential is the syllabic．

There is nothing new about the syllabic＇s being the core in riming，but it is something new to find that in Taiwanese there is a priority in the variation of rime－feature specifications， from the most favored non－variation to the least welcome variation of medials．Perfect riming is the most esteemed．Tonal difference is common．Glottality is partly considered tonal，but the closure of the glottis is so conspicuous that riming between［＋glottal］and［－glottal］is less favored．Riming between nasal and non－nasal is to be avoided when possible．Riming between medial and non－medial is even less desirable，and riming between different medials is abhorrent．

An even more novel finding is that syllables in the same well－defined rime group may not actually rime．The process of applying the rime features to syllables in order to categorize rimes and to combine rime categories into rime groups is mechanical，but it entails two interesting problems，which are discovered when the definitions of rime categories and rime groups are applied to self－riming expressions．The first problem is whether $o$ and $o \cdot$ in Hokkien are really
in contrast as rime groups. Its solution lies in whether $i o \cdot$ has the legitimacy as a rime category. The second problem is that, though logically defined as belonging to the same rime groups, two syllables with homorganic endings do not actually rime in literature, if one ends in a stop and the other a nasal. A native speaker would not rime, for instance, $a p(a B[+$ glottal, - nasal $])$ with $a m(a B[-$ glottal, + nasal $])$, though he may rime, for instance, $a h(a[+\operatorname{glottal},-$ nasal $])$ with $a^{n}$ ( $a[-$ glottal,+ nasal $])$ when necessary.

The second problem points to the possibility that any treatment of language, either literary or linguistic, does not manifest the complete picture of intuition. There is the intuition that regulates the authors of literary works, and there is that which guides native linguists. These people of different fields sometimes come to disagreement, but the disagreement is not always between intuition and science; rather, it is between one intuition and another. Thus, the grouping of rimes is natural and not merely a creation of phonological theory; in fact, it perfectly reflects the linguistic side of native Taiwanese intuition in language.

Table 1.

| a |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Q | N | NQ |
| 00 | a 'crow' <br> $k a$ 'glue' <br> ta 'dry' <br> $s a$ 'to grab' |  | $k a^{n}$ 'prison' $k h a^{n}$ 'cooking pot' $s a^{n}$ 'clothes' |  |
| r | hâ 'morning / evening glow' chhâ 'wood' bâ 'wildcat' |  | $k \hat{a}^{n}$ 'to carry under the arm' [chhiū] nâ 'woods/forest' |  |
| x2 | khá 'ingenious' chá 'early' chhá 'disturb' $p a ́$ 'be full' |  | $\begin{aligned} & \hline k a^{n} \text { 'dare to' } \\ & t a^{n} \text { 'gall-bladder' } \\ & m a ́ \text { 'grandma' } \end{aligned}$ |  |
| h | kà 'to teach' tà 'to cover' sà 'to eat' pà 'leopard' |  | $\grave{a}^{n}$ 'to face' <br> $k \grave{a}^{n}$ 'yeast' <br> $s \grave{a}^{n}$ 'what' <br> $p h \grave{a}^{n}$ 'hollow' |  |
| 1 | $k \bar{a}$ 'to bite' $l \bar{a}$ 'to stir' $p h \bar{a}$ 'blister' $b \bar{a}$ ' 3 -foot' |  | $\begin{aligned} & \bar{a}^{n} \text { 'filling/stuffing' } \\ & n \bar{a} \text { 'if' } \\ & t \bar{a}^{n} \text { 'mistake' } \end{aligned}$ |  |
| q |  | ah 'duck' <br> thah 'pagoda' <br> phah 'to beat' <br> bah 'flesh' |  | hah ${ }^{n}$ 'affected/ injured by heat' nah 'sunken - as surface' |
| gh |  | dh 'box' hàh 'suitable' tah 'to tread' thàh 'to pile' |  |  |
| rr | lă 'clam' chhă 'stick' $b \breve{a}$ 'leopard cat' |  | hă ${ }^{n}$ 'what !/?' $k h \breve{a}^{n}$ 'cooking pot' $n a ̆$ 'basket' |  |
| rl | $\breve{a}-\stackrel{a}{a}$ 'Let me alone!' $b a ̆-a \grave{a}$ '(sudden wailing)' |  | $h \breve{a}^{n}-\cdot \grave{a}^{n}$ 'Nonsense!' $m a ̆-a \grave{a}$ '(sudden wailing)' |  |
| 11 | $\begin{aligned} & \text { há-à 'Hey! See } \\ & \text { what you have } \\ & \text { done! (scolding)' } \end{aligned}$ |  | $\begin{aligned} & \hline h \tilde{a}^{n}-\grave{a}^{n} \\ & \quad \text { 'Inconceivable!' } \end{aligned}$ |  |
| rq |  | hăh 'What a lucky discovery!' |  | $h a ̆ h^{n}$ 'What a surprise!' |
| qq |  | ...káh 'very...' |  | háh ${ }^{\text {'Humph!' }}$ |

Table 2.

| [ a |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Y |  | Q | N | NQ |
| 00 | khia 'odd number' jia 'to shade from view' |  | $\begin{aligned} & \text { hian 'older brother' } \\ & \text { sia }^{n} \text { 'sound' } \\ & \text { pia }^{n} \text { 'throw' } \end{aligned}$ |  |
| r | iâ 'coconut' chiâ 'who' giâ 'carry/hold' |  | $i \hat{a}^{n}$ ' 'win/won' ngiâ 'receive ceremoniously' mià 'name' |  |
| x2 | iá 'wild - as person' siá 'write' jiá 'provoke' |  | $i \dot{a}^{n}$ 'shadow' <br> $k i a^{n}$ 'son' <br> tián 'wok' <br> pián 'cake' |  |
| h | $i a ̀ ~ ' t i r e d ~ o f ' ~$ kià 'entrust' [kam] chià 'sugarcane' |  | ki $i^{n}$ ' 'mirror' thiäan 'pain' sià ${ }^{n}$ 'powerful - as god' |  |
| 1 | $i \bar{a}$ 'to strew' kiā 'steep' khià 'to stand' siā 'to shoot' |  | $h i \bar{a}^{n}$ 'Chinese mugwort' $t i a^{n}$ 'often' miā 'fate' |  |
| q |  | iah 'to dig' piah 'wall' phiah 'natural inclination' |  | hiah ${ }^{n}$ 'carry wood/clothes' |
| gh |  | [thâu] hiàh 'forehead' giadh 'amount' chiad 'to eat' |  | [gông] ngiàh 'very much astonished' |
| rr | $i \breve{a}$ 'butterfly' $\left[i \bar{a} u^{n}\right]$ chiă 'Peekaboo!' siă 'a ladle' |  | ```tiăa}\mp@subsup{}{}{n}\mathrm{ 'small level ground' [sñg] miă 'fortune teller'``` |  |
| rl | $\begin{aligned} & {[o \cdot \check{l}-a \grave{a} \text { '(baby's }} \\ & \text { cry)' } \end{aligned}$ |  |  |  |
| 11 |  |  |  |  |
| rq |  |  |  |  |
| qq |  |  |  |  |

Table 3.

