

GENERAL TYPOLOGY, THE CHARACTERIZATION AND COMPARISON OF LANGUAGES

László Dezső

University of Padua

Abstract: The central topic of the paper is the role of complex types in typology, in typological characterization. Section 1 is introduced by brief remarks on typological characterization, which probably are acceptable to most typologically oriented linguists, and my formulation is just one of the possible interpretations (1.1.). They constitute the basis for the further discussion. First, some concepts of typological characterization will be analyzed (1.2.). Then, I shall examine the concept of typological construct, present Skalička's extended morphological construct and Lehmann's extended ordering typology (1.3.). In section 2, my discussion shifts direction. I shall make a concrete typological comparison of English and Hungarian in the framework of Lehmann's typology with references to morphological types (2.1.). This form oriented comparison will be complemented by a brief discussion of functional sentence perspective based on some data of Hungarian and Russian (2.2.).

Keywords : typological characterization, word order, English, Hungarian.

1. GENERAL TYPOLOGY, TYPOLOGICAL CHARACTERIZATION AND COMPARISON

1.1 Introductory remarks

In the philosophy and history of science there are two approaches: paradigms (Kuhn, 1970) and research programs (Lakatos, 1978) which can account for a 'synchronic' state and the

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history of linguistics. Paradigms focus on the methods and goals of a community of scholars, like Neogrammarians. A research program is oriented to theoretical principles and long-range objectives which a science will follow, regardless of whether they are accepted immediately by the majority of researchers. Humboldt's theory of language, his typology directed at types and general grammar, his typological characterization and comparison are an example (cf. Dezső, forthcoming). In reality, paradigms and research programs appear in various forms and combinations; e.g. in typology the Humboldtian foundations developed by following generations could underly converging approaches. Due to the efforts of its founders, present-day typology has become an established science with research centers applying various methods in approaching their objectives (cf. Shibatani and Bynon, 1995) and with social organizations. However, one should not be satisfied with this success. General typology is not a branch of science in itself only, it must have an impact on descriptive and historical linguistics and on a great part of the linguistic community.

The most spectacular and widely known result of typology has been achieved in Indo-European reconstruction (Gamkrelidze and Ivanov, 1995 (1984); Lehmann, 1993), to which I add the description and reconstruction of scarcely known languages (especially those of Australia and Amazonia) in which typology has had a fundamental role. These researchers were familiar with the results of typology achieved by various approaches and applied them despite the differences in metalanguage and theoretical background in the presentation of sub-system typologies (morphology, sentence structure, word order). However, to be realistic, the achievement of these scholars is only the beginning of 'typologization' of 'concrete' linguistics. The process will require both time, for the study of languages with long traditions, and hundreds of researchers. General typology (GT) is, and will be, connected with descriptive and historical linguistics by typological characterization and comparison (TCC). The researchers of TCC must know both GT and concrete linguistics.

It was Humboldt who established GT, TCC and connected them with concrete, and especially, comparative linguistics. His research program was followed by the founders of 20th century linguistics: Gabelentz, Baudouin de Courtenay, Sapir and Jakobson who had a considerable impact on the initiators of typology of the last decades. The approaches to GT describe sub-systems of a representative set of languages before establishing typologies (e.g. word order, causatives), therefore GT and TCC are connected at the outset. What is lacking is the combination of various types within concrete languages. Coseriu's approach to language focuses on 'the type of a language' which is the most general level of laws and rules shaping the structure of a language or group of languages in synchrony and diachrony (cf. Coseriu, 1980 (1988)). He concentrates on the individual which, however, can be complemented by the general, by general typology, as I have shown (Dezső, 1988), and arrive at TCC which reveals the missing, possible typologies and revises the existing ones (e.g. OVS in ordering, active type in structuring).

The positive impact of typology on concrete linguistics has already been demonstrated. Typology can define the place of a concrete language in the universe of human language in synchrony and diachrony. In this way, descriptive and historical linguistics will have universal dimensions. Its laws and rules will be based on universal generalizations which is one of the necessary conditions for being theoretical. The rationale of TCC is to combine diachrony and synchrony in such a framework. Typology and typologically based concrete linguistics studies variety based on universality. There is a different, influential trend in linguistics focusing on

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universal grammar and considering concrete languages as its manifestations. At present, the two approaches appear only as opposites, in the future they may complement each other.

Typology extends to both synchrony and diachrony, reaching beyond the sentence to discourse and is connected with cognition and communication. It can, and must, be exact without being formalized. Typology has been a cõmponent of language theory. The most prominent general linguists from Humboldt to G. Gabelentz, Baudouin de Courtenay, Sapir, Jakobson and Hjelmslev attributed great importance to typology and contributed to its evolution because an account of the variety of human language is a fundamental part of language theory.

The philosophy of science over the last three decades has formulated the requirements of a theory also regarding typology (cf. Hempel, 1965). Hempel's 'received view' of the 60s and 70s was complemented by other approaches like those of Popper, Lakatos and others. They did not limit theory to formal theory. There has been an opposite tendency to extend the philosophy of science from natural to social sciences like psychology or sociology. Thus, the reduction of language theory to a formalized linguistic theory is opposite to the general tendency of the evolution of the philosophy of science (cf. Boyd *et al.*, 1991). This is an argument in favour of language theory and is not directed against formalized theories. The fact that formal theories have no diachronic component is a heuristic argument against them. Only typology can combine synchrony and diachrony which is essential for concrete linguistics and language theory.

