

# On some problems in linguistic description

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1. Though the name of descriptive linguistics is often used in a narrower sense, the business of linguistics is essentially to describe languages. And there are two basic problems about it. One is what to describe, i. e. what part of language should be described, and the other is how to describe. Our speech activity is so complicated that to describe it to its every detail linguistically is almost impossible. If we can, mere recording is not the goal of linguistics or linguistic science. If we record all the speech activity of an individual within a given time, it will amount to nothing but presentation of raw materials. Further we need to take out some part of it, which is to be necessary and sufficient to arrange. Any science requires to arrange the facts concerned and apply a procedure of abstraction to them to find out principles. Linguistic science, though empirical, is not exceptional. For example, concerning phonological facts which seem at the first glance very chaotic, if they are properly processed, a certain system containing a certain number of phonemes can be found. In this case, different systems may be expected in connection with different principles. This leads us to the second problem, that is, how to describe. It is needless to say that these two are greatly interdependent and in some cases they cannot be separated clearly.

2. Since F. d. Saussure sharply distinguished the study of langue, norme des faits de langue, from that of parole, acte individuel<sup>(1)</sup>, the two terms or concepts have been very important and serviceable in linguistics. That is, the objects of our immediate observation in a speech activity are restricted chiefly to the facts roughly equivalent to Saussurean parole, and our reasoning or abstraction based on the observation of them produces something like Saussurean langue. In other words, we should distinguish clearly actual activity from abstract entities. On phonological facts, this distinction has been successful in producing an important concept "Phonem" by N. S. Trubetzkoy, who used the term Sprachgebilde and Sprechakt in the senses of langue and parole.<sup>(2)</sup> Many scholars have suggested similar concepts are needed, though the terms are varied. According to V. Mathesius, in language (i. e. langue) we have the word in its conceptual meaning and the sentence as abstract

pattern, whereas in speech we have the word as referring to concrete reality and the sentence as concrete utterance<sup>(3)</sup>, S. K. Šaumjan maintains that on each speech level there should be two levels of abstraction, phenotype level and genotype level, or the observation levels and the levels of constructs<sup>(4)</sup>, and Prof. S. Hattori shows a system of concepts on concrete linguistic units and abstract ones<sup>(5)</sup>. In short, when we describe a certain group of linguistic facts systematically, it is quite necessary to make it clear what we are to describe and set up concrete and abstract units serviceable for the purpose.

3. Apart from the distinction between abstract part and concrete one, levels and the units on each level have been universally conceived in linguistic study. Linguists' opinions are divided on their analysis. Though everything depends on how to define and every definition may have its own reason, the following somewhat traditional classification shown in Table 1 seems to be convenient and acceptable<sup>(6)</sup>.

Table 1

levels	units (concrete)	(abstract)
1. phonological level	allophone	phoneme
2. morphological level	allomorph	morpheme
3. syntactic level	utterance	sentence
4. lexical level	allex	lexeme

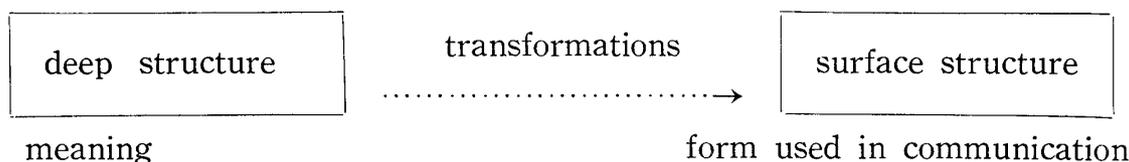
Each level has a corresponding name for its study. (i. e. phonetics and phonology, morphology, syntax, and lexicology) On each level, concrete and abstract units can be set up and concrete units realize corresponding abstract ones in a unified form. The lexical level or dictionary is more or less different from the other three, perhaps because, though every system of language is a historical product, words make a relatively loose part of it and are rather free from historical bondage. Traditionally, linguistic description has been made on each separate level. But these levels are sometimes hierarchically combined in a congruent whole and analyzed one by one until an integrated description is obtained<sup>(7)</sup>. And so-called transformational generative grammar seems to follow in the same steps.

