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ABSTRACT

The ninth volume in this series contains seven articles dealing with various aspects of English - Serbo-Croatian contrastive analysis. They are: "A Note on Modifiers of Comparatives in English and Serbo-Croatian," by Wayles Browne; "Superlative Structures in English and Their Correspondents in Serbo-Croatian," by Vladimir Ivir; "Semantic Aspects of Adjective Comparison in English and Serbo-Croatian," by Vladimir Ivir; "Passive Sentences in English and Serbo-Croatian," by Ljiljana Mihailovic; "The Definite Determiner in English and Serbo-Croatian," by Olga Miseska Tomic; "English and Serbo-Croatian WH-Words, Their Derivatives and Correlates," by Olga Miseska Tomic; and "An Annotated Bibliography of Research in Scientific and Technical Language," by L. Selinker, L. Trimble, and T. Huckin. (AM)

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THE YUGOSLAV SERBO-CROATIAN - ENGLISH CONTRASTIVE PROJECT
Director: Professor Rudolf Filipović, Ph. D.

REPORTS
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A. REPORTS

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Washington, D.C. USA

Zagreb, 1974.

Wayles Browne (University of Zagreb)

A NOTE ON MODIFIERS OF COMPARATIVES IN ENGLISH AND SERBO-CROATIAN

V. Ivir in his article "Adjective Comparison in English and Correspondent Structures in Serbo-Croatian"[1] does not treat elements which modify comparatives in the two languages. Yet this is an area of some practical importance in the teaching of either language.

Mirko je bio vrlo/veoma/jako brz.

Mirko was very fast.

Mirko je bio mnogo brži od Marka.

Mirko was much faster than Marko.

As these examples show, one set of modifiers is used before non-compared adjectives, and a different set before compared adjectives. Neither very nor vrlo/veoma/jako can be used before comparatives, and much cannot modify a non-compared adjective (mnogo rarely does so, except in some Eastern varieties of SC).

Other modifiers used only before comparatives include SC kud i kamo, neuporedivo, E a great deal, a lot, far; SC donekle, E somewhat; SC malo, E a little. All these words give an approximate specification of the degree to which one term of comparison exceeds the other. It is also possible to give an exact (numerical) specification:

Mirko je bio { tri sekunde / za tri sekunde } brži od Marka.

Mirko was { three seconds / *by three seconds } faster than Marko.

Mirko je bio brži od Marka { ?tri sekunde / za tri sekunde }.

Mirko was faster than Marko { *three seconds / by three seconds }.

In English the preposition by is used when the modifier follows the comparative; no preposition is used when the modifier precedes. The situation in SC is slightly more complicated, as the example shows: a preposition can be used in either position. This is always the preposition za "for". (Za takes the accusative case in this use: cf. za jednu sekundu).

The same constructions are found after verbs related in meaning to comparatives, like increase, decrease, grow, fall, SC povećati (se), smanjiti (se), porasti, opasti:

Izvoz u 1972. se povećao (je porastao) { za 15 posto / 15 posto }.

Exports in 1972 increased (rose) { by 15 percent / 15 percent }.

The difference in preposition (by vs. za) is of special importance to the SC-speaker learning E. The E-speaking student of SC will not find any handy equivalent in SC for his "by", and so we can predict that he will follow his other, prepositionless construction, leading to correct or more-or-less correct SC sentences. Or, with good luck, he will successfully learn the use of za. But the SC-speaker is constantly exposed to the danger of translating his za as E for, and thus producing such quite incorrect sentences as

*When you come back, our family will be bigger for one member.

which are heard even from very good speakers instead of the correct larger/bigger by one member or one member larger.

N O T E

1. In R. Filipović (ed.), YSCECP, Reports 8, Zagreb 1973, pp. 52-79.

Vladimir Ivir (University of Zagreb)

SUPERLATIVE STRUCTURES IN ENGLISH AND THEIR CORRESPONDENTS IN SERBO-CROATIAN

0. No matter what grammatical description is eventually adopted for the comparative, it seems very probable that the superlative will continue to be seen as in some way related to it - and secondary to it. Recent linguistic investigations, which have often concerned themselves with the status of the comparative in grammar, do not include discussions of the superlative, and one might conclude either that its status is unproblematical or that the question will be solved automatically by solving the problem of the comparative.

0.1 The traditional view of the superlative as a form which is semantically related to the comparative and therefore included, together with it, under the heading 'comparison' receives sufficient support from our intuitions for it not to be too lightly dismissed. To claim that "there are two basically different types of comparison: the comparative and the superlative" and that "the rules governing the two types are quite different"(Lester, 1971: 294) is counter-intuitive and misleading in a book which then proceeds to analyze the comparative but not the superlative. The two forms appear in sentences which are straightforward paraphrases:

(1) John is more stupid than any other boy in this group.
(2) John is the most stupid of all the boys in this group.

In Serbo-Croatian such paraphrases are also possible:

(1SC) John je gluplji nego bilo koji drugi dječak u ovoj skupini.

(1SCa) John je gluplji od bilo kojeg drugog dječaka u ovoj skupini.

(2SC) John je najgluplji od svih dječaka u ovoj skupini.

Apart from paraphrase relationships, the Serbo-Croatian sentences provide two other bits of evidence for the existence of the transformational link between (certain) comparative and (certain) superlative structures: first, morphologically, the superlative is formed from the comparative (by using the prefix naj-); second, syntactically, it is more than a mere coincidence that the superlative construction with od and the comparative od-construction use the same preposition.

0.2 Semantically, the comparative-superlative relationship illustrated here could be informally expressed as follows: John is more stupid than each of the other boys in the group taken individually, and when the whole group has thus been exhausted, as indicated by the expression "any other boy", all the boys in the group are taken as a collective (consisting of more than one member) displaying varying degrees of stupidity and John is said to display it to a degree which is the highest in the group. Syntactically, the comparative-to-superlative transformation can be shown to occur when an item is compared with more than one other item (so that at least three elements are involved in comparison). The transformation does not take place when an item is compared with a multi-member collective which is seen as an integral whole, so that only two items are involved in comparison:

(3) John is more stupid than all the other boys in this group.

(3SC) John je gluplji nego svi drugi dječaci u ovoj skupini.

(3SCa) John je gluplji od svih drugih dječaka u ovoj skupini.

The link between the comparative and the superlative is seen also in the colloquial use of the superlative form in English when only two items are involved in comparison (e. g. It' s hard to say which of the two is best for you).

1. There are two basic types of superlative: superlative of superiority and absolute superlative. Everything that has so far been said about the nature of the superlative and its possible transformational relationship with the comparative refers to the superlative of superiority. It is this superlative which implies the presence of more than two items in comparison and it is also this superlative which is normally thought of when the highest degree of comparison is discussed.

1.1 Like the comparative, the superlative also appears in predicative and attributive positions in the sentence in both English and Serbo-Croatian:

(4) Pablo was evidently the smartest.
(4SC) Pablo je očigledno bio najpametniji.
(5) That house was one of his biggest mistakes.
(5SC) Ta kuća je bila jedna od njegovih najvećih pogrešaka.

No interference is predicted in such uses of the superlative because the learner's mother tongue will suggest to him the desired construction in English. Similarly, when the predicative superlative is prepositionally expanded rather than sentence-final, English and Serbo-Croatian structures are closely matched:

(6) That's the worst of it.
(6SC) To je naj[illegible] od svega.
(7) Consider only what will be easiest and kindest to these people.
(7SC) Mislite samo na ono što će biti najlakše i najpovoljnije za te ljude.
(8) He is the most promising among the younger executives in the firm.
(8SC) On je najperspektivniji medju mladjim rukovodiocima u poduzeću.

However, this structural parallelism does not mean that every superlative in English finds a corresponding superlative in Serbo-Croatian and that the learner will therefore never miss a superlative in the target language if he faithfully models his speech on

the pattern of the mother tongue. There are at least three other possible structural correspondents in Serbo-Croatian on which the learner may choose to model his expression on the semantic content whose expression in English is the superlative. The first of these is the comparative - which is not surprising in the light of what has been said above about the relationship between the comparative and the superlative:

(9) You are the deepest of the lot, Miss Muniment.
(9SC) Vi ste pametniji od svih, gospodjice Muniment.

Starting from a sentence like (9SC) in his mother tongue, the learner will easily get to a sentence containing the comparative:

(10) You are deeper than all of them, Miss Muniment.

But to reach the superlative structure of (9), he will have to make a conscious effort to avoid the ready-made pattern of Serbo-Croatian, remembering that the superlative is also possible in that language and that it is actually preferable in English.

The other two Serbo-Croatian structures which frequently correspond to English superlative adjectives in the predicative position are made up of the superlative form najviše followed by the noun or verb translating the English adjective:

(11) He was the most trusted of the young soldiers by the Russians because...
(11SC) Od svih mladih vojnika Rusi su imali u nj najviše povjerenja, jer ...
(12) What was most noticeable about him was his arrogant behaviour.
(12SC) Ono što se na njemu najviše primjećivalo bilo je njegovo naduto držanje.

The superlative form is used here both in English and Serbo-Croatian sentences, and it is not the superlative as such that is responsible for the structural difference between them but rather some other lexical and syntactical peculiarities. In sentence (11), for instance, the superlative most trusted may in itself have naj-

pouzdaniji, najpouzdaniji or a similar superlative adjective as its correspondent; but the fact that the verbal nature of the participle is made prominent by the agential expression by the Russians precludes this correspondence and the verb to trust is the one from which translation into Serbo-Croatian begins; since this verb is best translated in such a context by imati povjerenja, we get (11SC). If something like this is the learner's point of departure, he will more or less easily produce sentence (13) but sentence (11) will remain beyond his reach unless consciously acquired and drilled:

(13) Of all the young soldiers the Russians trusted him most because ...

Sentence (12) happened to have (12SC) as its counterpart in the corpus from which it was taken, but its counterpart could equally be (12SCa):

(12SCa) Ono što je na njemu bilo najuočljivije/najprimjetnije/najupadljivije bilo je njegovo naduto držanje.

In this case the learner would have no difficulty reaching the superlative adjective construction. However, when the underlying verbal base of the adjective noticeable is a possible Serbo-Croatian correspondent, as in (12SC), the learner may be expected to miss the superlative adjective and produce sentence (14):

(14) What one noticed most about him was his arrogant behaviour.

Thus we find again that mother-tongue interference is subtler, and therefore more far-reaching and persistent, than is usually apparent when only errors are analyzed. At advanced levels of language learning, where directly observable errors are virtually absent, there is still a great deal of interference which is expressed as under-use of certain quite idiomatic structures of the target language and their replacement by certain other structures that correspond directly to the structures of the learner's mother tongue.

1.2. It has already been shown that both English and Serbo-Croatian superlative adjectives can occupy the attributive position and that no interference is predicted in the speech of Serbo-Croatian speaking learners of English. But when we analyze English attributive superlatives and their Serbo-Croatian correspondents a little more closely, certain differences emerge which are potential sources of interference.

1.2.1 If the predicative superlative is taken as the basic structure and the attributive as transformationally derived, then the non-expanded predicative superlative moves to the prenominal attributive position via the postnominal attributive position which is ungrammatical: the friend who is closest ⟶ *the friend closest ⟶ the closest friend. The same rule applies in Serbo-Croatian: prijatelj koji je najbliži ⟶ *prijatelj najbliži ⟶ najbliži prijatelj. With the expanded predicative superlatives the postnominal attributive position is just as acceptable in English as the movement of the superlative adjective to prenominal position:

(15) The person who was most eager to help in that situation was John. ⟶ The person most eager to help in that situation was John. ⟶ The most eager person to help in that situation was John.

In Serbo-Croatian, too, the postnominal attributive position is grammatical, but the separation of the superlative and the infinitival or prepositional phrase or clause which serves to expand it is felt as ungrammatical:

(15SC) Čovjek koji je bio najspremniji pomoći/da pomogne u toj situaciji bio je John. ⟶ Čovjek najspremniji pomoći/da pomogne u toj situaciji bio je John. ⟶ *Najspremniji čovjek pomoći/da pomogne u toj situaciji bio je John.

Notice, however, that this has nothing to do with the superlative but very much to do with transformations involving non-sentence-final (i.e., expanded) adjectives. It can be shown (cf. Ivir, 1972: 72 ff.) that various syntactic and semantic considerations determine whether an expanded adjective can move to the prenominal position

and leave its complement behind or not. We shall only note here that the prepositional phrase denoting the group which serves as a point of reference for the superlative can be separated from the adjective in both English and Serbo-Croatian:

(16) The man who is most reliable of all is your friend Peter. ⟶ The man most reliable of all is your friend Peter. ⟶ The most reliable man of all is your friend Peter.

(16SC) Čovjek koji je najpouzdaniji od svih je tvoj prijatelj Petar. ⟶ Čovjek najpouzdaniji od svih je tvoj prijatelj Petar. ⟶ Najpouzdaniji čovjek od svih je tvoj prijatelj Petar.

The grammaticalness of the postnominal attributive structure produced by the first of the two transformations depends on certain conditions being met in the structural description of the predicate upon which the rule operates. No attempt will be made here to specify these conditions, but it is noteworthy that the postnominal structures are ungrammatical when the subjects and the nominal predicates in (16) and (16SC) change places and when the expanded superlative appears in the sentence-final position:

(17) Your friend Peter is the man who is most reliable of all. ⟶ *Your friend Peter is the man most reliable of all. ⟶ Your friend Peter is the most reliable man of all.

(17SC) Tvoj prijatelj Petar je čovjek koji je najpouzdaniji od svih. ⟶ *Tvoj prijatelj Petar je čovjek najpouzdaniji od svih. ⟶ Tvoj prijatelj Petar je najpouzdaniji čovjek od svih.

1.2.2 Another structural difference between English and Serbo-Croatian superlatives is found with the small number of adjectives which can follow superlative constructions. In English, such adjectives come after nouns preceded by superlatives: the

longest journey conceivable, the earliest train available, etc. In Serbo-Croatian this position is ungrammatical and the adjective follows the superlative and precedes the noun: najbolja zamisliva vlada, najviši mogući stupanj, najduži mogući put, najraniji mogući vlak. Such ordering will prevent easy acquisition of the English constructions listed here but it will also naturally lead the learner to the following, equally acceptable, English sequences: the best imaginable government, the highest possible degree, the longest conceivable journey, the earliest available train. The relative clause construction is in some of these cases more natural in Serbo-Croatian (e. g. najduži put što se može zamisliti) and the learner is likely to produce the relative clause instead of the attributive adjective in English too (the longest journey that one can imagine).

1. 2. 3 The superlative structures just discussed are also interesting for the light they throw on the relationship between the superlative and the comparative of equality. When a superlative is followed by the adjective possible, it can be paraphrased by an as ... as construction: the highest possible degree - as high a degree as possible, the least possible money - as little money as possible, etc. The Serbo-Croatian correspondent of such structures can be the superlative plus moguć as shown above, but also what might be called the limiting comparative (što plus comparative plus, optionally, moguć):

(18) He explained with irresistible frankness the motive of his errand: the desire to obtain the best possible binding for the least possible money.

(18SC) On je razjasnio s neodoljivom iskrenošću cilj svoga posjeta: želju da dobije najbolji mogući uvez za što je moguće manje novaca.

This type of comparison does not establish a relationship between two items but between an item and the ultimate point that the item is capable of reaching with respect to the quality expressed by the adjective; thus, što je moguće manje novaca - manje novaca nije moguće - najmanje novaca. The learner will tend to produce the as ... as comparative rather than the superlative in such cases,

because th rative correspondence is quite firmly established in his mind in view of examples such as the following in which the superlative is ruled out in English: Morate biti što je moguće odlučniji. - You must be as resolute as possible. It will have to be explained to him that the superlative structure is available in English when the adjective is used attributively and that it corresponds quite closely to the alternative superlative structure in Serbo-Croatian in the same situation.

The adjectives possible and moguć may be absent from such structures but even then they are implied and the nature of comparison is not affected:

(19) He saw where he would place the two automatic rifles to get the most level field of fire.

(19SC) Vidio je gdje će postaviti dva puškomitraljeza da dobije što ravnije polje gadjanja.

1.2.4 English superlatives sometimes find their structural correspondents in Serbo-Croatian positive adjectives which express qualities that are normally not exceeded by higher degrees of the same qualities:

(20) He realized that he was witnessing one of the very greatest moments of her life.

(20SC) Shvatio je da prisustvuje jednom od vrhunskih trenutaka u njenom životu.

This difference does not present problems for learners at lower levels because they learn quite well how to avoid more complicated tasks (such as finding a non-superlative English equivalent for vrhunski) in favour of easier ones (such as using the adjective great in the superlative); however, students at higher levels, especially when asked to translate from Serbo-Croatian into English, often feel that such easy solutions will not do and begin to fumble with top, supreme, culminating, cardinal, etc.

1.3 English superlatives appear in constructions in which they are limited by some addition, usually of a numerical

kind, which shows how close the quality in question has come towards the highest attainable degree. We thus speak of something being second best, third largest, longest but one, etc. Serbo-Croatian has no structural correspondent for this type of structure and the learner must acquire it without reference to his mother tongue. Semantic equivalents from which he might otherwise start would take him in all kinds of directions: drugi po kvaliteti (second in terms of quality), na drugom mjestu po kvaliteti (occupying the second position in terms of quality), odmah iza najboljega (immediately following the best); treći po veličini (third in terms of size), na trećem mjestu po veličini (occupying the third position in terms of size); drugi po dužini (second in terms of length), etc. Structures which correspond to English superlative structures are not semantically correspondent: treći najveći objekt te vrste does not mean the third largest project of this type, but rather the third (in order) of the largest projects of this type, where the project is said to belong to a class of largest projects and we now enumerate individual members of that class.

The superlative last in combination with one has an idiomatic correspondent in Serbo-Croatian: last but one - predzadnji; with last but two it is possible to form pretpredzadnji in Serbo-Croatian, but for last but three the translation is treći od kraja (third from the end).

1.4 Another characteristic function of the superlative is that of the head of a nominal group. The deleted noun is one of a small class (information, news, story, thing, item and perhaps a few others) and is easily recoverable from the context:

(21) The best is yet to come.

(21SC) Najbolje tek slijedi.

(22) Have you heard the latest?

(22SC) Jeste li čuli najnoviju vijest?

Serbo-Croatian superlatives have the same potential, as shown in (21SC); but (22SC) shows that it would be too optimistic to expect that every Serbo-Croatian correspondent of an English superlative heading a nominal phrase will also have its noun

deleted. Conversely, there will be Serbo-Croatian superlatives used as heads of a nominal phrase which will correspond to English attributive superlatives used with nouns (which means that the learner will have to learn to insert a noun in English where his mother tongue does not require one):

(23) You have left out the most important thing.

(23SC) Najvažnije ste ispustili (*You have left out the most important).

The superlative acts as a head of the nominal group also in another construction where it is preceded by the possessive adjective:

(24) The traffic is at its densest about 2 in the afternoon.

(25) He is at his happiest when he can work in his garden.

(26) She was at her best when she was doing something she really liked.

Serbo-Croatian has no straighforward correspondent for that structure and difficulties can be predicted in trying to teach it to native speakers of that language:

(24SC) Promet je najgušći oko dva sata poslije podne.

(25SC) On se osjeća najsretnijim kad može raditi u svom vrtu.

(26SC) Ona je bila u svom najboljem izdanju onda kad je radila nešto što joj se zaista svidjalo.

Normal superlative constructions in the Serbo-Croatian sentences given here are adequate equivalents of the meaning of the English construction, but they will stimulate the learner to produce a normal superlative in English rather than this special structure.

2. The structure just discussed has brought us quite close to the second of the two main types of superlatives - the absolute superlative. The superlative of superiority expresses a degree of a certain quality which is higher than the degree of the

same quality possessed by any other member of the group within which comparison is made, while the absolute superlative expresses a degree that simply cannot be exceeded no matter what the composition of the group within which comparison is made.

2.1 The first type of absolute superlative, preceded by the definite article, is a true absolute because it expresses a degree that is highest without reference to any lower degrees:

(27) He's got the most beautiful manners, hasn't he?
(27SC) Ima prekrasne manire, zar ne?
(27SCa) Ima najljepše manire, zar ne?

When a Serbo-Croatian absolute superlative corresponds to the English structure, as in (27SCa), no interference is predicted; but when the Serbo-Croatian adjective is one of the class of adjectives with absolute meanings in the positive, as in (27SC), the learner may begin to search for a non-superlative, absolute adjective in English and come up with magnificent, splendid, wonderful, etc.

2.2 The second type of absolute superlative is not a real superlative but an expression of a very high degree:

(28) What you say is most interesting.
(28SC) Ono što vi kažete vrlo/jako/neobično je zanimljivo.

It can be shown that most is here an expression of degree and not part of the superlative by taking an adjective which normally forms its superlative by adding -est to the positive:

(29) You're most kind. (*You're kindest.)
(29SC) Neobično ste ljubazni. (*Vi ste najljubazniji).

(Both starred examples are ungrammatical in the desired meaning). In this absolute sense most cannot be replaced by -est. The definite article, which is used with real superlatives to indicate that the (known) degree which cannot be exceeded has been reached, is not used here. The indefinite article, not used with superlatives

of superiority, is used with the absolute superlative when a noun follows it:

(30) He's got a most charming wife.

(30SC) On ima izvanredno simpatičnu ženu.

Serbo-Croatian does not have this second type of absolute superlative and uses various expressions (mainly adverbs) of degree to express the same meaning. It can therefore be expected that Serbo-Croatian speakers will tend to replace it in English by degree expressions which correspond directly to those of their mother tongue:

(28a) What you say is very/highly/exceedingly/ exceptionally interesting.

(29a) You're very/extremely/uncommonly kind.

(30a) He's got a very/exceedingly/unusually charming wife.

The replacement will not result in observable errors in the learners' speech but it will effectively prevent them from using the absolute superlative of this type.

3. This last situation is characteristic of many of the contrastive differences between English and Serbo-Croatian superlatives: when Serbo-Croatian does not have a superlative to correspond to an English superlative, it often has another structure which expresses the same (?) meaning; that structure in turn has directly corresponding structures in English which the learner reaches without much difficulty; those structures are themselves simply alternative ways of expressing the same (?) meaning that is expressed by the superlative. Using them, the learner produces no errors. Interference is at work but is not easily detected. Presumably it does not matter since the learner is using correct English and saying the same (?) thing that he would be saying with the superlative. Is a very or exceedingly charming wife just as charming as a most charming wife?

R E F E R E N C E S

Bolinger, D. (1972), Degree Words, Mouton, The Hague, 324 pp.

Ivir, V. (1972), "Attributive Patterns for English Adjectives", in R. Filipović (ed.), The Yugoslav Serbo-Croatian - English Contrastive Project, Reports, 6, Zagreb 1972, 56-84.

Lester, M. (1971), Introductory Transformational Grammar of English, Holt, Rinehart and Winston, New York, 335 pp.

Long, R.B. (1961), The Sentence and Its Parts, University of Chicago Press, Chicago, 528 pp.

Quirk, R., S. Greenbaum, G. Leech, and J. Svartvik (1972), A Grammar of Contemporary English, Longman, London, 1120 pp.

