

# THE LOGICAL STRUCTURE OF CHINESE WORDS\*

YUEN REN CHAO

HARVARD UNIVERSITY

In the analysis of complexes into elements, there is always the twofold problem of the size of units on the one hand and the identity of units on the other. In analyzing speech sounds, for example, one can ask how large a phoneme is and whether sounds can profitably be analyzed longitudinally into simultaneous components,<sup>1</sup> or, on the other hand, what different sounds (allophones) can be grouped together as members of one and the same phoneme. Similarly, on the question of what is a word, one can ask how large a segment of speech is to be recognized as a word, or, on the other hand, what different utterance fractions can be grouped together as instances of the same word.

At a previous meeting of this society, I read a paper on Word Conceptions in Chinese. There I dealt chiefly with the size-of-unit problem. I recognized two word-like units in Chinese. One is the monosyllable, which is almost always a morpheme.<sup>2</sup> It is not always a free form, but, partly because it is written with one character, it is very much talked about. It occupies the same social position of being the common linguistic small change of everyday life and is therefore called a 'word' by most of those who speak in English on Chinese.<sup>3</sup> The Chinese name for this is *tzŭ*.<sup>4</sup> On the other hand, there is the free form consisting of one, two, or more syllables, which may enter into what we should call syntactical relations with other similar units. Linguistically, this would be much more like what we call a word in other languages than the monosyllable. But it has no everyday name in Chinese,<sup>4</sup> because it is not talked about every day.

In the present paper, I propose to consider the other aspect of the problem, the identity-of-unit problem: What constitutes one and the same word? Since a large part of this discussion will consist of tertiary statements concerning secondary statements about language, and the monosyllabic *tzŭ* will play a major part in such secondary statements, we shall take the *tzŭ* as our unit of reference, rather than the syntactical word. Any one who does not accept this use of the word 'word' as applied to Chinese may, wherever the word 'word' occurs, simply substitute the word *tzŭ*, or rather the *tzŭ* 'tzŭ', and will still be able to follow the discussion.

In speaking of logical structure, I am following the point of view of Bertrand

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<sup>1</sup> Z. S. Harris, Simultaneous components in phonology, *LANG.* 20.181-205 (1944).

<sup>2</sup> Sometimes, an ancient Chinese morpheme with an initial consonant cluster became a dissyllabic morpheme through the appearance of an extra vowel between the parts of the cluster. But the separate syllables thus resulting usually acquired the status of separate morphemes, with separate meanings. See P. A. Boodberg, Some proleptical remarks on the evolution of Archaic Chinese, *Harvard Journal of Asiatic Studies* 2.329-72, esp. 336 ff.

<sup>3</sup> Such as Sinologists, missionaries, and Chinese students studying abroad.

<sup>4</sup> The learned term for it is *tz'ŭ*<sup>2</sup> (not related etymologically to *tzŭ*).

Russell in regarding things as being constructed logically out of classes of events, instead of independent entities which are said to have qualities or to be manifested in events.<sup>5</sup> As applied to the logical structure of a word, Russell's point of view is: 'A single instance of the spoken word consists of a series of movements, and the word consists of a whole set or class of such series, each member of the set being very similar to each other member. ... The instances of a word shade off into other movements by imperceptible degrees. ... And exactly analogous observations apply to words heard or written or read.'<sup>6</sup>

We shall begin by examining the nature of the event that Russell calls an instance of a word. It would be possible to push the analysis further along the same lines and reduce 'the series of movements' to classes of observable data such as a lip-reader or an experimental physiological phonetician could detect, but we shall be content with granting the methodological possibility of such a procedure and take as our starting point the movements which constitute the instance of the spoken word. The person making such movements is said to be uttering the word. When the acoustic effects of such movements reach the ears of another person, there is an instance of the heard word, and the hearer is said to be hearing the word.<sup>7</sup>

How should instances of a word be counted? When a person says a word and the listener hears it, is it one or two instances of the word? If there are two listeners, should one not state separately one instance of the articulated word and two instances of the heard word? How many instances are there if a chorus of one hundred voices speaks in unison to an audience of one thousand? In silent reading, should a word be regarded as articulated and/or heard according as the reader makes rudimentary articulatory innervations and/or experiences what is called an auditory image of the word? If a person says 'Mr. Chairman' and fails to get the floor, can the first few words which he started to rehearse to himself be regarded as articulatory or auditory instances? If the driver of an automobile sees the sign *STOP* and steps on his brakes without either saying or hearing *stop* in any way, should we say that only visual signs are involved and no instance of a word has occurred?

