Keel ja struktuur. Töid strukturaalse ja matemaatilise lingvistika alalt. (Tartu Riiklik Ülikool. Eesti keele kateeder). Language and Structure. Papers in Structural and Mathematical Linguistics. (Tartu State University. Chair of the Estonian Language), 3. Tartu 1970. 111 pp.; 4. Tartu 1970. 175 pp.; 5. Tartu 1971. 164 pp.

«Keel ja struktuur» (Language and Structure) is one of three aperiodic series of publications printing papers by investigators of Estonian and language theorists assembled about the Chair of the Estonian Language at Tartu University. The authors are united by their common interest in contemporary research methods and in the development of linguistic theory. This group of investigators has been called the group of structural linguistics at the Chair of the Estonian Language of Tartu University and, more recently, it has come to be known as the group of generative grammar, although the group is unofficial and not all the members of the group are convinced generativists nor have they all abandoned other modern methods. The group has held regular meetings since 1965 and is led by Assistant Professor Huno Rätsep.

«Keel ja struktuur» publishes papers and short essays giving an account of completed research or extracts of more extensive studies. Papers by undergraduates also appear in the series. Thus «Keel ja struktuur» provides a good survey of the continuous progress of the research conducted by the group. The group's other publications are (1) a series appearing within the Transactions of Tartu State University, «Keele modelleerimise probleeme» (Problems of the Modelling of Language, Nos. 1—4 since 1966, in Estonian and Russian, with English and Russian summaries) where more extensive studies are published; and (2) collections of abstracts of reports to the annual meetings of the group issued at the end of every year (in English and German, since 1969). The papers in «Keel ja struktuur» are written in Estonian (with summaries in English, German or Russian).

A notable part of the issues of «Keel ja struktuur» under discussion is devoted to the semantic theory of generative grammar.

Haldur Õim's paper «Eesmärk, taotlema, saavutama, tulemus. Semantiline ana-lüüs» (Eesmärk 'purpose', taotlema 'to aspire', saavutama 'to achieve', tulemus 'result'. Semantic analyses, No. 3. pp. 71—108) treats of the relationship between semantics and syntax in generative grammar, and particularly of the ways how the syntactic structure of the sentence is related to the semantic structure of the words when a sentence is generated. The paper proceeds essentially from Ch. Fillmore's Case Grammar and from the theoretical assumption that the generation of a sentence begins with its semantic representation.

H. Õim proves (at least within the scope of the analysed word group) that the internal semantic structure of words and the semantic structure of a sentence can both be expressed by the same formal means; that is why the integration of semantic representation and syntactic structure is technically easy and comprehensible. The replaceability of many word combinations by single word equivalents (e. g. abi and-ma → abistama, aitama 'to give help → to help, to aid') as well as causatives and their derivatives provide striking proof of the proposition.

H. Õim gives the semantic representations of the words under discussion in terms of elementary predicates and arguments, i. e. in the shape of formalized elementary sentences. E. g., the alteration of state expressed by the word saavutama 'to achieve' is described by the structure the agent, x, does something, z, in order to cause the alteration of state, y and he causes the alteration of state, y. Thus H. Õim treats semantic features as predicates requiring certain arguments; the requirements of the predicates to the arguments are presuppositions.

H. Õim comes to the conclusion that the deep semantic structures of the words eesmärk 'purpose' and taotlema 'to aspire' on the one hand and of the words tulemus 'result' and saavutama 'to achieve' on the other hand are substantially similar. All

these words have underlying semantic structures involving the elementary predicates *in order to* and *to cause*, which are bound with the agent argument *x* (for *tulemus* 'result', it may be the instrument argument *x*) and with the factitive argument *y* expressing the alteration of state (*x causes y* and *x in order that y*). The presupposition *x does z in order to cause y* is also involved in the underlying semantic structure of each of the words. In each group of the words, however, these semantic properties have a different distribution: for *saavutama* and *tulemus*, the assertion of the predicate in the underlying semantic structure of the word is only *x causes y* (*y* being the alteration of state), while the presupposition for *x* is *x does z in order to cause y*. On the other hand, the assertion of the predicate in the underlying semantic structure of the words *eesmärk* and *taotlema* is *x does something (z) in order to cause y*, whereas the presupposition for *x* is *x does z*. Hence the underlying semantic structure of the words *eesmärk* and *taotlema* appears in the underlying structure of the words *saavutama* and *tulemus* as a presupposition.