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SEMANTIC ASPECTS OF ADJECTIVE COMPARISON IN ENGLISH AND SERBO-CROATIAN

0. Contrastive analysis as currently practised deals with the structures of any two languages, contrasting them in terms of their shape, transformational derivation, taxonomic classification, distribution and usage. The pairs of items that are brought together for contrasting are those which show sufficient formal and semantic similarity to cause native-language interference in the use of the foreign language. Even in cases in which no formal pairing can easily be made, it is still possible to pair a given structural item in one language with one or more semantically correspondent structural items in the other language and then to contrast these items in terms of the properties just listed. In both cases, this method produces a statement of formal difference between the two languages under conditions of semantic equivalence and highlights the hazards that the learner faces in this situation. (The hazards are twofold: one, at the elementary level of language learning, that he might produce ungrammatical forms in the other language; the other, at the more advanced levels, that he might - while using grammatically correct forms - produce meanings in the foreign language other than those that his mother tongue would lead him to believe that he is producing.)

The method described here has many obvious advantages but also one major disadvantage: it fails to group together, in a way in which a speaker of a language intuitively associates them, all the different structures which can be said to belong to the same semantic category. Our own analysis of comparion, for instance, was confined to formally recognized comparatives in English and correspondent structures in Serbo-Croatian (cf. Ivir 1973, 1974). However, comparative (and superlative) is just one of the many structures expressing comparison in English, and each of these has a multiplicity of correspondent structures in Serbo-Croatian. What makes the semantically-based contrastive analysis prohibitively difficult

is, on the one hand, the non-availability of a generally accepted repertory of semantic categories (in the sense in which the grammatical categories are more or less generally accepted) and, on the other hand, the lack of firm criteria of membership in a given category. Thus, supposing that everybody agrees that there is such a category as 'comparison', we still do not know the full range of structural devices that English, or Serbo-Croatian, has at its disposal for the expression of comparison.

We shall try in this paper to examine some of the ways (by no means all) in which comparison is effected in English and Serbo-Croatian. Comparatives and superlatives will be excluded, since they have been dealt with elsewhere. We shall also try to see under what semantic conditions adjectives accept comparison.

1. One way of making comparative statements is the use of positive forms of certain adjectives. This phenomenon was noted by Sapir (1944) and subsequently elaborated by Fillmore (1965), Bartsch-Vennemann (1972), Wierzbicka (1972). It consists, briefly, in the observation that the positive form of an adjective refers to a degree of a certain quality which exceeds the degree expressed by the comparative. Thus, when we say

(1) John is taller than Peter

we say nothing about John being tall; however, when we say

(2) John is tall

we are in fact saying that he is taller than most other people. This has led some authors to posit the comparative as the underlying (primary) form for the positive. Although this phenomenon has received the attention of linguists comparatively recently (in connection with attempts to arrive at a satisfactory descriptive statement of the comparative), it was observed much earlier by traditional grammarians, who carefully pointed out that the comparative degree need not necessarily be regarded as higher than the positive. Thus, Goold Brown (1878:280) emphasized that "the positive degree of a quality, though it commonly includes the very lowest measure, and is understood to exceed nothing, may at any time equal the very highest"; his example was

(3) Easier, indeed, I was, but far from easy.

In Serbo-Croatian, too, positive adjectives can be used in absolute meanings:

(3SC) Bilo mi je, istina, bolje, ali još daleko od toga da mi bude dobro.

1.1 Precisely because of the similarity between the two languages, it is contrastively important to examine how individual adjectives behave in this respect. Thus, Serbo-Croatian uses the positive in visoko školstvo, while English has the comparative form in the corresponding expression: higher education. The Serbo-Croatian visoka škola ('college') and the English high school ('gimnazija', 'srednja škola') may superficially appear to be using the positive form of the adjective in the same way, but the frames of reference within which the positive form is used in the two languages are in fact quite different. This becomes even clearer when one notes that viša škola (lit., higher school), being a two-year post-secondary institution, is lower in rank than visoka škola (lit., high school), which is a four-year institution.

1.2 Some adjectives which use positive forms in absolute meanings as illustrated above are in some contexts used as unmarked positives without the implication of a high degree of the quality in question:

(4) John is only five feet tall

where the implication is that being five feet tall is not being tall at all. Similarly, when inquiring about someone's height, we do not imply anything about his being tall:

(5) How tall is John?

(Notice that two kinds of answers are possible to this question - one with the unmarked and another with the marked meaning of the adjective: He is five feet tall and He is tall.)

Other adjectives of this class are not used in unmarked senses: thus short, the antonym of tall, is ungrammatical in contexts like those of (4) and (5):

(6) John is five feet short.
(7) * How short is John?

(In other contexts, for instance when John's shortness has been established and when only its extent remains to be elucidated, a sentence like (7) becomes acceptable. A statement like 'John is short' can prompt a question like 'How short is he?').

The same is true of other antonym pairs of adjectives (long - short, wide - narrow, old - young, large - small, deep - shallow, high - low, etc.) and their Serbo-Croatian correspondents (dug/ačak - kratak, širok - uzak, star - mlad, velik - malen, dubok - plitak, visok - nizak).

Absolute meanings can be activated in seemingly unmarked-positive contexts when special effects are sought:

(8) John is not five feet tall - he is five feet short.

Everything that has been said about English here is valid also for Serbo-Croatian, as the translations of the illustrative examples show:

(4SC) John je visok samo metar i pol.
(5SC) Koliko je John visok?
(6SC) *John je metar i pol nizak.
(7SC) *Koliko je John nizak?
(8SC) John nije metar i pol visok - on je metar i pol nizak.

No interference is predicted in this area, since the two languages classify their adjectives identically with respect to this property.

1.3 In sentence (2) no specification was made of the conditions under which the absolute sense of the positive form of the adjective applied. Sometimes, however, the universe of application is specified and the sense of the adjective is not absolute but relative:

(9) J(is tall for a fifteen-year-old.

This expression, like the one using the comparative, makes no

implication about John being tall: a tall fifteen-year-old may nevertheless be short; he is tall, however, in the universe of fifteen-year-olds. Different degree words are used with such positives to indicate the relative sense in which the otherwise absolute adjective is to be understood:

(10) John is relatively/comparatively/ rather/quite/very/too/uncommonly/ unusually/exceptionally tall for a fifteen-year-old.

The degree words and the contextual specification qualifying the adjective are in fact devices which enable speakers of English to make comparative statements. The comparative structure corresponding to (9) and (10) would be something like (11):

(11) John is a fifteen-year-old who is taller than you and I agree a fifteen-year-old should be.

The communicative explanation of this comparative use of the positive form of the adjective can be given in terms of topic and comment in which we have tried to explain the distribution of information in a comparative sentence (cf. Ivir, 1973). The communicative situation can be described as follows: (I am telling you something about John. You and I know how tall a fifteen-year-old should be. Well, though himself a fifteen-year-old, John is taller than that.) He is tall for a fifteen-year-old. This non-technical explanation agrees with the formal logical account given by Bartsch & Vennemann (1972:87ff.) and is intuitively more satisfying than some other, purely syntactic attempts at an explanation.

Contrastively nothing much needs to be said here, because we are still at a semantic level at which English and Serbo-Croatian interpret the reality identically. Starting form (9SC) and (10SC), the learner will have no difficulty producing (9) and (10) in English:

(9SC) John je visok za petnaestogodišnjaka.
(10SC) John je relativno/razmjerno/prilično/ dosta/vrlo/pre(više)/izvanredno/neobično/ izuzetno visok za petnaestogodišnjaka.

If, therefore, the purpose of foreign language instruction is to develop the learner's communicative competence, as against his skill at handling grammatical structures, it can be shown to him that what he wants to communicate is some new information about John-namely, that his height is greater than the known height of a fifteen-year-old - and that this information can be linguistically expressed with the same structural means in English and Serbo-Croatian, so that he has a choice between 'John is taller than a nc al fifteen-year-old' and 'John is tall for a fifteen-year-old'. At the same time, he should be made aware that, while expressing the same comparative relationship, the two sentences are nevertheless different in the presuppositions they make about John's age, as seen from the following transformations:

(12) John, who is fifteen, is taller than a normal fifteen-year-old.

(13) John, who is twelve, is taller than a normal fifteen-year-old.

(14) John, who is fifteen, is tall for a fifteen-year-old.

(15) *John, who is twelve, is tall for a fifteen-year-old.

The presupposition in (15) changes when even is inserted, and (16) is again grammatical:

(16) John, who is twelve, is tall even for a fifteen-year-old.

2. In contradistinction to adjectives whose positive forms carry absolute meanings, as illustrated in sentence (2), there are also those whose positives simply describe the quality to which they refer, without implying a degree higher than that tacitly accepted as a norm by the speaker and the listener. In (17) for instance, there is no implication of John being more tactful than the speaker and the listener agree a person should be:

(17) John is tactful.

The reason for this is that there is no common, universally accepted, measure of tactfulness which would be exceeded by

simply saying that someone is tactful. The mere possession of that quality does not imply its possession in a degree higher than that normally expected (in the sense in which the possession of the quality of tallness implies a degree higher than normally expected). However, as soon as the universe of application is specified, the meaning of the adjective ceases to be 'either/or' (indicating the mere presence vs. absence of the quality in question) and becomes 'more/less':

(18) John is tactful for a fifteen-year-old.

Sentence (18) means that the degree of John's tactfulness exceeds that normally expected by the speaker and the listener from boys belonging to the universe of fifteen-year-olds. In this sense, (18) is like (9); but there is a difference too: while (9) implied nothing about fifteen-year-olds not being tall (stating merely that John was taller), (18) implies that fifteen-year-olds are not tactful and that the degree of John's tactfulness - while higher than that of an ordinary fifteen-year-old - is nevertheless lower than that expressed by the unqualified positive. That is why (19) is an insult for the female part of mankind and a backhanded compliment for Joan:

(19) Joan is quite intelligent for a woman.

Serbo-Croatian has the same possibilities at its disposal to express comparison with positive adjectives. In (19SC), like in (19), the qualified positive expresses a degree which is both higher and lower than the degree expressed by the unqualified positive:

(19SC) Joan je sasvim inteligentna za jednu ženu.

3. Both English and Serbo-Croatian have a group of adjectives which express the highest possible degree of a quality in the positive form:

(20) This was a perfect example of his erudition.

(20SC) Bio je to savršeni primjer njegove učenosti.

But extreme meanings of such adjectives are often relaxed in everyday use and we find them in comparative structures:

(21) This was the most perfect example of his erudition.

(21SC) Bio je to najsavršeniji primjer njegove učenosti.

English adjectives included in this group are absolute, extreme, excellent, total, etc. and their Serbo-Croatian equivalents are apsolutan, krajnji, izvrstan, sveukupan, etc. Very similar to them are adjectives which denote non-gradable qualities, that is, those which are a matter of 'yes/no' and not a matter of degrees: unique, complete, logical, equal, square, triangular, true, false, tepid, chaste, pregnant, dead, English, etc. While it is strictly speaking true that something is or is not unique and that it cannot be more unique than something else, normal usage is often based on the tacit understanding that these adjectives also have senses which indicate approximations to the states denoted by the adjectives. The degree of readiness with which individual adjectives in this group accept comparison in suitable contexts varies with the gradability of the quality in question before it reaches the absolute point. Notice that here again the comparative denotes the degree of quality lower than that denoted by the positive; but at the same time it denotes a degree which is higher than the degree of this same quality possessed by another object or by the same object at another time. Thus, describing something as more triangular than something else means that the first object comes closer to being triangular than the second but that neither is in fact triangular. Semantic relations involved in such uses are the same in Serbo-Croatian, but for morphological and semantic reasons combined comparative forms of some of these adjectives are made more easily than of others: jedinstveniji/najjedinstveniji, potpuniji/najpotpuniji, logičniji/najlogičniji, *jednakiji/*najjednakiji (but više jednak/?najviše jednak), ravnopravniji/najravnopravniji, ?četverouglastiji/?najčetverouglastiji (?više četverouglast/?najviše četverouglast, but jače četverouglast/najjače četverouglast), ?pravokutniji/?najpravokutniji, ?trokutastiji/?najtrokutastiji (više trokutast/najviše trokutast), istinskiji/najistinskiji, istinitiji/najistinitiji, ?pogrešniji/?najpogrešniji (više pogrešan/najviše pogrešan), *kriviji/

*najkriviji (*više kriv/*najviše kriv, as an equivalent of false), mlačniji/najmlačniji, kreposniji/najkreposniji, *trudnija/*najtrudnija, mrtviji/najmrtviji (in figurative senses), ?engleskiji/?najengleskiji, etc.

4. In the group just discussed we find in fact two types of adjectives: those like unique, whose semantic content is gradable only when the meaning is somewhat relaxed, and those like English, which are compared when they are descriptive but whose descriptive use is derived from their non-descriptive (limiting) functions. This latter group contains adjectives like musical, social, scientific, dramatic, emotional, academic, religious, American, criminal, moral, grammatical, critical, etc. each of which belongs to two adjectival classes - to the class of non-descriptive (limiting) adjectives with the meaning 'pertaining to' and to the class of descriptive adjectives with the meaning 'having the quality of'. As members of the first class they cannot be compared, because the notion of 'pertaining to' is not gradable: a characteristic either pertains to a person or thing or it does not; it cannot pertain more or less. Thus we get examples like musical instruments (*more musical instruments), religious instruction (*more religious instruction), criminal lawyer (*more criminal lawyer - in the sense of a lawyer specializing in legislation pertaining to crime), scientific research (*more scientific research), etc. As members of the second class, on the other hand, they are compared because the notion 'having the quality of' is gradable: some quality can be possessed by a person or thing in different degrees. This is seen quite clearly in the following examples: musical voice (more musical voice), religious man (more religious man), criminal lawyer (more criminal lawyer - in the sense of a lawyer committing acts of crime), scientific approach (a more scientific approach), etc. The two classes are by no means watertight groupings with members firmly entrenched in one or the other set. Bolinger (1967) actually claims that comparability of adjectives is not a matter of class membership but rather of adjective meaning; this would explain why certain adjectives, as shown here, are comparable in one context and not comparable in another, or why they belong to two classes (cf. Farsi, 1968). Furthermore, this would help to explain why normally non-comparable adjectives begin to be compared when their meanings

become scalable. Even though a direct relationship cannot be established between adjective comparability and certain other morphological (e.g., affixal negation) and syntactic properties (e.g., predicative use, collocation with very, coordination with other adjectives, prenominal ordering), the links among these properties are nevertheless sufficiently strong to exploit them in teaching. (In fact, they are sufficiently strong also to serve as a fruitful starting point in grammatical analysis; cf. Zimmer, 1964; Ivir, 1972).

The general principle of comparison discussed here is as valid for Serbo-Croatian as it is for English. No interference is, therefore, predicted, except for the fact that learners generally (and not just Serbo-Croatian learners of English) are less ready to manipulate individual lexical items of the foreign language in such a way as to bring out their less central meanings; however, as soon as they become aware of these meanings, they have no difficulty beginning to compare what up to that point were for them non-comparable adjectives. But some problems are caused by the fact that different meanings of certain adjectives in English are expressed by different lexical items in Serbo-Croatian: while this problem does not arise in znanstveno istraživanje and znanstveni pristup (znanstveniji pristup), it does arise in glazbeni instrumenti vs. muzikalan glas (muzikalniji glas) and vjerska pouka vs. religiozan čovjek (religiozniji čovjek), and even more so in stručnjak za krivično pravo and advokat koji je i sam lupež (advokat koji je još veći lupež).

Although the 'definite' vs. 'indefinite' form distinction among the Serbo-Croatian adjectives belongs to a system which is rather eroded, some correspondence can still be established between 'definiteness' and comparability. When an adjective can appear in the indefinite form in both the predicative and the attributive position, then it can be said also to be descriptive and not limiting and to express a meaning that is scalable (unless the quality itself is such that it is not a matter of degrees: čovjek koji je mrtav, mrtav čovjek, *mrtviji čovjek), consequently, it accepts comparison. Transformationally, the predicative position is regarded as primitive in such cases and the attributive position as derived:

čovjek koji je moćan (čovjek koji je moćniji), moćan čovjek (moćniji čovjek). Non-descriptive or limiting (hence also non-comparable) meanings of adjectives are not normally carried by the indefinite form. But the situation is somewhat complicated by the fact that indefinite adjectival forms are sometimes used predicatively even though the meaning is not descriptive. Such predicative uses of non-descriptive adjectives (which are normally neither predicative nor 'indefinite') are transformationally quite different from the predicative uses of descriptive adjectives: they do not originally belong to the predicative field but rather to the attributive field, and they only reach the predicative field through a transformation whose result is structurally analogous to the predicative-adjective structure. But since the definite form of the adjective is not acceptable in the predicative position, the indefinite form is made as a secondary derivation without changing the meaning of the adjective (which remains non-descriptive and non-comparable); such indefinite forms remain confined to the predicative position and their definite 'originals' continue to be used attributively:

(22SC) Odnos medju njima je uzročan/*uzročni. ('The relationship between them is causal.')

(23SC) Medju njima vlada uzročni/*uzročan odnos. ('A causal relationship obtains between them'.)

(24SC) Pogon ovoga dijela je ručan/*ručni. ('The control of this part is manual.')

(25SC) Ovaj dio ima ručni/*ručan pogon. ('This part has a manual control'.)

A further element which complicates the neat picture of relationship between definiteness and comparability is the fact that some Serbo-Croatian adjectives (notably those ending in -ski, -čki, etc.) possess only one, that is the definite, form. Theoretically at least, these adjectives carry only non-descriptive meanings and are not compared. But in practice they often develop related descriptive meanings and begin to be compared in suitable contexts:

(26SC) Teško je zamisliti ljudskiji odnos nego što je njegov odnos prema svojim potčinjenima. ('It is difficult to imagine a more humane attitude than his attitude towards his subordinates.')

(27SC) Ovu raspravu morali bismo voditi na akademskijem nivou. ('This debate should be conducted at a more academic level.')

The facts of Serbo-Croatian presented in this section will not be responsible for any interference in the learner's use of English comparatives but they can be exploited in teaching to sharpen his intuition (and develop awareness) of the relationship between the semantics of adjectives and comparison in both languages.

5. In general it can be said that semantics of comparison in English and Serbo-Croatian are largely the same and that for that reason the semantic approach does not yield contrastively very striking results. On the other hand, it is clearly worth one's while to examine the syntactic and morphological consequences of certain basic semantic properties of adjectives - specifically, their descriptive vs. non-descriptive meanings. It is in such consequences that languages differ most strikingly and it is with the (surface) morphologico-syntactic realizations of deeper meanings that the learner needs most help.

REFERENCES

Bartsch, R. and T. Vennemann (1972), Semantic Structures, Athenäum Verlag, Frankfurt, 186 pp.

Bolinger, D. (1967), "Adjective Comparison: A Semantic Scale", Journal of English Linguistics, 1, 2-10.

Bolinger, D. (1972), Degree Words, Mouton, The Hague, 324 pp.

Brown, G. (1878), The Grammar of English Grammars, tenth edition, William Wood, New York, 1102 pp.

Farsi, A. A. (1968), "Classification of Adjectives", Language Learning, 18, 45-60.

Fillmore, Ch. (1965), "Entailment Rules in Semantic Theory", POLA Reports, 10, 60-82, Ohio State University, Columbus (also in Readings in the Philosophy of Language, ed. by J. F. Rosenberg & C. Travis, Prentice-Hall, Englewood Cliffs, N. J., 1971, 533-548).)

Ivir, V. (1972), "Attributive Patterns for English Adjectives and Their Contrastive Correspondents in Serbo-Croatian", in R. Filipović (ed.), YSCECP, Reports, 6, 56-84.

Ivir, V. (1973), "Adjective Comparison in English and Corresponding Structures in Serbo-Croatian", in R. Filipović (ed.) YSCECP, Reports 8, Zagreb 1973, 52-79.

Ivir, V. (1974), "Superlative Structures in English and Their Correspondents in Serbo-Croatian". See: pp. 5-16.

Sapir, E. (1944), "Grading: a Study in Semantics", Philosophy of Science 11, 93-116 (also in Selected Writings of Edward Sapir, ed. by D. G. Mandelbaum, Univ. of California Press, Berkeley, 1949, 122-149).

Wierzbicka, A. (1972), Semantic Primitives, Athenäum Verlag, Frankfurt, 235 pp.

Zimmer, K. E. (1974), "Affixal Negation in English and Other Languages", Word Monograph, 5.

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PASSIVE SENTENCES IN ENGLISH AND SERBO-CROATIAN

Part I

Introduction. This paper will deal with passive sentences in E and SC. As verbal diatheses are not clear cut and cannot be neatly put into separate pigeon-holes, we shall be obliged to touch on various verbal diatheses such as the middle voice, but only in cases where they have to be delimited from the passive. Only syntactic passives will be considered, i.e. only those passive sentences where the active counterpart exists, at least theoretically.[1] It is assumed in this paper that verbs are realized with one, two or several arguments, the arguments being cases at a deep level. Where the choice of one particular case to be made the subject in the surface structure entails the choice of the active verbal form and the choice of another case as surface subject entails the addition of the passive aux be + Ven (the SC formal correspondents will be dealt with later), the cognitive meaning remaining constant, the two sentences will be considered as deriving from the same underlying structure.

(1) a.	Somebody built this house in the seventeenth century.	Neko je sazidao ovu kuću u sedamnaestom veku.
b.	This house was built in the seventeenth century.	Ova kuća je sazidana u sedamnaestom veku.

In example (1) the sentences a. and b. are considered to be derived from the same underlying structure, a. being the active and b. the passive version of the same underlying form. Where the surface distribution of arguments is identical and the verb phrases differ as to the presence or absence of the passive aux, the structure containing the passive verbal phrase will not be considered as a passive sentence.[2]

(2)	He drowned in the river.	Udavio se u reci.
(3)	He was drowned in the river.	Udavio se u reci.

Neither will the following pair of sentences be considered as transformationally related.

(4) He did not surprise me. On me nije iznenadio.

(5) I was not surprised at him. Ja mu se nisam začudio.

Sentence (6) has no correlated active pair either in E or SC (in SC the middle verb "roditi se", with few exceptions,[3] has the same distribution as the passive "biti rodjen").

(6) He was born in 1906. Rodjen je 1906.

Rodio se 1906.

The line of demarcation between the passive and pseudopassive sentences is not as clear cut as it would seem from the above examples. Nor is it always possible to delimit with formal rigour real passives from combinations of the copula be+V-en adjective. (We shall ignore all the issues raised by the delimitation of various transitional and hybrid categories as that ground has been exhaustively explored in the monographs on the use of the passive voice by Svartvik (1966) and Mihailović (1967b)). The so-called "stative passive" will not be dealt with in this paper either as there is not a direct correlation between the active sentences and the "stative"[4] passive sentences (a shift of tense being the extra transformation underlying these forms). Although this passive category and its relationship to the transitive perfect forms has been neglected in current transformational grammar, it has been exhaustively dealt with in Svartvik (1966) and Mihailović (1967b).[5] Having limited our study to syntactic passives which are the result of a particular surface distribution of case roles, we shall not consider the so-called "notional passive", such as:

(7) The door opened at five. Vrata su se otvorila u pet.