These questions are asked, not with the expectation of immediate answers, but to indicate their relevance to language problems, such as the effect of frequency in practical language learning or in linguistic change. For instance, the interchange between *θ* and *f* is more closely related to heard instances of words, while the common development of *-nr-* > *-ndr-* is favored much more by a linguistically articulated *r* than by an acoustically similar uvular *r*.

When a word is uttered, the corresponding energy-changes in the sound medium are soon dissipated and the incident called an instance of the word is closed. Under certain conditions, however, the pattern of the energy-changes is repro-

<sup>5</sup> B. Russell, *Our knowledge of the external world as a field for scientific method in philosophy* 89, 107 (London, 1914).

<sup>6</sup> B. Russell, *Analysis of mind* 189 (London, 1921).

<sup>7</sup> This manner of expression can be compared with the situation when a person uttering or hearing an allophone is said to be uttering or hearing a phoneme. When a person utters or hears a word, he is really uttering or hearing one of its allologs, so to speak.

duced elsewhere in such a way that sounds of corresponding patterns are reproduced, so that there will be an additional instance of the heard word if there is a person there to hear it. Telephoning and broadcasting are typical cases of such conditions. Except for the fact that what is transmitted is not the original energy but only the pattern of change, the situation is the same in principle as that of ordinary conversation or public speaking. When, however, the pattern of an uttered word is frozen in some physical medium in such a way that the sound of the original word can be reproduced at a later time, like Baron Munchausen's bugle notes on a cold day, then we have a new category of instances of the heard word. A phonograph record, a sound film, or a rebroadcast is heard after usually a considerable time lag. The situation under which the word is uttered and the situations under which it may be heard are usually so different that the heard reproduction forms an important separate subclass of instances of the heard word. The difference comes out strikingly when, in an evening broadcast of a debate, one of the speakers betrays the origin of the program by speaking of 'this afternoon'.<sup>8</sup>

Not only can there be instances of a word heard long after it has been spoken, but even without its ever having been spoken. On the device called the 'voder', which was demonstrated at the New York World's Fair of 1939,<sup>9</sup> an operator moves a number of sound controls which select combinations of frequencies corresponding to various sound qualities, and the succession of such sounds forms 'utterances' of words which not only are intelligible but even sound natural.

I have not so far referred to writing as an instance of a word. A written word is a record in a different sense from that in which a phonograph disk is a record. Writing is a symbol, something that we arbitrarily associate with the word, while a phonograph record is an icon, something having formal features closely similar to the original object. Furthermore, the phonograph record of a word is a stage in a control system, such that it can operate as one of a chain of stages of which the last may, under suitable conditions, form an instance of a heard word. We did not at first regard the energy conditions of the air between the speaker and the hearer as an instance of a word, because it is something very fleeting, especially as, under ordinary conditions, only a very small fraction of a word is in the air at a time. But when a word is frozen into icons in a phonograph record, it becomes something more tangible and countable, and seems to acquire the status of a new class of instances.

To come back now to the written word. Someone makes certain marks on stone or paper. After a time, someone else sees the marks, and there is an instance of an articulated or a heard word. This differs in two respects from a word as reproduced by a phonograph record. First, there is no close, detailed correspondence between the written and the spoken word. In an alphabetic writing, the relation between sound segments and their symbols is quite arbitrary. In a system of writing like that of Chinese, the relation between whole syllables and their symbols is largely arbitrary. In this respect, written words are sym-

<sup>8</sup> This illustration was given by I. A. Richards in connection with another subject.