1.2 Concepts and notions of typological characterization and comparison

Human language, more precisely the universe of human languages (UHL), is composed of all concrete human languages (CHLs) ever known; they are the subject matter to general typology (GT) and typological characterization and comparison (TCC). Human language is the central topic of GT and the concrete languages are at the centre of typological characterization, which is directly connected with descriptive and historical grammars. Neither the UHL, nor CHLs are known completely. Both branches of typology (GT, TCC) are in constant progress, therefore, existing and possible typologies should be differentiated in TCC which 'anticipates' possible typologies (like location) and indicates the possible correlations of typologies (e.g. in morphology and syntax) which have not yet been established in GT. The combination of synchrony and diachrony is the objective of typology. The concept of panchrony was discussed by Hjelmslev and Jakobson and was reformulated as the state-process model for general typology by Greenberg (1955). The correlation of synchrony and diachrony is fundamental also for TCC, because its final objective is to characterize different synchronic states, their connections in the form of principles underlying states and processes. These are current terms used in typology. I add 'possible human language' (PHL) which establishes constraints on CHLs from the point of view of GT. The characterization of CHLs conforms with the constraints of PHL, but it is not exhausted by its rules. I consider these terms and statements acceptable and I will concentrate on the intuitive concepts of pre-structural typology and their possible interpretation in the framework of present-day linguistics. I consider the intuitive concepts of great linguists very important and they can not be discarded, they should be interpreted from our point of view with careful attention to their use in the context of the past.

Character was one of the central concepts of Humboldt's theory of language (1836: 153): "If we separate the *character of languages* from their outer *form*, under which alone a particular

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language is conceivable, and contrast the two together, then character consists in the way the *thought* is combined with the *sounds*." The examination of character leads to the study of poetry and prose and unites language with literature; the character of a nation is manifested in both. Language extends from every-day speech to poetry, revealing more and more its capacity to express a nation's character. Such a seemingly abstract statement becomes concrete in the study of the language of poetry. The concept of character is also applied in Humboldt's typology - languages of the same complex type are different if their characters are considered: "Sanscrit, Greek and Latin have a system of word-construction and word-ordering that is closely related and on very many points the same. But everyone feels the difference of their individual character, which is not just a national characteristic becoming visible in the language, but deeply rooted in languages themselves, determines the specific make-up of each" (ib. 149). Thus character is more specific than type, it dominates the whole of grammar, underlying the typological characteristics of a language.

The basic concept of TCC reflects the history of typology within general linguistics. In the last decades of the 19th century an extended version of morphological typology was at the centre of post-Humboldtian typology. Humboldt's proposal for general empirical grammar was not acceptable to Steinthal and his followers. In Georg Gabelentz's general linguistics morphological types were only procedures of morphology. He proposed the elaboration of Humboldt's general grammar of structuring and ordering as a long-range research programme. It included the characterization and comparison of languages in his synchronic-diachronic framework. He labeled it typology (Gabelentz, 1901: 481).

In the first three decades of the 20th century, typology was in crisis: "All attempts at systemic linguistic typology are, at the present stage of our knowledge, premature and lead therefore to unnecessary complications of problems only" wrote Mathesius (1928: 59). He proposed linguistic characterology instead of typology, the former "deals only with the important and fundamental features of a given language at a given point of time, analyses them on the basis of general linguistics, and tries to ascertain relations between them" (ib. 59). The basis of comparison was constituted by functional linguistics based on the study of communication. The concept of character was fundamental for Mathesius because he considered typology insufficient and used Humboldt's concept in his framework. According to Jakobson, Mathesius was deeply impressed by Humboldt's theory of language and returned to the Humboldtian foundation of linguistic comparison.

The chapter on typology in Sapir's *Language* (1921) had a central role in the book which was prepared by the preceding chapters. However in linguistics, the revival of typology ensued only in the 30s: in Skalička's extended morphological typology, reformulating traditional types, and in Hjelmslev's and Jakobson's studies on case system as a component of general grammar.

Typological characterization of a language or group of languages is the fundamental component of Coseriu's approach to language. He differentiates three levels of generalization: norm, system and type which is related to Humboldt's characteristic form and to Gabelentz's type of a language. Type reveals and describes the principles and categories of linguistic structure: "der Sprachtypus ... ist die Ebene der Typen und Kategorien von Funktionen und Verfahren, der einheitlichen Prinzipien der inhaltlichen und materiellen Strukturierung einer Sprache" (Coseriu, 1983 (1988): 201). The various typologies formulated in general typology, as Skalička's types, deal with procedures in system and, from the level of system, they can enter the level of type of a given language constituted by principles characterizing a language.

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Despite the differences in approaches reflecting the state of general linguistics in the period, the objectives of characterization remained similar from Humboldt to Coseriu. It must account for the fundamental principles of language structure. In some way or other, general typology participates in characterization as much as it can contribute to it. However, the character or type of a language can not be reduced to a list of typological characteristics because the possible combinations of various typologies can not be established in general typology. They are specific for each language and so far only some implications of types have been proposed. Character or type of a language must also account for facts not yet generalized in typology (e.g. location). Characterization is dominated by principles explaining structuring and ordering. The impact of general typologies depends on their explanatory power: typological constructs of complex types accounting for a great part of language system contribute much more to characterization than isolated generalizations. Both general typology and typological characterization must account for both synchrony and diachrony according to the requirement formulated by G. Gabelentz.

