CHAPTER-7
NOTATION

7.1 PHONETIC SYMBOLS

A full description of a segment can be conveniently abbreviated into a three-term label, such as 'close front rounded (vowel)', 'voiced dental fricative (consonant)' etc. for practical purposes. Sometimes something more compact than a label, may be required in order to refer to a segment; in other words, symbols which stand for segments are needed. A system of such symbols constitutes phonetic notation.

A very large number of phonetic notations have been invented from time to time, and they are of several kinds. They fall broadly into two types, which can be characterized as alphabetic and analphabetic notations. Alphabetic notations are based on the same principle as that which governs ordinary alphabetic writing, namely that of using one single simple symbol to represent each segment. Analphabetic notations represent each segment by a composite symbol made up of a number of signs put together. The class of alphabetic notations is considerably larger and must itself be further subdivided. So, it will be convenient to deal with analphabetic notations first.
7.1.1 Alphabetic notations:

An alphabetic symbol for a segment is an indication of the 'ingredients' of the segment, the ingredients being the activities of the organs of speech which are required to produce it. The symbol will show, in summary form, some or all of such factors as the active and passive articulator concerned, the nature of the stricture, the presence or absence of a velic closure, the state of the glottis, the airstream mechanism, relevant secondary articulations, and so on.

7.1.2 Alphabetic notations: iconic-

The most obvious basis for an alphabetic notation is the roman alphabet. Non-roman notations are usually iconic, which means that the symbols are not arbitrary signs, but in some way resemble what they stand for. A phonetic symbol can be iconic in various ways. It cannot, of course, be directly like the sound of a segment, but it can portray the action of the vocal organs which produces the sound. Much more common, and more practicable, are notations which are iconic because they allot related shapes to related segments. A phonetic notation intended to be used as a shorthand, in which 'all the simple characters are as analogous to each other as the sound they represent'.
7.1.3 Alphabetic notations: roman-based:

A roman based phonetic notation has a single separate symbol for every classifiable segment. First of all, many letters have more than one shape. For example, capital letters are not only usually bigger than 'lower-case' or small letters, but apart from their differences in size their design may be different. Italic letters also, apart from being sloped, may be of different design.

Thus, \[ A \quad a \quad a \]
\[ F \quad f \quad f \]
\[ G \quad g \quad g \]
\[ I \quad i \]
\[ R \quad r \]
\[ U \quad u \]

and so on. Although above are the example of different shapes of the same letter, there is no reason why the different shapes should not be taken into a phonetic notation as different symbols. Some systems of notation preserve capital and italic letters exactly as they are, with their existing size or slope, respectively.

Moreover, there are a number of other letters in the roman alphabet which are not used in writing modern English; some
of these were once in use but are now obsolete, others are used in writing other languages. New diacritics are easy to device. A good example of a new diacritic is a small circle under a letter.

A good general phonetic notation, or 'phonetic alphabet', should provide an adequate stock of symbols, with approximate general phonetic definitions, and with some general principles governing their use, so that the main categories of vocoids and contoids are covered; the symbols should be distinctive, simple to write, and should make good printing types; and means should be provided for extending the stock of symbols in any necessary direction. The notation should not be biased in the direction of any particular language or group of languages but should take into account the whole range of human speech-sounds.

7.2 INTERNATIONAL PHONETIC ALPHABET

The alphabet of the International Phonetic Association (the IPA) is a notation which has been extensively used for a wide range of languages. Considerable care has been taken for its visual appearance. It is a compromise system, making use of every one of the above expedients, for extending its stock of symbols. It is intended to be a genuine general phonetic alphabet, but capable at the same time of providing for any given language a notation in which each phoneme will have a plain single
symbol, without diacritics, allophones of phonemes being either left to be accounted for by general rules; therefore, every important segment type (which is likely to be distinguished as a phoneme in a language) is provided with a symbol. It could be described as a strongly ‘phoneme oriented’ general phonetic alphabet.

7.3 TRANSCRIPTION

Transcription is a method of writing speech sounds in a systematic and consistent way from a particular point of view. A system of transcription, in which each symbol represents a phoneme of the language, is called a ‘phonetic’ or a ‘broad’ transcription. If the symbols indicate the allophones and thus give us some information about the phonetic qualities of the sounds, the ‘transcription’ is ‘allophonic’ or ‘narrow’.

7.4 NON-SEGMENTAL SYMBOLS

Segmental features are much better provided than the non-segmental symbol. It is improbable that any sort of notational device could ever be needed for features of voice quality, whatever it might be necessary to record in this respect can simply be stated in words and prefaced to a text.

An increasing amount of research, however, is nowadays being devoted to the phonetics of conversation, and this
inevitably involves attention to what have been called ‘paralinguistic’ phenomena, that is to say features of voice dynamics such as continuity, variation in loudness, in tempo and in tessitura. The main reason, of course, why narrow transcriptions do not usually need to incorporate symbols for most of voice dynamics is that it does not enter into language-bearing patterns. In English, for example, only pitch variation and rhythm, but no other features of voice dynamics, would be relevant.

Less attention has been given to rhythm than to pitch variation. It is usual to mark stressed syllables by placing the ‘stress-mark’ at the beginning of the syllable, thus;

   good 'morning

or in segmental transcription:

   [gʊd'mɔrnɪŋ]

   It is often more satisfactory in a connected text of a stress-timed language, as distinct from transcriptions of isolated words, to replace the stress-marks by vertical lines, which will divide it into isochronous periods which may be called feet. Thus:

   good|morning

   It is the notation of pitch variation that, among dynamic
features, has had most attention paid to it. Most notations for pitch variation are iconic, which is a simple matter for this dynamic feature, since it has variation in only one dimension. A mark which is higher than another in the line of writing represents a higher pitch. A continually varying line, for example, can be drawn either over or under the segmental symbols;

\[
\text{good morning}
\]

of all iconic representations of pitch variation, the most effective consists of arranging the segmental symbols, or the letters of the ordinary spelling, so that they themselves form the iconic line of rise and fall in pitch:

\[
\begin{array}{c}
m \\
good \\
\text{or} \\
\text{n} \\
\text{i} \\
\text{n} \\
g
\end{array}
\]

Types of notation, such as these, are direct representation of the pitch fluctuation; they reveal no phonological analysis. The elements can be represented either by conventional symbols or by iconic symbols. They can be given numbers, for example, which can be written over the syllables; or the same pattern shown in terms of pitch movement.