(8) This book sells well. Ova knjiga se dobro prodaje.

where the redistribution of case roles is not accompanied by passive modification of the verb though the semantic interpretation of the

sentences is passive. [6]

The general framework of analysis. [7] We shall assume that the core of a proposition consists of a predicator (verb, adjective or noun) which is in construction with one, two or more arguments, the arguments being semantic relations known as deep structure cases. The proposition is in construction with the Modality constituent, which includes tense, mood and other modal elements modifying the entire proposition. [8] Subject and object will be considered as surface phenomena, and depending on the semantics of the predicator of the proposition one or several of the underlying cases can be candidates for the surface function of subject. Fillmore (1971, 4) proposes that the cases, which identify the roles which the arguments serve in the predication, should be taken "from a repertory defined once and for all for all human languages . . ." (This is a tall order, as will be seen further on in this paper).
We shall assume, also following Fillmore, that the underlying cases have prepositions which are realized in the surface either as prepositions of inflectional morphemes (in languages with a morphologically developed case system) or which are deleted by preposition deletion rules. [8] Gruber's (1965) system which distinguishes between incorporated prepositions and deleted prepositions is much more appealing, but being guided by purely practical considerations, we shall not follow the lines of Gruber's generative semantics as that would involve us in the discussion of theoretical issues. Following Fillmore, it will also be assumed in our analysis, again for practical reasons, that each surface structure noun phrase has one deep structure case (semantic relation) corresponding to it. [9] In Gruber's analysis of case relationships a particular noun phrase can be interpreted as functioning in more than one case role at the same time. [10] Another working hypothesis will be that only one case of the same kind is allowed per simple sentence (which again is an oversimplification, but this has no immediate relevance for our analysis). [11]

Case grammar is particularly suitable for the study of passive sentences if one assumes that active and passive sentences are derived from the same underlying form. Our attention will be mainly concentrated on the type of case roles that various transitive lexical heads can choose and on how these case roles are

distributed in the surface structure of active as opposed to passive sentences. In part II of this paper particular attention will be paid to those predicators that allow embedded sentences as occupants of certain case roles and to the transformational rules which are applied to such propositional arguments. It will be of particular interest to us how E and SC differ with respect to the kind and the number of transformational rules.

We shall ignore theoretical issues raised by Fillmore himself, who questions the form of his base structure and its formalism[12] and who in his 1971 paper does not give any diagrams or any explicit symbolic representation to his analysis, because he has not been able to find acceptable notation for the kind of things he wants to represent.[13]

Remarks on traditional case grammars. Traditional grammar viewed the surface cases as something given. Depending on the particular language there were as many cases as there were distinct inflectional morphemes for them. The usual procedure was to identify the case according to the inflection and then to attach semantic and functional values directly to cases as morphological categories. The older tradition distinguished cases even where, like in E, the inflectional suffixes were lost,[14] whereas grammarians of a more modern orientation (Sweet, Jespersen, Zandvoort) considered case distinctions only where there were formal markers (the genitive /s, case in personal pronouns). In SC where a morphologically marked case system has been preserved, most grammarians treat this category in the classical tradition. The usual pattern is to analyse the cases and their "uses" by setting up the central meanings of the particular morphologically marked form, and to refine thereupon (for example, beside the partitive, possessive and ablative meanings of the genitive, which are central, there are qualitative, temporal, subjective and objective genitives, genitives that show the agent in a passive construction, e.c.).[15] Case forms preceded by prepositions are dealt with separately. Considering that in traditional grammar the point of departure in the analysis of cases was their surface form (inflection or preposition+inflected form) English grammarians of more recent times, who made it a point not to analyse English in terms of Latin categories, had an easy time

as far as the case system was concerned. (It is interesting to note that the meanings and functions of the genitive were exhaustively analysed because the inflectional 's warranted the analysis).[16] Jespersen (1949, Vol V, 30) states that the question of case only arises with pronouns, Modern E nouns distinguishing only two cases - a common and a genitive. Jespersen reasons that even in languages, such as Latin, where cases are distinguished morphologically and therefore cannot be ignored, each particular case serves so many different purposes that he feels thankful for the fact that English has got rid of the case system as "cases form one of the most irrational part of language in general" (1968, 186). There were grammarians like Sonnenschein[17] who assumed that cases denote categories of meaning and not categories of form and that this applies as much to English as to Latin.[18] But such ideas were premature. The age of structuralism had come with its insistence on descriptions of languages within a given system,[19] formal exponents of surface structure looming large. Hjelmslev (1935-1937), in the most exhaustive study of case, viewed this category as an interplay of paradigmatic contrasts (the structuralists' view being that each term in a system gets its value from the other terms in the system).[20] The convinction that it is the case morpheme that is the bearer of case meaning was so deep rooted that it rarely occurred to anybody that the morphological exponents were the accepted conventions of surface structure. Both traditional grammarians and structuralists, such as Jakobson (1936) and Hjelmslev (1935-37) made too much of the surface form and however hard they tried to bring some order into the duality of form and meaning, the result was too much overlap on the side of meaning (e. g. ablative genitives, temporal genitives, possessive datives, etc). The vicious circle was impossible to get out of until the centrality of syntax was recognized.[21]

Perhaps the case theory which has influenced most the thinking of grammarians up to the present day was the so-called syntactic theory propounded by Theodor Rumpel (1845). It stated that the nominative was the case of the subject of the sentence, the accusative the case of the direct object, the dative of the indirect object, the genitive the adnominal case determination of the subject or the object. Nominative and accusative stood in a relation to the verb whereas the dative was in a relation to the whole sentence.

To what extent this theory, based on Aristotle's theory of judgement, has been deep rooted is brought out by the fact that even TG Standard theory deals with concepts such as "base subject" or "underlying subject" (Hall, 1965, 16), which is really the "logical subject" of traditional grammars.

The underlying case relationships. We accept all the substantial claims made in Fillmore's case grammar, though we shall not follow his grammar in all details. In his grammar the core of the proposition is a predicator (a verb in this discussion). Predicators can be described according to the number and the kind of underlying cases they combine with. When considering the number of arguments one can distinguish the conceptually required arguments (e.g. rob and steal require three arguments:the culprit, the victim and the goods; buy and sell are four-argument predicators, from the number of syntactically required arguments). There is a tendency nowadays to deal with notions such as "the offender", "the offence", "the loot", "the victim", etc. We shall deal with abstractions and will be concerned mainly with those arguments that are syntactically required so as to be able to set up a limited number of elementary case notions.

By far the most difficult task for us has been to decide on the number and the semantics of the underlying cases with which to operate in our analysis. At the present state of knowledge and development of case grammar we are not anywhere near satisfying Fillmore's demand that the number of underlying cases should be "defined once and for all for all human languages". It would require too much space to discuss all the arguments in support of our statement, but it may suffice to adduce Fillmore's (1968), (1969) and (1971) choices of underlying cases in order to show that we are still very far from the final decision on this issue. In Fillmore (1968) the underlying cases are: Agentive, Instrumental, Dative, Factitive, Locative, and Objective; Benefactive and perhaps several others are added as an afterthought. Fillmore points out that "none of these cases can be interpreted as matched by the surface-structure relations, subject and object, in any particular language (p. 25)." In (1969) Fillmore sets up the following cases: Agent, Counter Agent, Object, Result, Instrument, Source, and Experiencer (the earlier Dative), whereas in (1971) he states: "I have lately become comfortable with the following cases: Agent, Experiencer, Instrument, Object,

Source, Goal, Place, and Time (p. 12)". The very fact that Fillmore has changed his mind several times concerning the number and the semantics of the elementary case notions bears out our statement that we are still far from setting up once and for all the number of cases and defining them accurately. Fillmore achieved certain refinement by spreading the Dative among other cases, but he gets into deep water when he tries to match his cases with semantically different verbs. For instance, depending on the kind of predicator, the Source and Goal are interpreted as "earlier and later locations, earlier and later states, or earlier and later time points (1971, 11)." But Goal is also involved "where there is a transfer or movement of something to a person, the receiver as destination is taken as the Goal (p. 13)". (This is not followed by any example, but we suppose that Goal is the underlined NP in: He sent John the book. Poslao je Jovanu knjigu.). Although Fillmore adds: "I no longer confuse selectional restrictions to animates with true case-like notions (p. 13)", we get confused when we discover further in the text that the functions of Goal have not been exhausted and that this case has absorbed what Fillmore used to call "Resultative" or "Factitive". "Since the Goal case is used to indicate the later state or end result of some action or change... it specifies the end-result role of a thing which comes into existence as a result of the action identified by the predicator, as in (I wrote a poem) or (I constructed a bridge) (p. 13)". It would be very difficult for us to unite under one case relationship both John (Jovanu) in:

(9) He gave John the book. Dao je Jovanu knjigu.

and the bridge in:

(10) I constructed the bridge. Ja sam konstruisao most.

much less to the cemetery gate in:

(11) He walked from the top of the hill to the cemetery gate. Otišao je peške od vrha brega do grobljanske kapije.

Even if we adopted this line of reasoning it would mean reinterpreting our case roles, if not for every verb, then for every small class of verbs (Fillmore is quite aware of this difficulty). Though

one of the main assumptions of case grammar is that "The Player [= case] receives its semantic function from the main verb (Shopen, 69)", we must find a compromise solution if we are to achieve any kind of generalization across sentences containing different semantic classes and subclasses of verbs. We shall simplify our case grammar so as to contain only those cases that immediately participate in the rules of passive transformation, which means for instance that we do not require a Temporal, nor a Benefactive, nor a Comitative case. Only those underlying relationships will be posited which participate in the derivation of the surface relations: subject, object, and the so-called "passive agent" in the correlated active/passive sentences.

Though we are well aware that our choice will be defective and open to criticism, it is unavoidable, and we would like it to be understood that we are guided by purely practical considerations. It seems to us that the minimum number of cases we require for our analysis is six: Agent (Ag), Experiencer (Exp), Instrument (Ins), Neuter (Neut), Goal (Goal) and Locative (Loc). Agent is the case of an animate wilful instigator or source of the action. Gruber (1967, 943),[22] Lyons (1968, 356) and others in addition to this referentially based definition also give linguistic definitions of agentivity. If the sentence answers the question "What did X do?", X is the Agent (John built the bridge. Jovan je sazidao most.). If it answers the question "What happened to X?" X is not the Agent (John died. Jovan je umro.). According to Gruber agentive verbs are substitutable by the phrase do something; they can be modified by a purpose phrase introduced with in order to and may be accompanied by manner adverbials, such as carefully.[23]

Experiencer is the case of the animate participant in a psychological event or a mental state verb.

(12) John was frightened by the noise. — Jovan se uplašio od buke.

(13) John doesn't believe in supernatural phenomena. — Jovan ne veruje u natprirodne pojave.

Instrument is the case of the inanimate force, be it physical or abstract, which participates as a physical implement in an action,

or is the cause, stimulus or source of an event. The details of meaning depend on the semantics of the predicator.

(14)	He opened the door with this key.	Otvorio je vrata ovim ključem.
(15)	This key opens all the doors.	Ovaj ključ otvara sva vrata.
(16)	The prisoners were transported by bus.	Zarobljenici su prevoženi autobusom.
(17)	He was attracted by wealth.	Njega je privlačilo bogatstvo.
(18)	The rise in oil prices has created a difficult situation for European economies.	Poskupljenje nafte dovelo je evropsku privredu u težak položaj.
(19)	A difficult situation has been created for E. economies by the rise in oil prices.	Poskupljenjem nafte evropska privreda dovedena je u težak položaj.
(20)	He was hurt by what she said.	Njega je povredilo ono što je ona rekla.

The neuter case, which we have taken over from Stockwell et al. (1973), is "the case associated most closely with the verb itself and least interpretable independently of the verb." (p. 8)

(21)	They poured wine into the jug.	Nasuli su vino u vrč.
(21)	They filled the jug with wine.	Napunili su vrč vinom.
(22)	John said that he would come.	Jovan je rekao da će doći.

It seems to us that whatever choice of cases we make there must be at least one case which is a kind of wastebasket. Therefore our

Neuter case can be defined negatively as the case which is neither Agent, nor Experiencer, nor Goal, nor Instrument, nor Locative. In our analysis Goal will be the animate participant in the event to whom a transfer of movement (physical or abstract) is directed.

(23)	I gave John a book.	Dala sam Jovanu knjigu.
(24)	She told John to come.	Rekla je Jovanu da dodje.
(25)	They asked Mary several question	Postavili su Mariji nekoliko pitanja.

Locative identifies the location of the state or action of the predicator.

(26)	Several old manuscripts describe that event.	Nekoliko starih rukopisa opisuje taj događaj.
(27)	That event is described in several old manuscripts.	Taj događaj je opisan u nekoliko starih rukopisa.
(28)	The hospital accepts diabetics.	Bolnica prima dijabetičare.
(29)	The diabetics are accepted into the hospital.	Dijabetičari se primaju u bolnicu.

Prepositional phrases as underlying cases. We stated earlier that we would adopt Fillmore's proposal that the distinction between noun phrases and prepositional phrases is unnecessary as "prepositions, postpositions, and case affixes - semantically relevant or not - are all in fact realizations of the same underlying element, say K (for Kasus). We may regard all of the case categories as therefore rewritten as K+NP (1968, 33)." Certain prepositions can be regarded as markers of certain cases; they are semantically empty and need not be entered into the lexicon. Such prepositions are considered as being unmarked. The unmarked preposition for the Goal case is to, for the Ins with, for the Benefactive for, etc. Locative and Time cases have no semantically empty prepositions, so that the prepositions are introduced as optional choices from the lexicon and they often depend on the particular

noun (at the corner, in June). The Neut case typically has zero preposition. Prepositions which are the properties of particular predicators (lexical verbs in our case) must be marked in the lexicon and they must be introduced transformationally.

The Neut case typically has zero preposition, but, exceptionally, specific verbs may have particular prepositions associated with them. For instance laugh requires the prep. at, listen the prep. to, insist the prep. on, refer the prep. to; look requires the prep. at in one meaning and for in another, etc.

(30)	We mentioned the matter.	Pomenuli smo tu stvar.
(31)	We referred to the matter.	
(32)	We considered the matter.	Razmotrili smo tu stvar.
(33)	We insisted on the matter.	Insistirali smo na toj stvari.

All the underlined constituents are the realizations of the underlying Neut case. In sentences (30) and (32) Neut is unmarked, whereas in (31) and (33) it is marked. In the SC equivalents the Neut is marked only in example (33). This treatment eliminates the necessity of speaking of "prepositional objects", for which category no formal criteria have ever been found. But it is not only the Neut case that can have marked prepositions. The Goal may also, depending on the head verb, have marked prepositions instead of the unmarked to.

(34)	He asked a question of Mary.	Postavio je Mariji pitanje.
(35)	He prevailed upon John to answer his question.[24]	Ubedio je Jovana da odgovori na njegovo pitanje.

Fillmore claims that the substantial proposals of his case grammar have universal validity and our analysis will be based on that assumption. But as every particular language has its language specific rules, our main task is to establish how these universal principles are applicable in the grammars of E and SC. In E there is no need to speak of a noun declension, the only case suffix being 's, whereas in SC it is necessary to mention that the nominal declension includes seven cases with quite a bit of syncretism of forms (especially in the plural) depending on declension types. The surface

cases are: nominative, genitive, dative, accusative, vocative, instrumental and locative (we give the cases in the order they are given in SC grammars).[25]

Passive verbal forms in E and SC. Passive verbal phrases in E contain some form of the aux be+Ven.[26] The English passive forms have as formal correspondents two distinct verb paradigms in SC. One paradigm has the aux biti (be)+passive participle.[27] The passive participle (called the "passive adjective" in SC grammars) is in number-and-gender concord with the NP in subject position.

(36)	Pesma (sing, fem) je prevedena na engleski.	The poem was translated into English.
(37)	Pesme (pl, fem) su prevedene na engleski.	The poems were translated into English.
(38)	Roman (sing, masc) je preveden na ...	The novel was translated...
(39)	Romani (pl, masc) su prevedeni na ...	The novels were translated ...

In SC the present tense forms of the aux biti[28]+past participle are the exponents of the perfect tense (practically the only past tense in colloquial SC). The present tense forms of the aux biti followed by the passive participle are interpreted as perfect (past) forms of the passive.

(40)	On je ranjen u prošlom ratu.	He was wounded in the last war.

The passive participle may also be interpreted as the predicative adjective after the aux biti, in which case the present tense forms of the auxiliary are intepreted as referring to the present.

(41)	On je ranjen.	He is wounded.

The present tense forms of the iterative verb bivati[29] (be)+passive participle can be used to denote a repetitive event in the present if the context allows such an interpretation.[30]

(42)	Kad god zadocni biva kažnjen.	Whenever he's late he gets punished.

V^{se} passive forms in SC. Passive sentences of the "reflexive" type contain a transitive verb marked by the morpheme "se", which is transformationally introduced[31] (the morpheme "se" is isomorphic with the enclitic form of the reflexive pronoun). The condition for the "se" addition transformation is the deletion of the underlying Agent or Experiencer case which is the candidate for the subject of the active sentence. The deleted NP must have the feature [+human]. This transformation entails the promotion of the underlying Neut case to subject function (but only when the Neut turns up in the active sentence with acc inflection). The subject has nominative inflection and the verb is in number and gender agreement with it.[32] (In the examples that follow the underlying cases will be put under the NPs and the morphological markers of cases in brackets after the NPs).

(43)	Ljudi (nom) su najviše jeli orahe (acc). Ag Neut	People ate walnuts most of all.
(44)	Najviše su se jeli orasi (nom). Neut	
(45)	Oni (nom) jedu samo belu ribu (acc). Ag Neut	They eat only white fish.
(46)	Jede se samo bela riba (nom). Neut	Only white fish is eaten.

In the western variant of SC the accusative inflection of the active object may be retained in the passive sentence so that the verb has no formal subject with which to agree in number and gender and the concord is 3rd per. sing. neut.

(47)	Ljudi (nom) poznaju čovjeka (acc) po besjedi. Ag Neut	One recognizes a man by what he says.
(48)	Čovjeka (acc) se poznaje po besjedi. Neut	A man is recognized by what he says.

Sentences such as (48) are unacceptable in the Eastern variant of SC, and the acceptable form reads:

(49) Čovjek (nom) se poznaje
Neut
po besjedi.

The "reflexive" passive sentences should be distinguished from other types of sentences which contain verbs marked by the morpheme "se", "se" being a polysemic marker in the intricate interplay of verbal diatheses in SC and other Slav languages for that matter. First of all it should be pointed out that not only transitive verbs, but all verbs in SC allowing a personal subject (intransitive, middle, and reflexive)[32a] can have the personal NP deleted, which entails the addition of the morpheme "se" to the verb. The NP which is the candidate for subject function in the "personal" sentence is deleted before the agreement rule is applied and as there is no other NP that can be subjectivized, the concord in such verbs is always 3rd person sing. neut. The deleted NP is always understood to be some NP in the plural. [33]

(50) Ljudi (nom) su umirali za otadžbinu. — People died for their country.

(51) Ø umiralo se za otadžbinu.

If verbs in these impersonal sentences occur in co-ordinated strings, only the first verb has to be marked by the morpheme "se".

(52) Ljudi su skakali od radosti, vikali, grlili se, pevali i smejali se. — People jumped with joy, shouted, embraced each other, sang and laughed.

(53) Ø skakalo se od radosti, vikalo, grlilo, pevalo i smejalo.

If middle or reflexive verbs such as smejati se (laugh), nadati se (hope), češljati se (comb one's hair) are used in impersonal constructions, then the second "se", which is transformationally introduced, gets deleted.

(54) Ljudi su patili i nadali se. ⟶ — People suffered and hoped.
*Ø Patilo se i nadalo se se.⟶
Patilo se i nadalo (se) Ø.

As can be seen from the above examples there is a great similarity between passive V^{se} sentences and impersonal V^{se} sentences. The main difference is that passive sentences are derived from transitive verbs so that after the deletion of the personal NP there is another NP which fills subject function and the verb is in agreement

with it, whereas impersonal sentences are derived from intransitive verbs and take neuter concord (3rd pers sing neuter). The similarity can best be illustrated by giving V^{se} passive sentences and impersonal sentences from the same verb used transitively and intransitively (verbs such as jesti (eat), piti (drink), pevati (sing), čitati (read), which can have the surface object deleted).

(55) Svi (nom) su jeli, pili i pevali. ⟶ (Ag.) — Everybody ate, drank and sang.

Ø jelo se, pilo i pevalo.

(56) Svi (nom) su jeli začinjena jela (acc) i pili jaka vina (acc) ⟶ (Ag, Neut, Neut) — Everybody ate spiced dishes and drank strong wines.

Ø jela su se začinjena jela (nom) i pila jaka vina (nom) (Neut, Neut) — Spiced dishes were eaten and strong wines were drunk.

There is syntactic neutralization between the two types of se sentences in subjectless passive sentences (which will be discussed later).

(57) O tome (loc) se razgovaralo. (Neut) — That has been discussed.

Both in passive and impersonal sentences the morpheme "se" is the trace left by the personal Agent or Experiencer which has been deleted. That the morpheme "se" is compatible only with finite verbal pharases in the two types of sentences is borne out by the fact that the transformationally introduced morpheme cannot be associated with non-finite forms:

*pisati se (write), *govoriti se (speak), *pevajući se (singing) whereas reflexive se's and those inherently part of the verb can: smejati se (laugh), češljati se (comb), nadajući se (hoping)

It is easy to confuse passive V^{se} sentences (and impersonal sentences) where "se" is transformationally introduced (if the neces-

sary conditions for such a transformation are satisfied) and sentences with middle verbs, where "se" is generated with the verb in the underlying structure.[35] Mørk (1970b) considers that the main characteristic of middle verbs is not the fact that they have the morpheme "se" associated with them, but the fact that they are intransitive. The inherently middle verbs (reflexiva tantum) present no problem as the morpheme "se" is an obligatory constituent of the verb (razboleti se = get sick, bojati se = be afraid, nadati se = hope, etc), but there are many verbs that participate as bare stems in transitive clauses and as V^{se} in middle clauses. Mørk assumes that middle voice is the primary (deep) structure and that the transitive is derived by a transformational rule (which incorporates causative semantics).[36] As the intricacies of the whole complex of verbal diatheses is beyond the scope of this paper we shall only adduce certain examples which might at first sight look ambiguous between the passive and the middle interpretation.

(58) U našim selima seljaci suše platno na suncu.→	In our villages peasants dry linen in the sun.
U našim selima ∅ platno se suši na suncu (passive).	In our villages linen is dried in the sun.
(59)- Gde je platno što si jutros kupila?	- Where's the linen you bought this morning?
- Eno ga suši se na suncu (middle).	- There it is, drying in the sun.

For the purpose of our study only those V^{se} passive sentences which are in systematic opposition to the active transitive sentences will be relevant (ex. 58).

It was mentioned earlier that the actual present cannot be expressed by means of biti+passive participle forms. The V^{se} passive sentences are used instead:

(60) Veruje se da će on doći.	It is believed that he wiill come
(61) Na njega se vrši pritisak.	Pressure is being put on him.