Concrete languages and the universe of human language manifest their 'profound unity' with Saussures's term. If we intend to capture it, we should discover the 'great underlying ground-plans' proposed for a long-range research programme by Sapir and re-examined by Lehmann (1978a: 54). The Sapirian concept reformulates Gabelentz's requirement of general grammar. In my view, Sapir's concept of 'great underlying ground-plans' of general typology can be related to the concept of 'character or type of a language', but this problem is beyond the scope of this paper.

1.3 Typological constructs and typological characterization and comparison

General typology is composed of typologies of different degrees of complexity with a 'natural' tendency towards complex types which can explain a great part of language structure. The final objective is a holistic typology covering the whole structure of language. It is a theoretical goal which can hardly ever be reached. The importance of a complex typology for typological characterization is evident: it can explain a considerable part of the phenomena of a concrete language in a systemic way. Typological oriented linguists tried to capture and explain co-occurrences of various typologies formulating implications connecting complex types. To my understanding a typological construct, a notion introduced by Skalička, is based on principles explaining characteristics of a complex type, it contributes to the discovery of great underlying ground-plans of human language. Typological constructs can be considered as 'ideal constructs' representing the highest level in any typology. They have the character of 'interpreted theoretical systems' if they satisfy the requirements of a theory: "by (a) specifying a list of characteristics with which the theory is to deal, (b) formulating a set of hypotheses in terms of those characteristics, (c) giving those characteristics an empirical interpretation, which assigns to the theory a specific domain of application and (d), as a long-range objective, incorporating the theoretical system, as a special case, into a more comprehensive theory". (Hempel, 1965: 171).

A long-range objective is directed at the discovery of great underlying ground-plans which can be specified as a 'research program' for typology, applying to linguistics the central notion of Lakatos' approach to the philosophy of science. Typological constructs often contain implications which go beyond construct; e.g. Skalička's construct of morphological typology has implications for word order and subordinate constructions. Lehmann's ordering typology is related to a number of phenomena of sentence structuring. The validity of implications does not have a considerable impact on the 'hard core' of a construct: they can be falsified without

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falsification of the construct. Such implications reflect the intention of linguists to extend a construct, connecting it with their constructs. This is a legitimate tendency towards a more comprehensive theory. Popper formulated the notion of 'conjecture' in the philosophy of science which reflects this natural aspiration of scholars. Lakatos specified Popper's approach, establishing the role of verification and falsification in research programs (cf. Lakatos, 1978).

I shall briefly present Skalička's construct of morphological typology (for details see Sgall, 1995). Lehmann's extended version of ordering typology will be at the centre of my discussion. Some aspects of Lehmann's structuring typology will also be examined. I have chosen Lehmann's ordering typology as the central issue of this paper because it represents typologically oriented characterizations and comparisons of a considerable part of the syntax of typologically different languages; (b) the comparison of English and Hungarian can be complemented by a long-range history of these languages (for Proto-Indo-European see Lehmann, 1974, 1993; for a comparison of PIE with Proto-Uralic see Dezső, forthcoming); (c) this typology constitutes a part of the research into the great unerlying ground-plans of human language.

In Skalička's construct of morphological typology, the characteristics of types are based on a set of principles of morphological procedures. They determine 1) the differentiation of word classes, 2) the expression of grammatical elements, 3) word formation, 4) syllable structure, 5) freedom of word order, 6) the presence or absence of dependent clauses (cf. Sgall, 1995: 54-7). The last two characteristics represent implications which go beyond morphological typology. The three major typological procedures: agglutination (AGGL), inflection (INFL) and isolation (ISOL) shape these characteristics diversely.

(1) Word classes are absent in AGGL, there is no space for them in ISOL, but they are distinguished in INFL. (2) Grammatical elements are in abundance in AGGL in the form of affixes, each with a certain function; in INFL every lexeme has one ending which usually expresses more than one meaning; in ISOL there are no affixes, no endings, monosyllabic words are used in grammatical functions. (3) Word formation uses affixes in AGGL; its typical means are endings in the INFL construct, but also affixes are used in concrete languages. These means are lacking in the ISOL construct, the role of derivation is diminished and isolated words, not related by derivation, like Engl. *calf* and *veal* are the typical means. (4) The syllabic structure of the elements of grammatical relations and word formation can be related to their ways of expression: in AGGL they constitute a syllable, in INFL they often are represented by a non-syllabic consonant; in INFL these elements are independent words. (5) As for the freedom of word order: it is free in INFL because the endings specify the functions of the constituents in sentences and noun phrases; in ISOL the word order is fixed. (6) Dependent clauses are favoured in INFL and ISOL and are absent in AGGL.

In Skalička's construct each type is consistently differentiated by its formal principles, they result in different characteristics which are explained by typological principles. The domain of application is morphology, certain implications connect it with syntactic structuring and ordering. The morphology of concrete languages is shaped by one or two dominant principles, but also other types may be present. The degree of the participation of principles must be established in system or in text frequency.

There are languages which are close to type construct, but the consistency of a construct can hardly be achieved. According to the reconstruction of Proto-Uralic, word classes were differentiated by their specific categories: verbs by tense and mood, nouns by cases (cf. Décsy,

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1990). All consonants were used as suffixes for both derivation and grammatical functions. The concrete functions of suffixes depended on the root, they could specify a root as a noun or verb by adding typical meanings of a verb (causative, frequentative) or those of a noun (agent, diminutive). The suffixes are reconstructed as syllables by Décsy (1990, 60-5). There were no dependent clauses, only non-finite forms of the verb were used. The evolution from Proto-Uralic to Modern Hungarian shows the participation of the inflectional principle in verb morphology. The evolution from SOV ordering type towards SVO, without reaching it, 'opened' the closed sentence structure: S...V and the noun phrase: Dem...N; dependent clauses could substitute non-finite construction and specify noun phrases. In this way, Modern Hungarian is characterized by the dominance of agglutination with considerable impact of inflection. The same is valid for ordering, but the use of SOV or SVO order depends on actualization (on the aspectuality of the verb and on determination): unmarked sentences are used in SOV order, marked sentences (with perfective verb and specified object with articles) are in SVO order.