Although only a small fraction of the words expressing alteration of state have been studied, the analysis allows far-reaching conclusions. It is felt that the underlying semantic structure of the words used in similar situations (H. Õim has analyzed words related to the situation of purposeful activity) can be described by the same elementary predicates. Another very appreciable result is the formal system of analysis in itself which, as used by H. Õim, provides a clearly structured content for the concept of semantic features presented through elementary predicates.

Be it noted that recently the German translation of this work became available, prepared by Arbeitsstelle Strukturelle Grammatik, Deutsche Akademie der Wissenschaften zu Berlin.

In his more recent papers H. Õim has significantly modified and developed his system.

In this work an exacting Estonian reader may perhaps be annoyed, here and there, by the somewhat crude wording.

Another paper of great interest for generative semantics in the collections under review is Mati E r e l t's extensive study

«Adjektiivide gradatsioon ja komparatsioon eesti keeles» (Grading and Comparison of Adjectives in Estonian, No. 4, pp. 3—81; No. 5, pp. 3—34).

Among other things, this paper includes the best survey written in Estonian of the developments of the syntactic and semantic theory of generative grammar from N. Chomsky's "Aspects" up to 1969 (No. 4, pp. 3—44). Of greater interest, however, is the investigation of comparison where current views are also revised.

M. Erelt proceeds from Ch. Fillmore's Case Grammar, considering the Ablative and the Objective to be the cases of the comparative predicate in the underlying semantic structure. Semantic representation is considered to be the opening stage of sentence generation. Following J. Katz, M. Erelt classifies adjectives into relative (such as *pikk* 'tall', *lühike* 'short', *suur* 'big') and absolute (such as *haige* 'ill', *terve* 'well'). M. Erelt approaches the semantics of gradation in terms of generative semantics. Following former investigators, Erelt states that with relative adjectives the comparative form is semantically more elementary than the corresponding positive form, whereas with absolute adjectives the situation is *vice versa*.

The second part of the paper deals, among other things, with the semantics of sentences like *Mees on palju pikem kui naine* 'The man is much taller than the woman'. The author analyzes it as a double comparison: the man's height exceeds the woman's by more than the average; thus (1) the man is taller than the woman and (2) the difference between the man's and the woman's height is bigger than usual.

A debatable point is connected with cases of functional comparison. It is doubtful whether functional comparison in Estonian is on the whole as symmetrical a phenomenon as M. Erelt holds. The expression *natuke palju pikem* 'a little too much taller' is quite normal in every respect, and indeed it means that the difference in height is more than normal; but it is not necessarily a matter of functional comparison in cases of expressions like *natuke vähe pikem* or *veidi vähe pikem* 'a little too little taller, a too little bit taller'.

It is also questionable whether the sentence *Mees on isegi pikem kui naine* 'The man is even taller than the woman' is really normal as the author supposes (it is just usual that men are taller than women).

The author would have done better to point out more frequently that he is concerned with individual persons in the sentences he analyzes and not with people, or the sexes, in general.

A unique addition to the discussion of the problems of semantics is Jaan K a p - l i n s k i's paper «Semantiline representatsioon grammatikas» (On Semantic Representation in Generative Grammar, No. 4, pp. 81—112). J. Kaplinski comes out against a too abstract manner of treating deep semantic structure which rests too much on formal logic. It seems that J. Kaplinski has developed his views, to some extent, under the influence of the American school of general semantics. He makes active use of notions like the background of communication, the knowledge of the speaker and the listener, content variability of the same words with different individuals, etc.

Kaplinski suggests that grammar should be led back onto a more traditional route by keeping semantics and grammar apart. Sentences are generated by grammar, but the semantic interpretation of sentences takes place in an individual's internalized thesaurus associating words with one another and having a slightly different history in every individual in so far as what all people have in common is merely the structure of the subjective experience rather than the experience or knowledge itself. Anyway, for all essential words the common part of thesauri is big enough to allow communication.