| a |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| W |  | Q | N | NQ |
| 00 | ```hoa '(light/fire) go out' thoa 'to drag' soa 'sand'``` |  | $\begin{aligned} & \hline \text { koa }^{n} \text { 'liver' } \\ & \text { soa 'hill' } \\ & \text { poan 'to change } \\ & \text { location' } \end{aligned}$ |  |
| r | [bí] lôa 'wicker rice basket' bôa 'to grind' |  | kôan 'cold' chôa ${ }^{n}$ 'spring/well' môa 'eel' |  |
| x2 | óa 'get close' <br> góa 'me' <br> sóa 'to change location' |  | oa ${ }^{n}$ 'bowl' <br> kóa ${ }^{n}$ 'haste' <br> móa 'full to the brim' |  |
| h | kòa 'lid' tòa 'to dwell' sòa 'continue' phòa 'broken' |  | oàn 'late' <br> khòa ${ }^{n}$ 'see' <br> thòa $a^{n}$ 'charcoal' |  |
| 1 | ```gōa 'outside' tōa 'big' chōa '<clf> trip; line'``` |  | $\qquad$ <br> $k \bar{o} a^{n}$ 'sweat chōan 'spout out in a jet’ nōa 'saliva' |  |
| q |  | hoah 'shout' khoah 'wide' phoah 'to dash water' |  |  |
| gh |  | od'h 'alive' joadh 'hot' poadh 'to gamble' |  |  |
| rr | sŏa 'fine sand' bŏa 'crocodile' |  | ```tŏan 'a small list/ note/form' pŏan 'a plate' mŏa 'sesame'``` |  |
| rl | $\begin{aligned} & \hline o \breve{a}-\cdot \grave{a} \text { ‘How } \\ & \text { wonderful!' } \end{aligned}$ |  | $\begin{aligned} & o \stackrel{a}{n}^{n} \cdot \grave{a}^{n} \text { '(baby's } \\ & \text { cry) } \end{aligned}$ |  |
| 11 | oá--à ‘Oh! Despair! (Too much to do! ' |  |  |  |
| rq |  |  |  |  |
| qq |  |  |  |  |

Table 4.

| aj |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Q | N | NQ |
| 00 | ai 'to whine' khai 'to spend money' sai 'lion' |  | ```hain'groan' kai\mp@subsup{i}{}{n}'howl - as being hurt' mai 'a mile'``` |  |
| r | tâi 'burry' pâi 'platoon' [bdk] bâi 'eye brow' |  | [ $b \bar{e}] k \hat{a}^{i}{ }^{n}$ 'powerless against someone' |  |
| x2 | hái 'sea' sái 'dung' pái 'to limp' baí 'ugly' |  | ```kháin' 'to grab/ seize' cháai \({ }^{n}\) 'finger' pháin 'bad'``` |  |
| h | ài 'love' chài 'carry on vehicle' pài 'worship' |  | $\begin{aligned} & \text { hà } i^{n} \text { 'dangle' } \\ & \text { sài }{ }^{n} \text { 'What is it?' } \\ & \text { mài 'don't' } \end{aligned}$ |  |
| 1 | $h a \bar{a} i$ 'to do harm to' $g \bar{a} i$ 'to impede' chāi 'steady' |  | ```\overline{a}\mp@subsup{i}{}{n}\mathrm{ 'carry} somebody on back' nāi 'enduring'``` |  |
| q |  | $\begin{aligned} & \text { aih '(sighing)' } \\ & \text { haih 'Don't do it!' } \end{aligned}$ |  | naih 'sunken - as stomach' |
| gh |  |  |  |  |
| rr | ăi 'That is strange!' chăi 'morning' |  |  |  |
| rl |  |  |  |  |
| 11 | há-ı 'Hey! See what you have done! (disapproval)' |  | $\begin{aligned} & \hline \hat{a}^{n} \cdot \cdot i^{n} \text { ' }<\text { baby } \\ & \text { talk }>\text { (sound } \\ & \text { accompanying } \\ & \text { striking)' } \end{aligned}$ |  |
| rq |  |  |  |  |
| qq |  |  |  |  |

Table 5.

| aj |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| W |  | Q | N | NQ |
| 00 | ```oai 'askew' koai 'well behaved - as child'``` |  | ```oai\mp@subsup{i}{}{n} 'to extort money' koain 'cross-bar'``` |  |
| r | ```hoâi 'Chinese scholartree' [h\overline{o}] koâi 'tree frog'``` |  | ```hoâi\mp@subsup{i}{}{n} 'unreasonable' moâi 'gruel/ porridge'``` |  |
| x2 | ```oái 'to sprain or strain - as a limb' koái 'swindle'``` |  | oái ${ }^{n}$ 'to limp' <br> koái ${ }^{n}$ 'stalk of grain or vegetables' |  |
| h | koài 'to blame' <br> khoài 'quick' <br> boài 'not want to' |  | ```[si\mp@subsup{a}{}{n}] hoàì 'n 'What is it?' [liâm ni] noài 'sticky'``` |  |
| 1 | ```[phò] hoāi 'do damage to' choāi 'twisted - as joints'``` |  | $\begin{aligned} & \text { koā} i^{n} \text { 'county' } \\ & \text { so } \bar{a} i^{n} \text { 'mango' } \\ & {[\text { sió }] \text { moāi 'younger }} \\ & \text { sister' } \end{aligned}$ |  |
| q |  | baih 'not want to' |  | oaih ${ }^{n}$ 'to wiggle' |
| gh |  |  |  | $\begin{aligned} & {\left[s i^{n}-s i^{n}+\right]} \\ & \quad \text { soaih }^{n}-\text { soadih } \\ & \quad(\text { squeaky sound) } \end{aligned}$ |
| rr | boăi. . . 'not want to' |  | $\begin{aligned} & {\left[k \vec{i}^{n}\right] k o a ̆ i^{n}} \\ & \text { sound) } \\ & {\left[s \vec{\imath}^{n}\right] \text { soă } i^{n} \text { (squeaky }} \\ & \text { sound) } \end{aligned}$ |  |
| rl |  |  |  |  |
| 11 |  |  |  |  |
| rq |  |  |  | ```oăihn}\mp@subsup{}{}{n}\mathrm{ (a squeaky sound) soăih (a squeaky sound)``` |
| qq |  |  |  | oáih ${ }^{n}$ (a sudden squeaky sound) |

Table 6.

| aw |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Q | N | NQ |
| 00 | au 'a cup' pau 'to wrap' chhau 'to copy; plagiarize' |  | mau 'dented' |  |
| r | kâu 'monkey' gâu 'wise; skillful' thâu 'head' |  | hâu ${ }^{n}$ 'wait' ngâu 'to stew into a jelly' |  |
| x2 | káu 'dog' cháu 'run/go away' chháu 'grass' |  | [ut] á $u^{n}$ 'to utter indistinctly' náu 'brain' |  |
| h | khàu 'to weep' chàu 'stove' sàu 'to cough' phàu 'cannon' |  | hà $u^{n}$ 'to be fond of' |  |
| 1 | hāu 'king crab' kāu 'thick' lāu 'old age' |  | $\begin{aligned} & \hline \text { [liân] ngāu 'lotus } \\ & \text { root' } \\ & n \bar{a} u \text { 'stir up trouble' } \end{aligned}$ |  |
| q |  | kauh 'run over with wheel' lauh 'to drop/fall' |  | ```hauh \({ }^{n}\) 'snatch with teeth' mauh 'sunken - as cheeks'``` |
| gh |  | phàuh 'hail (storm)' bduh 'contract for in the lump' |  | [ $n g$ ē] hdu $h^{n}$ 'not cooked soft' [lòh] ngàuh 'on good terms' |
| rr |  |  |  |  |
| rl |  |  |  |  |
| 11 |  |  |  |  |
| rq |  | [khǐh] khăuh 'sound of wood striking something' |  | khăuh ${ }^{n}$ 'sound of crushing by teeth' |
| qq |  |  |  |  |

Table 7.