Late Indo-European was relatively close to the inflectional construct in morphology but had some implications, characteristic for agglutination (non-finite constructions) and free word order.

Lehmann's extended ordering typology will be examined in the next section, comparing the characteristics of English and Hungarian. His approach is based on processes "determining the arrangement of the constructions" (Lehmann, 1978a: 18) and patterns regulated by processes. He considers syntax as the central component of grammar, and the major field of application of his construct is syntax with implications for morphology and morphophonemics (ib. 24-6). The central structure is the simple sentence: verbal phrases, nominal constructions with specification of nominal and verbal modifiers, expressions for modality, aspect and tense, sentence adverbials, marking and such grammatical processes as pronominalization, anaphora, topicalization, passivization and clefting. The major principles differentiating the patterns are OV and VO ordering. In sentence word order, the OV principle is active in SOV type (to which the recently discovered OVS is to be added), VO regulates SVO, VSO and VOS types. Lehmann briefly compares Sinhalese of OV type and Irish of VSO tpe (ib. 16-8). After Lehmann's introductory paper, the following languages are characterized according to the same characteristics: Japanese of OV type, Easter Island of VSO, English, Mandarin Chinese of SVO type and a number of subject-final languages. The problem of fixed and free word order, more precisely, the scale of freedom of word order, was not discussed in detail in the book. It is one of the implications in Skalicka's typology and the comparison of English and Hungarian must consider it as well as the isolating principle in English and the agglutinating principle in Hungarian. Most languages presented in the book are of VO basic type, the variants of OV type with different degrees of freedom of word order and with various morphological structuring need further specification. I shall present Hungarian only, focusing on Lehmann's constructs. A comparison of the free word order of Hungarian with the fixed SOV order of Korean is beyond the scope of this paper.

The application of morphological typology is confined to form. Ordering typology has also a functional dimension: functional sentence perspective, according to the terms of Prague school, or topic-comments relations. The same function can be expressed with different sentence order in SOV and SVO languages; e.g. Hu. *A levelet **Péter** írta* (OSV), Rus. *Pis'mo napisal **Petr*** (OVS) '(As for) the letter (it) was written by Peter', in both languages an active verb is used, but the place of the subject is different. Languages with fixed word order usually

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have constructions for topicalization and emphasis, like Italian *La lettera l'ha scritta Pietro*; they can use sentence accent and intonation or change from active to passive construction: It. *La lettera è stata scritta da Pietro* 'The letter has been written by Pietro'. The problem is very complex even in one language and typological generalizations can be made after careful analysis of different languages representing the variety of ordering and formal devices. Lehmann (1978a: 52-3) was aware of this problem, but it could not be handled in detail in the characterization of concrete languages. In my comparison of English and Hungarian it must be left disregarded.

Sentence structuring typology was shaped as a formal construct and the formal aspect is still dominant. The accusative and ergative types were later complemented by active type and also certain questions of class languages were considered. The application of construct was extended from morpho-syntax to morphology and lexicon by Klimov (1983). His morpho-syntactic construct extended beyond the implications for morphology, for the morphologically relevant classification of lexicon, and a global typology was proposed. It was criticized by Lazard (1986) from the positon of an approach confined to morpho-syntax. Lehmann's typology of syntactic structuring (1993, 1995) is oriented to syntax with implications for morphology and morphological classification of lexicon. He distinguishes two major types: agreement type with active and class structuring opposite to government types - accusative and ergative. Like the two complex typologies examined earlier, this one too is a construct, the concrete language can have the characteristics of different types. Three of these types appear in a form close to typological constructs: early Proto-Indo-European of the active type, Proto-Dravidian and Proto-Bantu, representing two variants of class type, and Proto-Uralic of the accusative type (cf. Dezső, forthcoming). Active and class languages reflect the classification of the external world into classes of beings and actions. It is completely lacking in the accusative type of Uralic which shows the impact of discourse on the form of verbs and nouns in the alternatives of forms depending on discourse factors, usually labelled as determination or specification. In such a construct the functional component is manifested, but diversely from ordering and functional sentence perspective. Accusative typology requires an account of the factors of actualization like aspect and determination. The intuitive notion of world view becomes concrete in active and class types. The various means of classifying the external world and accounting for discourse reflect various ways of viewing the world from the point of view of structuring grammar. They do not exclude each other: in many languages both views are present in various combinations underlying the phenomena of grammar, but one of them can be absent. The principle of classification of the external world is lacking in Proto-Uralic and it has had no role in the long range history of Hungarian, meanwhile the discourse factor has undergone further specification.

The possible typology of location reveals another aspect of world view: in Hungarian the locative relations have evolved from a relatively simple to a sophisticated case system and to a consistent use of preverbs for specifying the locational aspect of actions. It can easily be discovered by comparing Hungarian with a language like Italian, in which the Latin locative prefixes became unproductive unlike in Slavic languages. In the discussion of intuitive concepts (1.2.), I did not examine world view because of its complexity. Here, I intended to show its relevance to typology and characterization.