J. Kaplinski argues against J. R. Ross' performative verbs and E. Bach's view that most (or all) morphemes are represented on the semantic level by a sentence. J. Kaplinski objects to the reduction of natural language to logic. More consideration should be given to the shared knowledge (varying and changing to a greater or lesser degree) of people participating in the process of communication.

The meaning of every word in a thesaurus is determined by the amount of our knowledge of a given object. The thesaurus is multi-layered, and hence the word is polysemantic (Kaplinski offers an example from botanical classification to illustrate the many strata of meaning in the word *taim* 'plant'). Therefore the analysis of what has been thought of, and (N. B.) also what has been said, may be deeper or shallower.

The same collection (No. 4, pp. 113—120) carries another witty article by J. Kaplinski, «Mõnest omapärasest nähtusest eesti keeles» (On Some Peculiar Phenomena in Estonian). Kaplinski points out that the verb functioning as an element defining the structure of the sentence often is an empty word semantically, since the meaning of the sentence entirely originates from the meaning of nouns (e. g. from that of the subject and the adverbial modifier: *Päike paistab heledasti* 'The sun shines brightly'; *Tuli põleb laes* 'The light is burning in (= hanging from) the ceiling').

Among other interesting things Kaplinski gives additional examples illustrating from a different angle the phenomenon that a word combination and a single word may be semantically equivalent: *Raadio mängib valjusti — Raadio hüürgab* 'The radio is playing loud — The radio is hooting'; *Päike paistab heledasti — Päike lõõmab* 'The sun is shining brightly — The sun is blazing', etc. From this Kaplinski concludes that in a single-word expression (*hüürgab*, *lõõmab*) the adverbial modifier of manner is virtually incorporated in the verb. Conclusions must be drawn from this for syntactic analysis as well. It is only verbs of a particular kind that incorporate adverbs; they have a descriptive or onomatopoetic flavour, and are stylistically very intense, far from neutrality.

In one of the collections reviewed J. Kaplinski has published another short paper «Naiivseid küsimusi eesti keele fonoloogiast» (Some Naïve Questions about Estonian Phonology, No. 5. pp. 35—40), where the thought is expressed that like the child's learning to speak, its learning to write many also shed light on the problems of phonology.

Tiit-Rein V i i t s o has consistently shown zeal for glossematics. Now «Keel ja struktuur» (No. 5, pp. 71—163) publishes his extensive article «Kombinatoorne meetod keelekirjelduses» (A Combinatory Method of Language Description), where an attempt

is made to present a complete system of the procedures of glossematic language description.

What attracts attention here is that glossematics is no longer proposed as an aim in itself, to be used as the only competent and universal method; its tasks are envisaged as entirely modest ones: the unambiguous language description obtained by Viitso's procedures is to yield reliable initial data for the generativist analysis to start from. Thus the latter appears to be regarded as a higher-rank language theory with respect to glossematics. Yet Viitso's criticism of generative phonology strikes one as utterly unjustified. Generative phonology, he says, cannot dismiss, formally, even the standpoint that phonemes differ from one another only by the number of repetitions of one and the same distinctive feature. In actual fact, generative phonology is so deeply involved with concrete phonetic features that a statement of this sort can be nothing but a misunderstanding.

Viitso's version of glossematics is founded on concepts of the set theory and is expected to yield a reliable description of language. However, (not unlike descriptivist analysis) glossematic analysis must also start from phonetic transcription; because of this, the question of the reliability of a description and of initial data can never be considered as answered once and for all — no more so by Viitso.

The first part of the paper, «Glossemaatika põhijooned» (The Main Features of Glossematics), is devoted to the definition of terms in line with set theory. The consistent cultivation of the set theory for the development of glossematic theory must be considered Viitso's contribution to theoretical linguistics. The system of the concepts defined is meant for the thorough description of a linguistic system. Consequently much depends on what is understood by a linguistic system. As far as this goes, there are some assumptions that are highly contestable, for instance the one to the effect that language is a non-quantitative system.

Unfortunately the system of concepts, too, appears to be hard to follow, since the illustrative linguistic material is very scanty. Obscurity begins already with the expansion of formulae (cf. pp. 94 and 97).

Such a row of ever-branching and intersecting definitions tends to be an illustration of the depth hypothesis.