| aw |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Y |  | Q | N | NQ |
| 00 | ```iau 'hungry' khiau 'crooked' tiau 'to bend - esp. downward'``` |  | ngiau 'to tickle' niau 'cat' |  |
| r | hiâu '(women) lascivious' tiâu 'adhesive' jiâu 'wrinkled' |  | [phang] hiâu ${ }^{n}$-hiâu ${ }^{n}$ 'rich as perfume' |  |
| x2 | kiáu 'stir to mix' jiáu 'claw' piáu 'whore' |  | ngiáu 'extract with long object' niáu '(lit.) bird' |  |
| h | khiàu 'to stick up' jiàu 'to scratch' |  | niàu 'to frown' |  |
| 1 | liāu 'ingredient' <br> [ò] biāu 'profound' |  | ngiāu 'annoying because of constant talking' |  |
| q |  | ```hiauh 'peel off - as paint' giauh 'a tick - as in writing'``` |  | ```ngiauh 'tick - as in writing' niauh 'to frown; wrinkle'``` |
| gh |  | khiàuh 'having lying habit' chiàuh 'to hop' |  | khiäuh ${ }^{n}$ 'to die ngiàuh 'to squirm' |
| rr |  |  |  |  |
| rl |  |  | $i \breve{a}^{n}-\grave{u}^{n}$ '(cry of wildcat)' $n i a ̆-\cdot \grave{u}^{n}$ (cry of cat in <br> pain)' |  |
| 11 |  |  |  |  |
| rq |  | khiăuh ‘clacking of wood' tiăuh 'cracking of a stick' |  |  |
| qq |  | khiáuh 'clacking of wood' |  |  |

Table 8.

| aB |  |  |  |
| :---: | :---: | :---: | :---: |
|  | Q | N | NQ |
| 00 |  | ```kam 'tangerine' cham 'eat/suck-by insect' sam 'China fir'``` |  |
| $\mathbf{r}$ |  | $k a ̂ m$ 'to hold in mouth' tâm 'wet' lâm 'south' |  |
| x2 |  | ám 'rice-water (cooked)' <br> lám 'weak' chhám 'tragic' |  |
| h |  | ```àm 'dark' chàm 'to stomp' sàm '(hair) dishevelled'``` |  |
| 1 |  | $h \bar{a} m$ 'surround roots with fertilizer' <br> lām 'to mix' |  |
| q | $k a p$ 'to mix - as medicine' [hôe] tap 'to answer' |  |  |
| gh | àp 'a box' <br> hap 'to close' <br> ladp 'to pay' <br> chàp 'ten' |  |  |
| rr |  | $\breve{a} m$ '<baby talk> Let's eat!' |  |
| rl |  | $\breve{a}-\cdot \grave{m}$ '<baby talk> Open your mouth and eat it!' |  |
| 11 |  | á-• $^{\prime}{ }^{\prime}(\mathrm{y}$ awning)' |  |
| rq |  |  |  |
| qq |  |  |  |

Table 9.

| aB |  |  |  |
| :---: | :---: | :---: | :---: |
| Y | Q | N | NQ |
| 00 |  | iam 'castrate' tiam 'chopping block' chiam 'pointed' |  |
| $\mathbf{r}$ |  | iâm 'salt' <br> kiâm 'salty' <br> liâm 'sticky' <br> siâm 'cicada' |  |
| x2 |  | kiám 'subtract' tiám 'a point' thiám 'tired/fatigue' |  |
| h |  | hiàm 'to call' kiàm 'sword' khiàm 'to owe' chiàm 'occupy' |  |
| 1 |  | $i \bar{a} m$ 'scorching' $k h i a \bar{a} m$ 'thrifty' tiām 'quiet' liām 'to nag' |  |
| q | kiap 'adhere' chiap 'juice’ siap '(taste) astringent' |  |  |
| gh | giadp 'heritable landed property' tiap 'to whip to discipline' |  |  |
| rr |  |  |  |
| rl |  |  |  |
| 11 |  |  |  |
| rq |  |  |  |
| qq |  |  |  |

Table 10.

| aD |  |  |  |
| :---: | :---: | :---: | :---: |
| Y | Q | N | NQ |
| 00 |  | khan 'lead by hand/rope' ban 'youngest of siblings' |  |
| r |  | ân 'tight' hân 'to hang up (mosquito net)' tân 'to sound' |  |
| x 2 |  | kán 'maid-servant' <br> tán 'to wait' <br> sán 'skinny' |  |
| h |  | àn 'law case' tàn 'to throw' thàn 'to earn' sàn 'poor' |  |
| 1 |  | $h \bar{a} n$ 'to set limit' tān 'to wind - as thread' |  |
| q | at 'to bend and break' <br> kat 'a knot' <br> that 'to kick' |  |  |
| gh | tat 'to worth' chàt 'dense' chhàt 'thief' bàt 'dense' |  |  |
| rr |  |  |  |
| rl |  |  |  |
| 11 |  |  |  |
| rq |  |  |  |
| qq | kát 'F--k!' |  |  |

Table 11.

| aD |  |  |  |
| :---: | :---: | :---: | :---: |
| W | Q | N | NQ |
| 00 |  | oan 'crooked' <br> hoan 'unreasonable' <br> khoan 'lenient' |  |
| $\mathbf{r}$ |  | oân 'to finish' <br> hoân 'alum' <br> khoân 'a ring/hoop' |  |
| x 2 |  | hoán 'to rebel' goán 'we/us' chhoán 'pant' soán '(s)elect' |  |
| h |  | ```oàn 'resent' koàn 'to stuff with water' toàn 'to judge'``` |  |
| 1 |  | $h o a \bar{n}$ 'offend' $l o \bar{a} n$ 'disorder' soān 'to sprinkle' |  |
| q | oat 'to turn' <br> koat 'to slap' <br> choat 'to spill while moving' |  |  |
| gh | oàt 'to turn around' hoàt 'fine/punish' |  |  |
| rr |  |  |  |
| rl |  |  |  |
| 11 |  |  |  |
| rq |  |  |  |
| qq |  |  |  |

Table 12.

| aG |  |  |  |
| :---: | :---: | :---: | :---: |
|  | Q | N | NQ |
| 00 |  | ang 'a husband' khang 'hole' chang 'palm fiber' |  |
| r |  | âng 'red' tâng 'copper' lâng 'human' bâng 'at lost' |  |
| x2 |  | káng 'sea port' tháng 'bucket' pháng 'bread' báng 'mosquito' |  |
| h |  | àng 'urn' chàng 'rice dumpling in bamboo leaves' |  |
| 1 |  | kāng 'the same' gāng 'stupefied' lāng 'to tease' |  |
| q | $a k$ 'to water' kak 'horn' tak 'to gore' bak 'to stain' |  |  |
| gh | $\left[k a^{n}\right]$ gàk 'prison' ldak 'six' pd'k 'to tie' |  |  |
| rr |  | chăng 'yesterday' |  |
| rl |  |  |  |
| 11 |  |  |  |
| rq | khăk '(sound of clearing phlegm from throat) |  |  |
| qq |  |  |  |

Table 13.

| aG |  |  |  |
| :---: | :---: | :---: | :---: |
| Y | Q | N | NQ |
| 00 |  | hiang 'aromatic taste - as mint siang 'a pair' |  |
| $\mathbf{r}$ |  | kiâng 'obstinate' [ian] chhiâng 'sausage' |  |
| x2 |  | ```hiáng 'to sound/ ring' chiáng 'prize' jiáng 'shout'``` |  |
| h |  | khiàng 'able' siàng 'to hurtle down' piàng 'burst' |  |
| 1 |  | iāng 'swollen with arrogance' [tōa]phiāng '(person) stout' |  |
| q | iak 'to make an appointment' tiak 'to snap fingers' |  |  |
| gh | [chhim] liàk 'to invade' phiadk 'to throw with a sling' |  |  |
| rr |  |  |  |
| rl |  | piă-•ǹg'(rather long sound of collision or explosion)' |  |
| 11 |  | piá-•ng '(loud sound of collision or explosion)' |  |
| rq | khiăk '(crisp collision sound)' $p(h) i a ̆ k$ '(sound of sparks, etc.)' |  |  |
| qq | $\begin{aligned} & \hline \text { khiák '(crisp } \\ & \text { collision sound)' } \\ & p(h) i a ̈ k \\ & \text { '(sound } \\ & \text { of sparks, etc.) } \\ & \hline \end{aligned}$ |  |  |