We should like to point out that verbal aspect in SC puts no con-

straints on the use of the passive forms, the perfective, imperfective and iterative forms of verbs being used freely in passive sentences of both types.[37]

(62) Na sednici se vodila (imp) žučna rasprava.	A bitter discussion took place at the meeting.
(63) Na sednici je vodjena (imp) žučna rasprava.	A bitter discussion was carried on at the meeting.
(64) Paketi su preneti (perf) kamionima.	The parcels were transported by lorries.
(65) Paketi će se preneti (perf) kamionima.[38]	The parcels will be transported by lorries.
(66) Paketi su prenošeni (imp) kamionima.	
(66) Paketi će se prenositi . . .	

The case roles and subject selection. In connection with subject selection we shall first consider simple sentences, i.e. sentences that have no embedded S under any of the NP nodes. As stated earlier, our assumption is that the core of the proposition is the predicator (in our case the verb) plus a collection of various underlying cases. How many underlying cases (case roles) the verb combines with and what kind of case roles it combines with depends entirely on the semantics of the lexical verb. Verbs should be marked, among other features, for the case frames they appear with, e.g. open (otvoriti)[_+Neut +Ins +Ag], give(dati)[_+Neut +Goal +Ag], think (misliti)[_+Neut +Exp], etc. What functions the underlying cases turn up with in surface structure depends on the lexical verb. Whereas some verbs have uniquely determined subjects, many others offer several possibilities. The change of attitude to the superficial functions such as subject and object is based on the realization that the surface subject in IE languages is a morphosyntactic category which is semantically neutral.[39] We shall mention the first choices for subject position with different classes of verbs. Verbs of action can always have the Ag in subject function in transitive active sentences. (The symbols for underlying cases will be put under the NPs. The surface case

inflections in SC examples will be put in brackets after the NPs.)

(67)	The thief opened the door Ag Neut with this key. Ins	Lopov (nom) je otvorio Ag vrata (acc) ovim ključem(ins). Neut Ins
(68)	This key opens all Ins the doors. Neut	Ovaj ključ (nom) otvara Ins sva vrata (acc). Neut

Verbs denoting mental states, such as think (misliti), believe (verovati), choose as subject of the active sentence the Experiencer case. The case frame of the verb believe is [_ +Neut +Exp].

(69)	Everybody believes Exp the story. Neut	Svi (nom) veruju u tu Exp priču (acc). Neut

If the verbs of emotional reaction, such as frighten, amuse, annoy (their case frames being [_+Exp +Ins])[40] choose the Ins as the surface subject, the sentence is of the active type.

(70)	The noise frightened Ins John. Exp	Buka (nom) je uplašila Ins Jovana (acc). Exp

Our assumption is that active and passive sentences are derived from the same underlying structure. The active or the passive sentence is the result of the choice of a particular underlying case as the candidate for subject function, the semantic relations among the arguments of the proposition remaining constant between the active and the passive versions of the same underlying structure (it will be seen further that there are certain constraints on this rule in SC, where a subjectless type of passive sentence exists). The passive transformation is a subject choice option provided by the grammars of both E and SC, which has the effect of choosing an underlying Neuter, Experiencer or Goal as surface subject of the sentence. In SC subjectivization is a grammatical process by which an NP is assigned the nominative case which functions in the verb number-person-and-gender agreement rule,

whereas in E it is a process by which one NP is assigned initial position and the finite verb is in agreement with it.

(71)	The noise frightened John. Ins Exp	Buka (nom) je uplašila Ins Jovana (acc). Exp
(72)	John was frightened Exp by the noise. Ins	Jovan (nom) se uplašio Exp od buke (gen).[41] Ins
(73)	The Center will admit Loc diabetics. Neut	Centar (nom) će primati Loc dijabetičare (acc). Neut
(74)	Diabetics will be admitted Neut into the center. Loc	Dijabetičari (nom) će se Neut primati u centar (acc). Loc
(75)	The teachers gave Ag Mary a book. Goal Neut	Nastavnici (nom) su Ag dali Mariji (dat) knjigu (acc). Goal Neut
(76)	Mary was given a book Goal Neut (by the teachers) Ag	Mariji (dat) je Goal uručena knjiga (nom) Neut (od strane nastavnika) Ag

In English there are fewer constraints on the choice of the passive subject than in SC owing to two reasons. Firstly, the noun in Modern English is not inflected for case (the genitive inflection is irrelevant for us), so that the noun stem is easily shifted to subject position (order being one of the main devices for showing such surface functions as subject and object). Secondly, the subject slot must be filled in a finite clause owing to the loss of inflections for person in verbs. These two factors make it easier to derive the passive subject in E than in SC, where track has to be kept of the surface

inflections that the NPs take in the active version. For instance, in E, where both the Goal and the Neuter correspond to bare stems in surface structure, with verbs (e.g. give, send, tell) that take both the Goal and the Neuter in the functions of indirect and direct objects, either the Goal or the Neuter may be subjectivized in the passive sentence.

(77)	They sent Mary the letter. Ag Goal Neut	Oni (nom) su poslali Mariji (dat) pismo (acc). Ag Goal Neut
(78)	Mary was sent the letter. Goal Neut	Mariji (dat) je poslato pismo (nom). Goal Neut
(79)	The letter was sent to Mary. Neut Goal	Pismo (nom) je poslato Mariji (dat). Neut Goal

In SC only the Goal which has the accusative inflection in the active equivalent can be chosen as subject of the passive sentence.

(80)	Oni (nom) su obavestili Mariju (acc) o mom dolasku. Ag Goal Neut	They informed Mary of my arrival. Ag Goal Neut
(81)	Marija (nom) je obaveštena o mome dolasku. Goal Neut	Mary has been informed of my arrival. Goal Neut

For some mysterious reason the verb obavestiti (inform) requires the surface NP representing Goal to have accusative inflection, whereas other semantically related verbs such as javiti (inform, notify), telefonirati (phone), and others, require the NP representing Goal to be inflected for dative (the typical case of the indirect object).

(82)	Oni (nom) su javili Mariji (dat) datum (acc) moga dolaska. Ag Goal Neut	They notified Mary of the date of my arrival. Ag Goal Neut

(83) Mariji (dat) je javljen — Mary was notified of
Goal — Goal
datum (nom) moga dolaska. — the date of my arrival.
Neut — Neut

When choosing the subject of the passive sentence we must keep track of the morphology of NPs in the active equivalent. Only those Goal and Neuter cases can be subjectivized which have the accusative inflection in the active equivalent. In all other cases passive sentences are subjectless. In SC the Neuter case is not inflected for the accusative (in the function of object) after all verbs. Verbs such as vladati (rule), upravljati, rukovoditi (manage, run, operate, guide), trgovati (deal in, trade), etc. require the instrumental inflection in the surface object (such facts should be entered in the lexicon). As only those NPs which have acc inflection in the active sentence can be subjectivized in the passive equivalent, passive sentences with these predicators are subjectless.[42]

(84) Oni (nom) su vešto upravljali — They ran the country
Ag — Ag — Neut
zemljom (ins). — efficiently.
Neut

(85) Zemljom (ins) je vešto — The country was ef-
Neut — Neut
upravljano. (be+Ven passive) — ficiently run.

(86) Zemljom (ins) se vešto
Neut
upravljalo (V^{se} passive).

As can be seen from the above discussion, in SC the choice of subject or its absence in subjectless passive sentences depends entirely on surface morphology. Whether the surface object function is filled by an NP spelled out as accusative or not, is vital information for the subjectivization rule in the passive sentence. In view of that fact we are not quite convinced that surface morphology plays such a minor role in syntax. There is another point that we should like to emphasize. From the above discussion and the examples adduced it emerges that the greatest neutralization of underlying cases occurs in the surface functions of subject and

direct object. That is the reason why Fillmore considers the two functions as being derived and gives up the notion of deep structure subject.[43]

Neuter case preceded by a preposition in surface structure. We have mentioned that some prepositions are case markers, such as to for Goal, with for Instrument, for for Benefactive, etc. Such prepositions are considered as unmarked. The Neuter case is normally not marked by an overt preposition in surface structure. But there are instances in which the Neuter turns up with a preposition. There are verbs that require a lexically determined preposition before the Neuter case, such as laugh (at), listen (to), refer (to), wait (for) in E, and razgovarati (o) (talk about), postupati (sa or prema) (treat), etc. in SC. If the Neut NP in E is subjectivized in a passive sentence the preposition is left behind and follows the verb.

(87) Everybody laughed at John. (Ag, Neut) — Svi (nom) su ismejavali Jovana (acc). (Ag, Neut)

(88) John was laughed at. (Neut) — Jovan (nom) je ismejavan. (Neut)

(89) Somebody referred to the problem. (Ag, Neut) — Neko (nom) je pomenuo taj problem (acc). (Ag, Neut)

(90) The problem was referred to. (Neut) — Taj problem (nom) je pomenut. (Neut)

In SC the Neuter case preceded by an overt preposition cannot be promoted to subject function, though the verb can be passivized so that subjectless passive sentences are obtained. As no nominative NP in subject function is provided for the verb agreement, the verbs in such sentences have neuter concord (3rd pers sing neut).

(91) Oni (nom) su raspravljali o tome problemu (prep+loc). (Ag, Neut) — They discussed the problem. (Ag, Neut)

(92) O tome problemu (prep+loc) The problem was discussed.
Neut Neut
je raspravljano (be+Ven pass.)

(93) O tome problemu se rasprav-
Neut
ljalo (V^{se} passive).

(94) Svi (nom) su loše sa njim Everybody treated him
g Neut Ag Neut
(pr:) postupali. badly.

(95) Sa njim (prep+ins) je loše He was badly treated.
Neut
postupano (be+Ven pass).

(96) Sa njim se loše postupalo (V^{se} pass).

In E it should be noted that if prep+NP which is dominated by the node Neut does not follow the verb, another NP intervening, the Neut cannot be subjectivized.[44]

(97)a. Water was filled the jugs with.

b. They filled the jugs Oni (nom) su rapunili
Ag Loc Ag
with water. vrčeve (acc) vodom (ins).
Neut Loc Neut

In (97) the NP standing for the underlying Loc has been objectivized and the Neut is realized by a prepositional phrase, so that the passive version reads:

(98) The jugs were filled Vrčevi (nom) su
Loc Loc
with water. napunjeni vodom.
Neut Neut

But if the verb allows another configuration of cases in surface structure, as in:

(99) They poured water Sipali su vodu (acc)
Ag Neut Neut
into the jug. u vrč.
Loc Loc

normal correspondence between the cases in the active and the passive sentences is preserved:

(100)	Water was poured	Voda (nom) je sipana
	Neut	Neut
	into the jug.	u vrč.
	Loc	Loc

With a number of intransitive verbs [44a] which are followed by locative phrases the NP following the locative preposition can be subjectivized in E.

(101)a.	Nobody has lived in this house.	Niko nije živeo u ovoj kući.
b.	This house has not been lived in.	U ovoj se kući nije živelo.
(102)a.	Nobody has trod on this carpet.	Niko nije gazio po ovome ćilimu.
b.	This carpet has not been trod on.	Po ovome ćilimu nije gaženo.
(103)a.	Somebody has slept in this bed.	Neko je spavao u ovome krevetu.
b.	This bed has been slept in.	U ovome krevetu se spavalo.

There is nothing particularly exceptional about such sentences if we accept the theory of deep cases, which is based on the fact that subject function neutralizes underlying cases. But as passivization of intransitive verbs followed by locative phrases cannot be generalized to all intransitive verbs, in English such verbs should be marked in the lexicon as undergoing passive transformation.

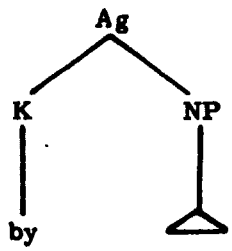
The by+NP phrase in E passive sentences and its SC equivalents. It is a well-known fact that whatever NP can turn up in the subject function in an active sentence can turn up as part of the by+NP phrase in the corresponding passive sentence.

(104)	The tripartite commission	Tripartitna komisija (nom)
	Ag	Ag
	will consult the Palestinians	konsultovaće Palestince (acc)
	Neut	Neut
	living in other Arab territories.	koji žive u drugim arapskim teritorijama.

(105) The Palestinians living...	Palestinci (nom) koji žive...
Neut	Neut
will be consulted by the tripartite commission.	biće konsultovani od strane tripartitne komisije.
Ag	Ag
(106) Nobody believed that.	Niko (nom) u to (prep+acc)
Exp Neut	Exp Neut
	nije verovao.
(107) That wasn't believed	U to (prep+acc) se nije verovalo.
Neut	Neut
by anybody.	
Exp	
(108) The rigid antiinflationary	Krute antiinflacione mere (nom)
Ins	Ins
measures have hit the most powerful West	pogodile su najmoćniju priv-
Neut	Neut
Eu.opean economy.	redu (acc) Zapadne Evrope.
(109) The most powerful West	Najmoćnija privreda (nom)
Neut	Neut
European economy has been hit by the rigid antiinflationary measures.	Zapadne Evrope pogodjena je krutim antiinflacionim
Ins	Ins
	merama (ins).
(110) The hospital accepts	Bolnica (nom) prima dija-
Loc	Loc
diabetics.	betičare (acc).
Neut	Neut
(111) Diabetics are accepted	Dijabetičari (nom) se pri-
Neut	Neut
by the hospital.	maju u bolnicu (pre+loc).
Loc	Loc

As can be seen from the E examples all the underlying cases that can be candidates for subject function in an active transitive sentence (Ag, Exp, Ins, Loc), can also be candidates for the by+NP constituent in a passive sentence. Therefore we are justified in

claiming that case neutralization occurs in the passive by+NP phrase just as it occurs in the active subject function. Once it was mistakenly assumed that the underlying unmarked Agent preposition was by, so that the Ag was represented in the base component as (Fillmore 1968, diagram 65, p. 37):



But as this hypothesis is untenable by will be assumed to be introduced by the passive rule.

In SC the "agent" is rarely expressed in a passive sentence for reasons that we shall discuss in Part II of this paper. But when it is expressed it takes the form od (strane) NP (on the part of). The expressed agent in SC (unlike in E it can legitimately be called "agent") takes this form only in case that the agentivized NP has a source in the underlying Agent case. SC, like E, is not semantically discriminative where the subject function of the active sentence is concerned, but unlike E, if there is an expressed agent in the passive sentence, it must have the source in the underlying Agent case. Only NPs that have the feature [+human] or [+Organization][45] can turn up in passive sentences as od (strane) NP phrases.

(112) Dočekali su ga diplomatski predstavnici.	Diplomatic representatives met him.
(113) Dočekan je od strane diplomatskih predstavnika.	He was met by diplomatic representatives.
(114) Cela porodica ga je odbacila.	The whole family rejected him.
(115) Bio je odbačen od cele porodice.	He was rejected by the whole family.

(116) Narodna banka nije odobravala nikakve kredite.	The National Bank did not approve any credits.
(117) Od strane narodne banke nisu odobravani nikakvi krediti.	No credits were approved by the National Bank.
(118) Nova vlada će primeniti rigorozne mere prema špekulantima.	The new government will take strict measures against profiteers.
(119) Prema špekulantima će se primeniti rigorozne mere od strane nove vlade.	Strict measures will be taken by the new government against profiteers.
(120) Ovu čitanku su sa zadovoljstvom prihvatili nastavnici srpskohrvatskog jezika.	Teachers of SC have happily accepted this reader.
(121) Ova čitanka je sa zadovoljstvom prihvaćena od nastavnika srpskohrvatskog jezika.	This reader has been happily accepted by teachers of SC.

Of the many examples of the expressed agent that we have collected from the informative written and spoken prose, we have adduced more than was strictly necessary in order to show that the expressed agent in passive sentences is not "a fictitious construction which hardly occurs outside normative grammars."[46] There is a growing tendency at present to use passive agents in informative texts, in which, when certain clichés become popular, there need not be any structural motivation for using them, except perhaps a desire to colour the text with a certain flavour.

In SC the underlying Ins and Loc cases which are correlated to subject NPs in active sentences, turn up in the surface structure of passive sentences as NPs that are inflected for ins or loc cases.

(122) Porast (nom) cena je Ins izazvao nevolje (acc) Neut u medjunarodnom monetarnom sistemu.	The rise in prices has Ins caused difficulties in the Neut international monetary system.

(123) Nevolje (nom) u medju-narodnom monetarnom sistemu izazvane su porastom cena (ins).
Neut Ins

Difficulties in the interna-tional monetary system have been caused by the rise in prices.
Neut Ins

(124) Ženevska štampa (nom) je danas tu vest (acc) re-gistrovala.
Loc Neut

The Geneva press recorded that piece of news today.
Loc Neut

(125) Ta vest (nom) je danas u ženevskoj štampi (prep+loc) registrovana.
Neut Loc

That piece of news was recorded by the Geneva press today.
Neut Loc

There is another point that we should like to clear up in connection with the by+NP constituent in E passive sentences. It has been mistakenly assumed that if both an Agent and an Instrument case are present in a passive sentence, then the Ag turns up as by+NP and the Ins as with+NP. In case there is no Agent, the underlying Ins turns up as by+NP. Fillmore (1966, 373-374) claims that in passive sentences in which the Ins turns up accompanied by the preposition with there is an understood human Agent, so that:

(126) The door was opened with this key. — Vrata su otvorena ovim ključem.

should be distinguished from:

(127) The door was opened by the wind. — Vrata su se otvorila od vetra.

It seems to us that two issues are confused here and that each needs separate explanation. First, as we see it the Ins case that is realized by an NP that has as referent a physical object, such as a key, a knife, scissors, etc. which always needs the direct intervention of a human agent in order to be applied, must be preceded by the preposition with (if it is not subjectivized) whether a human agent is present or not.[47]

(128)	The cloth was cut with my scissors.	Štof je otsečen mojim makazama.
(129)	Mary cut the cloth with my scissors.	Marija je otsekla štof mojim makazama.

Example (127) refers to a natural force that acts without human intervention and there is no choice between the prepositions by and with. Where ambiguities may arise is in sentences in which the Ins refers to forces that may, but do not necessarily, require immediate human intervention, as in:

(130)	The rats were killed with fire.	Pacovi su uništeni vatrom.
(131)	The rats were killed by fire.	Pacovi su nastradali od vatre.[48]
(132)	The bus was destroyed with a bomb.	Autobus je uništen bombom.
(133)	The bus was destroyed by a bomb.	Autobus je nastradao od bombe.

The examples (130) and (132) are unambiguous in the sense that they presuppose a suppressed Agent and can be expanded by a by+NP agential phrase. The examples (131) and (133) are ambiguous between an agential and a non-agential interpretation.

In the non-agential interpretation of (133) the bus may have hit a bomb lying on the road that had not been planted there in order to destroy the bus. In the agential interpretation of (133) the bomb was used intentionally to destroy the bus (the same holds good for ex. 131). But even if an agential interpretation is accepted, the examples (131) and (133) cannot be expanded by a phrase that has the Ag in the underlying structure. Once a by+NP phrase is present in a passive sentence, the possibility of expanding the sentence by another by+NP phrase is excluded. This phenomenon can be correlated to the principle of hierarchy of cases in active transitive sentences. In active transitive sentences in which the predicator is an action verb the first choice for the function of subject is the Ag case. As soon as the hierarchy of cases is upset by skipping the Ag and promoting another case over it for the function of subject, there is no possibility of bringing back the Ag in another guise (ex. 135).

(134)	The management does not admit diabetics to the hospital.	Uprava (nom) ne prima dijabetičare (acc) u bolnicu (prep+loc).
	Ag Neut Loc	Ag Neut Loc
(135)	The hospital does not admit diabetics.	Bolnica (nom) ne prima dijabetičare (acc).
	Loc Neut	Loc Neut

The passive equivalents of (134) are:

(136)	Diabetics are not admitted to the hospital.	Dijabetičari (nom) se ne primaju u bolnicu (loc).
	Neut Loc.	Neut Loc.
(137)	Diabetics are not admitted to the hospital by the management.	
	Neut Loc Ag	

The passive equivalent of (135) is:

(138)	Diabetics are not admitted by the hospital.	Dijabetičari se ne primaju u bolnicu.
	Neut Loc	

There is no possibility of expanding (138) by an agent as the Loc has been promoted over it just like in the active ex. (135).

The syntactic relations between the active and the passive sentences that have been derived from the same underlying structure are not always as straightforward as it would seem from the examples quoted. Here is a case in point:

(139)	Egypt and the U.S. broke off diplomatic relations in 1967.	Egipat i S.D. prekinuli su diplomatske odnose 1967.

(140)	Diplomatic relations between Egypt and the U.S. were broken off in 1967.	Diplomatski odnosi izmedju Egipta i S. D. prekinuti su 1967.

We have discussed in Mihailović (1967b) a number of minor rules that take care of the apparent irregularities.

Concluding remarks. In this analysis, which is based on the theoretical assumptions of Fillmore's case grammar, the active sentence and its passive counterpart are derived from the same underlying structure, the active or the passive sentence being the result of the choice of the particular underlying case to be promoted to subject function. Depending on the predicator one or several of the underlying cases can be candidates for subject function, subject being the function where the greatest neutralization of case roles occurs both in E and SC. We have established that the same applies to the by+NP constituent in E passive sentences, whereas the SC passive "agent" seems to be semantically much more discriminative. In SC only those NPs that have a source in an underlying Agent case can turn up in the surface as od (strane)+NP phrase. Another major difference in the grammatical structure of the two languages is that the subjectivization rule in SC does not act on an NP which does not have the accusative inflection in the active counterpart or is preceded by a preposition; rather, subjectless passive sentences are obtained. That morphological exponents are a decisive factor in the subjectivization rule in SC can best be seen in reduced coordinate sentences in which the shared NP is deleted. In E owing to the absence of inflection in nouns two different underlying cases can always be merged into one surface subject NP(if they are coreferential).

(141)	I insisted and was finally Agent and Goal given the letter. Neut	Ja (mom) sam navaljivao Agent i najzad mi (dat) je predato Goal pismo. Neut

The active sentence which is correlated to ex. (141) reads:

(142)	I insisted and x finally Ag Ag gave me the letter. Goal Neut	Ja sam navaljivao i x Ag Ag mi (dat) je najzad predao Goal pismo. Neut

When the second clause is passivized the underlying Goal in the function of "indirect object" is subjectivized in the E example.

(143)	I insisted and I Ag was given . . .	Ja (nom) sam navaljivao i Ag meni (dat) je predato . . . Goal

In E, by the rules of coordinate clause reduction, the subject NP in the second clause can be deleted if it is coreferential with the subject NP in the preceding sentence, so that two underlying cases (Ag and Goal) are represented by one surface NP. As can be seen from ex. (141), in SC the two cases cannot be merged into one surface NP, as the NP standing for Goal has dative inflection in the active counterpart. But in SC two underlying cases can converge into the same subject NP if the surface morphology allows it.

(144)	Ona (nom) je pružila otpor Ag policiji ali je policija Ag nju (acc) savladala. Neut	She offered resistance Ag to the police but the police overcame her. Ag Neut
(145)	Ona je pružila otpor poli- ciji ali je ona (nom) Neut savladana.	She offered resistance to the police but she Neut was overcome.
(146)	Ona je pružila otpor Agent and Neut policiji ali je Ø savladana.	She offered resistance to Agent and Neut the police but Ø was overcome.