So far, I have viewed general typology from the point of view of typological characterization and comparison, focusing on general typology. In the next section my focus will be shifted:

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two concrete languages will be compared on the background of Lehmann's construct of ordering typology.

2. A SYNCHRONIC CHARACTERIZATION BASED ON AN EXTENDED VERSION OF ORDERING TYPOLOGY

In this section, I shall compare English with Hungarian in the framework of Lehmann's ordering typology (2.1.). However, a comparison of these two languages can give but little information on free word order, it must be complemented with comments on the ordering and accentuation of Hungarian and Russian from the point of view of functional sentence perspective (2.2.).

2.1 English: an SVO language (compared with Hungarian)

The exposition follows the structure of Lehmann's article (1978b), highlights systemic links, especially the new insights of the author. In reproducing them, it seems to be more reasonable to follow Lehmann's wording, quoting his fundamental statements, separating them from my comments (the indication of pages refers to Lehmann, 1978b). The Hungarian data and inferences supply information on an SOV language with some SVO characteristics. The Hungarian examples usually have the same meaning as the English ones, and no translation is required.

The structure of simple clause. In English only the unmarked clause with SVO pattern is admitted: *Alice folded her hands*. The variants OVS, SOV, OSV "might be possible in the middle of a discourse" (171). My data show that the following variants occur with restricted word order: SVO and OVS or SOV and OSV. In case of free word order, the frequency of typical variants is higher.

Lehmann's statement (172) "SVO languages typically require the S position to be filled, as well as the V and O positions ... in contrast with simple verb sentences in OV languages", is true for OV languages, including Hungarian, except languages which do not mark the person, like Malayalam. As for SVO languages, the question should be studied, because German and Italian mark persons, but the first requires the pronoun, the second does not.

The extension of ordering rules to constructions with standard placed after the variable in VO languages and before it in OV proves to be correct for our languages:

E. It is very easy to take *more* than nothing
H. Igen könnyű *többet* venni mint semmit

Hungarian lacks the mandatory subject (*it*).

The same is true for titles and names:

E. Queen Alice
H. Alíz királynö

personal names and surnames:

E. Winfred Lehmann
H. Dezső László

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numerals in the *teens*:

E. Fourteen
H. Tizennégy 'Tenfour'

Nominal phrases. In SVO languages relative clauses, adjectives, numerals, pronouns and genitival attributes should follow the head nouns, avoiding disruption of the attributive constructions and the whole noun phrase. In English the *of*-constructions and relative clauses follow the noun in the usual order. The other components of attributive construction precede it. This is a relic of SOV ordering in English and a norm in Hungarian, in which the relative clauses are placed after the noun as in English. This is an SVO feature in Hungarian. In Uralic there were no relative clauses because non-finite constructions were used instead of subordinated clauses. Hungarian admits SVO ordering in constructions which are of 'recent' origin and go back to the late period of Proto-Hungarian. The participle constructions are posited before the noun with the other attributes.

Attributive noun phrases and their ordering, especially if the attributes can stand both before and after the head noun, is a chapter of typology not yet written. As my study of the ordering of preposed attributes in Hungarian (cf. Dezső, 1982b) and Néray's (1982) study on the ordering of attributes in English and Hungarian show, the ordering is similar in both languages. This is based on the universal nature of different kinds of attributes illustrated by Seiler's 'famous' German example (Seiler 1978, 307):

G. Alle diese meine erwähnte zehn schönen roten hölzern Kugeln auf dem Tisch, die ...
E. All these my afore-mentioned ten pretty red wooden balls on the table, which ...
H. Mind ezek az én említett tíz szép piros fa golyóim az asztalon, amelyek ...

The model construction contains different kinds of determination: quantifiers (*alle, all, mind*), demonstrative pronouns (*diese, these, ezek*), possessive pronouns (*meine, my, az én*), participial construction (*erwähnte, afore-mentioned, említett*), numerals (*zehn, ten, tíz*), different kinds of attributes (*schön, pretty, szép; rot, red, piros; hölzern, wooden, fa*) in preposed position. The attribute denoting location is after the noun (*auf dem Tisch, on the table, az asztalon*). The whole construction can be followed by a relative clause in the three languages (the questions of the latter are treated in detail in Christian Lehmann's monograph (1984)).

Seiler laid down the foundations of a typology which, in my opinion, will be extremely complex. The different semantic properties of attributes and their formal expression are the base on which the ordering rules should operate. In free word order languages, having a sophisticated system of rules, the order of attributes is also relatively free and depends on the context and the speaker's intention according to the evidence of comparison of Hungarian with Serbo-Croatian (especially Serbian cf. Mikeš-Deže-Matijevič, 1973).

Verbal phrases. According to Lehmann (178): "In SVO languages, expressions for verbal modification should be placed before verbs, in accordance with their VO structure". The auxiliaries can be placed before the verb and be used for modification. Thus, they do not interrupt the VO sequence and, being verbs, do not interfere with similar preverbal placement of the subject. Postverbal affixes in SOV languages correspond to auxiliaries of SVO languages. This is true for Hungarian as we shall see.

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Lehmann's statement (180) "In accordance with general ordering principle, the interrogative marker should stand close to the sentence boundary, whether initially in VO languages or finally in OV" is true for English as an SVO language, it can hold for SOV languages with fixed order, but in languages with free word order it needs elaboration. In Hungarian, the place of the interrogative element is sentence initial, except they are preceded by a thematic element:

Hogyan csinálják a kenyeret ?
'How (they) make the bread ?'
A kenyeret hogyan csinálják ?
'The bread how (they) make ?'
How is bread made ?

