

ABHANGIGKEITSGRAMMATIK

JURGEN KUNZE

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Akademie-Verlag
Berlin, DDR

504 pp.
1975

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Jürgen Kunze establishes his dependency grammar with four components. The syntactic is the most important. The three non-syntactic components are the paradigmatic component, the selectional component, and the assigning component. In the first chapter of his book ABHANGIGKEITSGRAMMATIK (Dependency Grammar) the reader gets introduced to some of the basic concepts useful in understanding the notions explicated later on. Subordination or dependency is introduced by way of a diagram, known as a tree, consisting of several connected points. A point or node that is connected to one closer to the top of the page is subordinate to it. This is called direct dependency. Indirect subordination is when two nodes are connected with one or more points in between them. These three nodes comprise a part tree.

Obviously there are several part trees which combine to make a tree. If the bottom-most node of our little part tree is not superordinate to any other point then the part tree is an end complex. Every node is an end complex with itself as its only member.

Once one decides to attach words to these nodes it changes from a connect the dots game to some sort of meaningful diagram. The first step in this change is to bring order to the diagram. Since language is the object of study here and the language the book was written in proceeds from left to right, the author has ordered his tree from left to right. This type of tree is known as a W tree, i.e. where each node is attached to a word. The book deals with M trees. These are trees in which the nodes are connected to signal combinations (Merkmalkombinationen). A marked tree is one in which all the connections are subordinate relations on one kind or another from a set containing all the kinds of subordinate relations possible.

In making his investigations, Kunze has limited his field of study to modern day written German. This suffices as for in any pure theoretical investigation it is acceptable to assume the observed language is a set of given sentences. The practicability of his theory depends on finding a standard of correctness. In this case tapping the knowledge of a native speaker is of no help. Four ways are suggested as possibilities for this standard of correctness. The first is grammatical correctness in which all sentences are acceptable as long as they function as members of their classes, i.e. nouns as nouns, verbs as verbs. Second is a more refined grammatical correctness taking the meaning of the verb into account. Third is the suggestion of a very strict grammar

bordering on grammar and semantics including semantic categories such as ABSTRACT or CONCRETE. The fourth consideration is a semantic grammatical correctness. Though this standard of correctness is needed to make the theory work, measuring correctness is not a major factor.

There is, says Kunze, a base language and base structures that can express semantic and syntactic ambiguities. It is important when studying these structures to consider which categories and qualities are contained in it. A category is a variable with set value ranges, for example, in German, case. Qualities are restrictions imposed for ordering, appearance or non appearance of sentence fragments. Plainly not all categories and qualities are in every sentence of a language. An expansion of the base language leads to a simplification of the descriptive system but also costs quite a bit as far as analysis is concerned.

On starting into the meat of the matter the author writes that in no way can one expect such a simple tool as dependency trees to encompass the linguistic relations within the sentence that are conditioned through language. This inadequacy is evidenced by the following situation. Every grammatical structure has an ordered dependency tree. It is however possible to have two different structures represented by the same tree. This is one of the principles for the representation of sentence structures using dependency trees. Reduction is another principle by which we get sentences like 'My friend will bring the book' from sentences like 'My friend will bring you the book tomorrow.' An additional principle removes those nodes which were dropped from the latter sentence to arrive at the former. This procedure is only permis-

sible when the middle steps are somewhat acceptable.

An interesting concept is introduced by the author. He calls it the configuration criterion. It says that one element is substitutable for another if it has all the same grammatical properties. This concept is used frequently in deciding what is dependent on what.

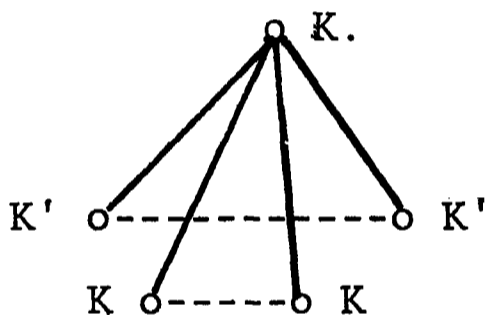
The fourth chapter deals with the non-syntactic components. Paradigmatic categories are established. The categories are Genus, commonly called gender, Person, and Number. Each of these three categories is established on the basis of data similar to the following example. I saw him. We saw him. These two sentences are syntactically equal but paradigmatically quite different. This illustrates the category of number, the first person singular changes to the first person plural. The author splits these categories again to account for the phenomenon of endings in German. It is possible to have a possessive pronoun with a masculine ending referring to a female person. Quasi categories are also established. These are tempus, modus, and case, and they are only quasi categories because they affect other parts of speech in a sentence. Kunze constructs a list which enumerates the category responsible for their relations, e.g. a noun is paradigmatically related to its apposite through case.

The separation of the paradigmatic from the selectional is due to the ease with which the former are presentable. Selectional relations are more narrowly defined in this case than in generative grammar. As with the paradigmatic relations there are nine selectional relations, five of which belong to the in-

ventory and the other four don't.

There are demands made on a system of subordinate relations. The first of these is that the marked tree should be an adequate representation of the syntactic structure of the sentence. Secondly, the subordination relations must allow all categories, qualities, and relations in the base structure to represent and differentiate the paradigmatic and selectional relations that can't be expressed through assigning.

Affectation ways (Wirkungswege) are dashed lines connecting two nodes dominated by a third node (see diagram). They represent



other relations that exist between nodes aside from subordination. That these affection ways of both the paradigmatic and selectional relations must be represented through subordination relations is another demand made on the system. The last demand made is that the conditions for the paradigmatic and selective points (Vorgaben) must also be represented.

The principle called the differentiation principle proves these last two are met. The system makes this determination by using a knowledge of dependency trees, a fixed inventory of paradigmatic and selectional relations, and a fixed language base in a way which yields the required relations.

The last concept developed by the author is that of bundles.

There are four types of bundles - a simple bundle, an elementary bundle, a complex bundle, and a complex implication bundle. A bundle is a tree used to represent not a sentence but a set of sentences, i.e. trees. In a complex bundle the paradigmatic and selective properties need only be given once.

Chapter 8 is a discussion of some questions that were brought out as a result of this theory.