<sup>9</sup> See Homer Dudley, R. R. Riesz, and S. S. A. Watkins, A synthetic speaker, *Journal of the Franklin Institute* 227.739-64 (1939).



bols, as distinguished from icons. The second difference is that it takes a complicated human organism to 'read' the symbol, compared with which the amplifier of a phonograph is as simple as the multiplication table. But important as these differences are, a written word can still be regarded as a stage in a control system, such that under suitable conditions an originally articulated word can, through this stage, be reproduced as a heard word. A written word is in principle a frozen instance of the spoken word in much the same way as a word on a phonograph record. There are various degrees of fidelity in phonographic reproduction. There are also more or less accurate recordings of speech in writing. Just as the writing of one period of history can be misread or not understood at all by readers of another, so a phonograph record designed for one model of player can be distorted or not reproduced at all by a machine of another model.

Since a word is a class, the question of the identity of a word resolves itself into that of class membership, that is, of what are instances of a word and what are not. Bertrand Russell says, in the definition quoted, 'The instances of a word shade off into other movements by imperceptible degrees.' But it is important to understand that this shading applies only to the significant features<sup>10</sup> of the word and not to other articulatory or acoustic features. In a non-tonal language, two instances of the same word in different intonations will have very little in common in what is often the main part of the acoustic energy, the pitch of the fundamental. Even in a tonal language, it is the pitch relative to the key in which one is speaking that counts and not the absolute pitch, or even the pitch relative to the speaker's average voice.<sup>11</sup>

The most important fact for grouping instances of a word into a class is that parts of the instances can be grouped into definite classes of word-parts or phonemes. An instance of a word  $w$  consisting of instance  $x_1$  of phoneme  $x$ , instance  $y_1$  of phoneme  $y$ , instance  $z_1$  of phoneme  $z$ , etc., arranged in a certain way in time (not necessarily in succession), can be regarded as instance  $w_1$  ( $x_1, y_1, z_1, \dots$ ) of the word  $w$  ( $x, y, z, \dots$ ). This complex of phonemes  $w$  ( $x, y, z, \dots$ ) may be a word, for example *man*, or a class of homonymous words, for example /sʌn/ (the words *sun* and *son*). Because such a complex is the unit used by Manuel J. Andrade<sup>12</sup> in his study of Mayan words, we shall call this the Andradean word.

While the Andradean word is a perfectly clear and workable idea from a particular point of view, the average user of language is always concerned with

<sup>10</sup> The emphasis on distributional characteristics of speech has lately tended to displace Bloomfield's idea of 'significant features'. Some recent experiments, however, have shown a striking correspondence between phonetic quality and rather prominent acoustic features. See R. K. Potter, Visible patterns of sound, *Science* 102.463-70 (1945), reprinted as Monograph B-1368 of the Bell Telephone System Technical Publications.

<sup>11</sup> Because the low tone of a high-pitched person (or even of a higher-pitched key of the same person in a different mood) may be physically identical with the high tone of a low-pitched person (or key), the assignment of membership of pitch movements to tones cannot be treated on a simple quality level. It seems that an approach from the gestalt point of view will fit the case very well, but it is probably also possible to define the classes of qualities in such a way as to allow for shifting of the scale and overlapping of membership.

<sup>12</sup> According to L. Bloomfield in speaking of Andrade's unpublished studies.

dividing the Andradean word into different but homonymous words.<sup>13</sup> He will not be satisfied with regarding instances of an Andradean word as representing one and the same word if the meanings are different and no chain of extensions can be seen between them. Thus *bear* 'support' and *bear* 'give birth to' can be regarded as two related uses of the same word, but not this *bear* and *bear* as the name of an animal, which has to be regarded as a homonym.<sup>14</sup>

Another factor commonly considered when there are widely divergent meanings is whether they can be traced to the same origin. Since, for example, *bear* 'ursus' and *bear* 'support' come from different origins, they are not the same word, but homonyms. From a synchronic point of view, the origin is of course irrelevant, but it is of importance in so far as popular etymology influences the grouping of instances into present words. We shall revert to this point later.

Finally, a common popular criterion, especially in dealing with Chinese words, is whether the written form is the same. *Bear* and *bare* are obviously different words. *Check* and *cheque* are usually regarded as different words, though many speakers are aware of the semantic relationship.

