Chapter VII

Syntagmatic Structures. Distribution and Probability

Any one of the minimal units set up by means of the segmentation and the phonemic analysis described in the preceding chapters gets its linguistic value through its relations to the other units of the paradigm. Its amount of information is to a large extent determined thereby. The richer the system, the greater the amount of information of any of its units, and vice versa. But as a member of a given chain of expression units, i.e. in a syntagm, it necessarily also has given relations to any other units within the chain. These are the syntagmatic relations to which this chapter will be devoted. We shall soon see, by means of a few examples, that even the structure of the syntagm, and, more generally, of the complex expression units (syllables, groups, etc.) are of importance for the informative value of the phonemes. The laws of distribution valid for the building up of these larger units often strongly reduce the amount of information of each smaller unit. In no language is the combination of the phonemes, or more generally the putting together of smaller entities into larger elements, free. In most languages, it is subject to very strong limitations.

In our example in Chap.III (*the boys are playing* ...), we saw that the first segmentation into measures (according to the number of stresses) was followed by one into syllables. Like any other of the fundamental concepts in phonetics (vowel, consonant, etc.), the syllable may be defined in structural or in physical terms, in the latter case acoustic and physiological. The structural syllable (or the "phonological" syllable, as some phoneticians have called it) is a combination of phonemes into groups according to the rules valid for the language in question and consisting of one central unit — the syllabic nucleus — and one or more marginal units. There may — at least theoretically — be languages without this functional distinction between marginal and central units. They will consequently lack structural syllables, though they may of course have phonetic syllables, i.e. an organisation of the phonetic elements into acoustically and physiologically determined groups. The opposite situation, however, is theoretically inconceivable, as the linguistic function must necessarily correspond to some kind of physical manifestation. Otherwise the structural opposition would remain a never realized potentiality. The definition of the syllable as only a "phonological" unit is consequently unsatisfactory, though this by no means implies that its physical manifestation is always the same.

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1 This is of course true of any linguistic element. Even if two systems have the same structural opposition between vowels and consonants, it is not a priori necessary — though statistically relatively probable — that this opposition in both cases is manifested through the same physical differences.
Let us as a starting-point for our discussion choose the system reconstructed, on the basis of comparative evidence, for Proto-Indo-European by Carl Hj. Borgström. He supposes that, at a certain stage of the linguistic evolution of this hypothetical language\(^1\), the vocoids were just phonetic auxiliary elements without any linguistic function of their own except that of making the consonants audible. Those were the only distinctive units of words and forms, the only phonemes in the system. A phoneme was consequently manifested in the sound substance as a contoid + a vocoid. The importance of the contoid-vocoid transition for the identification of the consonant phonemes has been treated in Chap. III. The colour of this support vocoid, which was linguistically irrelevant, must have been dependent on the surrounding contoids. Let us symbolize it by \(\ddot{a}\) and suppose a word containing the phonemes /p/, /t/, and /k/, phonemically /ptk/, phonetically [potako]. Such a language would consequently lack syllables, or, more correctly, there would be identity between phonemes and syllables, and consequently no distinction between vowel and consonant (this distinction being defined as a function within the syllable). In our example above, [potako] is consequently a phonetic syllable, though phonemically it is the manifestation of a phoneme /p/, nothing more.

If we imagine, as a further step in a hypothetical evolution, that a distinction is created between three different vocoid colours and that the vocoid quality is no longer automatically determined by the context — no longer 100% predictable —, we get a linguistic system which knows an opposition between, say, /pi/, /pu/, and /pa/, and consequently phonemic syllables, analysable into /p/ + /i/, /p/ + /u/, or /p/ + /a/. If then these /i/, /a/, or /u/ phonemes become capable of functioning alone as signs, whereas /p/, /t/ etc. have to be accompanied by one of those three, we get our functional distinction between conditioning and conditioned units, i.e. vowels and consonants. A syllable consisting of a consonant plus a vowel represents the most primitive, and without doubt historically the oldest, of all syllabic types, the only one which is general in all languages. We call it the open syllable. All languages have open syllables. Very many have only open syllables. No language has only closed syllables.

Let us assume from now on that all languages have syllables and consequently also an opposition between vowels and consonants. Our first concern will be the syllabic structure and a comparative survey of some structurally different syllabic types. It goes without saying, and follows automatically from what was said in Chap. III about the

\(^1\) It is of no importance for our demonstration whether this language has existed or not. At some stage in the history of human language, however, such a system must have been a fact.

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