4. In his distinguished book<sup>(8)</sup>, N. Chomsky maintains the central notion in linguistic theory is that of linguistic level, namely phonemics, morphology and phrase structure, and regards a linguistic level as a set of descriptive devices that are made available for the construction of grammars, which constitutes

a certain method for representing utterances.<sup>(9)</sup> He considers a language to be a set (finite or infinite) of sentences and his grammar of a language L to be a device that generates all the grammatical sequences of L and none of the ungrammatical ones.<sup>(10)</sup> His picture of grammars is a natural tripartite arrangement, phrase structure, morphophonemics and transformational structure whose rules link the preceding two.<sup>(11)</sup> First he called his device transformational grammar and later chose the name generative grammar and separated a semantically interpretable deep structure from a phonetically interpretable surface structure.<sup>(12)</sup> He classifies generative grammars that describe language according to the models, taxonomic and transformational,<sup>(14)</sup> and declares that to pursue the goals of linguistic theory, it is necessary to go far beyond the restricted framework of modern taxonomic linguistics and the narrowly-conceived empiricism from which it springs.<sup>(15)</sup> By generative grammar he means a description of the tacit competence of the speaker-hearer that underlies his actual performance in production and perception (understanding) of speech.<sup>(16)</sup> His theory and rules have been partially modified but the main line has not been changed. And we can expect that this kind of grammar or linguistic description will be a highly integrated one.

5. Transformationalists maintain that a deep structure becomes a surface structure via transformations, as in Fig. 1.<sup>(17)</sup>

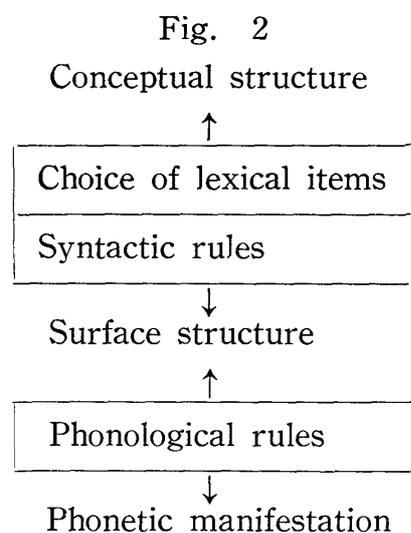
Fig. 1



Here transformations chiefly mean applying syntactic rules on deletion, permutation, substitution etc. In Chomsky's opinion, a deep structure is an abstract object, which one assumes on the basis of the meaning of a sentence, and its syntax and a surface structure which concretely specifies the syntactic structure necessary for spoken or written communication, is closer to physical reality. Deep and surface structures need not be identical. The deep structure is common to all languages, being a simple reflection of the forms of thought, and the transformational rules that convert deep to surface structure may differ from language to language.<sup>(18)</sup> He seems to try to establish a kind of universal grammar on the logical basis. On this point, O. Jespersen made a suggestive remark to the effect that if the categories in the syntactic part of our grammatical system are purely logical ones, it is

evident they are universal, i. e. belong to languages in common; if they are merely linguistic, then they, or at least some of them, are peculiar to one or more languages from the rest.<sup>(19)</sup> The deep structure may be universal, but syntactic categories cannot be purely logical. Language cannot be explained only by logical analysis, or linguistics is not logic, though transformationalists' elaborate and highly deductive methods have surely born some fruits in studies of English.

6. For some reason or other, different, but similar wording is sometimes used. For example, R. W. Langacker avoids using the term transformation and names conceptual structure instead of deep structure. Fig. 2 shows his scheme of linguistic organization.<sup>(20)</sup>