Table 14.

| aG |  |  |  |
| :---: | :---: | :---: | :---: |
| W | Q | N | NQ |
| 00 |  | ```oang '<clf> gang/group' chhoang 'dress up and ornament'``` |  |
| r |  |  |  |
| x 2 |  | oáng 'Bark!' |  |
| h |  | chhoàng 'gaudy' |  |
| 1 |  | hoāng-hoāng [kiò] <br> '(weather) hot' <br> koāng [lâng] 'to fester' |  |
| q |  |  |  |
| gh | $\begin{aligned} & \text { koàk-koàk [kiò] } \\ & \text { 'gulping [water]' } \end{aligned}$ |  |  |
| rr |  |  |  |
| rl |  | ```hŏa-`\grave{n}g '(description) sudden outbreak of fire'``` |  |
| 11 |  |  |  |
| rq | ```oăk '(sound of frog croaking)' koăk '(sound of gulping water)'``` |  |  |
| qq |  |  |  |

Table 15.

| e |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Q | $\mathbf{N}$ | NQ |
| 00 | $k e$ 'to add' [sa] te 'satay' che 'this' se 'the yarn' |  | ```ke n 'a watch of the night' chhe n 'raw' pen 'stretch'``` |  |
| $\mathbf{r}$ | $k \hat{e}$ 'a burden' tê 'tea' lê 'a plough' $p \hat{e}$ 'to crawl' |  | ```kê}\mp@subsup{\hat{n}}{}{n}\mathrm{ 'to hinder/ entangle' nê 'to hang clothes to dry'``` |  |
| x2 | thé 'a style' lé 'etiquette' sé 'to wash' bé 'a horse' |  | $k e^{n}$ 'to choke' chén 'a well' mé '(fire) raging' |  |
| h | $\begin{aligned} & \text { kè '(women) to } \\ & \text { marry out' } \\ & \text { chè 'a debt' } \\ & \text { sè 'small' } \end{aligned}$ |  | $\begin{aligned} & \text { tien 'pretend' } \\ & \text { chè }{ }^{n} \text { 'argue' } \\ & s \grave{e}^{n} \text { 'surnamed' } \\ & p \grave{e}^{n} \text { 'a handle' } \end{aligned}$ |  |
| 1 | $h \bar{e}$ 'to place' $k \bar{e}^{\text {'low' }}$ the' 'jelly-fish' |  | $n g \bar{e}$ 'stiff' <br> $t \bar{e}^{n}$ 'to hold \& press <br> in palm' <br> $p \bar{e}^{-n}$ 'illness' |  |
| q |  | teh 'press down with weight' seh 'the snow' peh 'to climb' |  | heh ${ }^{n}$ 'to rest' neh 'on tiptoe' [chháu] meh 'a grasshopper' |
| gh |  | ```èh 'narrow' the'h 'to take/bring; carry' pèh 'white'``` |  | ```èhn 'to grunt/ grumble' mèh 'pulse'``` |
| rr | ĕ 'H'm! Weird!' $h e{ }^{\prime} \quad<\mathrm{prtcl}>$ please!' |  | $\begin{gathered} \breve{e}^{n} \text { 'H'm! Weird!' } \\ {[n e] n e{ }^{\prime} \text { '<baby }} \\ \text { talk> milk' } \end{gathered}$ |  |
| rl | ```e}->\grave{e} 'Hey!No (surprised)' lĕ--è '<prtcl> Too bad for you!'``` |  | $\begin{gathered} \breve{e}^{n}-\cdot \grave{e}^{n} \text { 'Hey! No! } \\ \text { (surprised)' } \end{gathered}$ |  |
| 11 | hé-•è 'Hey! That's not right to do.' chhé-•è (ditto) |  | $h e^{n}-\cdot \grave{e}^{n} \text { 'H'm! }$ <br> Inconceivable!' |  |
| rq |  |  |  | (h)ĕh ${ }^{n}$ 'Why! <br> (suprised/dawned upon)' |
| qq |  |  |  | héh ' 'H'm! <br> Unreasonable/ impossible' |

Table 16.

| CLemele |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| W |  | Q | N | NQ |
| 00 | ```hoe 'a flower' koe 'a melon/gourd, etc.' soe 'bad luck'``` |  |  |  |
| r | hôe 'to brush unintentionally' sôe 'to droop' phôe 'the skin' |  | môe 'gruel/ porridge' |  |
| x2 | oé 'to dig' kóe 'rice cake' póe 'to brush aside' |  |  |  |
| h | oè 'to infect' chòe 'the most' sòe 'a tax' phòe 'to match' |  |  |  |
| 1 | $\bar{o} e$ 'language' hōe 'an association' chōe 'a crime' |  | [sió] mōe 'younger sister' |  |
| q |  | hoeh 'blood' [sian] soeh 'a human sound' boeh 'want to' |  | ngoeh 'to take up with tongs' |
| gh |  | kóeh '<clf> a section/chunk' [ê] póeh 'a shoehorn' |  | [chîm-kóng-] ngòeh 'a claw of the crab' |
| rr | oĕ ‘Hello! (telephone)' |  |  |  |
| rl | oĕ--è '<prtcl> following term of address in loud calling' |  |  |  |
| 11 | oé--è ‘Hey!/Hello there!' |  |  |  |
| rq |  |  |  |  |
| qq |  |  |  |  |

Table 17.

| eD |  |  |  |
| :---: | :---: | :---: | :---: |
|  | Q | N | NQ |
| 00 |  | $\begin{aligned} & \text { hian 'to lift a cover, } \\ & \text { etc.' } \\ & \text { sian 'the immortal' } \end{aligned}$ |  |
| r |  | iân 'lead (metal)' liân 'conjoin' phiân 'tipsy' |  |
| x2 |  | tián 'show off' thián 'spread open' pián 'swindle' |  |
| h |  | ```iàn 'edible bird's nest' siàn 'to slap' piàn 'change'``` |  |
| 1 |  | kiān 'gizzard' tiān 'electricity' liān 'refine' |  |
| q | hiat 'to throw' kiat 'muscular' chhiat 'to cut vegetable, etc.' |  |  |
| gh | iad 'to fan liàt 'row/file' jiàt 'fever' biat 'extinct' |  |  |
| rr |  |  |  |
| rl |  |  |  |
| 11 |  |  |  |
| rq | khiăt '(sound of scratching)' siăt 'Snipsnap' |  |  |
| qq |  |  |  |

Table 18.

| eG |  |  |  |
| :---: | :---: | :---: | :---: |
|  | Q | N | NQ |
| 00 |  | kheng 'a frame' cheng 'clever' chheng 'clear' peng 'ice' |  |
| $\mathbf{r}$ |  | êng 'leisure' <br> têng '<clf $>$ layer' <br> thêng 'to stop' |  |
| x 2 |  | éng 'wave of water' péng 'to turn/flip over' |  |
| h |  | kèng 'respect' tèng 'to sting' chhèng 'fire arms' |  |
| 1 |  | khēng 'rainbow' tēng 'hard/solid' phēng 'compare' |  |
| q | khek 'to carve' tek 'bamboo' sek 'the color' pek 'to force' |  |  |
| gh | ```kèk 'very' gèk 'jade' chhék 'to shake up and down'``` |  |  |
| rr |  | ĕng 'this evening' |  |
| rl |  |  |  |
| 11 |  |  |  |
| rq |  |  |  |
| qq |  |  |  |