There are a number of cases with essentially plain examples where one may feel astonished at how complicated (though correct) their presentation can be made in the defined system of concepts (e. g., example 16, p. 99).

The second part of the paper, «Keele analüüsi alused» (Fundamentals of the Analysis of Language), is supposed to expound the general bases of the glossematic analysis of language. Except for some peculiarities of Estonian terms which have arisen from the quest for symmetry, the presentation of the beginning, viz. the sign theory, is well worded. Most of the definitions are felicitous, although there are a few obscure ones.

The principles of language analysis (2.6) are unusual. One may accept the principle of localization (it allows automatic sounds to be treated as non-phonemic); but the principle of differentiation which excludes from language description, within the boundaries of one morpheme, geminates and every kind of V_1V_1-sequences entails very unwonted peculiarities of transcription, which are not the less so for having already occurred in Viitso's previous writings.

The part entitled «Lingvistilise keele ahelate õigsus» (Correctness of Chains in Linguistic Language) contains tables where Viitso gives a grandiose classification of defective sentences. Sentences are either correct, wrong or indefinite. One point where such a classification attracts attention is that foreign sentences, from the point of view of some other language, are considered wrong and not indefinite.

Modifications of sentences are classified very thoroughly (2.9). Viitso calls them sentence mappings. This may be compared with the classification of transformations. Yet how the underlying sentences of the mappings have been obtained is a question which Viitso has overlooked in his theory of language description, and so the theory is clearly structuralistic in this part too.

Although Viitso's methods of language description are far from traditional, it must be emphasized that some of the definitions and concepts of Viitso's glossematics can be used as successfully in traditional

grammar or some other type of grammar. At any rate, there are several phenomena that have been treated so well here that they may not be ignored in the future, even if Viitso's glossematics as a whole does not gain wider appreciation. Among those concepts are, for example, specification, generalization, combination, obligatory inversion, and the definition of appositional clauses in sentence theory; the definitions and explanations of complex word and quasi-word (including ranking the suffix -*kond* with quasi-words) in word theory; etc. In phonological and morphophonological theory, the *taseme* also happens to have a very expedient content.

Of course much labour is needed to reveal precisely the content of those definitions and to transpose it into a more ordinary system of language description. Viitso sees too little to it that his writings would read more easily. The illustrative material is insufficient for a system as involved as his (though some examples carry dead weight, e. g. example 23 on p. 115); some concepts are used before they are defined (e. g. *tühend* 'ceneme' in example 24, p. 116); inconsistency reveals itself in the presentation of international equivalents of the author's terms; several definitions (such as that of conjunction in 2.10. (3)) remain incomprehensible, however hard one tries. And the author would have done better to indicate sometimes, what one or another of the terms specified by an intricate definition means in ordinary linguistic usage.

It looks as if Viitso's method of analysis is not devoid of contradictions from the point of view of the system itself either. Thus the simplification and the cancellation of a sentence may, according to definition 2.10 (1b), result in an empty sentence, whereas according to another definition (v. 2.9.1) the sentence resulting from cancellation is an elliptical one; the latter could not possibly be empty, or a zero-sentence (Viitso's own attitude toward zero-formulations is negative, cf. footnote 8, p. 145).

The introduction and the brief summary of the paper permit one to conclude that a complete method has been aimed at. This has not been achieved, however. It is also doubtful whether the other aim, that of presenting an unambiguous method of

analysis, is achievable, as far as Viitso's language theory tolerates — and exemplifies — quite a number of uncertainties. This is a state of affairs that recalls the multi-solution problems of descriptive linguistics.

Viitso's method is classificatory to the full measure: it is concerned with how this or that linguistic phenomenon should be named and what relationships there are between this name and other names; thus it is a method of analytical classification.

The paper is provided with an index comprising the most substantial Estonian terms along with their English equivalents. The author's erudition in glossematics is extraordinary.

The third issue of «Keel ja struktuur» (pp. 44—70) contains Tiit-Rein Viitso's paper «Võõrtähestike translitereerimisest» (On Transliterating Foreign Alphabets), which treats methodically of the transliteration into Estonian of proper names from languages using the Russian, Greek, Hebraic, Armenian, and Georgian alphabets (a total of 35 literary languages). Viitso's primary requirement is the possibility of bilateral exact back-transliteration. However, it is impossible to ignore long-time national and international traditions; a case would be transliterating the Russian *щ* as *š'* (moreover, the latter is no longer a letter in the usual sense).