If we take an actual survey of secondary judgments of informants of any dialect concerning the identity of words in their speech, we shall no doubt get much more divergent answers than questions concerning pronunciation or grammar, which can be answered by observing a language in use in its primary function. But to the extent of our finding some convergence of usage in the differentiation of homonyms for each dialect, we can regard the kind of unit arrived at as 'the word' in the dialect. We shall call this the 'simple word'. We cannot call it a 'dialect word', as the term would suggest that it is peculiar to a dialect, whereas the simple word is in most cases something universal except in actual phonetic value. An Andradean word then is a class of homonymous simple words.

We have so far limited our discussion largely to the speech of a homogeneous community at one place and one time; in other words, we have taken a syntopic and synchronic point of view. The homogeneous speech community is a convenient fiction; in speaking of it, we have temporarily excluded from consideration all variations within the community and the high density of communication with other communities of similar speech, such as one usually finds in China. As soon as we go beyond the limit of one place and one time—and everybody is interested in doing so—different concepts (that is, organization of instances into classes) will compete for the name *tzŭ*<sup>4</sup>, the term of prestige. We shall consider in turn the etymon, the character, and what I shall call the general Chinese word. These are closely related to each other and overlap a good deal. When any of them acquires prominence in a sphere of inquiry or activity, it tends to claim the

<sup>13</sup> C. W. Luh of Yenching University in 1940 compiled (in MS) a list of 5000 monosyllabic morphemes in the Peiping dialect. Since the dialect has only about 1300 different syllables (not counting syllables with retroflex endings), there are on the average four homonyms to each syllable. It is unlikely, however, that another linguist recording the same dialect independently would duplicate this list.

<sup>14</sup> It may be noted in passing that a play on words based on different extensions of meaning of what is considered the same word is usually more effective than a pure pun based on what are regarded as unrelated homonyms.

exclusive right to the term of widest currency: that is, it tends to be regarded as 'the word' or *tzŭ*<sup>4</sup>.

An etymon is a class of etymologically related words.<sup>15</sup> Two different (simple) words in the same dialect may be members of one etymon as a result of borrowing or of difference in grammatical features. For example, in the Soochow dialect, *wong* 'yellow' is the regular form of the word following the phonetic change of the majority of words, but through borrowing from Mandarin, there is another word *hwong* 'yolk'. The so-called literary (as opposed to the colloquial) pronunciation of words is largely based on borrowing. An example of difference in grammatical features between different words (of the same dialect) under one etymon is Mandarin *ch'ang*<sup>2</sup> 'long' as against *chang*<sup>3</sup> 'grow', where change in aspiration and tone seems to result in a causative form of the word. Sub-syllabic phonetic modifications in Chinese have however long ceased to be active elements in forming synchronic derivatives.<sup>16</sup> To all intents and purposes, *ch'ang*<sup>2</sup> 'long' and *chang*<sup>3</sup> 'grow' are two independent unanalyzed morphemes and their relationship might be forgotten if they were not written alike.

Within the same etymon, two words different at one stage may become homonymous at another stage, and if the semantic connection is preserved, become one again. Thus, Ancient Chinese (of about 600 A.D.) had *d'uân* 'break in two' and *tuân* 'decide' (i.e. cause two alternatives to break apart). Through regular phonetic change, they both became *tuan*<sup>4</sup> in Mandarin (though in many other dialects, such as those of Canton or Shanghai, they have not coalesced) and thus came to be regarded as extensions of meaning of the same word.

Two separate etymons may come into contact through a blend. In such cases, the usual practice is to regard them as cases of overlapping rather than to give up the distinctiveness of etymons.

The etymon is of course the chief concern of historical linguistics. In Chinese dictionaries, when it is stated that a certain word *t'ung*<sup>2</sup> 'is the same as' or *t'ung*<sup>1</sup> 'passes as equivalent to' another, they are often not actually the same or equivalent, but can be put under the same etymon, especially in the sense that there is a likelihood of their having been pronounced alike in the Ancient Chinese of 600 A.D. In discussions in English on Chinese,<sup>17</sup> the expression 'same word as' corresponds to *t'ung*<sup>2</sup> and 'etymologically same word as' corresponds to *t'ung*<sup>1</sup>.