The example also shows the lack of passive in Hungarian.

The negatives for individual segments are preposed in English, postposed in Hungarian and demonstrate the difference in the VO and OV patterning: E. *un-comfortable*, H. *kényelm-etlen*.

The middle is expressed with pronouns in SVO languages and with verbal suffixes in SOV languages, in reflexive and reciprocal constructions. In English certain verbs also express middle with the basic form, to which two Hungarian verbs correspond: E. *to kiss*, H. *csókol, csókol-ódzik* (the second one with a middle suffix), but when reciprocity is 'important', both languages use pronouns instead of these forms:

Kiss each other !
Csókoljátok meg egymást
'Kiss preverb one-another'

In English, auxiliaries render modality (cf. the table in Lehmann, 1978: 186). In Hungarian the typical device is suffix -HAT- which is used for the expression of possibility, permission, capability, and corresponds to auxiliaries *can, may*, etc.: E. *He can/may write*, H. *Ir-hat*. In Hungarian necessity, requirement, obligation is rendered by the verb *kell* (requiring the subject in the dative), in English by the auxiliaries *must, need*, etc.: E. *Peter must go*, H. *Péternek mennie kell* 'To Peter to go+3sg must'

Comparison between expressions for aspect and tense would imply a brief presentation of these categories in Hungarian which can not be done here. Lehmann (187) makes an important statement which should be mentioned: "With the adaptation of auxiliaries, English has developed a complex verb phrase which may be compared with the large number of affixes found in OV languages". The suffixes of different *Aktionsarten* (momentary, durative, iterative) is an OV characteristic of Hungarian, but it also has preverbs expressing perfective aspectuality with or without lexical meanings of location, similar to the prefixes of Russian: R. *pisat'*, H. *ír* opposed to perfective forms R. *na-pisat'*, H. *meg-ír*. In Hungarian the preverbs appeared in the late stage of the proto-language, parallel with some characteristics of SVO type. The tense marker of the past maintains the OV pattern of suffixation in both languages: E. *he called*, H. *hívo-tt*. Hungarian applies suffixes for causation as the SOV languages do: H. *hív* 'call', *hív-at* 'make to call'.

Both English and Hungarian developed from proto-languages of SOV type. English has changed, almost completely, its ordering rules to SVO, the same process started in Proto-

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Hungarian, but the SOV patterns accompany the new phenomena in grammar (like perfective aspectuality), while the old stratum of grammar (*Aktionsarten*, tense, permissives, causatives) preserve the old ways of expression in Hungarian. A more complete comparison could reveal further details and admit more subtle statements on our languages.

Sentence adverbials. The use of sentence adverbials *certainly, perhaps, possibly, probably* is considered a characteristic of SVO type, "in OV languages like Japanese and Turkish, one finds in them inflected forms, with or without supplementary adverbs" (192). In Hungarian beside sentence adverbials, the permissive form of the verb itself can express possibility:

E. Possibly he forgot.
H. Elfelejthette '(He) forget-possibility-Past-3p'

but this does not hold completely.

Compound and complex sentences. Lehmann's generalization (195): "nonfinite forms in OV languages may indicate varied relationships, which in SVO languages are introduced by means of specific conjunctions" can be related to one of Skalička's characteristics of agglutinative type: "das Zurücktreten der Nebensätze" (Skalička, 1966 (1979): 337). It is connected with another characteristic of the same type: "Fehlen der Wortarten. Es werden alle Affixe an alle Wurzeln angehängt" (ib. 336). The development of the system of subordinate clauses is a relatively recent phenomenon in the long history on Hungarian, parallel with the formation of SVO characteristics. Demonstrative pronouns and adverbs referring to the subordinate clause are used far more frequently in Hungarian than in English or Italian. This fact may reflect the recent origin of subordinate clauses connected with the main clause by interrogative-relative conjunctions, like the main clauses of Lehmann's example (197):

E. She said afterwards that ...
H. *Azt* mondta utána, hogy ...

which is introduced by a demonstrative pronoun (*azt*) in Hungarian. It is hard to say if this had something in common with nominalizers of OV languages. Lehmann's statement (198) "compound and complex sentences in general maintain the patterns of simple sentences, whether these are SVO, VSO, VOS or OV" is valid also for Hungarian, but their 'free' order is regulated by functional sentence perspective depending on the discourse.

Grammatical processes. The frequent use of pronouns referring to subordinate clauses, just mentioned, seems to be superfluous to the speakers of such SVO languages as English and Italian (not so much for Russian). This is not in agreement with the characteristics of SOV languages which use fewer pronouns according to Lehmann (203). Otherwise, his statement concerning the low frequency of pronouns is valid also for Hungarian which needs pronouns for the substitution of the subject or object because the form of the verb contains information about the first and often about the second:

E. I saw it
H. Láttam '(I) saw-it'

Passivization. Passive constructions have attracted the attention of typologists from the middle of the 19th century until our time: from H. C. Gabelentz's contribution to the realization of Humboldt's general grammar (1861) to the volume of the Kholodovich school

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(Kholodovich 1974), which represented the first topic elaborated by the group, up to recent years (Shibatani 1988 with my contribution on Russian and Hungarian: Dezső 1988). Hungarian expresses passiveness with non-paradigmatic constructions: verbal suffixes and gerundial constructions of perfective verbs, Russian in a half-paradigmatic way: imperfective verbs with reflexive-reciprocal element *sja* (of pronominal origin) and the copula and past-participle of perfective verbs, English with a regular paradigm. The great variety of forms, the large scale of semantic meanings explain the interest of linguists in the passive (or diathesis). The form and meaning of the passive is one of the major characteristics of a language. The role of the passive in the theme-rheme organization of a sentence or in functional sentence perspective was studied less (cf. Deže, 1984: 11-12, 21-26). It is precisely this which Lehmann's statement (208) on the English passive focused on: "In contrast with the passive in many other languages, such as Japanese, the English passive construction then is a grammatical device primarily for foregrounding the verbal action or its object, but other constituents of predicate as well".