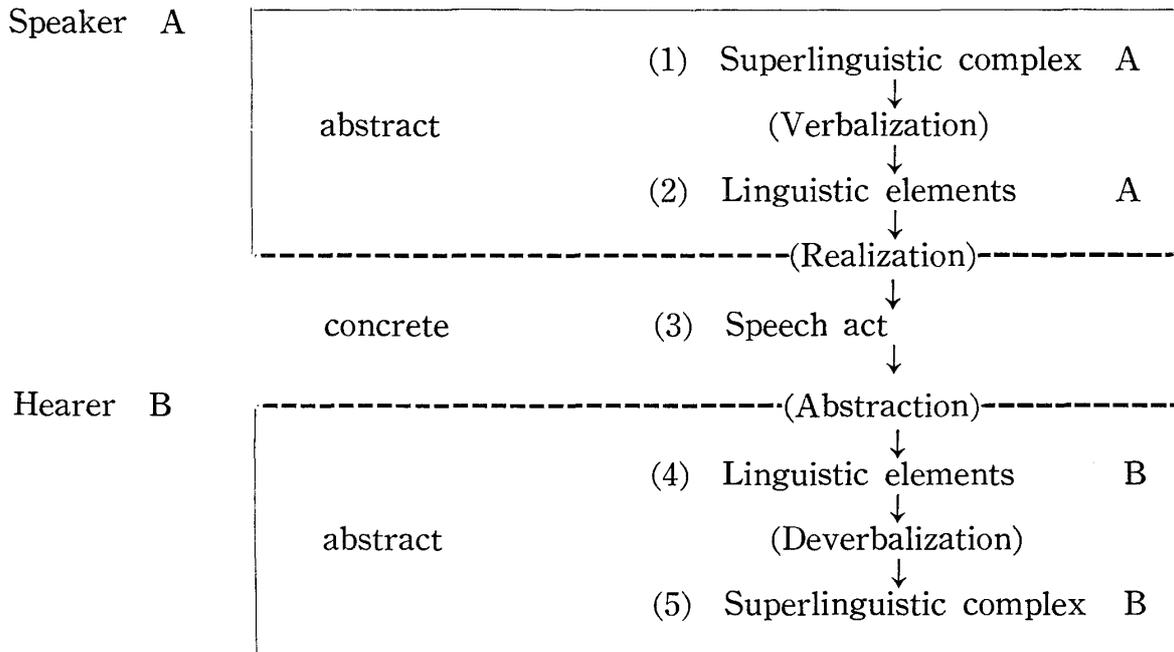


A conceptual structure is connected with a surface structure by the choice of lexical items and by syntactic rules. Phonological rules connect a surface structure with its phonetic manifestation.

The difference between this scheme and transformational one is not so great, for transformationalists also seem to put some stress on choice of lexical items. According to J. Katz and P. Postal, the semantic component of a linguistic description will be taken to be a projective device, which consists of two parts: first, a dictionary that provides a meaning for each of the lexical items of the language, and second, a finite set of projection rule.....A lexical item is ambiguous when it has more than one sense. Ambiguity at the lexical level is the source of semantic ambiguity at the sentence level.....Each reading in the dictionary entry for a lexical item must contain a selection restriction, which may be regarded as the explication for certain features of standard dictionary practice.<sup>(21)</sup> Standard dictionary practice may mean anything, and transformationalists seem to begin their description on the basic presupposition that a normal or fluent speaker of a language has mastery of its grammar, a kind of intuition built up in him and informative knowledge including its dictionary. This presupposition can, or has, not been fully testified,<sup>(22)</sup> because it is too comprehensive. But, in a sense, it can be justified, for it may mean our most basic (and mostly unconscious) presumption that all the normal speakers of a language have one and same *langue* in common. And our starting point is always the old, but ever new, question: what is language?

7. Language has been given too many definitions from varied viewpoints. Every definition is slightly different from the rest. But we can say at least one thing, that is, what can be called language is used in our communication, or language is a medium of our communication. So it would not be meaningless to examine it from the viewpoint of communication. A rough scheme of our communication by language may be shown in Fig. 3.