We shall now consider the character, to which the term *tzŭ*<sup>4</sup> is also applied. The character is an object not only of scholarly inquiry, but also of educational and everyday interest. We include characters in the discussion of words, because, as we have seen, they are effective links in a control system for the transmission of word-instances. Under favorable conditions, the transmission can be more accurate than acoustic transmission, as for example when a person

<sup>15</sup> A study of etymons on a large scale is B. Karlgren, Word families in Chinese, Bull. of the Museum of Far Eastern Antiquities, No. 5 (1933).

<sup>16</sup> The most important exception is the very active non-syllabic retroflex diminutive suffix. But even here, those speakers of the Peiping dialect who are of Manchu origin tend to pronounce the retroflex suffix as a separate syllable. In Hangchow, the corresponding suffix is a syllabic *l*.

<sup>17</sup> For example in B. Karlgren, Analytic dictionary of Chinese and Sino-Japanese; Paris, 1923.



requests that a long telegram be delivered instead of being telephoned. We shall consider first the grouping of physical instances into graphs, then the grouping of graphs into characters, and finally the correspondence (or lack thereof) between character and word.

There is no geographical variation at the graphic level. Geographic variation comes in at the character level, and then only to a very slight degree. It is therefore possible to speak of a Chinese graph or character without specifying locality.

A graph in Chinese writing is a class of plane line-figures relative to a quadrilateral space which are regarded as graphically equivalent. In general, it is independent of size and metrical properties of the figure, such as thickness or length of lines. We can therefore also say that a graph is a class of topologically equivalent shapes. Within wide limits, a graph is the same whether we look at it squarely or from an angle, and we still have the same graph despite wide changes of proportion or angle between the parts.<sup>18</sup>

Different graphs, largely representing different stages in the history of writing, are grouped together as one and the same character. There is a rough parallelism between character and etymon, but only a very rough one, since there are different ramifications and coalescences in the two cases. Three complicating factors should be observed. In the first place, in the early stages, such as are represented by the shell and bone inscriptions of the Shang dynasty, Chinese writing was not yet entirely logographic, and cases were by no means so rare as later<sup>19</sup> where one graph could serve to write any one of two or more synonyms. Secondly, various historical stages of graphs often survive and are used side by side. Thus, the so-called seal characters, which were the only form of writing during the third century B.C., are the main form used now for seals. The regular, the running, and the cursive forms are used with comparable frequency now. Moreover, a graph of one stage is sometimes 'restylized' into the strokes of another stage but is still considered to be 'the same graph'. The third and most important complication in the grouping of graphs into characters lies in the fact that when the same etymon splits into different words, there is an imperfect parallelism in the change of the graphs. This partial parallelism has caused great confusion in the discussion of the language and the history of the writing, especially as it is usually not clear whether it is the etymon or the character that is being discussed.

We shall mention briefly some typical cases of one-many and many-one relations between character and word. Since the character has no important dialectal variation, one character always corresponds to as many simple words as there are dialects. (This fact is popularly stated by saying that a character is pronounced differently in different dialects.) Again, a character that has been used long enough for sound change to occur in the word that it stands for, as

<sup>18</sup> Because of this latitude of variation, Lin Yutang is able in designing his typewriter to standardize the left-hand and the right-hand parts of a vertically divisible character in the ratio of 2:3; yet no one will notice this unless he has his attention drawn to it.

<sup>19</sup> Modern cases are limited to a few characters for dialect words, like the one that represents words for 'fling' (Mandarin *shuai*<sup>2</sup>, Wu dialects *hwe<sup>n</sup>*).

is usually the case, will also exhibit a one-many correspondence. (The character is then said to have changed its pronunciation.) A much less frequent but more interesting type is that of the same character being used for unrelated words. We have already noted cases of true ideographs in early Chinese inscriptions, where the character represented a meaning expressed by different words. By the time Chinese writing became largely logographic, the result was that the same character served to write different words. In this connection, it will be interesting to note that the phenomenon of misreading a word by its synonym, as occurs when a reader is fatigued, is much commoner in Chinese than in languages with other systems of writing.