Hungarian does not need it. On the one hand, parallel verbal suffixes differentiate transitive and intransitive verbs: H. *ind-ul* 'start' (intr), *ind-ít* 'start' (tr), other suffixes can change transitive verbs into intransitives: *ír* 'write' (tr), *ír-ódik* 'to be written'. On the other hand, these devices, common to many other languages, are combined with free word order admitting the topicalization of the object or both object and subject: cf.

A *levelet* írja Péter (OVS)
the *letter* is writing Peter
'It is the letter that is being written by Peter'
A levelet *Péter* írja (OSV)
the letter *Peter* is writing
'As for the letter, it is Peter who is writing it'

This rich inventory, inherited from the proto-language, was completed with constructions composed with perfective verbs in the gerund form (similar in function to passive participles) and a semantic object as the subject:

A levél (már) meg van írva
'The letter has (already) been written'

In the background of this new construction, there is a development of perfective aspectuality and probably the possibility of SVO ordering. Hungarian compares a variety of constructions with the English paradigm which is very flexible because of the variety of tense and aspect forms, but more rigid from the point of view of theme and rheme. The expression of passiveness reflects the fundamental characteristics of these two languages very well.

English has at its disposal foregrounding, topicalization and clefting, examined by Lehmann (208-212), which are used in one way or other also in other languages with SVO sentence order (as in Italian).

Morphological characteristics. There is a consistent opposition in the placement of morphological elements between SOV languages requiring postposition and those of VSO type with preposition of affixes and adpositions. Such originally SVO languages as Bantu, give preference to preposition of class markers in nouns and verbs, to infixing of the elements of reference with different functions, the role of postposition being secondary. Since the

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morphological elements within a synthetic word are more bound than the free adpositions of an analytic word, one expects that the position of the former preserves the old ordering in languages that passed from SOV to SVO. This accounts for the few OV elements of English remaining. In Hungarian, which preserved the fundamental SOV characteristics, the placement of morphological elements exhibits SOV ordering.

Lehmann's statement (213-4) "SVO languages by their basic structures do not require elements to identify the most frequent cases, those for the subject and object" is valid for languages with bound order and does not apply to Russian, with a case system preserving most of the late Indo-European cases reconstructed in the handbooks (the real situation in the early dialects was more complex and cannot be examined here).

What has been said about morphological elements also holds for derivation. There are new formations with preposed elements (*aloud*) but both derivational suffixes and compounds are conservative, of SOV type. In compounds the old O+V pattern in English can be opposed to the new V+O pattern in Italian (E. *lawn-mower*, I. *tagliaerba*).

Morphophonemic processes. Lehmann deals with phonological processes applied to morpheme sequences. Since they are influenced by phonology, he also makes 'provisos'. He proposes a series of correspondences between morphophonemics and ordering (217): "OV languages tend to have progressive assimilation if the appropriate phonological conditions are present, and VO to have regressive". English shows no consistent direction of modification: in the major inflectional suffixes the assimilation is progressive, in most derivational suffixes, however, it is regressive: *t* > *c* in *posture*. In Hungarian the assimilation is regressive: *néz* '(he) sees', *nézte* [neste] '(he) saw'. Thus, the generalization needs checking.

Lehmann's next statement (217): "OV languages then would have vowel harmony - defined as modification of later vowels in a word by earlier vowels - and VO languages would have Umlaut, that is, modification of earlier vowels by later" is true for Hungarian and English. The former has a sophisticated system of vowel harmony according to front/back and, partially, rounded/unrounded oppositions (like *ad-hat* 'he can give' and *néz-het* 'he can look', or *ház-ak* 'hous-es', *kert-ek* 'garden-s' and *öröm-ök* 'joy-s'). English has Umlaut (*man* ~ *men*). This statement, however, is not valid for many SOV languages without vowel harmony, and SVO languages without Umlaut, because the phonological factors behind their presence or absence are hidden to us.

The correlation between morphophonemics and ordering is a chapter of typology yet to be written. Attempts to extend grammatical types towards phonology are interesting and important, but there is a long way to go. This also holds for Skalička's statements concerning the implications between morphological types and phonology.

Phonological characteristics. According to Lehmann (218) "The most readily observable correlation is that between OV languages and open syllables", it is supported by the facts of syllabification in Japanese and Proto-Germanic. I could add that the Uralic etyma had a vowel in word final position and even those with two consonants in middle position could have been pronounced with open syllables. However, consonant derivational elements and/or suffixes could be added to the final vowel and close the syllable. The Turkic and Dravidian etyma are reconstructed with closed syllables. There is a tendency to avoid difficult clusters of consonants in these SOV languages. This is a general tendency which may be stronger in SOV languages, but this should be proved and then explained.

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From these quotations it is not clear that Lehmann is very cautious when advancing hypotheses which are based on certain facts but require checking. This should be emphasized before considering his last two statements concerning suprasegmentals and segmentals.