Part I of this paper deals only with rules applying to simple sentences. Rules applying to sentences with propositional arguments as well as the different motivations for the use of passive sentences in E and SC, which are closely connected with the differences in the structures of the two languages, will be dealt with in Part II.

N O T E S

1. Svartvik (1966) considers as passive all the forms that have the passive aux in the verbal phrase. Treating passive forms so to say in their own right has its justification, as the passive has had a long development of its own and does not exist exclusively in terms of the binary opposition active/passive. It has developed a whole scale of hybrid forms such as:

   I am unloved and rejected by everyone.
   But Cavill was unimpressed by this sally.
   (Svartvik, 162)

2. We dealt with this category in Mihailović (1967a), classifying it as pseudopassive.

3. In legal documents the "passive" version may be used with an agent phrase "rodjen od majke Marije i oca Jovana" (=born of mather Mary and father John"), whereas the middle cannot be used in that particular context: *rodio se od majke ...

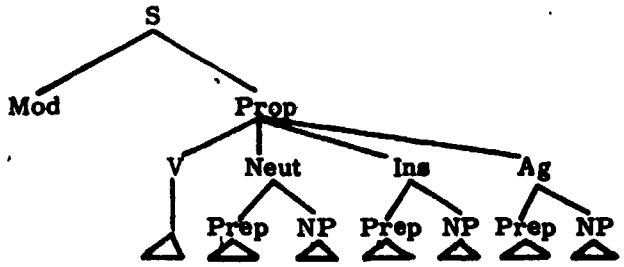
4. This category is also called "short passive", as such passive sentences cannot be expanded by the by+NP phrase. See: Anderson (1971).

5. See also: Jespersen (1949, IV, 98), Curme (1931, 443-447), Turner (1962, 181), Hasegawa (1968).

6. For the discussion of the so-called "notional passive" see: Mihailović (1965).

7. Our assumptions are based on Fillmore's case grammar as expounded in Fillmore (1966), Fillmore (1968) and Fillmore (1971).

8. The following diagram is a rough representation:



9. We have decided on this working hypothesis again for practical reasons although we agree with Shopen (1972) that "any interesting account of functional meaning will have to be able to do one of the things that Gruber's generative semantics does, and that is to assign more than one semantic function to a single syntactic constituent".

10. According to Gruber there is abstract motion in the pair of verbs teach/learn and possessional motion in lend/borrow between Source and Goal, the motion going from left to right in teach and lend, and from right to left in learn and borrow.

John taught French to Bill.
(Source and Agent) lent money (Theme) (Goal)

Bill learned French from John.
Bill borrowed money from John.
(Goal and Agent) ← Theme ← Source

This would be impossible to represent in Fillmore's type of grammar or any type of grammar which has a unique deep structure.
See also Anderson (1971) for assignment of several semantic functions to the same syntactic constituent.

11. Gruber (1965, 67-68) deals with this problem and we quote from him:

*John sent the book to Bill to New York.
*The duck swam from the tree from the shore.

It appears that the prepositions must be put in a different form, the directional from and to being converted to a non-Motional preposition.

John sent the book to Bill in New York.
The duck swam from the tree at the shore.

12. "Notational difficulties make it impossible to introduce "case" as a true primitive as long as the phrase-structure model determines the form of the base rules." (1968, note 2, p. 3).

13. See also Robinson (1970) for a discussion of Fillmore's case grammar and the theoretical issues raised by his modification of the Standard Theory.

14. Curme (1935, 128) recognizes four cases in English: nominative, accusative, dative, genitive with the addition of the instrumental as an Old English case.

15. See Stevanović (1957) and Brabec, Hraste, Živković (1968).

16. See: Zandvoort (1953), Curme (1931).

17. E.A.Sonnenschein, A New English Grammar, Oxford, 1921 (cited from Jespersen (1968)).

18. Jespersen (1968, 177) is horrified at this view of Sonnenschein's and at the fact that he recognizes a dative case: "What is the next step going to be in this progressive series, one wonders? Probably someone will thank Sonnenschein for thus opening the door to the admission of an ablative case, and why not proceed with an instrumental, locative, etc?"

19. Hjelmslev (1935, 21): "... les differences d'expression n'ont pas de sens linguistique qu'a l'intérieur d'un seul et même état de langue."

20. Hjelmslev (1935, 20): "Un fait linguistique se définit par la place qu'il occupe dans le systeme, et cette place lui est assignée par la valeur."

21. Fillmore (1968, 20): "The dispute on the term case loses its force in a linguistics which accepts the centrality of syntax."

22. Gruber speaks of agentive verbs.

23. Cruse (1973) adduces certain examples which show that no test is absolutely foolproof.

(56) The wind opened the door.
(57) The stone broke the window.
(58) John broke the window with a stone.

Cruse argues that the wind in (56) is in a do-relationship with opened, and that it is a true agentive, and that the stone in (57) can also be in a do-relationship with the verb break:

(60) As a result of the explosion, a stone flew across the road and broke the window. (p. 20)

Cruse broadens the feature Agentive to any sentence "referring to an action performed by an object which is regarded as using its own energy in carrying out the action. Included amongst these objects are living things, certain types of machine, and natural agents." (p. 21) Why we do not adopt this formulation of agent will be obvious when the so-called passive agent in SC passive sentences is discussed.

24. The examples are borrowed from Schachter et al (1973, 43).

25. As an illustration we give the declension of the nouns:

jelen (masc, deer), žena (fem, woman) and selo (neut, village).

	Singular			Plural		
nom:	jelen	žena	selo	jeleni	žene	sela
gen:	jelena	ženē	sela	jelēnā	žénā	sêlā
dat:	jelenu	ženi	selu	jelenima	ženama	selima
acc:	jelena	ženu	selo	jelene	žene	sela
voc:	jelene	ženo	selo	jeleni	žene	sela
ins:	jelenom	ženom	selom	jelenima	ženama	selima
loc:	jelenu	ženi	selu	jelenima	ženama	selima

26. Pres: is asked, is being asked; pres. perf: has been asked, etc.

27. Perf: upitan sam; past perf: bio sam upitan; fut: biću upitan; potential: bio bih upitan; special present form in subordinate clauses: budem upitan, etc.

28. The full forms are: jesam, jesi, jeste, jesmo, jeste, jesu. The enclitic forms are: sam, si, je, smo, ste, su.

29. Bivam, bivaš, biva, bivamo, bivate, bivaju.

30. In narrative texts these forms may be used as historic present:

Kao najbolji u svojoj klasi biva izabran za pilota aviona koji će baciti bombu na Hirošimu ... Na kraju biva uhapšen i sudi mu se kao običnom lopovu.	He, as the best in his class, was (is) chosen as the pilot of the plane that would drop the bomb on Hiroshima... Eventually he was (is) arrested and tried as a common thief.

31. Except for the addition of the morpheme "se" the reflexive passive forms are the same as those of the active verbs: govori se, govorilo se, govoriće se, govorilo bi se, etc. The position of the morpheme "se" is regulated by special enclitic placement rules. See: Wayles Browne (1967). The aux je is usually deleted when the morpheme "se" is present.

32. Mørk (1969, 258-259) represents the passive V^{se} transformation in the following way:

T_2: $NP_{pn} + V^{tr} + NP_a \longrightarrow V^{se}$ sing (3rd pers) (neut) + NP_a

T_2 is the so-called N_p-ellipsis transformation, to which T_4 is applied:

T_4: V^{se} sing (3rd pers) (neut) + $NP_a \longrightarrow V^{se} + NP_n$

(The meanings of symbols: p=personal, n=nominative, a=accusative). Mørk operates with the concepts nominative and accusative in underlying structure, which makes the representation of the passive transformation look very neat. For us categories such as nominative and accusative are not generated in the underlying structure, but are derived surface functions. We shall adduce an explicit representation of Mørk's rules:

T_2: (NPp) čita knjigu $\longrightarrow$ Čita se knjigu (this intermediate transform is ungrammatical)
NP_{nom} V^{tr} NP_{acc} V^{se} NP_{acc}

T4: Čita se knjigu → Čita se knjiga
V^se NP_acc V^se NP_nom

32a. This transformation is lexically restricted. The following example, though not ungrammatical, sounds strange:

Ljudi su se bojali vukova. → People were afraid of wolves.

? Bojalo se vukova.

I am grateful to W. Browne for drawing my attention to this point.

33. Milka Ivić (1962 - 1963) says that it has not been sufficiently emphasized that the agent in such sentences can be generalized in two senses: it can denote any single individual or it can denote people in general (p. 94): na groblju su prisutni ljudi mnogo plakali → na groblju se Ø mnogo plakalo. M. Ivić states that a third person sing. neuter verb followed by the "reflexive" morpheme "se" is a standard device for denoting a generalized multitude in the function of agent (p. 87). Mørk does not quite realize this, because he spells out the generalized agent as "neko" (1968, 249).

34. The fact that "se" accompanies the infinitive in the so-called future tense:

Na sastanku će se r... pravljati taj problem. — That problem will be discussed at the meeting.

is no counter example to our assertion, as the V^inf is part of the finite periphrastic verbal phrase.

35. If verbal diatheses in IE are viewed historically then it can be seen that originally the active verbal forms were opposed to the middle forms and the passive was a subtype of the middle. See: Benveniste (1966).

36. See also Milka Ivić (1961-1962) for a view that differs from Mørk's.

37. Spalatin's (1973, 116) statement: "Out of a hundred odd examples of the passive in SC collected by my students, there was not a single instance of the passive of an imperfective verb; all the examples contained only perfective

verbs" makes us suspect the validity of conclusions based on translated material. The many examples that we have drawn from original SC spoken and written prose point to the opposite conclusion.

38. The perfect tense of perfective verbs is not frequent in V^{se} passive sentences. Sentences such as:

? Paketi su se preneli kamionima.	The parcels were carried by lorries.
? Krijumčari su se uhvatili na granici.	The smugglers were caught at the frontier.

sound queer, whereas:

Paketi će se preneti kamionima.	The parcels will be carried by lorries.

are perfectly acceptable. Unfortunately, this escapes formalization.

39. In IE languages with morphologically developed case systems the function of subject is filled by the nominative case. This is the reason why the nom has presented the greatest problem to grammarians for centuries. Some even excluded it from the case system. The crux of the problem was that the "normal" meaning of the nominative could not be established. The problem was further complicated when it was discovered that in ergative languages the nominative is used in object position with transitive verbs and in subject position with intransitive verbs. A real advance in the theory of case was made when it was finally realized that such notions as subject and nominative were superficial phenomena and that the surface function of subject which is realized by an NP in the nominative case represented a neutralization of different underlying meanings: "nom is the notionally most neutral case" (Anderson, 1971, 37).

40. These verbs can appear with a different array of case roles [— +Exp +Ins +Ag].

He annoyed us with his constant chattering.	On nas je nervirao svojim neprestanim brbljanjem.
Ag Exp Ins	Ag Exp Ins

41. With verbs of emotional reaction in SC if the Exp is chosen as subject the sentence is of the middle type, i.e. the verb is associated with the morpheme "se", which in this case is the exponent of the middle voice. Mark's (1970b) assumption is that such middle sentences are generated in the deep structure and that causative semantics gets incorporated in the oblique NP constituent. In the following example the causative c is incorporated in the NP od buke:

Buka c (Jovan se uplašio)	The noise c (John got frightened)
Jovan se uplašio od buke.	John was frightened by the noise.

42. It is interesting to note that in Old E only those Neuter and Goal cases were subjectivized which had the accusative case marker in the corresponding active sentence. In OE non-subjectivized passive sentences were not at all uncommon, which is explainable by the fact that the morphology of E at that time was much more similar to SC than at present. See: Traugott (1972, 82).

43. See Fillmore (1966, 375).

44. This does not hold good where the NP following the verb forms a semantic unit with it:

They took care of him.	Oni su se brinuli za njega.
He was taken care of.	

44a. W. Browne suggests that another relevant factor in the subjectivization of NPs with prepositions is whether the referent of the NP is affected by the action of the verb.

a. This bed has not been slept in.

but not:

b. * This field has not been slept in.

because it makes no difference to the field whether somebody has slept in it or not.

c. This problem has been thought about.

but not:

d. * The Taj Mahal has been thought about.

Example c. means that we have started solving the problem, whereas in example d. the famous tomb is not affected by people thinking about it.

45. We have taken this term from Gruber (1965). NPs, such as škola (school), banka (bank), vlada (government), Crveni krst (Red Cross), if they denote a group of humans associated by a common activity, have the feature [+Organization] in their feature index.

46. Mørk (1969, 258).

47. This does not hold good for set phrases such as by bus, by car, which are used in transitive, intransitive, active and passive sentences.

48. The od+NPgenitive, which expresses inanimate source, instrument or cause, should not be confused with od strane +NPgen.

Vrata su se otvorila od vetra (middle voice).	The door was opened by the wind.
Prozori su popucali od mraza (middle voice).	*The windows cracked from the frost.
Umro je od zapaljenja pluća (intransitive).	He died of pneumonia.

R E F E R E N C E S

Anderson, John M. 1971. The Grammar of Case-Towards a Localistic Theory. Cambridge Studies in Linguistics 4, Cambridge.

Benveniste, Émile. 1966. "Actif et moyen dans le verbe", Readings in Linguistics II, eds. E. P. Hamp, F. W. Householder, R. Austerlitz, Chicago, 242-247 (first published 1950).

Brabec, Hraste, Živković 1968. Gramatika hrvatskosrpskog jezika, Zagreb.

Browne, Wayles 1967. On the Problem of Enclitic Placement in Serbo-Croatian, Cambridge, Mass. (unpublished paper).

Cruse, D. A. 1973. "Some thoughts on agentivity", JL 9, 11-23.

Curme, George O. 1931. Syntax, Boston.

Curme, George, O. 1935. Parts of Speech and Accidence, Boston.

Fillmore, Charles J. 1966. "Toward a Modern Theory of Case", Modern Studies in English, eds. D. A. Reibel, S. A. Schane, Englewood Cliffs, New Jersey, 1969 (first publ. 1966).

Fillmore, Charles J. 1968. "The Case for Case", Universals in Linguistic Theory, eds. E. Bach and R. T. Harms, New York.

Fillmore, Charles J. 1969. "Types of Lexical Information", Studies in Syntax and Semantics, ed. F. Kiefer, Foundation of Language (Supplementary Series) Vol. 10, Dordrecht, Holland, 109-137.

Fillmore, Charles J. 1971. Some Problems for Case Grammar, (paper presented at the 1971 Georgetown Roundtable on Linguistics).

Gruber, Jeffrey S. 1965. Studies in Lexical Relations (unpublished paper).

Gruber, Jeffrey S. 1967. "Look and see", Lg 43, 937-947.

Hall, Barbara Corey 1965. Subject and Object in Modern English, MIT doctoral dissertation (unpublished).

Hasagawa, Kinsuke 1968. "The passive construction in English", Lg 44, 230-243.

Hjelmslev, Louis 1935. "La Catégorie des Cas", Acta Jutlandica VII, I-XII+1-184.

Hjelmslev, Louis 1937. "La Catégorie des Cas", Acta Jutlandica IX, III-VII+1-77.

Ivić, Milka 1961-1962. "Jedan problem slovenske sintagmatike osvetljen transformacionim metodom (Gramatička uloga morfeme se u srpskohrvatskom jeziku)", Južnoslovenski filolog XXV (Beograd), 137-151.

Jespersen, Otto 1949. A Modern English Grammar on Historical Principles, Vols I-VII, Copenhagen.

Jespersen, Otto 1968. The Philosophy of Language, London (first published 1924).

Jakobson, Roman 1966. "Beitrag zur allgemeinen Kasuslehre - Gesamtbedeutung der russischen Kasus", Readings in Linguistics II, eds. E. P. Hamp et al. (first published 1936), 51-89.

Lyons, John 1968. Introduction to Theoretical Linguistics, Cambridge.

Mihailović, Ljiljana 1965. "The Passive Voice of Verbs in English as a Formally Marked Category and as a Notional Category", Anali Filološkog fakulteta (Beogradski univerzitet) 3 (godina 1963), 227-237.

Mihailović, Ljiljana 1967a. "Passive and Pseudopassive Verbal Groups in English", English Studies 48, 316-326.

Mihailović, Ljiljana 1967b. Upotreba pasivnih glagolskih oblika u savremenom engleskom jeziku, Beograd, Filološki fakultet Beogradskog univerziteta (Monografije, knj. XII).

Mørk, Henning 1969. "Impersonal and passive sentences in Serbo-Croatian (a generative study)", Scando-Slavica XV (Copenhagen), 247-262.

Mørk, Henning 1970a. "Reflexive Constructions and Reflexive Verbs in Serbo-Croatian (a generative study)", Scando-Slavica XVI, 237-246.

Mørk, Henning 1970b. "Middle and Middle-Causative Constructions in Serbo-Croatian (a generative study)" Zbornik za filologiju i lingvistiku, knj. XIII/1 (Novi Sad), 55-69.

Robinson, Jane J. 1970. "Case, category, and configuration", JL 6, 57-80.

Rumpel, Theodor 1845. Casuslehre in besonderer Beziehung auf die griechische Sprache, Halle (cited from Hjelmslev 1935).

Shopen, Tim 1972. A Generative Theory of Ellipsis - A Consideration of the Linguistic Use of Silence (unpublished paper).

Spalatin, Leonardo 1973. "Some Serbo-Croatian Equivalents of the English Passive", in R. Filipović (ed.), The Yugoslav Serbo-Croatian-English Contrastive Project, Reports 8, 115-131. Zagreb, Institute of Linguistics.

Stevanović, Mihailo 1957. Gramatika srpskohrvatskog jezika, Beograd.

Stockwell, Robert P.; Schachter, Paul; Hall Partee, Barbara 1973. The Major Syntactic Structures of English, New York.

Svartvik, Jan 1966. On Voice in the English Verb, The Hague.

Traugott Closs, Elizabeth 1972. The History of English Syntax, New York.

Turner, G.W. 1962. "The Passive Construction in English Scientific Writing", AUMLA 18, 181-197.

Zandvoort, R.W. 1953. A Handbook of English Grammar, Groningen, Djakarta (first edition 1945).

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THE DEFINITE DETERMINER IN ENGLISH AND SERBO-CROATIAN

0. The human mind recognizes grammatical categories with explicit formal realizations easier than those with implicit ones, just as it identifies objects faster than ideas. Therefore, the distinction definite/indefinite has been discussed predominantly in connection with articles - the lexical category representing it.

0.1 The function of the English definite article has had much attention devoted to it in recent and not so recent grammatical descriptions. The treatments of individual grammarians vary in scope and substance, but there is a more or less general agreement that the definite article converts ideas into reality, makes the noun phrase familiar, and refers to previous mention[1].

0.2 However, the above properties are not restricted to articles. They are inherent in demonstrative pronouns, a grammatical category from the unstressed form of the members of which the definite articles have actually developed. They are present within a large class of pronominal modifiers which includes demonstrative pronouns and which more or less contemporary grammarians call determiners[2].

0.3 The determiners embody information about the antecedent of the nouns they are attached to. This information often surpasses the boundary of the sentence and comes from some idea described in a whole passage, which makes consistent and precise structural description of its derivation impossible. Therefore, in our analysis, we shall have to be satisfied with accounting for the information carried by the determiners through two basic oppositions [±m definite] and [± definite], producing three types of determiners: [-m definite], [- definite] and [+ definite]. The m stands for markedness, but it differs from

Jakobsonian markedness: with a positive index it denotes the existence of a feature which in its turn can be positive or negative, while with a negative index it expresses neutrality in reference to this feature. The determiners are [-m definite] when they point to unspecified sets of objects. When referring to an area of the set, which we call "domain of reference", they become [+ definite]. Depending on the degree of determination, the [+m definite] determiner can be [+ definite] or [- definite].

0.4 To illustrate the process of definitization we shall take a [-m definite] noun phrase in a matrix sentence and successively add information through modifiers introduced by subordinate clauses.

(1) a. Horses run fast.
+b. There are some horses.
=c. Some horses run fast.
+d. Some horses are on the meadow.
+e. Some horses are young.
+n. .....

The young horses that are on the meadow..., run fast.

The first subordinate clause ((1)b.) establishes a domain of reference. The other subordinate clauses specify the domain. The number of such clauses is potentially indefinite. We introduce the definite determiner when the noun phrase becomes identifiable.

1. The most common and most often referred-to definite determiner is the definite article.

1.1 The English definite article has been described as a grammatical element which points at a definite person or thing previously mentioned or determined by attributive or adverbial phrases, by a genitive or by relative clauses. When pointing to a thing mentioned previously, the definite article has been called "anaphoric"[3], "article of complete determination"[4] or "(a) referring back and (b) identifying"[5]. When occurring with a determining thing it has been referred to as "determinative"[6] or "article of incomplete determination"[7]. For some authors, both these uses

are "specifying"[8] or "individualizing"[9] as opposed to the "generic"[10] or "classifying"[11] ones when the "representative idea becomes more prominent than the conception of sharp individualization, one individual representing a whole class"[12].
However, there are no inherent features that differentiate individualizing definite articles from classifying ones. The difference between the definite noun phrase in:

(2) The sparrow is found on several continents.

and

(3) The sparrow has disappeared.

is due to the difference in the indices of the feature [± generic] in the semantic feature matrix of the respective nouns.

1.2 Like the articles of the other Indo-European languages, the English definite article has developed from demonstrative determiners. It is actually a reduced root of the Old English demonstrative pronoun se, seo (later ðe, ðeo, ðat). In the process of reduction its demonstrative function has weakened. We shall, therefore, mark the article as [- demonstrative] as opposed to the [+ demonstrative] determiner from which it has developed.

2. The demonstrative determiner occurs both in English and Serbo-Croatian.

2.1 The Serbo-Croatian definite determiner can represent the spatial relations of the speaker, the hearer and the referent (human or nonhuman, animate or inanimate) to the things[13] referred to. If the things are within reach of one of the senses of the speaker, the exponents of the determiner contain the morpheme ov-; if they are within reach of the senses of the hearer they contain the morpheme t-; and if within reach of the senses of the referent or close to it, on-

(4) a. Uzmi ovaj šal.
b. Daj mi tu knjigu.
c. Stavi korpu u onaj ugao.

2.11 Since the t- determiners are used to refer to things that are not present:

(5) Tog dana su se dogodile neobične stvari.

one is tempted to treat the ov- determiners as expressing proximity to the speaker, the on- determiners as expressing remoteness from the speaker and the t- determiners as nonmarked members of the set. This analysis, however, does not intimate that the things we refer to with on- determiners are remote from the hearer[14]. Moreover, it makes us treat the marked spatial differentiation of t- determiners[15] as exceptional.

2.12 There are two possible ways to overcome these inadequacies: (a) to set up two sets of determiners with the same phonetic representations (two t- series) one with marked and the other with unmarked spatial differentiation or (b) to start the semantic analysis from the feature "presence". We give preference to the second alternative.