Table 19.

| i |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Q | N | NQ |
| 00 | ki 'to scream' khi 'slanting/ inclined' $p i$ 'a pond' |  | $k i^{n}$ 'alkali' <br> $t i^{n}$ 'sweet' <br> thi $i^{n}$ 'heaven' <br> $m i$ 'close eyes' |  |
| r | [ $g \hat{o}]$ khî 'a leech' thî 'to crow' pı̂ 'pancreas' |  | $\hat{\imath}^{n}$ 'round' <br> $k \imath^{n}$ 'edge' <br> chî ${ }^{n}$ 'money' <br> $n \hat{\imath}$ 'year' |  |
| x2 | $k i$ 'to point' chi 'seed' sí 'to die' bi 'rice' |  | $i^{n}$ 'a sprout' chin 'tender/young' $p \imath^{n}$ 'flattened' |  |
| h | hì 'drama' <br> ki 'nevus/mole' <br> ti 'to wear hat, etc.' |  | ```\(k i^{n}\) 'have an audience with chi \({ }^{n}\) 'arrow' \(s i^{n}\) 'a fan'``` |  |
| 1 | $\begin{aligned} & \text { [chhiò }] g \bar{\imath}-g \bar{\imath} \text { 'smile } \\ & \text { broadly' } \\ & l \bar{\imath} \text { 'to filter' } \\ & b \bar{\imath} \text { 'the taste' } \end{aligned}$ |  | $h \vec{i}^{n}$ 'handle of basket, etc.' $t \imath^{n}$ 'brimful' $m i ̄ ~ ' n o o d l e s ' ~$ |  |
| q |  | khih 'a flaw in the edge - as pottery' bih 'to hide' |  | $[t \bar{a} n g] i h^{n}-i h^{n}$ 'very heavy' nih 'to blink/wink' |
| gh |  | lih 'rent/ripped/ broken' chhi'h 'spotted crab' |  | $\begin{aligned} & {\left[\begin{array}{l} \text { ài }] \text { tih }^{n} \text { 'want to } \\ \text { have' } \\ \text { mih 'thing' } \end{array}\right.} \\ & \hline \text { ne } \end{aligned}$ |
| rr | ```[a] 亢̌‘<baby talk> auntie' \(p \check{\imath}\) '(sound of the whistle)'``` |  | $\begin{aligned} & \hline[n i a u] n \check{l} \\ & \text { 'Kitty-kitty!' } \end{aligned}$ |  |
| rl |  |  |  |  |
| 11 |  |  |  |  |
| rq |  | $\begin{aligned} & \hline \text { chǐh '(breaking } \\ & \text { sound - as stick)' } \\ & \hline \end{aligned}$ |  |  |
| qq |  |  |  |  |

Table 20.

| i |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| W |  | Q | N | NQ |
| 00 | $u i$ '(human) afterbirth' kui 'crop of a bird' |  | ```kuin'close door, etc.' sui n'sour' puin 'maple'``` |  |
| r | ui 'encircle' hui 'pottery' tûi 'to pound' pûi 'be fat' |  | $\hat{u i}^{n}$ 'yellow' thûin 'to hand down' mûi 'plum' |  |
| x2 | kúi 'devil' thúi 'leg' chúi 'water' súi 'beautiful' |  | ```ngúi 'to trample/ tread' púi}\mp@subsup{}{}{n}\mathrm{ 'to flip' múi 'each'``` |  |
| h | kùi 'expensive' chùi 'drunk' chhùi 'mouth' phùi 'to spit' |  | ```kùi\mp@subsup{i}{}{n}}\mathrm{ 'accustomed to' nùi 'to creep through'``` |  |
| 1 | $\bar{u} i$ 'stomach' kūi 'kneel' sūi 'corn ear' $p \bar{u} i$ 'to bark' |  | $\begin{aligned} & \text { k } \bar{i} i^{n} \text { 'county' } \\ & c h \bar{u} i^{n} \text { 'lick' } \\ & p \bar{u} i^{n} \text { 'cooked rice' } \end{aligned}$ |  |
| q |  | huih 'blood' |  |  |
| gh |  | puiih 'to pull/ extract' |  | [ $\bar{a} m$ ] múih 'tadpole' |
| rr |  |  |  |  |
| rl |  |  |  |  |
| 11 |  |  |  |  |
| rq |  |  |  |  |
| qq |  |  |  |  |

Table 21.

| iB |  |  |  |
| :---: | :---: | :---: | :---: |
|  | Q | N | NQ |
| 00 |  | ```kim 'bright - as eyes' lim 'to drink' chim 'to kiss'``` |  |
| r |  | hîm 'a bear' <br> khîm 'zither' <br> jîm 'feel for things in pocket' |  |
| x2 |  | lim 'close to; about/almost' sim 'trail' jim 'to endure' |  |
| h |  | him 'to take photo' sim 'springy - as diving board' |  |
| 1 |  | kīm 'mother's brother's wife' tīm 'to stew in a steamer' |  |
| q | hip 'smother' <br> khip 'attract - as magnet' chip 'to sip' |  |  |
| gh | $\begin{aligned} & {[t \dot{d} k] l i p} \\ & \text { 'independence' } \\ & {[l i \bar{a} n] \text { sip 'to }} \\ & \text { exercise' } \end{aligned}$ |  |  |
| rr |  |  |  |
| rl |  |  |  |
| 11 |  |  |  |
| rq | chip '(sound of sipping or kissing)' |  |  |
| qq | chíp '(brief sound of sipping or kissing)' |  |  |

Table 22.

| iD |  |  |  |
| :---: | :---: | :---: | :---: |
|  | Q | N | NQ |
| 00 |  | in 'they/them' <br> hin 'prosper' <br> tin 'to drip' <br> sin 'new' |  |
| r |  | thîn 'pour from long-necked container' sîn 'deity' |  |
| x2 |  | kin 'quick' pin 'to secure with a pin' bin 'a brush' |  |
| h |  | ```kin 'thin but tough silk' chhinn 'weigh' sin 'believe'``` |  |
| 1 |  | $k i \bar{n}$ 'near' $j$ j̄n 'recognize' pinn 'to plait' $b \overline{i n}$ 'face' |  |
| q | chhit 'seven' [kàu] sit 'classroom' pit 'cracked' |  |  |
| gh | kit '(liquid) thick' <br> tit 'straight' <br> bit 'honey' |  |  |
| rr |  |  |  |
| rl |  |  |  |
| 11 |  |  |  |
| rq | chhitt '(sound of light stick beating on hard surface)' |  |  |
| qq | chhit '(brief sound of light stick beating on hard surface)' |  |  |

Table 23.

| u |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Q | N | NQ |
| 00 | hu 'ashes' $k u$ 'turtle' chhu 'sloping' su 'lose out' |  |  |  |
| r | gù 'cattle thû 'to delay' $p \hat{u}$ 'to cook in heated ashes' |  |  |  |
| x2 | kú 'long time' tú 'contradict' phú 'gray' bú 'the dance' |  |  |  |
| h | $\grave{u}^{\text {'touch skin with }}$ something hot or cold' lù 'to rub' |  |  |  |
| 1 | $k \bar{u}$ 'not new' chh $\bar{u}$ 'to slip/slide' $b \bar{u}$ 'blurred' |  |  |  |
| q |  | ```khuh '<slang> to scold' suh 'to suck' puh 'to sprout'``` |  | $\begin{aligned} & {[\text { [é }] m u h ~ '<\text { slang }>} \\ & \text { penis' } \\ & {[g e ́] m u h ~ '<\text { slang> }} \\ & \text { dead' } \\ & \hline \end{aligned}$ |
| gh |  | tu'h 'to stab' [si-si+] súh-sùh '(sound of sipping)' |  |  |
| rr | chŭ '(sound for calling chicken)' |  |  |  |
| rl | $\begin{aligned} & \check{u}-\grave{u} \text { 'Ugh! It's } \\ & \text { close!' } \\ & p \breve{u}-\cdot \bar{u} \text { '(sound of } \\ & \text { loud fart)' } \end{aligned}$ |  |  |  |
| 11 |  |  |  |  |
| rq |  | pŭh '(fart sound of normal loudness)' |  |  |
| qq |  | $\begin{gathered} \hline \text { úh '(sound of } \\ \text { hiccoughing)' } \\ \hline \end{gathered}$ |  |  |