In this connection it must be noted that «Keel ja struktuur» grants freedom to transliterate proper names (including Russian names) in a way different from the official usage. This may establish a new tradition, making the reader accustomed with transliterations that are novel but more consistent.

There is one more short article by Viitso in these collections: «Märkusi neenetsi keele fonoloogia kohta» (Notes on Nenets Phonology, No. 4, pp. 163—172). Here an attempt is made to draw typological and even historical conclusions, proceeding from distributional analysis.

Several interesting papers in «Keel ja struktuur» are concerned with the study of specific problems of Estonian.

Ellen U u s p õ l d's paper «Absoluutkonstruktsioon eesti keeles» (The Structure of the Absolute Nominative Construction in Estonian, No. 3, pp. 22—43) is a synchronic treatment of the subject, resulting in a

conclusion that absolute nominative constructions are to be handled in a synchronic grammar as elliptical clauses with the predicate (*olema* 'to be') eliminated through a transformation. A classification of absolute constructions is given, based on morphological features. The basis of classification is somewhat unstable as it does not always suffice to number off the words of the construction and to determine their morphological forms. For instance, the two absolute constructions *relvaks malakas* (Translative + Nominative) and *malakas relvaks* (Nom. + Transl.) 'a cudgel as a weapon' are equivalent.

The paper as a whole is a valuable contribution to the study of absolute constructions. As far as questions of correct usage are concerned in this connection, their discussion is scant but efficient. The usual rules of grammar would interdict sentences like *Pea veidi vasakule pööratud, eksles tema pilk ringi* 'With (his) head turned a little to the left, his glance was wandering about', for this is said to mean that the head of the glance was turned left. E. Uuspõld has managed to prove that this view is an unjustified distortion.

Reet K a s i k's paper «Lähtelause subjekt ja objekt deverbaalsubstantiivilistes nominalisatsioonides» (The Subject and the Object of the Underlying Sentence in Deverbal-Substantival Nominalizations, No. 4, pp. 121—135) pursues the topic of her previous writings. She examines how the subject and the object of the underlying sentence are expressed in constructions incorporating deverbal substantives. It is a very succinct article, provoking only one or two questions. First, why is it stated that the genitive attribute is not used to express the logical subject of the sentence in *tu*-constructions (p. 123; cf. *Autori tehtut ei sobi ümber teha* 'It is not seemly to change what has been done by the author')? Second, why is it claimed that constructions containing verbal nouns such as *Peremehe arvamine, et sellest ei tule midagi välja* 'The master's thinking (= opinion) that nothing will come out of it' (p. 128) are unacceptable? In colloquial language such constructions are comparatively wide-spread. And third: is it always so necessary to avoid the ambiguity arising

with nominalization? Most probably not. As a minor remark, may it be added that *naatriumi ja kloori ühend* 'a compound of sodium and chlorine' need not be a construction where the attributes are logical objects (genitivus objectivus — p. 129; cf. *Naatrium ja kloor ühinevad* 'Sodium and chlorine combine').

Of extraordinary interest is Huno R ä t s e p's paper «Kas kaudne kõneviis on kõneviis? Verbivormide situatsioonianalüüsi» (Is the Obviative Mood a Mood? A Situative Analysis of Verb Forms, No. 5, pp. 43—69). There exists a propensity to believe that the morphology of Estonian has been well investigated throughout. H. Rätsep proves that even cardinal reassessment is possible, and necessary, within the system of traditional categories.

First of all, Rätsep makes a thorough analysis of the paradigms of the imperative mood from the point of view of their usage. He arrives at a completely unexpected conclusion: there appears to be a hitherto unobserved grammatical category in Estonian, possessing two categorial forms. The new category is named by H. Rätsep the category of the manner of communication, and its forms are called the directal and the indirectal (the direct and the indirect manner of communication, respectively). The opposition of the two manners of communication manifests itself in certain paradigms of the imperative: *Sina tee!* — *Sina tehku!* 'You (sg.) do! — You are (told, expected) to do!; You are told to have to do!' *Teie tehke! — Teie tehku!* (As above, pl.); etc.