2.13 With regard to the feature "presence" the Serbo-Croatian t- determiners are unmarked and the ov- and on- determiners are marked, both positively. The semantic distinctions between the latter determiners is due to their differential relation towards the exponents of the category "person"; whereas ov- determiners denote proximity of the object to the speaker, on- determiners denote proximity of the object to the referent. Accordingly, the t- determiners would have the features

$$\begin{bmatrix} + \text{definite} \\ + \text{demonstrative} \\ - \text{present} \end{bmatrix},$$ the ov- determiners $$\begin{bmatrix} + \text{definite} \\ + \text{demonstrative} \\ + \text{present} \\ + \text{proximate/I} \end{bmatrix},$$

and the on- determiners $$\begin{bmatrix} + \text{definite} \\ + \text{demonstrative} \\ + \text{present} \\ + \text{proximate/III} \end{bmatrix}$$ with I, II, III denoting speaker, hearer, referent.

2.2 In addition to the features "definiteness", "demonstrativeness", "presence" and "proximity", the Serbo-Croatian definite demonstrative determiners are marked or non-marked for quantification and qualification.

2.21 Accordingly, their feature matrices are:

(6) a. [+ definite
+ demonstrative
-m present
- qualitative
- quantitative] t-

b. [+ definite
+ demonstrative
-m present
+ qualitative
- quantitative] tak-

c. [+ definite
+ demonstrative
-m present
- qualitative
+ quantitative] tolik-

d. [+ definite
+ demonstrative
+ present
+ proximate/I
- quantitative
- qualitative] ov-

e. [+ definite
+ demonstrative
+ present
+ proximate/I
+ quantitative
- quantitative] ovak-

f. [+ definite, + demonstrative, + present, + proximate/I, - qualitative, + quantitative] ovolik-

g. [+ definite, + demonstrative, + present, + proximate/III, - qualitative, - quantitative] o1-

h. [+ definite, + demonstrative, + present, + proximate/III, + qualitative, - quantitative] onak-

i. [+ definite, + demonstrative, + present, + proximate/III, - qualitative, + quantitative] onolik-

The determiners that appear in the terminal strings of the language: taj, ta, to, ti, te, ta; takav, takva, takvo, takvi, takve, takva; toliki, tolika, toliko, toliki, tolike, tolika are produced after the above listed forms undergo the gender and number transformations.

2.22 The [+ qualitative] and the [+ quantitative] Serbo-Croatian determiners differ from the determiners that are negatively marked both for quality and quantity. In many environments the former behave like modifiers:

(7) a. Želim jedan lepi cvet.
b. Želim jedan veliki cvet.
c. Želim jedan takav cvet.
d. Želim jedan toliki cvet.
e. *Želim jedan ovaj cvet.
f. Želim taj veliki cvet.
g. Želim taj crveni cvet.
h. ?Želim takav crveni cvet.
i. Želim takav veliki cvet.
j. Želim toliki crveni cvet.
k. ?Želim toliki veliki cvet.

The numeral one can collocate with the qualitative and quantitative determiners in the same way as it collocates with quantitative and qualitative adjectives; it cannot with the [- qualitative, - quantitative] determiners. Also, the collocation of the quantitative and qualitative determiners with modifiers with which they share features is dubious, whereas the [- qualitative, - quantitative] determiners freely cooccur with any modifier.

Yet, in many more respects the qualitative and quantitative determiners behave like the other determiners. First of all, they cannot collocate with any other definite lexeme:

(8) a. *Taj takav kaput mi se dopada.
b. *Takav Petar nije došao.[16]

Furthermore, when cooccurring with possessive modifiers and numerals other than one, the qualitative determiners have the same distribution as do the nonqualitative ones:

(9) a. To vaše ponašanje mi se ne dopada.
b. Takvo vaše ponašanje mi se ne dopada.

and

(10) a. Dajte mi ova dva cveta.
b. Dajte mi ovakva dva cveta.

At the moment we cannot give undisputable preference to either of these two analyses since neither of them disturbs the semantic features we have posited. We stick to the label "determiner" since, everything else being equal (at least for our purposes), it makes terminology simpler.

3.2 The English definite demonstrative determiners are not marked for presence, quantification, or qualification. The only distinction they make is that of proximity, the phonetic realization of the [+ proximate] definite demonstrative determiner being this and that of the [- proximate] one - that. Of these two, the latter determiner is more general; it is used for reference to non-present objects much more frequently than its [+ proximate] counterpart.

3. The [- proximate] English determiner correlates with both [-m present] and [+ present / + proximate/III] Serbo-Croatian determiners:

(11) a. Daj mi tu knjigu.
a'. Give me that book.

b. Vidiš li onu zvezdu?
b'. Can you see that star?

c. Tog dana mi nije bilo stalo ni do čega.
c'. That day I cared for nothing.

d. Takvom rešenju se nisam nadao.
d'. I didn't expect that solution.

The [+ proximate] English definite determiner correlates with the [+ present / + proximate/III] Serbo-Croatian determiner:

(12) a. Uzmi ovu knjigu.
a'. Take this book.

b. Dopada mi se ovakva frizura.
b'. I like this hairstyle.

3.1 However, the Serbo-Croatian quantitative and qualitative definite determiners often correlate with two-word expressions in English:

(13) a. To se šije sa ovakvom iglom.
a.' That should be sewn with this type of needle.

b. Tata mi je kupio ovoliku olovku.
b.' Father bought me a pencil t[illegible] big (this size).

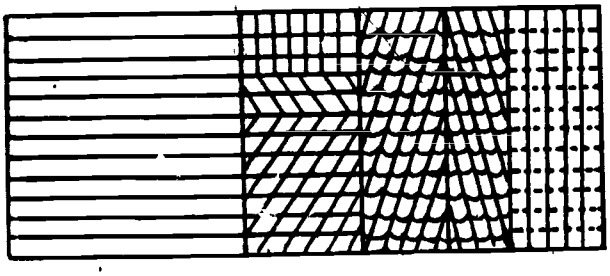
3.2 The [- qualitative / - quantitative] Serbo-Croatian determiners, on their part, sometimes correlate with the English definite articles:

(14) a. Gde je ta knjiga?
a.' Where is the book?

Consequently, the domain of reference of the Serbo-Croatian definite demonstrative determiners is wider than that of their English counterparts.

3.3 An attempt at graphic representation of the relations of the domains of the English and Serbo-Croatian definite determiners would yield the following picture:

(15)



(E) [- demonstrative] def. determ., the
(E) [- proximate] def. demonstr. det. that
(E) [+ proximate] def. demonstr. det. this
(SC) [-m present] def. dem. det., t-
(SC) [+ present, + proximate/III] def. dem. det., on-
(SC) [+ present, + proximate/I] def. dem. det., ov-

The above graph is not based on any statistical analysis. It does not represent the accurate extent of domain of reference but only indicates where intersection of domains takes place. We see that the domain of reference of E this is within the domain of SC ov- and the domain of E that is shared by the domains of SC t- and on-. However, SC ov-, on- and t- cover part of the domain of the English definite article as well. The other (greater) part of the domain of the latter is balanced by the domain of reference of a number of other Serbo-Croatian lexico-grammatical categories, mainly pronouns.

4. We conceive of the pronouns as outputs of the concatenation of determiners and pronominalized deleted nouns.

4.1 All the definite demonstrative determiners discussed in this paper can concatenate with pronominalized deleted nouns. The process of concatenation can be described as follows:

(16) $$\left\{\begin{bmatrix}\text{Det}\\ +\text{ definite}\\ +\text{ demonstrative}\end{bmatrix}\right\} + \left\{\begin{bmatrix}\text{N}\\ +\text{ Pro}\end{bmatrix}\right\} \Rightarrow \left\{\begin{bmatrix}\text{Pro}\\ +\text{ definite}\\ +\text{ demonstr}\end{bmatrix}\right\}$$

This transformation would yield the pronouns this and that in English and ovaj, onaj, taj; ovakav, onakav, takav and ovoliki, onoliki, toliki in Serbo-Croatian.

The domains of reference of these pronouns relate to one another in the same way as the domains of reference of the definite demonstrative determiners that participated in their derivation. The Serbo-Croatian definite demonstrative determiners have wider domains than their English counterparts, and so have the Serbo-Croatian definite demonstrative pronouns. The domains of the latter often intersect with the domains of reference of the English [- demonstrative] definite determiner:

(17) a. ... he would have welts and sores on his arms and hands of the sort that poison ivy or poison oak can give.

a. ... Ostale bi mu na rukama i članovima modrice i prištevi poput onih kakve čovjek dobije od otrovnog brašljana ili otrovnog hrasta. BL

b. He is over 1,500 pounds the way he is...
b.' Teška je preko 1.500 funti, takva kakva je ... KO
b.'' Ovakva kakva je sada ima više od petnajest stotina funti. BL[17]

Even the domain of reference of the Serbo-Croatian personal pronouns can intersect with the domains of the English noun phrase with definite article:

(18) a. Then it started out and the old man knelt down and let it go grudgingly into the dark water.
a.' Zatim se konopac zateže i on ga je zatezao sve dok sa njega kaplice nisu počele prskati na suncu. BL[18]

This intersection speaks in favour of Postal's contention that personal pronouns have developed from the concatenation of the definite article and the pronominalized deleted pronoun [19].

4.2 Since Serbo-Croatian has no articles, Postal's contention seems inapplicable to this language. However, Serbo-Croatian personal pronouns can be considered as outputs of the concatenation of [- demonstrative] definite determiners with zero phonetic representation and pronominalized deleted nouns. Justification for the existence of [- demonstrative] definite determiners with zero representation in the underlying structure of Serbo-Croatian can best be found in the following grammatical phenomenon:

The Serbo-Croatian counterparts of English unmodified noun phrases containing a definite article and a noun are predominantly in sentence-initial position, while the Serbo-Croatian counterparts of English noun phrases containing an indefinite article and a noun are predominantly nouns in sentence-final position:

(19) a. A small bird came toward the skiff from the north.
a.' Sa sjevera je prema čamcu letjela mala ptica.

b. The bird looked at him when he spoke.
b.' Ptica ga je gledala kad je govorio.[20]

An attempt to formalize this phenomenon would yield the following set of transformations:

(20) a. $\begin{Bmatrix} N \\ [-m\ definite] \end{Bmatrix} \Rightarrow [\alpha definite] \Big/ \begin{Bmatrix} Det \\ [\alpha definite] \end{Bmatrix} -$

b. $\begin{Bmatrix} Det \\ [\alpha definite \\ -\ demonstr \\ -\ random \\ -\ irrel \\ -\ inclusive \\ -\ quantit \\ -\ qualit] \end{Bmatrix} \Longrightarrow \emptyset \Big/ - \begin{Bmatrix} N \\ [\alpha definite] \end{Bmatrix}$

c. $\begin{bmatrix} N \\ \langle +\ definite \rangle_1 \\ \langle -\ definite \rangle_2^1 \end{bmatrix} \longrightarrow \begin{bmatrix} \langle Pre\text{-}verbal \rangle_1 \\ \langle Post\text{-}verbal \rangle_2 \end{bmatrix}$

where $\langle \quad \rangle_x \quad \langle \quad \rangle_x$ denotes interdependence (.. the one occurs the other has to occur)

and α has the values + and - .

Condition N=NP

Rule (20) a. is obligatory. Rule (20) b. is obligatory for α = + and optional for α = - . Rule (20) c. actually represents the consequence of rules (11) b. and (11) a. It specifies that, in the surface structure, rules (11) a. and (11) b. are realized by syntactic devices: a [-m definite] noun which becomes [+m definite] through an

$\begin{bmatrix} \alpha\ definite \\ -\ demonstrative \\ -\ random \\ -\ irrelevant \\ -\ inclusive \\ -\ quantitative \\ -\ qualitative \end{bmatrix}$ determiner precedes the verb if the [21]

determiner that definitizes it is [+ definite] and follows the verb if the determiner is [- definite]. The differentia' word order would hardly be explained without the existence of determiners in the deep structure of Serbo-Croatian.

N O T E S

1. Among others, see H. Sweet, A New English Grammar, Logical and Historical, Part II: Syntax, Oxford, Clarendon Press, 1898 (reprinted 1931); G. Curme, A Grammar of the English Language, Volume III, Syntax, Boston and New York, D. C. Heath, 1931; P. Christophersen, The Articles, A Study of Their Theory and Use in English, Copenhagen, Munksgaard, 1939.

2. Whereas Bloomfield and Fries defined determiners in purely formal terms as members of classes which have formal properties (see L. Bloomfield, Language, Harcourt, Brace and Co., New York, 1952), early transformational grammarians distinguished a determiner as a constituent of a well-formed noun phrase (see e. g. N. Chomsky, Syntactic Structures, Mouton and Co., The Hague, 1957 and R. B. Lees, The Grammar of English Nominalizations, Research Center in Anthropology, Folklore and Linguistics, Bloomington, Indiana, 1960).

3. Curme, op. cit., p. 510.

4. O. Jespersen, Essentials of English Grammar, George Allen and Unwin Ltd., London, 1933 (last edition 1948), p. 161.

5. Sweet, op. cit., pp. 55-56.

6. Curme, ibid., p. 511.

7. R. A. Zandvoort, A Handbook of English Grammar, Longmans, London, 1960, p. 118.

8. Christophersen, op. cit., p. 30.

9. Jespersen, ibid., p. 213.

10. Zandvoort, ibid., p. 119.

11. Curme, ibid., p. 513.

12. Curme, loc. cit.

13. The term "things" is used in the sense of Karl Bühler; it implies objects and states of affairs.

14. When the speaker says to the hearer:
a. Vidiš li onu ženu?
the person referred to is as remote from the speaker as from the hearer.

15. Cases like:
b. Daj mi tu knjigu.
when the thing referred to is next to the hearer.

16. This sentence is possible only if the noun is treated as a common noun.

17. The above examples show that SC pronouns can correlate with E $\left\{\begin{bmatrix}\text{Det}\\ \text{+definite}\\ \text{-demonstr}\end{bmatrix}\right\} + \left\{\begin{bmatrix}\text{N}\\ \text{+ abstract}\\ \text{+ general}\end{bmatrix}\right\}$. See O. Tomić, Prevodjenje engleskog člana na srpsko-hrvatski, M.A. Thesis, Univ. of Beograd, 1965, pp. 32-34. (The conslusions are drawn on the basis of two translations of Hemingway's The Old Man and the Sea into Serbo-Croatian. The initials of the translators KO and BL identify the translations.)

18. O. Tomić, op. cit.

19. P. Postal, "On So-Called Pronouns in English", Monograph Series on Languages and Linguistics, 17th Annual Round Table, Georgetown University Press, Washington D.C., 1966.

20. O. Tomić, op. cit.

21. This feature content excludes demonstrative determiners as well as all lexically realized indefinite determiners (neki, makoji etc.).

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ENGLISH AND SERBO-CROATIAN WH-WORDS, THEIR DERIVATIVES AND CORRELATES

0. In standard generative grammatical theory[1], the semantic notation of nouns is conceived as a complex matrix of elementary semantic components - features which denote the properties and relations of the objects they refer to. The property features represent the presence or absence of a variety of different semantic categories without any subclassification. So, the features "abstractness" or "countability", which are constant for a given noun, are put together with the features "definiteness" or "number", which may be different for different uses of the same noun.

In the analysis that follows the constant properties are separated from the variable ones and embodied in operator matrices which precede the noun matrix. The operators that carry the definiteness feature are conveniently called determiners.[2]

0.1 The information embodied in the determiners may originate in a single lexical item or in a single noun phrase close to the noun which is being determined or a number of sentences away from it. Very often, however, it comes from some idea which has taken several sentences to describe, thus defying any precise structural description. Whether we are concerned with discourses or single lexical items, there is no way of giving a precise, general and comprehensive account of the antecedent of the determiner. Therefore, the two oppositions into which we have tried to fit the information about this antecedent - [±m definite] and [± definite], with m denoting markedness - should be looked upon as more or less successful substitutes for a more adequate formalization.

0.2 The notion "markedness" here differs from the Jakobsonian one. With a positive index it denotes the existence of

a feature which in its turn can be positive or negative. With a negative index it expresses neutrality in reference to this feature. In the case of definiteness, the unmarked items refer to universal sets.

1. In most Indo-European languages [-m definite] are the determiners which are currently called wh- or k- words

1.1 Transformational grammarians have considered wh-words to be [+ definite] if derived from wh + definite article and [- definite] if derived from wh + indefinite article[3]. This caused problems when in the process of relative clause attachment [+ definite] wh-words had to be attached to [- definite] noun phrases and vice versa, which has made some linguists doubt whether the sets of relative and interrogative wh-words are derived from the same underlying structure[4].

By treating wh-words as [-m definite] determiners which are independent of the articles and are a priori only potentially relative/interrogative, we avoid many of these problems. Our wh-words become [+ relative] or [+ interrogative] a posteriori. In fact, they are relativized or interrogativized by the Relative Marker (RelM) or the Interrogative Marker (QM) of the respective sentences they are mapped into, provided the latter include such markers.

(1) $\left\{\begin{matrix}\text{Det}\\ \text{[-m definite]}\end{matrix}\right\} \Rightarrow \left\{\begin{matrix}\langle\text{relative}\rangle_a\\ \langle\text{interrog}\rangle_b\end{matrix}\right\} \Big/ _ \left\{\begin{matrix}\langle\text{RelM}\rangle_a\\ \langle\text{QM}\rangle_b\end{matrix}\right\}$

where $\langle\ \rangle_x \quad \langle\ \rangle_x$ denotes interdependence, i.e. that both or neither part should occur.

If the potentiality of these determiners to become relative or interrogative is not realized they are deleted:

(2) $\left\{\begin{matrix}\text{Det}\\ \text{[-m definite]}\end{matrix}\right\} \Longrightarrow \phi$

Condition: $S_{Det} \not\supset \begin{matrix}\text{RelM}\\ \text{QM}\end{matrix}$

where S_{Det} = the sentence that dominates the Det.

and $\not\supset$ = excludes, does not contain

Rules (1) and (2) may be combined in a Rule that specifies that the [-m definite] determiner becomes [+ relative] or [+ interrogative] in the environment of RelM or QM, respectively; if not, it is deleted.

$$(3)\quad \begin{Bmatrix}\text{Det}\\ [\text{-m definite}]\end{Bmatrix} \Rightarrow \begin{Bmatrix}\langle \text{+ relative}\rangle_a\\ \langle \text{+ interrog}\rangle_b\\ \phi\end{Bmatrix} \Big/ _ \begin{Bmatrix}\langle \text{RelM}\rangle_a\\ \langle \text{QM}\ \rangle_b\end{Bmatrix}$$

1.2 In Serbo-Croatian, there are three [-m definite] determiners: koj-, kak- i kolik-. Kak- refers to quality, kolik- to quantity, and koj- may be distinguished by the absence of either of these features:[5]

(4) a. $\begin{bmatrix}\text{-m definite}\\ \text{- qualitative}\\ \text{- quantitative}\end{bmatrix}$ koj-

b. $\begin{bmatrix}\text{-m definite}\\ \text{+ qualitative}\\ \text{- quantitative}\end{bmatrix}$ kak-

c. $\begin{bmatrix}\text{-m definite}\\ \text{- qualitative}\\ \text{+ quantitative}\end{bmatrix}$ kolik-

To obtain the determiners which occur in the surface structure of Serbo-Croatian: koji, koja, koje, koji, koje, koja; kakav, kakva, kakvo, kakvi, kakve, kakva; koliki, kolika, koliko, koliki, kolike, kolika, respectively, one should apply to the output of (4) the gender and the number and case agreement transformations[6]:

(5) $\left\{\begin{matrix}\text{Det}\\ \text{Mod}\end{matrix}\right\} \Longrightarrow [\alpha \text{ gender}] \;/\; - \left\{\begin{matrix}\text{N}\\ [\alpha \text{ gender}]\end{matrix}\right\}$

where α can be

a. $\begin{bmatrix}+\text{ masculine}\\ -\text{ feminine}\end{bmatrix}$

b. $\begin{bmatrix}-\text{ masculine}\\ +\text{ feminine}\end{bmatrix}$

c. $\begin{bmatrix}-\text{ masculine}\\ -\text{ feminine}\end{bmatrix}$

and Mod = modifier.

(6) $\left\{\begin{matrix}\text{Det}\\ \text{Mod}\end{matrix}\right\} \Longrightarrow \begin{bmatrix}\alpha \text{ number}\\ \beta \text{ case}\end{bmatrix} \;/\; \left\{\begin{matrix}\text{NP}\\ [\alpha \text{ number}\\ \beta \text{ case}]\end{matrix}\right\}$

where α can be: [+ singular] or [- singular] and β ranges over a number of variables like: [+ genitive], [+ dative] etc., the positive specification of each of which specifies all the others as negative.

1.3 The Serbo-Croatian determiner koj- corresponds to the English which. The English counterparts of the two other Serbo-Croatian determiners kak- and kolik- are composite items: what kind and what size, respectively. The first part of these items constitutes a determiner that might be treated as a variant of which; the English equivalent of:

(7) Koja knjiga vam se dopada?

is not only:

(8) Which book do you like?

but also:

(9) What book do you like?

However, the syntactic features of which and what are different. What collocates with kind, size and similar nouns to yield the two-word items mentioned above; which does not do so. On the other hand, the features of the pronominalized and deleted noun in the process of relativization can be assumed by which but not by what.

2. Relativization is a transformation which embeds one sentence into another as a relative clause. The transformation takes place only if the two sentences share a noun phrase. There is a more or less established assumption in transformational grammars of English that the relative clause is preceded by the marker Rel - yielding wh. The general form of a relative complex sentence is taken to be:

(10) $X + Det + N_{sh} \; (wh + Det + N_{sh} + VP) \; VP + Y$

where N_{sh} = shared noun

and X, Y = any element(s)

if the shared noun of the embedded clause is pronominalized and deleted, the noun phrase of the latter will consist of wh + Det. It has been argued that wh + some yields what and wh + that produces which.[7] Since what never stands for wh + Det + N in an embedded relative clause, a transformation has been introduced into the grammar stating that the indefinite determiner some is replaced by the definite that if the noun it modifies is preceded by another occurrence of the same noun. This has prompted linguistic analyses[8] to show how indefinite determiners of certain basic forms appear as definite determiners in the surface structure.

2.1 A treatment like this implies change of features and its justification is rather complex. It would be more simple, and therefore more adequate, if the non-appearance of what in embedded relative clauses is ascribed to the lack of potentiality for relativization in the base of this lexeme. It would also be more simple if the wh-pronouns who, what, whose, where, when, how and why are derived from the concatenation of the unmarked determiner and nouns with characteristic feature specifications.

instead of from what one, what one's ... etc., which according to Katz and Postal[9] exist alongside which one, which one's etc. So, the input of where would have the feature [+ locative], the input of when - [+ temporal] and the input of who - [+ human]. What could be derived from the concatenation of the unmarked determiner and the pronominalized inanimate noun but that would exclude reference to animals; therefore, we would opt for the feature [- human] at the base of this pronoun. As for whose, it might be marked as [-m animate], i.e. unmarked for "animateness", since it refers to both human beings, animals and inanimate objects.