Table 24.

| u |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Y |  | Q | N | NQ |
| 00 | iu '(surface) <br> smooth' <br> kiu 'to shrink' <br> thiu 'to draw' |  | kiu ${ }^{n}$ 'ginger' <br> $k h i u^{n}$ 'local accent' <br> siu ${ }^{n}$ 'a box' |  |
| $\mathbf{r}$ | iû 'oil' <br> kiu 'ball' <br> tiú 'silk' <br> siâ 'to swim' |  | ```siun 'slimy substance' niû 'large beam of building'``` |  |
| x2 | giú 'to pull' liú 'willow' chiú 'liquor' chhiú 'hand' |  | $i u^{n}$ 'to ladle' chiún 'an oar' siư 'award' niú 'a tael' |  |
| h | iù 'fine/small' hiù 'to shake dry' kiù 'to rescue' |  | $\begin{aligned} & \text { tiuin 'bloated - esp. } \\ & \text { from eating' } \\ & \text { chiiùn 'sauce' } \end{aligned}$ |  |
| 1 | khiū 'chewy <br> (pleasant), <br> liū 'to resteam' |  | ```\(i \bar{u}^{n}\) 'pattern - esp. for sewing' chi \(\bar{u}^{n}\) 'itchy' \(n i \bar{u}\) 'to yield'``` |  |
| q |  | tiuh 'throbbing pain' |  | hiuh ${ }^{\text {' }}$ 'to sob' |
| gh |  | [chi-chi+] chiuh-chiuih '(sound of mud, etc. continuously stirred)' |  | hiu'h ${ }^{n}$ 'to wheeze' |
| rr | [ch $\overline{1}]$ chiŭ '(sound of mud, etc. being stirred)' |  | $\begin{aligned} & \hline \text { hiữ }{ }^{n} \text { (sound } \\ & \text { of sobbing or } \\ & \text { wheezing)' } \\ & \hline \end{aligned}$ |  |
| rl | kiŭ-•六 '(sound of deflating)' siŭ-•ù 'dashing through in air' |  | $\begin{aligned} & \hline h i \breve{u}^{n}-\grave{u}^{n} \text { '(long } \\ & \quad \text { wheezing sound) } \end{aligned}$ |  |
| 11 | phiú-• ${ }^{\text {'dashing }}$ away through the air' |  |  |  |
| rq |  | siŭh 'the feeling of throbbing pain' |  |  |
| qq |  | tiúh 'a stab of pain' |  | hiúh ${ }^{n}$ 'a sob' |

Table 25.

| uB |  |  |  |
| :---: | :---: | :---: | :---: |
|  | Q | N | NQ |
| 00 |  | $h m$ 'to hum' |  |
| r |  | $\hat{m}$ 'flower bud' <br> $h \hat{m}$ 'cogongrass' |  |
| x2 |  | [a] m'father's elder brother's wife' |  |
| h |  | $\begin{aligned} & \text { hm̀ 'Yes. } \\ & \quad \text { (unenthusiastic)' } \end{aligned}$ |  |
| 1 |  | $\begin{aligned} & \bar{m} \text { 'not want to' } \\ & h \bar{m} \text { 'Yes.' } \end{aligned}$ |  |
| q |  |  | $h m h$ 'to hit with dull object' |
| gh |  |  | $h m h-h m h ' t o ~ k e e p ~$ quiet' |
| rr |  | (h) $\check{m}$ 'Huh? (surprised)' |  |
| rl |  | $\begin{aligned} & \hline \breve{m}-\cdot \grave{m} \text { 'No! You } \\ & \text { don't!/Wonderful!' } \end{aligned}$ |  |
| 11 |  | $\begin{aligned} & \hline m^{\prime}-\grave{m}{ }^{\prime} \mathrm{Mm} \ldots \\ & \text { wonderful!' } \end{aligned}$ |  |
| $\mathbf{r q}$ |  |  | (h) ${ }^{m} h$ 'H'm... something's wrong!' |
| qq |  |  | hḿh 'incredible!' |

Table 26.

| uD |  |  |  |
| :---: | :---: | :---: | :---: |
|  | Q | N | NQ |
| 00 |  | hun 'tobacco' thun 'to swallow' sun 'grandson' |  |
| r |  | hunn 'clouds' chûn 'boat' sûn 'inspect' pûn 'blow air' |  |
| x2 |  | ún 'certainly' <br> kún 'to trim with lace' chún 'permit' |  |
| h |  | ùn 'to dip' <br> khùn 'to sleep' <br> chùn 'canal' <br> phùn 'splash' |  |
| 1 |  | chūn 'to turn - as screw' <br> sūn 'going smooth' |  |
| q | ut 'to iron' <br> kut 'bone' <br> put 'scrape together <br> - as dust' |  |  |
| gh | ```hu't 'stone - as of a fruit' bu't 'beat with a stick, etc.'``` |  |  |
| rr |  | kŭn '<baby talk> diaper' |  |
| rl |  |  |  |
| 11 |  |  |  |
| rq | ```kŭt (state of slipping) phŭt-lǔt-sŭt 'nimbly escaped'``` |  |  |
| qq | phút (state of leaping up high) |  |  |

Table 27.

| uD |  |  |  |
| :---: | :---: | :---: | :---: |
| Y | Q | N | NQ |
| 00 |  |  |  |
| r |  |  |  |
| x2 |  |  |  |
| h |  |  |  |
| 1 |  |  |  |
| q |  |  |  |
| gh | chiu't 'to squirt' |  |  |
| rr |  |  |  |
| rl |  |  |  |
| 11 |  |  |  |
| rq | ```chiŭt '(state of squirting)' siŭt '(state of speeding along)'``` |  |  |
| qq | ```chiút '(state of squirting)' siút '(state of speeding along)'``` |  |  |

Table 28.

| uG |  |  |  |
| :---: | :---: | :---: | :---: |
|  | Q | N | NQ |
| 00 |  | $\begin{aligned} & \hline k n g \text { 'bright/light' } \\ & \text { sng 'sour' } \\ & p n g \text { 'maple' } \\ & \hline \end{aligned}$ |  |
| r |  | $\hat{n} g$ 'yellow' <br> th $\hat{n} g$ 'sugar' <br> $n \hat{n} g$ 'soft inside of melon' |  |
| x2 |  | ```ńg 'a shade' kng 'roll up' sn'g 'to play/have fun'``` |  |
| h |  | kǹg 'steel' <br> khǹg 'to put away/ aside' <br> sǹg 'to count' |  |
| 1 |  | ```h\overline{n}g 'far' t\overline{n}g 'broken - as rope' m\overline{n}g 'to ask'``` |  |
| q |  |  | sngh 'to snuff up' phngh 'to scold' |
| gh |  |  | ming 'thing' |
| rr |  | (h) $\check{n} g$ 'Huh? (surprised)' |  |
| rl |  | ```ng-`\grave{n}g}\mp@subsup{}{}{\prime}No!YO don't!' phn̆g-`ng 'Broom! (motor)'``` |  |
| 11 |  | $\begin{aligned} & \hline \dot{n} g-\cdot \grave{n} g \\ & \quad(\text { appreciation }) \text { ' } \end{aligned}$ |  |
| rq |  |  | (h) n̆gh 'Oh! Something's wrong!' |
| qq |  |  | hńgh 'Humph! (disdainful)' |