He assumes a possible link between OV ordering and pitch opposed to VO and accent (based on Japanese and English). Then he advances a hypothesis (220): "Yet stress systems, accompanied by reduction of vowels, seem to be associated with VO languages, whether VSO or SVO, and pitch systems with OV languages". This assumption is supported by the data of English and Japanese. The relationship between accent and pitch is important for the study of pre- and pro-stages of Indo-European, both of SOV type (cf. Lehmann, 1993: 138-139). Uralic with a stress system and reduction of final vowels was an SOV language. These facts question the validity of the correlation between accent systems and ordering.

The first part of Lehmann's last hypothesis is far less convincing and less interesting for further studies (220): "OV languages commonly have relatively small sets of vowels, as in Japanese. VSO languages, however, may also contain few vowels, as does Arabic". Proto-Turkic and Modern Hungarian are apparent counter-examples against the first part of the statement.

Concluding remarks. I have had to keep the presentation of Lehmann's article to a minimum and to even less its comparison with Hungarian. Even so, the fruitfulness of Lehmann's typology, which goes far beyond the Greenbergian foundation, is apparent. Skalička was the founder of typological characterization based on a modern version of morphological typology, Lehmann had the same role in syntax and in syntax dominated morphology. My presentation is not adequate, concentrating on criticism in order to raise exciting problems to be studied.

There are two opposing views regarding the tendency to extend a sub-system typology to the rest of typology: unconditioned approval or disapproval. I do not share either of these positions: no complete 'coverage' of language is possible with a typology, but one should do his best to find as many implications in the linguistic system as possible for further studies. I should highlight the specificity of typological characterization: statements not valid for general typology, for all languages, can explain the 'character' of a language. I have found that Lehmann succeeded in the characterization of the 'type' of English and in this way has contributed to general grammar which cannot be reduced to the study of types, nor to their regular correlations.

2.2 On free word order and functional sentence perspective

It was not by chance that one theory of functional sentence perspective (FSP) was born in a Slavic country, another one in Hungary. The Czech theory has been widely accepted and does not need detailed presentation. It will be presented briefly from the point of view of typology, maybe, not without the influence of Hungarian tradition. The formal means of FSP include word order, sentence stress, pause and intonation pattern (based on the latter two). Rheme (or comment) conveys the major information and is expressed by sentence stress. The stressed element constitutes the centre of an intonational phrase, i.e. of the rheme group (composed of the rheme and the verb in Hungarian of SOV type). The strength of stress can be weak and indicate a simple focus, or be strong conveying emphasis. Contrast is an emphasis involving the antecedent text in a negative way: it expresses disagreement emphasing something contrary. The theme is one of the elements of the preceding context which enters the sentence linking it with the antecedent. There were attempts to assign all elements of any sentence to

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the rheme or the theme, but without success. There can be elements which do not belong to either of them and can be posited in different places in a longer sentence depending on different factors. Any element of the sentence can contain given or new information. The subject is typically given (theme), the object has a high degree of probability of being new (rheme), the predicate, usually a verb, is between them on the scale of communicative evaluation ('dynamism').

My presentation of these categories has been very simple but will suffice for our present purpose. Let us examine one Russian sentence in two variants only (of the six possible) and the Hungarian sentences corresponding to them. The following sentences are 'models' representing the results of generalizations of numerous concrete sentences used in particular contexts. First, a Russian sentence is in basic order, i.e. no antecedent is assumed:

Anna čitajet pis'mo.
'Ann is reading (the/a) letter'

The order is SVO, we cannot say, if the letter (*pis'mo*) is definite or not, maybe, this has no relevance. In Hungarian if the letter is definite, the order will be SVO and the object will have the definite article (*a*):

Anna olvassa a levelet.
'Ann is reading the letter'

If the identification of letter is irrelevant for the communication, the article will be omitted and the order will be SOV:

Anna levelet olvas.
Ann letter is reading
'Ann is reading (a) letter'

If the letter was mentioned in the antecedent, it should occupy the first place of the sentence as the theme. If the required information concerns the subject, then in Russian the order is OVS with an emphasis on S:

Pis'mo čitajet *Anna*
Letter is reading Ann
'It is Ann, who is reading the letter'

In Hungarian, the word for letter must have definite article (*a*), the word order is OSV:

A levelet *Anna* olvassa
The letter Ann is reading
'It is Ann, who is reading the letter'

The application of OSV order is required by the accentuation pattern of Hungarian: the element before the verb carries the stress. The accent on the preverbal element is typical for SOV languages and it must be applied despite the SVO basic order of this sentence structure.

From these simple examples we could learn that the structure of sentence and its ordering and stressing rules are connected. The different members of the sentence: indirect object, adverbials of all kinds and forms (adverbs, nouns and adjectives with suffixes) have their

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peculiarities and when they are combined in a sentence, there must be rules regulating their sequence. In addition, all this depends on the context, on the intention of the speaker. In free word languages one has all six variants of a three member sentence and twenty four of a four member sentence. All of them are correct in a particular context and are posited in the given order according to the intention of the speaker.

If we consider the basic neutral variants from the point of view of FSP, we arrive at two major types: S+O (SOV, SVO, VSO) and O+S (VOS, OVS) which differ from the major types OV and VO established by the formal principle of ordering. In the first functional major type subject precedes object in basic order, in the second the order is the opposite. The first major type has the natural order: the subject of lower degree of communicative relevance is posited before the object which usually has it in a higher degree. The order O+S seems to be less natural, only a small number of languages follow it, and VOS and OVS orders are probably secondary in diachrony.

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