2.2 The derivations would be:[10]

(11)

a. $\left\{\begin{matrix}\text{Det}\\ [\text{-m def}]\end{matrix}\right\} + \left\{\begin{matrix}\text{N}\\ [\text{+ human}]\\ [\text{+ Pro}]\end{matrix}\right\} \Rightarrow \left\{\begin{matrix}\text{Pro}\\ [\text{+ human}]\end{matrix}\right\}$ who

b. $\left\{\begin{matrix}\text{Det}\\ [\text{-m def}]\end{matrix}\right\} + \left\{\begin{matrix}\text{N}\\ [\text{- human}]\\ [\text{+ Pro}]\end{matrix}\right\} \Rightarrow \left\{\begin{matrix}\text{Pro}\\ [\text{- human}]\end{matrix}\right\}$ what

c. $\left\{\begin{matrix}\text{Det}\\ [\text{-m def}]\end{matrix}\right\} + \left\{\begin{matrix}\text{N}\\ [\text{-m anim}]\\ [\text{+ Pro}]\end{matrix}\right\} \Rightarrow \left\{\begin{matrix}\text{Pro}\\ [\text{-m anim}]\end{matrix}\right\}$ whose

d. $\left\{\begin{matrix}\text{Det}\\ [\text{-m def}]\end{matrix}\right\} + \left\{\begin{matrix}\text{N}\\ [\text{+ loc}]\\ [\text{+ Pro}]\end{matrix}\right\} \Rightarrow \left\{\begin{matrix}\text{Pro}\\ [\text{+ loc}]\end{matrix}\right\}$ where

e. $\left\{\begin{matrix}\text{Det}\\ [\text{-m def}]\end{matrix}\right\} + \left\{\begin{matrix}\text{N}\\ [\text{+ temp}]\\ [\text{+ Pro}]\end{matrix}\right\} \Rightarrow \left\{\begin{matrix}\text{Pro}\\ [\text{+ temp}]\end{matrix}\right\}$ when

f. $\left\{\begin{matrix}\text{Det}\\ [\text{-m def}]\end{matrix}\right\} + \left\{\begin{matrix}\text{N}\\ [\text{+ mod}]\\ [\text{+ Pro}]\end{matrix}\right\} \Rightarrow \left\{\begin{matrix}\text{Pro}\\ [\text{+ mod}]\end{matrix}\right\}$ how

g. $\left\{\begin{matrix}\text{Det}\\ [\text{-m def}]\end{matrix}\right\} + \left\{\begin{matrix}\text{N}\\ [\text{+ caus}]\\ [\text{+ Pro}]\end{matrix}\right\} \Rightarrow \left\{\begin{matrix}\text{Pro}\\ [\text{+ caus}]\end{matrix}\right\}$ why

and their Serbo-Croatian counterparts: ko, šta, čiji, gde, kada, kako, zašto.

2.3 By deriving all wh-words from [-m definite] bases we evidently deviate from usual transformational procedures, but do this with the intention of capturing some important generalities. The more so since our treatment is particularly appropriate for the derivation of sets of composite indefinite determiners and pronouns, typical of Slavic languages.

3. The Serbo-Croatian composite indefinite determiners are complex lexical items containing other features in addition to definiteness. They are derived by concatenating to the [-m definite] determiners koj-, kak-, and kolik- various particles with characteristic feature specifications. Since these particles reflect the delimitation of a certain area of the universal set of objects referred to by the determiner, which we shall call domain of reference, their concatenates are no longer unmarked for definiteness. They do not refer to universal sets but to subsets consisting of single representative units. These units are not definite; consequently, the determiners carrying information about them are called indefinite.

3.1 The most frequent Serbo-Croatian indefinite determiner is nek- (the contracted form of nekoj-), a concatenation of the particle ne and the [-m definite] determiner koj-. The particle ne carries and adds to the determiner the feature [+ random] through the following derivation:

$$(12)\quad [+\text{random}] + \left\{\begin{matrix}\text{Det}\\ [-\text{m defin}]\end{matrix}\right\} \Rightarrow \left\{\begin{matrix}\text{Det}\\ [-\text{defin}\\ +\text{random}]\end{matrix}\right\}$$

In a similar manner, the concatenation of ne with kak- and kolik- would yield $\begin{bmatrix}-\text{definite}\\ +\text{random}\\ +\text{qualitat}\end{bmatrix}$ (nekak-) and

$\begin{bmatrix}-\text{definite}\\ +\text{random}\\ +\text{quantitat}\end{bmatrix}$ (nekolik-) determiners, respectively.

It should be noted, however, that while nek- is very frequent, nekak- is relatively rare and nekolik- non-occurrent as determiner. Compare:

(13) a. Koju lutku želite?
b. Kakvu lutku želite?
c. Koliku lutku želite?

to

(14) a. Dajte mi neku lutku.
b. Dajte mi nekakvu lutku.
c. *Dajte mi nekoliku lutku.

3.2 (14)a. and (14)b. are not straightforward answers to (13)a. and (13)b. If the above questions are to be answered with indefinite noun phrases the native speakers of Serbo-Croatian would rather use the determiners makoj- and makak-

(15) a. Dajte mi makoju lutku.
b. Dajte mi makakvu lutku.

These determiners, in addition to the feature "randomness", contain the feature "irrelevance". Their derivations could be formalized as follows:

(16) a. $\begin{bmatrix}+\text{ random}\\+\text{ irrel}\end{bmatrix} + \left\{\begin{bmatrix}\text{Det}\\[-\text{m defin}]\end{bmatrix}\right\} \Rightarrow \left\{\begin{bmatrix}\text{Det}\\-\text{ defin}\\+\text{ random}\\+\text{ irrel}\end{bmatrix}\right\}$ makoj-

b. $\begin{bmatrix}+\text{ random}\\+\text{ irrel}\end{bmatrix} + \left\{\begin{bmatrix}\text{Det}\\-\text{m defin}\\+\text{ qualit}\end{bmatrix}\right\} \Rightarrow \left\{\begin{bmatrix}\text{Det}\\-\text{ defin}\\+\text{ random}\\+\text{ irrel}\\+\text{ qualit}\end{bmatrix}\right\}$ makak-

Like nekoj- and nekak-, makoj- and makak- belong to triplets with a [+ quantitative] third member, makolik-, which is used in actual speech only as an adverbial:

(17) Makoliko molio neću te pustiti.

3.3 The $\begin{bmatrix}+\text{ random}\\+\text{ irrelevant}\end{bmatrix}$ triplet makoj-, makak-, makolik- patterns with two other triplets ikoj-, ikak-, ikolik- and nikoj-, nikak-, nikolik-. The differences between these three triplets may be ascribed to the negation and interrogation operators of the sentences that dominate them. So, their derivations could be:

(17) a. $\begin{bmatrix}+\text{ random}\\+\text{ irrel}\end{bmatrix} + \left\{\begin{bmatrix}\text{Det}\\[-\text{m defin}]\end{bmatrix}\right\} \Longrightarrow$

$$\Longrightarrow \left\{\begin{bmatrix}\text{Det}\\[-\text{ defin}\\+\text{ random}\\+\text{ irrel}]\end{bmatrix}\right\} \Rightarrow \left\{\begin{array}{ll}\begin{bmatrix}\text{Det}\\[-\text{ defin}\\+\text{ random}\\+\text{ irrel}\\+\text{ inter}]\end{bmatrix} / -\text{ Q} & \text{ikoj-}\\ \begin{bmatrix}\text{Det}\\[-\text{ defin}\\+\text{ random}\\+\text{ irrel}\\+\text{ negat}]\end{bmatrix} / -\text{ Neg} & \text{nikoj-}\\ \begin{bmatrix}\text{Det}\\[-\text{ defin}\\+\text{ random}\\+\text{ irrel}]\end{bmatrix} & \text{makoj-}\end{array}\right\}$$

b. $\begin{bmatrix}+\text{ random}\\+\text{ irrel}\end{bmatrix} + \left\{\begin{bmatrix}\text{Det}\\[-\text{m defin}\\+\text{ qualit}]\end{bmatrix}\right\} \Longrightarrow$

$$\Rightarrow \left\{ \begin{bmatrix} \text{Det} \\ [-\text{defin} \\ +\text{random} \\ +\text{irrel} \\ +\text{qualit} \end{bmatrix} \right\} \Rightarrow \left\{ \begin{array}{lll} \begin{bmatrix} \text{Det} \\ [-\text{defin} \\ +\text{random} \\ +\text{irrel} \\ +\text{qualit} \\ +\text{inter} \end{bmatrix} / & -\text{Q} & \underline{\text{ikak-}} \\ \begin{bmatrix} \text{Det} \\ [-\text{defin} \\ +\text{random} \\ +\text{irrel} \\ +\text{qualit} \\ +\text{negat} \end{bmatrix} / & -\text{Neg} & \underline{\text{nikak-}} \\ \begin{bmatrix} \text{Det} \\ [-\text{defin} \\ +\text{random} \\ +\text{irrel} \\ +\text{qualit} \end{bmatrix} & & \underline{\text{makak-}} \end{array} \right.$$

c. $\begin{bmatrix} +\text{random} \\ +\text{irrel} \end{bmatrix} + \left\{ \begin{bmatrix} \text{Det} \\ [-\text{defin} \\ +\text{quantit} \end{bmatrix} \right\} \Rightarrow$

$$\Rightarrow \left\{ \begin{bmatrix} \text{Det} \\ [-\text{defin} \\ +\text{random} \\ +\text{irrel} \\ +\text{quantit} \end{bmatrix} \right\} \Rightarrow \left\{ \begin{array}{lll} \begin{bmatrix} \text{Det} \\ [-\text{defin} \\ +\text{random} \\ +\text{irrel} \\ +\text{quantit} \\ +\text{inter} \end{bmatrix} / & -\text{Q} & \underline{\text{ikolik-}} \\ \begin{bmatrix} \text{Det} \\ [-\text{defin} \\ +\text{random} \\ +\text{irrel} \\ +\text{quantit} \\ +\text{negat} \end{bmatrix} / & -\text{Neg} & \underline{\text{nikolik-}} \\ \begin{bmatrix} \text{Det} \\ [-\text{defin} \\ +\text{random} \\ +\text{irrel} \\ +\text{quantit} \end{bmatrix} & & \underline{\text{makolik-}} \end{array} \right. \quad 11$$

The surface structure determiners * ikoji, * ikoja, * ikoje, * ikoji, * ikoje, * ikoja; nikoji, nikoja ...; makoji, makoja ..., ikakav, ikakva, ikakvo ...; nikakav, nikakva ...; makakav, makakva ...; * ikoliki, * ikolika ...; * nikoliki, * nikolika[12] ...; makoliki, makolika ... would be obtained upon the application of the number agreement transformation.

3.4 However, there are syntactic phenomena which require modification of the above derivations. The sentences:

(18) a. Ako te iko vidi, stradao si.
b. Ne miče se, niti ičim pokazuje da je živ.

contain the pronouns iko and ičim (derived through transformations similar to those in 2.2), although they are not interrogative. Should we claim such sentences are exceptional? Partially. It seems appropriate to set up two binary distinctions, one (a) between the non-marked and the marked members of the triplet and another (b) between the two marked members. So, the output of the derivations would be makoj-, makak-, makolik- if neither Neg nor Q is present and ikoj-, ikak-, ikolik- when an operator of the grammatico-semantic category Affective[13], including Neg, Rel, Q and some other operators, occurs. A second-level transformation would then produce nikoj-, nikak- and nikolik- if the operator is Neg. Sentence (18)b. and similar S's would be exceptions to the derivation of the negative members of the triplet; the niti blocks double negation. The occurrence of iko in (18)a. would require a more subtle solution. Since both iko and mako are possible in this sentence, the choice is determined by the expectations of the speaker: when iko is used the expectations are negative, when mako appears they are positive. As yet, there is no formal apparatus that can explain explicitly the semantic and syntactic differences that are due to differential expectations but there are strong indications that intensional logic will provide them.

4. The Serbo-Croatian $\begin{bmatrix} + \text{ random} \\ + \text{ irrelevant} \end{bmatrix}$ set has an English counterpart with surface structure determiners some, any and no. The latter relate to one another in largely (but not entirely)

the same way as the SC makoji, ikoji and nikoji. However, the English determiners have wider domains, covering the domain of SC [+ quantitative] and [+ qualitative] members of the set as well as part of the domain of the Serbo-Croatian ne- set.

4.1 Compare:

(19) a. There are some people outside.
a.' Napolju su neki ljudi.

b. He has some problems.
b.' Ima nekakve probleme.

c. Some books have already been sold.
c.' Nekoliko knjiga je već prodato.

d. Which book do you want? Any.
d.' Koju knjigu želite? Makoju.

e. I don't know whether he has any feelings at all.
e.' Ne znam da li on ima ikakva osećanja.

f. Has anybody come?
f.' Da li je iko došao?

g. There is nobody at home.
g.' Nikoga nema kod kuće. [14]

h. There are no indications that the fighting will stop.
h.' Nema nikakvih indikacija da će borba prestati.

The above and other examples show that the most frequent counterpart of E some are the members of the SC nek- set (including the quantitative and qualitative members) while no is almost perfectly matched with the members of the nikoj- set. Any corresponds both to the makoj- and ikoj- sets; however, it often intersects with whoever, whichever and similar lexemes (generally taken to be counterparts of the SC two-word indefinite determiners and pronouns bilo ko, bilo kakav, bilo čiji etc. with which we cannot be concerned) in this correspondence:

(20) a. Mako došao, nisam kod kuće.
a.' Whoever comes, I am not at home.

b. Makakvo pitanje da mu postaviš, odgovor je negativan.
b.' Whatever question you ask him, the answer is negative.

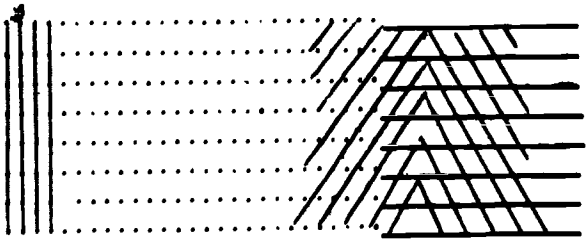
4.2 The intersection is not limited to these lexemes. It also occurs in the sphere of the English counterparts of the SC ne- set. In addition to some, and even more so, the English equivalent for nek- is the indefinite article a, the frequency of which is much higher than that of the possible Serbo-Croatian indefinite article candidate - jedan. Compare:

(21) a. Traži vas neki dečko.
a.' A boy is looking for you.

b. Jedna žena je ušla.
b.' A woman has entered.

4.3 Graphically, the relations of the English a and some-any-no sets and the Serbo-Croatian jedan, nek- and makoj-ikoj-, nikoj- sets would look as follows:

(22)



. . . . . domain of E a set.

——— domain of E some-any-no set

domain of SC jedan set

domain of SC ne set

domain of SC makoj-, ikoj-, nikoj- sets

The above graph is not based on any statistical analysis. It does not represent the accurate extent of intersection of sets, but only indicates where this intersection takes place. We see that the domain of reference of SC jedan is within the domain of reference of E a, and that of the SC mako-, iko-, niko- sets is within the domain of the E some-any-no sets. The domain of the SC ne set, on its part, intersects with the domain of the E a set, on one hand, and with that of the E some-any-no set, on the other.

5. A number of not infrequent Serbo-Croatian composite indefinite determiners: svak-, svakak- and svakolik- and their English counterparts: each and every have not been considered in the Graph since their domains never intersect with any of the domains given above. These determiners refer to at least two units of the indefinite set - to every one of them equally.

5.1 The Serbo-Croatian determiners svak-, svakak- and svakolik- are derived through the concatenation of the [+ inclusive] particle sv and the [-m definite] determiner:

(23)

a. [+ inclusive] + [Det, -m defin] ⇒ [Det, - defin, + inclus] svak-

b. [+ inclusive] + [Det, -m defin, + qualit] ⇒ [Det, - defin, + inclus, + qualit] svakak-

c. [+ inclusive] + [Det, -m defin, + quantit] ⇒ [Det, - defin, + inclus, + quantit] svakolik-

The surface structure determiners: svaki, svaka, svako[15]; svakakav, svakakva, svakakvo, svakakvi, svakakve, svakakva; *svakoliki, *svakolika, *svakoliko, *svakoliki, *svakolike, *svakolika are obtained upon the application of the number agreement and gender agreement transformations.

5.2 In English, there are two inclusive indefinite determiners: each and every, the distinction between them being the tendency of each to single out the individuals to which it refers. Compare:

(24) a. We had a pencil each.
b. *We had a pencil every.

Their feature counterparts would be:

(25) a. $\left\{\begin{bmatrix}\text{Det}\\ \text{- definite}\\ \text{+ inclusive}\end{bmatrix}\right\}$ every

b. $\left\{\begin{bmatrix}\text{Det}\\ \text{- definite}\\ \text{- inclusive}\\ \text{+ singling}\end{bmatrix}\right\}$ each

5.3 The two English inclusive determiners correspond to the Serbo-Croatian nonquantitative and nonqualitative inclusive indefinite determiner:

(26) a. He used to come every day.
a.' Dolazio je svaki dan.
b. Each boy has a story of his own.
b.' Svaki dečak ima svoju priču.

The Serbo-Croatian qualitative inclusive determiners, however, correspond to two-word expressions in English:

(27) a. Pričao mi je svakakve priče.
a.' He used to tell me all kinds of stories.

It is interesting to note that the relation of the English inclusive determiners to the Serbo-Croatian qualitative inclusive determiners differs from the relation of the Serbo-Croatian random qualitative determiners and the English random determiners. The English counterparts of the Serbo-Croatian radnom qualitative determiners

do not have to be accompanied by the noun kind unless special emphasis is required. Compare:

(28) a. Daj mi neku knjigu.
a.' Daj mi nekakvu knjigu.
a.'' Give me some book.

b. Imaš li ikakvih novosti?
b.' Have you any news?
b.'' Have you any kind of news?

Both (28)a and (28)a' are the counterparts of (28)a''. (28)b'' would be the translation of (28)b only if the determiner ikakvih was emphasized.

6. Regardless of the differences in their English counterparts the Serbo-Croatian random and inclusive indefinite determiners fall into a derivational pattern that can be expressed by the rule:

(29)
$$\begin{bmatrix} \alpha\ \text{random} \\ \beta\ \text{irrelevant} \\ \gamma\ \text{inclusive} \\ \delta\ \text{singling} \end{bmatrix} + \left\{ \begin{bmatrix} \text{Det} \\ \text{-m definite} \\ \varepsilon\ \text{qualitative} \\ \theta\ \text{quantitative} \end{bmatrix} \right\} \Longrightarrow$$

$$\Longrightarrow \begin{bmatrix} \text{Det} \\ \text{- definite} \\ \alpha\ \text{random} \\ \beta\ \text{irrelevant} \\ \gamma\ \text{inclusive} \\ \delta\ \text{singling} \\ \varepsilon\ \text{qualitative} \\ \theta\ \text{quantitative} \end{bmatrix}$$

where $\alpha, \beta, \gamma, \delta, \varepsilon, \theta$ range over + and - .
The above rule specifies that all [-m definite] determiners when concatenating with particles containing the features "randomness", "irrelevance", "inclusiveness" and "singling" yield [- definite] determiners that are random, irrelevant, inclusive, singling,

qualitative, quantitative or have none of these features if their inputs are random, irrelevant, inclusive, singling, qualitative, quantitative or have none of these features. This rule captures all the transformations that have taken place in the derivation of the Serbo-Croatian composite indefinite determiners. Its generality is a test for its power.

N O T E S

1. Standard is the generative theory represented in Chomsky, Aspects of the Theory of Syntax, M. I. T. Press, Cambridge, Mass., 1965.

2. The label reflects the connection between the operators and the determiners of modern syntax.

3. J. J. Katz and P. M. Postal, An Integrated Theory of Linguistic Descriptions, M. I. T. Press, Cambridge, Mass., 1964, pp. 79-120.

4. See Andreas Koutsoudas, "On Wh-Words in English", mimeographed paper, Oct. 1967.

5. In a way, kolik- is a subset of kak- since the feature [+ quantitative] is contained in the feature [+ qualitative] but not vice versa. The quantitative modifier in the Serbo-Croatian sentence:

(a) Želim veliku lutku.

is quite acceptable in answer to sentences containing both quantitative and qualitative determiners:

(b) i. Koliku lutku želiš?
ii. Kakvu lutku želiš?

However, the qualitative modifier in:

(c) Želim lepu lutku.

can be used only in answer to (b)ii.

6. The number and case agreement transformation is not given together with the gender agreement transformation since the noun phrase constituents are assumed to derive gender from the head of the noun phrase whereas the case and number are derived from the

number and case markers attached directly to the noun phrase. Of course, one could have everything dependent on the noun and take care of all agreements by one agreement transformation. That would be simpler but would not reflect the intuitive distinction between the case and number features on one hand, which can differ for the same noun, and the gender feature, which is always the same for a given noun.

7. See note 4.

8. e.g. S.T. Kuroda, "English Relativization and Certain Related Problems", Language 44, 1968, pp. 244-266.

9. J.J. Katz and P.M. Postal, op.cit. p. 92.

10. Only the relevant features are given.

11. The derivations are ordered; makoj- is the non-marked member of the subset - derived if neither the Q nor the Neg transformations apply.

12. The asterisked lexemes very seldom if at all occur in actual speech as determiners. We have listed them since they participate in the derivation of pronouns:

a. Da li je iko došao?

and/or quantifiers:

b. Koliko novaca imaš?
Nikoliko.

13. Term used by Klima, "Negation in English", The Structure of Language, J.A. Fodor and J.J. Katz (eds), Prentice Hall Inc., Englewood Cliffs, New Jersey, 1964, p. 313.

14. Some of the examples contain pronouns and not determiners, but the majority of the relations of the E and SC determiner sets hold for the pronouns derived by the concatenation of the respective determiners and the pronominalized deleted nouns following them.

15. The plural is suppleted by the definite determiner svi.

L. Selinker - L. Trimble - T. Huckin (University of Washington)

AN ANNOTATED BIBLIOGRAPHY OF RESEARCH IN SCIENTIFIC AND TECHNICAL LANGUAGE[1]

This bibliography[2] is an outgrowth of the mandate set forth by the "Language for Special Purposes" study commission of the International Association of Applied Linguistics at its Third International Congress, Copenhagen, 1972.

Scope and coverage

The focus of this bibliography is on descriptive research into the syntactic, semantic, and rhetorical structure of language used for science and technology. It is not intended to cover prescriptive, pedagogical, or lexico-statistical studies. Such studies are included, however, in cases where they accompany descriptive structural research of the type we are interested in here.

Many of the entries were familiar to us before we undertook to compile this bibliography; but others came to our attention as we proceeded, often as a simple listing in some other bibliography or footnote. In some of these cases we were able to locate the work and examine it according to our criteria, but in others we were unable to locate the work and so had to decide simply on the basis of its title whether or not it appeared suitable for our bibliography. With only one or two exceptions, these uncertain entries bear the comment, "Not abstracted due to unavailability."

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1. Partially funded by The Graduate School Research Fund, Physical Sciences and Engineering Section, University of Washington, GCA-30, NSF Faculty Research.