Table 29.

| o |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Q | N | NQ |
| 00 | to 'knife' so 'to caress' po 'to praise' pho 'foam' |  |  |  |
| r | $\hat{o}$ 'oyster' <br> gô 'goose' <br> lô 'muddy' <br> bô 'not have' |  |  |  |
| x2 | hó 'good' tó 'to fall' <br> só' 'lock' <br> pó 'treasure' |  |  |  |
| h | kò 'to sue' tò 'to empty' lò 'tall' pò 'to inform' |  |  |  |
| 1 | $k \bar{o}$ 'to roll along' $g o$ 'to starve' $b \bar{o}$ 'hat/cap' |  |  |  |
| q |  | oh 'difficult' toh 'desk/table' phoh 'dregs' |  |  |
| gh |  | oh 'to learn' hóh 'crane (bird)' póh 'not thick' |  |  |
| rr | $\begin{aligned} & \hline l \breve{o}^{\text {' }} \text { (sound for } \\ & \text { calling pig)' } \end{aligned}$ |  |  |  |
| rl |  |  |  |  |
| 11 |  |  |  |  |
| rq |  |  |  |  |
| qq |  |  |  |  |

Table 30.

| o |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Y |  | Q | N | NQ |
| 00 | io 'waist' <br> chhio '(male) <br> sexually excited' <br> sio 'to burn' |  | kio $^{n}$ 'ginger' khion 'local accent' sio $^{n}$ 'a box' |  |
| r | iô 'to rock' <br> kiô 'eggplant' <br> biô 'to trace - as picture' |  | ```siôn 'slimy substance' niô 'large beam of building'``` |  |
| x2 | chió 'few' sió 'small' <br> pió 'a chart' <br> bió 'a second' |  | $i o^{n}$ 'to ladle' chión 'an oar' sión 'award' nió 'a tael' |  |
| h | kiò 'to call tió 'to angle/fish' phiò 'ticket' |  | $\begin{aligned} & \text { tiò }^{n} \text { 'bloated - esp. } \\ & \text { from eating' } \\ & \text { chiò 'sauce' } \\ & \hline \end{aligned}$ |  |
| 1 | kiō 'sedan' jiō 'urine’ piō 'swim bladder' |  | ```\(i \bar{o}^{n}\) 'pattern - esp. for sewing' chiō \({ }^{n}\) 'itchy' \(n i \bar{o}\) 'to yield'``` |  |
| q |  | ioh 'to guess' hioh 'to rest' chioh 'borrow' chhioh 'ruler' |  |  |
| gh |  | ioh 'medicine' hioh 'leaf' chhio'h 'mat for sleeping on' |  |  |
| rr | [iô--a-] iŏ '<baby talk> Swing; swing' |  |  |  |
| rl | iŏ- $\cdot \grave{o}$ 'Wow! <br> Incredible!' hiŏ--ò 'Is that so? But no!' |  | $\left[\bar{a} i^{n}\right] i \grave{o}^{n} \cdots \grave{o}^{n}$ '(expressing disapproval to conduct/ command)' |  |
| 11 |  |  |  |  |
| rq |  |  |  |  |
| qq |  | ... kóh 'I told you. <br> Now what?' |  |  |

Table 31.

| ${ }^{\circ}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Q | N | NQ |
| 00 | $o^{\text {b }}$ black <br> ko' 'mushrooms' <br> $p o \cdot$ 'grass field' |  | $\begin{aligned} & \hline o^{\cdot n} \text { 'deceive' } \\ & h o^{\cdot n} \text { 'to hum - as } \\ & \text { machine' } \\ & m o \cdot \text { 'hair' } \end{aligned}$ |  |
| r | ô'lake' <br> $k \hat{o}$ ' 'to past' <br> th $\hat{o}$. 'soil' <br> bô' a mold' |  | [siông] $n g \hat{o}$. 'juniper' mô' 'woolen' |  |
| x2 | $h o$ ' 'to cheat in selling’ kó' 'a drum' ló' 'to stew' |  |  |  |
| h | $h \grave{o}$ ' empty out water' chhò ' 'vinegar' pò ' 'cloth' |  | [khó] $\grave{o}^{. n}$ 'hateful' $h \grave{o}^{. n}$ 'fond of' |  |
| 1 | $h \bar{o} \cdot$ 'rain' <br> $l \bar{o} \cdot$ 'road' <br> $p \bar{o} \cdot$ 'to chew' <br> $p h \bar{o} \cdot$ 'notebook' |  | $\begin{aligned} & k \bar{o} \cdot n \text { 'to snore' } \\ & n \bar{o} \cdot \text { 'two' } \end{aligned}$ |  |
| q |  | [tho $\left.{ }^{\circ}-m a ́-\right] t o h$ 'tomato' |  | $\left[i^{n}-i^{n}+\right] o \cdot h^{n}-o \cdot h^{n}$ <br> 'to grunt but unable to talk' mo'h 'to hug' |
| gh |  |  |  | mo'th 'membrane' |
| rr | $\begin{aligned} & \hline(h) \breve{o}^{\prime} \text { 'Is that so! } \\ & \text { (not very } \\ & \text { convinced)' } \\ & \hline \end{aligned}$ |  | $\begin{gathered} \hline h \breve{o}^{. n} \text { ' }<\text { prtcl }> \\ \text { (requesting } \\ \text { confirmation)' } \\ \hline \end{gathered}$ |  |
| rl | $\begin{aligned} & \hline \check{o} \cdot \cdot \grave{o}^{\prime} \text { 'I see } \\ & \text { (dawned upon)' } \\ & h \check{o} \cdot \cdot \cdot \dot{o}^{\prime} \text { 'You are in } \\ & \text { trouble!' } \end{aligned}$ |  | $\begin{gathered} h h_{o}^{\cdot n}-\cdot^{n}{ }^{n} \text { I see } \\ \text { (dawned upon)' } \\ k \grave{o}^{n} \cdot \dot{o}^{n} \text { 'inhale } \\ \text { before dying' } \\ \hline \end{gathered}$ |  |
| 11 | $o^{\prime} \cdot{ }^{\circ} \cdot{ }^{\prime}$ Look. How wonderful! hó- $\cdot o ̀ \cdot$ 'It's so...! |  | $h o^{\cdot n}-\cdot \grave{o}^{n}$ 'How dare you cheat/bully, etc. me' |  |
| rq |  |  |  |  |
| qq |  |  |  |  |

Table 32.

| o* |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Y |  | Q | N | NQ |
| 00 |  |  |  |  |
| r |  |  |  |  |
| x2 |  |  |  |  |
| h | $\begin{aligned} & \text { hiò ‘Yes'; ‘Is it?' } \\ & \text { lió ‘‘.. You see.' } \end{aligned}$ |  |  |  |
| 1 |  |  |  |  |
| q |  |  |  |  |
| gh |  |  |  |  |
| rr |  |  |  |  |
| rl | $i \grave{o} \cdots \grave{o}^{\circ}$ <br> 'Preposterous!' |  |  |  |
| 11 |  |  |  |  |
| rq |  |  |  |  |
| qq |  |  |  |  |

Table 33.