In the history of Chinese writing, two types of one-many and many-one relationships between character and word deserve special notice. These are the so-called loan characters and enlarged characters. Where an abstract idea was difficult to indicate by a pictograph or ideograph, a character for a homonymous word with a picturable meaning was 'borrowed'. Thus, the character for the word meaning 'burn' was used also for a homonymous word meaning 'thus, so', resulting in a one-character-two-word relationship. Later, it was found convenient to differentiate the two by adding a part meaning 'fire' to the character for the word for 'burn', thus producing an enlarged character.

Now this method of differentiation not only applied to unrelated homonyms, but was also used for differentiating extensions of meaning of the same simple word. Thus, the sentence *jên<sup>2</sup> yeh<sup>3</sup> chē<sup>3</sup>, jên<sup>2</sup> yeh<sup>3</sup>* was, when Mencius<sup>20</sup> said it, probably a significant tautology intended to bring together two meanings of the same word, related by extension: 'Humanity (to be humane) is humanity (to be human)', something like the significant tautology 'Business is business'. But even at the time of Mencius, the two uses of *jên<sup>2</sup>* were probably already written with different characters.

This multiplication of characters for the same word in the development of Chinese writing has probably been the most important factor in making people character-conscious instead of word-conscious. Although in ancient texts the same primary character served for writing a word in a number of extensions of meaning, later differentiations in writing have been strictly maintained by schoolmasters, especially those who are not familiar with ancient texts. Just as a schoolmaster would never permit the writing of the word /čék/ as *cheque* when used in the sense of 'stop', so the word *hui<sup>3</sup>* must be written differently according as it means 'destroy' or 'destroy by fire'. The only difference in the case of Chinese is that such cases are the rule and not the exception. Moreover, for the same reason that an English-speaking, or rather an English-writing person would speak of 'cheque' and 'check' as different words, a Chinese would call the two forms of writing *hui<sup>3</sup>* different *tzŭ<sup>4</sup>*. This explains the usual distaste, on the part of Chinese who know English, for speaking of Chinese *tzŭ<sup>4</sup>* as characters. They always prefer to call *tzŭ<sup>4</sup>* 'words'.

Finally, I shall consider a common but ill-defined conception of the *tzŭ<sup>4</sup>*, which I shall call the 'general word'. A general word for a certain period may be conceived as a subclass of an etymon (plus blends, if any), extending over a large

<sup>20</sup> Mencius 7-B.16.



part of the country and back for a considerable length of time, such that the various simple words under it can be and are actually regarded as instances of the same word for practical purposes of communication. A man can quote Mencius' *jên<sup>2</sup> yeh<sup>3</sup> chē<sup>3</sup>*, *jên<sup>2</sup> yeh<sup>3</sup>* 'word for word', when, phonetically, he is doing nothing of the sort. He neither knows nor cares just what Mencius did say phonetically. In the same sense, he can repeat in Mandarin 'word for word' a statement which he has heard in Cantonese if it does not involve too much translation of vocabulary.

A general word, so defined, can have variant 'pronunciations', even for the same dialect. For example, instead of saying that there are two (Andradean) words *sên<sup>1</sup>* and *shên<sup>1</sup>* (for the same speaker of the Peiping dialect), both meaning 'forest', one says that the same word for 'forest' has two pronunciations *sên<sup>1</sup>* and *shên<sup>1</sup>*, just as one says that the same word *often* has two pronunciations /-fn/ and /-ftn/ and the same word *either* has two pronunciations /íjǝə/ and /ájǝə/, sometimes interchangeably by the same speaker.