Having analyzed all the moods from the point of view of the communication situation they occur in, H. Rätsep concludes that both forms of the category of the manner of communication are found in the indicative mood as well, and so the mood regarded so far as the obviative mood is actually the indicative of the indirectal. Thus both the imperative and the indicative are possessed of the two categorial forms within the category of the manner of communication.

In pursuit of symmetry, H. Rätsep attempts to find the two forms of the new category for the conditional mood as well. In so doing he seeks for something that does not exist. Rätsep makes a tentative suggestion to differentiate between the

forms of the conditional mood by the presence or absence of personal verbal endings (*ma tuleksin* and *ma tuleks* 'I should come',) and to endow these forms with the meaning of the two separate forms of the category of the manner of communication, i. e. of the directal and the indirectal. One cannot but share H. Rätsep's own hesitations with regard to this suggestion of his and one must put up with the fact that the complicated system of verbal forms is not quite symmetrical in Estonian. The omission of personal endings in the conditional mood is very common and it tends ever more to prevail (especially when a personal pronoun is used: *ma tuleks*, but *tuleksin*).

There is one more detail in H. Rätsep's analysis which could be contradicted. Namely it is probable that there is a gap in the forms of the direct imperative where the 3rd p. sg. should be: the interpretation of the indirect form *tema mingu (koju)* 'let him go (home)' as a member of two separate paradigms, that of the directal and that of the indirectal, may quite easily turn out to be an artificial stopgap.

The interpretation of the imperative forms of the impersonal voice also needs to be reconsidered from the point of view of the new category.

The collections contain papers in pure mathematical linguistics. Mare K o i t acquaints the Estonian reader with O. S. Kulagina's model of language based on the set theory (No. 3, pp. 3—21), making several alterations in the model for it to be used for the description of certain phenomena of Estonian.

The fourth issue contains a couple of undergraduate papers in language statistics. Helle N i i n e m ä g i has written an article called «Statistilise stiilianalüüsi probleeme» (Problems of the Statistical Analysis of Style, pp. 136—144), where she makes use of methods of word statistics to analyse differences in the style of three Estonian prose writers. Jüri V a l g e's paper «Eesti keele käänete sagedused kolmes funktsionaalses stiilis» (Frequences of the Estonian Cases in Three Functional Styles, pp. 145—162) deals with the differences between prose fiction, the language of dialogues (in plays), and various varieties of newspaper language — from the position of the statistics of morphological forms. The results are interesting.

«Keel ja struktuur» frequently appears as the first public platform for new Estonian linguistic terms created by its authors (individually or collectively). Most of that terminological production finds its way into general usage, although there are a few *ad hoc* derivations for which there is no particular need.

«Keel ja struktuur» has already developed into an outstanding and up-to-date forum of Estonian theoretical linguistics. As it is born only of the enthusiasm of its makers, it can be forgiven the few (quite rare) shortcomings of a technical kind. But the publication as such merits the most serious attention.

MATI HINT (Tallinn)

Nyelvtudományi Dolgozatok 1—6. Eötvös Loránd Tudomány-egyetem, Budapest 1970—1971.

Die Lehrstühle für ungarische Sprachwissenschaft und Finnougristik an der Universität Budapest geben eine neue Serie mit dem Titel «Nyelvtudományi Dolgozatok» (Sprachwissenschaftliche Aufsätze) heraus. Der erste Band dieser Serie wurde im Jahre 1970 veröffentlicht. Bis jetzt folgten fünf weitere Bände. In dieser Serie, deren Einzelbände im Xeroxverfahren vervielfältigt werden, erscheinen vor allem jene Dissertationen, die zur Erlangung des Doktorgrades der Philosophischen Fakul-

tät der Universität Budapest an den erwähnten Lehrstühlen erstellt werden. Außer den Dissertationen haben auch die besten Diplomarbeiten sowie kleinere Studien der Mitarbeiter der erwähnten Lehrstühle die Chance, in die Serie aufgenommen zu werden. Mit Freude kann und soll man dieses Unternehmen begrüßen. Es werden nämlich auch solche Arbeiten veröffentlicht und damit für Fachleute zugänglich gemacht, die sonst wegen der beschränkten Publikationsmöglichkeiten viel-