Fig. 3

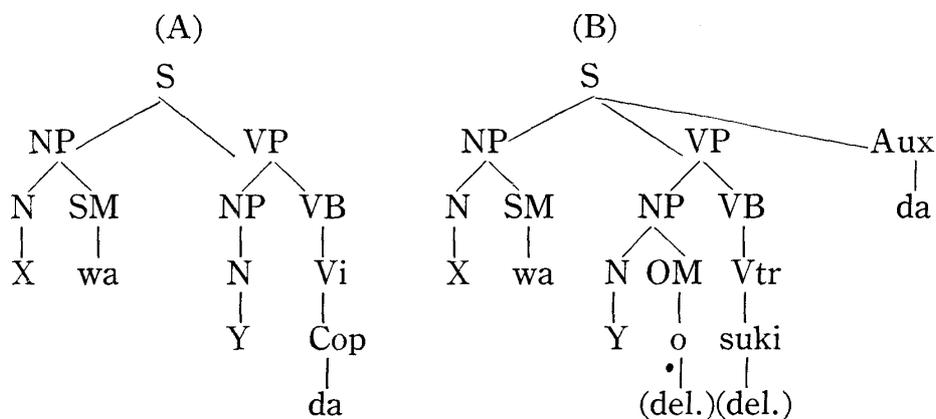


First we must separate Speaker A from Hearer B. Both (1) and (5) are terminals, and meanings are conveyed from (1) to (5) through (2), (3) and (4). Non- (or extra-) linguistic elements can flow into any place on this line, which can be cut off at any point. (1) and (2) belong to A, (4) and (5) to B. Only (3) can be said concrete in the sense that (3) is realized or overt, while the other four are potential or covert. (1) and (5) are too complicated to analyze or describe at least in the terms of linguistics. Therefore, though we cannot ignore (1) and (5), the main objects of linguistic description are restricted to (2), (3) and (4) for the reason that non-linguistic elements can be excluded from them if necessary. We may regard (2), (3) and (4) as a unified part and call it language in this sense. Langue may refer to (2) and (4), parole to (3), respectively. In reality, (2) differs from (4), but commonly both work with similar systems or devices of semantic expressions and interpretations. If (3), whose function is to realize (2) and give the sources of abstraction to (4), works well, (2) and (4), consequently (1) and (5), can have something in common, i. e. an effective communication is attained. If not, communication fails, or (4) does not accept but reject (2) that is realized by (3), and some

trouble will be caused. But abstractly, as mentioned in 6., we have one basic presumption that (2) and (4) are the same, that is, A and B have a common language, or a common device of semantic expressions and interpretations. We can be in both A's and B's places at the same time, or we can simultaneously express and interpret something in a linguistic form. And, aided by a context, communication between A and B is in almost every case successful. But when a phenomenon called homonymy appears, ambiguity is caused.

8. When we say such and such sentence is ambiguous, transformationalists will explain that this surface structure has two or more deep structures, or this sentence has two or more <sup>(23)</sup>sentoids. This term sentoid may be very convenient to analyze homonymous sentences in a written form in a context-free state. For example, a Japanese sentence, X wa Y da, can be semantically interpreted in lots of ways, and we can hardly deny the fact that this sentence is grammatical, in the sense that this is accepted universally by the native speakers of Japanese. Really, it is very hard to tell how many semantic interpretations this sentence can be given, in spite, or because, of its extremely simple form. But for the present purpose, let us take out two of them. If X and Y are adequate nounsetc. this sentence can mean, (A) X is Y, or (B) X likes (prefers etc.) Y. To ignore the difference between Japanese and English and use traditional grammatical terms, in the former Y may be a subjective complement, in the latter Y may be an object of a transitive verb. Explanations of this difference seem to have been concentrated mainly upon the uses (i. e. function and meaning) of da, but a good explanation has not been obtained. Transformationalists could give something like the analyses shown in tree-diagrams in Fig. 4.

Fig. 4



<sup>(24)</sup> SM=Subject Marker, <sup>(25)</sup> VB=Verbal, Cop=Copula, OM=Object Marker  
del.=deletion

Of course, different analyses can be made. In (B), VP (Y o suki) may be regarded as a kind of noun phrase, and, if so, (B) is not so much different from (A). But at any rate, by showing how (A) and (B) are generated, and telling this sentence has two different sentoids, the difference between (A) and (B) can be explained syntactically and somewhat persuasively. This could be said to belong to their merits.