When we extend the scope beyond one locality, a general word is assumed, rightly or wrongly, clearly or vaguely, to preserve its identity. Between two persons speaking different dialects, it is possible to ask and argue over the question whether they pronounce the same word 'alike'. When a man from Peiping says *pien<sup>4</sup>* 'throughout' and a man from Nanking says *p'eĩ<sup>4</sup>* for what both agree to be the same (general) word, they say that they pronounce them differently. But if the latter said *peĩ<sup>4</sup>*, then they would say that they pronounce the word 'alike', except for some slight difference in local accent which they cannot and do not care to describe. The parallel case in English would then be that of an Englishman and an American discussing the pronunciation of *often* without bothering about the difference between British [ɒ] and American [ɑ] or [ɔ]. Daniel Jones calls the class of corresponding sounds in different dialects a 'diaphone'.<sup>21</sup> This conception, however, is not workable except so far as there is a close phonemic parallelism between sounds in different dialects.

There has been an interesting shift in point of view in the recent development of standard Chinese. In the 1910's there was a Society for the Unification of the National Language, later reorganized as a government committee. The original work proceeded from the point of view of a generalized pronunciation of the general word. In the dictionary Kuo-yin Tzū-tien of 1920, there was, in addition to a largely phonemic notation, also a brief formula of four diaphonic specifications, such as *chien<sup>4</sup> ho<sup>2</sup> p'ing<sup>2</sup> tung<sup>1</sup>*, i.e. {k} {w} {even tone} {ung},<sup>22</sup> so that the speaker of most dialects can tell what 'the correct pronunciation' would actually sound like by applying the proper rules of pronunciation, such as whether {k} would be velar or palatal, whether {w} would be retained or dropped, what pitch graph the {even tone} would actually have, and whether {ung} would have a vowel plus nasal, a nasalized vowel, or the nasal dropped. But as members of the committee became more and more phonetic-minded, the

<sup>21</sup> According to Jones, the word probably appeared first in H. E. Palmer, *Principles of romanization* 60, 61 (Tokyo, 1931). By analogy, we should have to call a general word in several dialects a *dialog*.

<sup>22</sup> Letters or words in pointed braces indicate diaphones.

formulas were given up, and in the 1932 edition of the dictionary, under the new title of Gowin Charngyonq Tzyhhuey, only a phonemic notation for the Peiping dialect was given. People from other parts of the country who are interested in how they would pronounce a word in their own dialect if they wanted to agree with Mandarin in principle complain that in the new dictionary they cannot find the information.

The possibility of having a partially workable idea of a general word is of course to be explained by the fact that the dialects are historically related. So, as we extend the scope of our word in time, we meet with the frequent question whether a word is or is not pronounced as it was in ancient times, with reference not to the phonetic values but to the distribution of the elements. For this, again, there is a term,<sup>23</sup> the 'phonogene', i.e. a series of sounds in which each is a historical descendant of the preceding. While this also is only a partially workable idea, like the diaphone, it is a question of more practical concern to the user of the language than a strictly synchronic idea. A person who asks about the pronunciation of a word not only assumes that there is a corresponding 'same' and 'correct' pronunciation in other dialects, he also assumes, rightly or wrongly, that the 'correct' pronunciation is the 'same' as that of some standard dictionary such as K'anghsi Dictionary (1716 A.D.), in which the system of pronunciation is based largely on that of Ch'ieh-yün (601 A.D.).

The degree to which the boundaries of a general word are definable depends upon the unity of culture of the speakers, as gauged by the density of communication between the dialects and by the extent to which the body of literature is still living, though in modern forms of the phonogenes. From the point of view of clear and neat descriptions of linguistic phenomena in China, it is neither necessary nor possible to set up the idea of the general word, since the idea of the diaphone and the phonogene works only within very indefinite boundaries. But for the compilation of practical dictionaries and for language education in China at a time when absolute phonetic unification of the language is not yet practicable or, if it is, not judged to be necessary, and for discussions of such problems as Chinese syntax, which are common to a relatively wide range of dialects over a relatively extended part of history, the idea of the general word is often unconsciously assumed. We have tried here to make this idea explicit, with the warning that it is not an idea of clearly defined scope unless and until it is artificially frozen into a system of general Chinese, which, though theoretically illogical and impossible, is yet practically necessary and highly desirable.

<sup>23</sup> Palmer, *loc.cit.*, attributes this term also to Daniel Jones. Jones, however, denies it in a recent letter to the writer, and thinks that it may have been invented by N. W. Thomas, an anthropologist and linguistic investigator in Africa.