| oB |  |  |  |
| :---: | :---: | :---: | :---: |
|  | Q | N | NQ |
| 00 |  | om 'to cover up with hand, etc.' tom '(sound of water pouring)' |  |
| $\mathbf{r}$ |  | lôm 'to encase - as pillow' |  |
| x2 |  | ```hóm '(sound of barking)' lóm 'soft - as loose muscles'``` |  |
| h |  | tòm 'to nod' lòm 'to shake up and down while sitting/standing' |  |
| 1 |  | khōm '(door) to slam by itself' thōm 'to go slow in working' |  |
| q | hop 'catch by cupping the palm' <br> [iù] sop-sop 'very fine/small' |  |  |
| gh | hóp 'to hop' tóp 'to drip' lop 'to stamp in mud' |  |  |
| rr |  | tŏm '(sound of pouring an amount of liquid into liquid)' |  |
| rl |  | tŏ- $\cdot \grave{m}^{\text {' }}$ (sound of big object falling into water)' |  |
| 11 |  | tó $\cdot \stackrel{m}{\text { ' }}$ ' loud sound of big object falling into water)' |  |
| rq | $\qquad$ |  |  |
| qq | hóp '(sound of catching with cupped palm)' tóp '(dripping)' |  |  |

Table 34.

| oG |  |  |  |
| :---: | :---: | :---: | :---: |
|  | Q | N | NQ |
| 00 |  | hong 'the wind' khong 'to act like a lunatic' bong 'to touch' |  |
| r |  | $\begin{aligned} & \hline \text { ông 'king' } \\ & \text { gông 'dizzy' } \\ & \text { sông 'rustic' } \\ & \text { bông 'fog' } \end{aligned}$ |  |
| x2 |  | khóng 'navy blue' thóng 'to stick out (longer)' |  |
| h |  | kòng 'beat with an object' <br> lòng 'poke with end of object' |  |
| 1 |  | gōng 'stupid' tōng 'to poke' pōng 'to weigh' bōng 'tomb' |  |
| q | kok <br> 'country/nation' <br> tok 'to peck' <br> phok 'a bump' |  |  |
| gh | ```khòk 'watchman's rattle' lòk 'deer' po'k 'explode'``` |  |  |
| rr |  | $\begin{aligned} & \hline \text { tŏng '(sound of } \\ & \text { small gong)' } \\ & \text { pŏng '(light } \\ & \text { banging sound)' } \\ & \hline \end{aligned}$ |  |
| rl |  | $\begin{aligned} & \hline p \check{o}-\cdot \grave{n} g \\ & \quad \text { (state of } \\ & \text { falling down) } \\ & \hline \end{aligned}$ |  |
| 11 |  | pó- $\cdot n g$ '(loud explosion - as bomb); <baby talk $>$ to fall' |  |
| $\mathbf{r q}$ | khŏk '(clashing of hard objects)' $p h o ̆ k$ '(plosive sound)' |  |  |
| qq | kók '(sound of excited chicken)' pók '(brief explosive sound)' |  |  |

Table 35.

| oG |  |  |  |
| :---: | :---: | :---: | :---: |
| Y | Q | N | NQ |
| 00 |  | hiong 'unauspicious' chiong 'accurate in aiming' |  |
| r |  | hiông 'aggressive' siông 'teeth dirth' |  |
| x2 |  | ióng '(animal/ person) strong' tióng 'to have excessiveness' |  |
| h |  | thiòng 'happy/ delighted' liòng 'struggle to escape’ |  |
| 1 |  | $i \bar{o} n g$ 'to use' giōng 'almost' liōng 'to give ample length, etc.' |  |
| q | kiok <br> 'chrysanthemum' chiok 'very' jiok 'to chase' |  |  |
| gh | giok ' 'jade' siòk 'cheap' jiòk 'crumple as paper/cloth |  |  |
| rr |  | tiŏng 'center' |  |
| rl |  |  |  |
| 11 |  |  |  |
| rq |  |  |  |
| qq |  |  |  |


[^0]:    ＊An earlier version of this paper was presented at the 21st International Conference on Sino－Tibetan Languages and Linguistics，Lund，Sweden，October 1988．［編按：本文原載於清華學報 22（2）pp．143－193．中文題名為「介定台灣福建話的韻類與韻部」。］
    ${ }^{1}$ The Inland Taiwan overall sound pattern in POJ（the so－called Church Romanization）is used in this paper． Thus：${ }^{n}=$ nasality；$o=$ open o；$V, \dot{V}, \dot{V}, V h, \hat{V}, \bar{V}, \dot{V} h=$ tones A1，B，C1，D1，A2，C2，D2（represented as $00, x 2, h, q, r, l, g h$ in this paper）．There are five extra tones：open syllables $\check{V}, \breve{V} \cdot \cdot \dot{V}, \dot{V} \cdot \cdot \grave{V}=$ high rising，

[^1]:    rising－falling，long－falling（ $r r, r l, l l$ ）；closed syllables．$\breve{\boldsymbol{V}} \boldsymbol{D}, \dot{\boldsymbol{V}} \boldsymbol{D}=$ high－rising checked，high－falling checked（ $r q, q q$ ）．Data from An Index to Glossings on Hokkien Sayings，in preparation by the author．The translations in this paper are only approximations．

[^2]:    ${ }^{2}$ For the tones, see the note 1 .
    There are two other tones, but since they do not occur in word final positions, they are not relevant to riming in verses. Furthermore, they only occur in loan words, and there are yet no attested self-riming expressions that carry any of these tones. Therefore, they are ignored in this paper.
    ${ }^{3}$ As noted in Chang Yü-hung (1989:409), the author makes a distinction between "rime" and "rhyme", the latter being a literary genre.
    ${ }^{4}$ Although glottality is redundant in the presentations here, glottality is still kept as a distinctive feature. The argument can be found in Chang Yü-hung (1988a and 1989). See also the "priority of violation" in Section 3 of this paper.
    ${ }^{5}$ For the use of this tone feature, see W. Wang (1967).
    ${ }^{6}$ The tables are custom-programmed by Norman C. Chang, for which service I would like to express my

[^3]:    thankfulness here．
    ${ }^{7}$ Tones are not a consideration in lyrics accompanied by music．Therefore，tones of riming syllables in this genre of literature are not included in the discussions here．

[^4]:    ${ }^{8}$ In actuality, only Table 1 has as many as 23 slots filled.
    Because of the limit of space in the tables, many of the examples cannot be glossed precisely nor their format be uniform.
    ${ }^{9}$ For the argument, see Chang Yü-hung (1988a). Glottal stop is a realization of glottality and is not considered segmental structurally.
    ${ }^{10}$ Ibid.
    ${ }^{11}$ In the Tainan dialect, it is o [+yotized, +nasal] rather than $o$ [+yotized, +nasal] that occurs. Our current treatment is based on Ogawa Naoyoshi's Taiwanese-Japanese Dictionary (Taipei: The Government of Taiwan, 1931,1932 ) and on actual riming in oral literature (cf. note 16).
    ${ }^{12}$ Self-riming is not a well-used skill of versification in literature. Self-riming expressions are merely occasionally employed to pepper up the works. The author does not know of any verse that systematically uses self-riming expressions to "double-rime". Unlike conventional riming in verses, the definition of self-riming remains linguistic rather than literary.

[^5]:    ${ }^{13} i o^{n}$ is a dialectal form corresponding in every case to $i u^{n}$ ．The height of its nuclear vowel is closer to closed $o$ than to open $o$ and has been traditionally transcribed as such．See note 13.

[^6]:    ${ }^{14}$ Expressions（40），（41），and（42）are acceptable as self－riming，owing to the ambivalence of the nasalized syllables．The vowel $o^{n}$ has the same vocalic as $o$ ，but at the same time $o^{n}$ is in complementary distribution with $o$ ．There is actually a riddle known to the author in which chio ${ }^{n}$ rimes with io（Chang Yü－hung 1989：427－428）．