9. But the explanation by sentoid may not be applied to synonymity or idiomatic expressions, for in many cases structural analysis cannot serve as a clue to explain them. For example, in Japanese, (C) Z wa W ga dai suki da, and (D) Z wa W ni me ga nai, are synonymous in some context, if Z and W are adequate nounsetc. but any logical explanation of this synonymity can be given. We can say simply that (C) and (D) are synonymous, or have the same meaning, but nothing more. And, as L. Bloomfield remarked, though the study of speech sounds without regard to meanings is an abstraction, in practice we have to define the meaning of a linguistic form, wherever we can, in terms of some other science.<sup>(26)</sup> Perhaps this does not necessarily mean that linguists may regard meaning as a kind of natural phenomenon, or it is impossible to analyze and explain meaning in the terms of linguistics. Undoubtedly, analysis of meaning is one of the most important goals of linguistic description or linguistics, though it may be a very far goal.

#### Notes

- (1) F. d. Saussure : Cour de Linguistique Générale, Payot, Paris, Cinquième éd., 1962, pp. 36-39
- (2) N. S. Trubetzkoy : Grundzüge der Phonologie, Vandenhoeck & Ruprecht, Göttingen, 2. Auflage, 1958, S. 5, S. 34
- (3) J. Vachek : A Prague School Reader in Linguistics, Indiana Univ. Press, Bloomington, 1964, p. 317
- (4) H. G. Lunt : Proceedings of the Ninth International Congress of Linguists, Mouton, The Hague, 1964, pp. 155-160
- (5) 服部四郎 : 言語学の方法, 岩波, 東京, 1960, pp. 447-460
- (6) cf. J. P. Hughes : The Science of Language, Random House, New York, 1962, p. 147
- (7) cf. S. M. Lamb : Outline of Stratificational Grammar, Georgetown Univ. Press, Washington D. C., 1966 (Lamb uses "stratum" for "level.")  
P. Sgall : Generativní popis jazyka a česká deklinace, Academia, Praha, 1967 (Sgall maintains there are at least five levels, and shows an elaborate scheme. Ibid. s. 55-56)  
J. R. Firth : A Synopsis of Linguistic Theory, 1930-1955, Studies in Linguistic Analysis, Basil Blackwell, Oxford, 1957 (Firth put special stress on "the context of situation." Ibid. p. 8)
- (8) N. Chomsky : Syntactic Structures, Mouton, The Hague, 1957
- (9) Ibid. p. 11
- (10) Ibid. p. 13

- (11) Ibid. pp. 45-46
- (12) cf. O. E. Hayden etc. : Classics in Linguistics, Peter Owen, London, 1967, pp. 337-371
- (13) N. Chomsky : Current Issues in Linguistic Theory, Mouton, The Hague (A revised and expanded version of "The Logical Basis of Linguistic Theory," Lunt, 1964, pp. 914-1008) 1964, pp. 9-10
- (14) Ibid. p. 11
- (15) Ibid. p. 113
- (16) N. Chomsky : Cartesian Linguistics, Harper & Row, New York, 1966, p. 75
- (17) R. A. Jacob & P. S. Rosenbaum : English Transformational Grammar, Blaisdell, Waltham Mass., 1968, p. 19
- (18) Chomsky, 1966, pp. 33-35
- (19) O. Jespersen : The Philosophy of Grammar, George Allen & Unwin, London, 1924, pp. 46-47
- (20) R. W. Langacker : Language and Its Structure, Harcourt, Brace & World, New York, 1967, p. 92
- (21) J. J. Katz & P. M. Postal : An Integrated Theory of Linguistic Descriptions, M. I. T. Press, Cambridge, Mass., 1964, pp. 12-15
- (22) On this point, an interesting report was made by A. A. Hill, and answered by Chomsky. cf. G. Wilson : A Linguistics Reader, Harper & Row, New York, 1967, pp. 280-308
- (23) Katz & Postal, 1964, p. 24
- (24) Or Topic Marker. cf. E. Bach : An Introduction to Transformational Grammar, Holt, Rinehart & Winston, New York, 1966, p. 96
- (25) cf. Jacob & Rosenbaum, 1968, pp. 63-64
- (26) L. Bloomfield : Language, George Allen & Unwin, London, 1935, pp. 139-140