2. Editor's Note: This Bibliography is printed here primarily as introductory material for a new contrastive project on S-C and E based on language for science and technology, which is due to start work next year in association with the YSCECP.

ibliography is divided int three sections, each arranged cally. The first section, "English for Science and Technology," receives primary attention here; the second section, dealing with other languages, is intended at present to be merely supplemental. The third section, "Contrastive Studies in Language for Science and Technology," presents a new direction for contrastive studies.

We request readers of this bibliography to update and correct items included here and to bring new items to our attention.

I. ENGLISH FOR SCIENCE AND TECHNOLOGY

1. Barber, C.L. "Some measurable characteristics of modern scientific prose." In Contributions to English Syntax and Philology. Almqvist and Wiksell (Stockholm). 1962. 21-43.

   Not abstracted due to unavailability

2. Barber, C.L. "The vocabulary and verb forms of modern scientific English; a preliminary investigation." In Venture (Pakistan). Vol. 2, No. 1. March 1961. 5-19.

   Not abstracted due to unavailability

3. Bareš, Karel. "Semantic features of quantitative prefixes in technical English." In Philologica Pragensia (Prague). Vol. 12, No. 3. 1969. 152-8.

   Detailed discussion of quantitative prefixes within terminological systems, with many examples. Particular attention is given to the influence of polysemy, synonymy, and antonymy upon the semantic relations of such prefixes. These semantic features are seen as special and e. ential to technical English.

4. Bareš, Karel. "The Morphological Features of Technical English and their Presentation in Teaching." In V. Fried (ed.), The Prague School of Linguistics and Language Teaching. Oxford University Press (London). 1972. 128-141.

Contrasts technical and scientific English with conventional English in terms of grammatical morphology and word-formation morphology. Examples of the former type include plural morphemes of Greek and Latin origin, double comparatives, and pluralia tantum forms; of the latter, derivational affixes, compounds, and abbreviations.

5. Bartolić, Ljerka. "Noun Compounding in Technical English." Zagreb. Forthcoming.

Discussion of how noun modifiers can be placed before head nouns so as to impart information more economically than with other types of structures. Examples from mechanical and electrical engineering include two-, three-, and four-noun compounds. The degree of "notional binding" among modifiers is also considered.

6. Brookes, B. C. The Scientist Speaks: The English of Science and Technology. BBC London and the British Council. 1967.

Book version of TV film series. Part 2 deals with the syntactic features of technical and scientific English, including the passive, the infinitive, noun clauses, gerundives, conjunctions, comparisons, conditionals, and modifiers. The use of these features is emphasized, with explications and sample patterns provided in each of the 16 lessons. Part 1 is concerned with vocabulary building.

7. Dickinson, Leslie. "Conjunctions in scientific English." Ph. D. dissertation, Univ. of Edinburgh. In preparation.

Not abstracted due to unavailability

8. Ewer, J. R. and G. Latorre. "Preparing an English course for students of science." In English Language Teaching. Vol. XXI, No. 3. 1967. 221-9.

Describes the beginning of a program of linguistic research and pedagogical methods relating to English instruction for science students at the University of Chile. Special attention given to "catenised vocabulary units".

9. Ewer, J.R. and G. Hughes-Davies. "Further notes on developing an English programme for students of science and technology." In English Language Teaching. Vol. XXVI, No. 1. 1971. 65-70.

   Reports progress made since writing of previous article. Includes list of grammatical items essential to basic scientific English but not normally taught. "Catenised vocabulary units" found to be effective as instructional tool, but only in the absence of interlinear bilingual equivalents.

10. Farrokhpey, Mahmoud. "Scientific English for Iranian students." In TEFL (Beirut). Vol. 3, No. 3. 1969. 1-3.

    Not abstracted due to unavailability

11. Garwood; C. H. "The teaching of English to the non-English-speaking technical student." Parts 1 and 2. In English Language Teaching. Vol. 24, Nos. 2 and 3. 1970. 107-112; 244-50.

    Part 1 assesses the teacher's (and learner's) problems. Part 2 describes four commonly-found examples of structural frameworks used in scientific writing: experiment, description of process, simple scientific description, and theory. Brief remarks on linguistic features of these frameworks.

12. Gerbert, Manfred. "Les formations régressives dans la langue anglaise technique de spécialité." In Bulletin Pédagogique: Langues Vivantes. No. 5. Oct 1969. 51-66.

    Not abstracted due to unavailability

13. Higgins, John J. "Hard facts: notes on teaching English to science students." In English Language Teaching. Vol. XXI, No. 1. 1966. 55-60.

    Laments current practices in teaching of scientific and technical English, prefers more "realistic" approach. Discussion of passives, modal verbs, difficult "frame" words.

14. Huddleston, R. D. et al. Sentence and Clause in Scientific English. Communication Research Centre, Department of General Linguistics, University College London. 1968. (out of print)

    The other contributors are R. A. Hudson, "The Clause Complex"; E. O. Winter, "Some Aspects of Cohesion"; and A. Henrici, "Some Quantitative Issues." Statistical tables are included.

15. Huddleston, R. D. The Sentence in Written English: A Syntactic Study Based on an Analysis of Scientific Texts. Cambridge University Press. 1971.

    A revised version of Huddleston's contribution to the preceding entry. Two principal aims: analyze "common-core" English and apply the analysis to a selective grammatical description of 135,000 words found in scientific English. Topics covered include: mood, transitivity and voice, complementation, relativization, comparison, the modal auxiliaries, and theme.

16. Lackstrom, John, Larry Selinker, and Louis Trimble. "Grammar and technical English." In Robert C. Lugton (ed.), English as a Second Language: Current Issues. Center for Curriculum Development (Philadelphia). 1970. 101-133.

    This paper claims that grammatical choices in written scientific and technical English cannot be analyzed or taught without considering rhetoric and subject matter, "rhetoric" as a term referring to extra-sentential contexts. Four specific areas are examined: tense; definite and indefinite articles; adverbs, aspect, agent phrases, and nominalization; additional considerations within the paragraph.

17. Lackstrom, John, Larry Selinker, and Louis Trimble. "Technical rhetorical principles and grammatical choice". TESOL Quarterly. June 1973.

    This paper (1) defines rhetoric in the English of science and technology (EST) in terms of the essential notion

"conceptual paragraph"; (2) presents and describes the two major categories of relational rhetorical principles -- natural and logical; (3) presents examples of several of these principles and examines their effects on specific grammatical choices in EST; and (4) provides examples from areas of grammar which, traditionally, have been difficult to describe linguistically and to teach to foreign students -- e.g., article use and tense choice.

18. Mountford, A.J. "Special English for Soil Scientists." Remedial syllabus. Department of Linguistics, University of Edinburgh. Feb 1971.

A "spiral technique" is used in setting out grammatical patterns of the syllabus. Each unit is divided into two broad areas: inter-sentential relationships and intra-sentential relationships. Description of "logical connectors", devices of cohesion. Structural descriptions of sentence, verb phrase, and noun phrase.

19. Mountford, A.J. "A Stylistic Analysis of Two Texts from the Scientific Register from a Rhetorical Point of View". Department of Linguistics, University of Edinburgh. 1971.

Inspired by the writings of Searle, this approach emphasizes the patterning of "speech acts" and "speech functions" which govern the ways in which language is used as a communicative device.

20. Pearson, Ian. Summer Course in English for Teachers in Technical, Trade, and Maritime Schools. Trondheim. 1971.

Includes lectures on intra-sentential rhetorical relationships, verb tenses, compound/complex nouns, adverbials. Emphasizes the interrelationship of syntax, semantics, and the lexicon, and provides many textual examples and accompanying analyses in support of this point.

21. Pearson, Ian. "The Analysis of scientific texts and its pedagogical implications". Ph.D. dissertation, University of Edinburgh. In preparation.

Not abstracted due to unavailability

22. Rumszewicz, Witold. "On contemporary dramatic and scientific English." In Glottodidactica (Poland). Vol. 2. 1967. 71-83.

Using contemporary dramatic English as an example of spoken English, the author makes statistical comparisons between it and written scientific English, pointing out significant differences in sentence length, finite and non-finite verb form frequency, passive- and active-sentence frequency, and intonation. Claims that the student of scientific and technical English is concerned mainly with recognition rather than with production and that he therefore receives less than maximum benefit from the "oral approach" second-language learning.

23. Selinker, Larry. "Some Current Issues in Interlanguage." Forthcoming.

Among the current issues described is the integration into the "Interlanguage Hypothesis" of the learning of subject matter in a second language, especially with regard to the learning of EST.

24. Selinker, Larry and Louis Trimble. "Technical Communication for Foreign Engineering Students". University of Washington (Seattle). 1968. Mimeo.

A description of the authors' efforts at team-teaching a course in scientific and technical English. They claim that both grammatical and rhetorical principles are essential in this field. Problem areas discussed include difficult verbal pairs, co-occurrence, and rhetorical ambiguity.

25. Selinker, Larry, Louis Trimble, and Robert Vroman. Working Papers in Scientific and Technical English. Office of Engineering Research, University of Washington. June 1972.

Grammatical and rhetorical considerations are focused on the following subjects, as listed by report number: (1) latinate names as generics; (2) tense and rhetorical function (Part I); (3) tense and rhetorical function

(Part II); (4) tense and rhetorical function (Part III); and (5) presupposition and technical rhetoric.

26. Smith, B. Deane. "Scientific and technical English". In Report on a Seminar of Reading. David E. Eskey and Michael Smithies, editors. English Language Center (Bangkok). Nov. 1970..

Not abstracted due to unavailability

27. Strevens, Peter. "The medium of instruction (mother tongue/ second language) and the formation of scientific concepts". In IRAL. Vol. IX, No. 3. Aug 1971. 267-274.

Outlines certain difficulties encountered by students of science in developing states when they must learn concepts in a foreign language. Includes partial listing of "grammatico-logical operators" and other linguistic-conceptual devices. The author favors a science-oriented (rather than literature-oriented) language syllabus in the learning of English by technical or science students.

28. Strevens, Peter. "Technical, Technological and Scientific English (TTSE)". Paper given at the Conference of the International Association of Teachers of English as a Foreign Language, London. January 1972.

Makes a tripartite distinction between the English of science, technology, and technical services, and defines each. Discusses grammatical and rhetorical features of TTSE, concepts expressed in TTSE, and TTSE vocabulary and terminology.

29. Tornquist, Elizabeth. "Problems in Scientific Translation-English Verb Tenses." In Lingvist 7 (Zagreb). 1963. 14-16.

Not abstracted due to unavailability

30. Widdowson, H. G. An Applied Linguistic Approach to Discourse Analysis. Ph. D. dissertation, Edinburgh. In preparation.

"An examination of discourse analysis as a basis for the preparation of teaching materials, with special

reference to the analysis of texts of scientific and technical English, and the preparation of materials for people learning the language as a service subject." (as quoted from CILT Reports and Papers No. 7, Science and Technology in a Second Language. Dec 1971).

31. Winter, E.O. "Connection in Science Material: A Proposition about the Semantics of Clause Relations". In CILT Reports and Papers No. 7, Science and Technology in a Second Language. Dec 1971. 41-52.

A supplement to Winter's work on the OSTI project (cf. Huddleston et al). He discusses the distinction between "inner" and "outer" clause relations, then gives a brief semantic and statistical analysis of the five most frequent sentence connectives in scientific English: logical sequence, contrast, doubt/certainty, non-contrast, and expansion of detail.

II. OTHER LANGUAGES FOR SCIENCE AND TECHNOLOGY

A. German

Beneš, Eduard. "The Syntax of Scientific German in Foreign Language Teaching". In V. Fried (ed.), The Prague School of Linguistics and Language Teaching. Oxford University Press (London). 1972. 142-159.

Defines the "neutral standard scientific style" according to Prague School criteria, then describes scientific German by means of syntactic analysis and frequency count. The main features of this style are found to include: a preference for simple sentences, a semantic emptiness of verbs; a tendency toward nominal expression, a predilection for the passive voice, and compact and balanced sentence-construction.

B. Indonesian

Rubin, Joan. "Project on Scientific Language in Indonesia." In preparation.

Not abstracted due to unavailability

C. Japanese

Jelinek, J. "Development of Self-Instructional Course in the Reading of Scientific and Technical Japanese." Centre of Japanese Studies, Sheffield University. Sheffield, U.K. 1972.

Scientific and technical Japanese as a "restricted natural language" which enables shortcuts to be made in the teaching program. Brief description of a formal grammar based on a flow-chart model with rule tables and positional-functional word-classes.

D. Romanian

Berceanu, Vera. "On the Increase of American Terms in the Romanian of Science and Technology (RST)". In J. Augerot (ed.), Proceedings of the University of Washington Conference on Romanian Language and Literature, May 1972. ICFAS, Univ. of Washington. In Press.

American English has influenced RST in its lexicon and syntax. Spelling and phonemic changes are discussed and examples given of the adaptation of English items to Romanian grammatical principles. Creation of new compounding devices in Romanian appears to be the result of the application of English rules to RST. There is greater usage of the Romanian passive voice in RST on the basis of EST usage. Extensive tables of examples are presented.

E. Russian

Heron, Patricia. "Intensive Reading Course of Russian." Sheffield University. Sheffield, U.K. Undated.

Application of method described in Jelinek 1972 to Russian, with emphasis on scientific and technical writing. Includes description of course dictionary and grammar auxiliary, with examples.

III. CONTRASTIVE STUDIES IN LANGUAGE FOR SCIENCE AND TECHNOLOGY

A. English and Serbo-Croatian

Vlatković, Mira. "On the Use of Tenses in Scientific Papers, English and Croatian." In Studia romanica et anglica zagrabiensia. Zagreb 1972-1973, Num. 33-36, 773-782.

A contrastive study of tense and voice in English and Serbo-Croatian scientific writing. Attention is given primarily to the present, present perfect, and preterite tenses in English and the present and perfect in Serbo-Croatian, since these are claimed to be the most common finite verb forms in the two languages. The study of voice, in both languages, is concerned mainly with the passive.

THE YUGOSLAV SERBO-CROATIAN - ENGLISH CONTRASTIVE PROJECT

Publications

1. Rudolf Filipović, THE ORGANIZATION AND OBJECTIVES OF THE PROJECT, Zagreb, 1968. Eng. and SCr. text. 17 pp.

   US $ 1 - Din. 10

2. REPORTS, 1. Zagreb, 1969. Eng. text. 70 pp.

   Contents: William Nemser - Vladimir Ivir, "Research Guide for Project Workers. I Morphology and Syntax" (3-8). Ranko Bugarski, "Direction and Continuity in Contrastive Analysis" (9-14). Ljiljana Biboviđ, "On Inversion in English and Serbo-Croatian" (15-24). Ranko Bugarski, "Prepositional Phrases in English and Serbo-Croatian" (25). Željko Bujas, "Brief Outline of Planned Work on Derivation" (26-30). Vladimir Ivir, "An Outline for the Contrastive Analysis of English and Serbo-Croatian Adjectives" (31-38). Damir Kalogjera, "A Survey of Grammatical Characteristics of English Modal Verbs with regard to Interference Problems" (39-44). Dora Maček, "Gender in English and Serbo-Croatian" (45-50). Vjekoslav Suzanić, "The Nominal Group in English and Serbo-Croatian" (51-62). Mira Vlatković, "Elements of Aspectives in English" (63-70).

   US $ 1 - Din. 10

3. STUDIES, 1. Zagreb, 1969. Eng. text. 46 pp.

   Contents: William Nemser, "Approximative Systems of Foreign Language Learners" (3-12). Vladimir Ivir, "Contrasting via Translation: Formal Correspondence vs. Translation Equivalence" (13-25). Leonardo Spalatin, "Approach to Contrastive Analysis" (26-36). Rudolf Filipović, "The Choice of the Corpus for the Contrastive Analysis of Serbo-Croatian and English" (37-46).

   US $ 1 - Din. 10

4. PRILOZI I GRADJA, 1. Zagreb, 1969. SCr. text. 59 pp.

   Contents: Rudolf Filipović, "Početne faze rada na projektu Kontrastivna analiza hrvatskosrpskog i engleskog jezika" (3-25). Pavle Ivić, "Nekoliko reči o problemima metoda" (26-29). Ljubomir Mihailović, "Kontrastivna analiza fonoloških sistema" (30-34). Željko Bujas, "Primjena kompjutera i fleksorajtera u radu na projektu Kontrastivna analiza hrvatskosrpskog i engleskog jezika" (35-59).

   US $ 1 - Din. 10

5. REPORTS, 2. Zagreb, 1970. Eng. text. 134 pp.

Contents: Željko Bujas, "Derivation in Serbo-Croatian and English" (1-9). Vladimir Ivir, "Predicative Patterns for English Adjectives and Their Contrastive Correspondents in Serbo-Croatian" (10-55). Dora Maček, "Numeratives and Quantitatives in English and Serbo--Croatian" (56-76). Midhat Ridjanović, "Linking Verb + Complement in English and Serbo-Croatian" (77-93). Leonardo Spalatin, "The English Possessive Adjectives my, your, his, her, its, our, their and Their Serbo-Croatian Equivalents" (94-102). Leonardo Spalatin, "The English Demonstratives this, these, that, those and Their Serbo-Croatian Equivalents" (103-119). Damir Kalogjera, "Lexico--Grammatical Features of must, should and ought to and Their Equivalents in Serbo-Croatian" (120-134).

US $ 2 - Din. 20

6. STUDIES, 2. Zagreb, 1970. Eng. text. 104 pp.

Contents: Eric P. Hamp, "On Contrastive Contrastive Grammar" (1-13). Vladimir Ivir, "Remarks on Contrastive Analysis and Translation" (14-26). Jerry L. Liston, "Formal and Semantic Considerations in Contrastive Analysis" (27-49). Ljiljana Mihailović, "On Differences in Pronominalization in English and Serbocroat" (50-59). Charles E. Bidwell, "Serbo-Croatian Nominal Inflection" (60-104).

US $ 2 - Din. 20

7. REPORTS, 3. Zagreb, 1970. Eng. text. 152 pp.

Contents: Željko Bujas, "Compostiton in Serbo-Croatian and English" (1-12). Maja Dubravčić, "The English Present Perfect Tense and Its Serbo-Croatian Equivalents" (13-45). Gordana Gavrilović, "Linking BE + Predicative Clause in English and Corresponding Structures in Serbo-Croatian" (46-51). Omer Hadžiselimović, "English Intransitive Verbs vs. Serbo-Croatian Reflexive Verbs" (52-61). Damir Kalogjera, "Ten English Modals and Their Equivalents in Serbo-Croatian" (62-87). Damir Kalogjera, "The Primary Auxiliaries BE, HAVE, DO, and Their Equivalents in Serbo-Croatian" (88-104). Dora Maček, "Relative Pronouns in English and Serbo-Croatian" (105-127). Ljiljana Mihailović, "Noun Phrases as Subject in English and Serbo-Croatian" (128-138). Leonardo Spalatin, "The Present Tense in English and Serbo-Croatian" (139-152).

US $ 3 - Din. 30

8. STUDIES, 3. Zagreb, 1971. Eng. text. 63 pp.

Contents: Rolf Berndt, "Recent Approaches to Grammar and Their Significance for Contrastive Structure Studies" (1-36). Ljiljana Bibović, "Some Remarks on the Factive and Non-Factive Complements in English and Serbo-Croatian" (37-48). Wayles Browne, "On Conjoined Questions and Conjoined Relative Clauses in English and Serbo-Croatian" (49-63).

US $ 2 - Din.* 20

9. REPORTS, 4. Zagreb, 1971. Eng. text. 147 pp.

Contents: Gordana Gavrilović, "Adverbial Clauses of Cause, Place and Manner in English and Serbo-Croatian" (1-10). Omer Hadžiselimović, "Intransitive Verbs + Adverbials or Complements Containing Non--Finite Verb-Forms" (11-22). Vladimir Ivir, "Number Agreement in English and Correspondent Structures in Serbo-Croatian" (23-49). Damir Kalogjera, "The Expression of Future Time in English and in Serbo-Croatian" (50-72). Ljiljana Mihailović, "Additional Notes on Noun Phrases in the Function of Subject in English and Serbo-Croatian" (73-84). Mladen Mihajlović, "Elliptical Sentences in English and Their Serbo-Croatian Equivalents" (85-102). Leonardo Spalatin, "The English Preterit Tense and Its Serbo-Croatian Equivalents" (103-111). Leonardo Spalatin, "The English Past Perfect Tense and Its Serbo-Croatian Equivalents" (112-124). Ljubica Vojnović, "Adverbial Modifiers in Intransitive Sentences in English and Serbo-Croatian" (125-147).

US $ 3 - Din. 30

10. PEDAGOGICAL MATERIALS, 1. Zagreb, 1971. Eng. text. 111 pp.

Contents: Rudolf Filipović, "Contrastive Analysis and Error Analysis in Pedagogical Materials" (1-6). Vera Andrassy, "Errors in the Morphology and Syntax of the Parts of Speech in the English of Learners from the Serbo-Croatian-Speaking Area" (7-31). Jasna Bilinić, "Errors in the Morphology and Syntax of the Verb in the Speech of Learners of English in the Serbo-Croatian-Speaking Area" (32-59). Stanka Kranjčević, "Errors in the Syntax of the Sentence in the Speech of Learners of English in the Serbo-Croatian-Speaking Area" (60-80). Mirjana Vilke, "Teaching Problems in Presenting Modal Verbs" (81-97). Mirjana Vilke, "Teaching Problems in Presenting Relative Pronouns" (98-111).

US $ 3 - Din. 30

11. STUDIES, 4: Zagreb Conference on English Contrastive Projects (7-9 Dec. 1970). Zagreb, 1971. Eng. text. 242 pp.

Contents: Preface (R. Filipović) (3-4). Table of Contents (5-6). Welcoming Speech (R. Filipović) (7-10). William Nemser, "Recent Center Activities in Contrastive Linguistics" (11-30). Rudolf Filipović, "The Yugoslav Serbo-Croatian - English Contrastive Project So Far" (31-79). Discussion (80-86). Jacek Fisiak, "The Poznań Polish - - English Contrastive Project" (87-96). Discussion (97-100). Jozsef Hegedüs, "Two Questions of English - Hungarian Contrastive Studies" (101-120). Discussion (121-122). László Dezső, "Contrastive Linguistic Project on English and Hungarian in Hungary" (123-128). Ekkehard König, "Transformational Grammar and Contrastive Analysis (A Report on the PAKS Project in Stuttgart)" (129-145). Discussion (146-155). Vladimir Ivir, "Generative and Taxonomic Procedures in Contrastive Analysis" (156-167). Discussion (168-172). Dumitru Chitoran, "A Model for Second Language Acquisition" (173-180). Discussion (181-187). Tatiana Slama-Cazacu, "Psycholinguistics and Contrastive Studies" (188-206). Discussion (207-225). Tatiana Slama--Cazacu, "The Romanian - English Language Project" (226-234). Discussion (235-240). Summing Up (R. Filipović) (241-242).

US $ 5 - Din. 50

12. REPORTS, 5. Zagreb, 1971. Eng. text. 204 pp.

Contents: Ljiljana Bibović, "On the Word Order of Subject and Predicate in English and Serbo-Croatian from the Point of View of Functional Sentence Perspective" (1-10). Maja Dubravčić, "The English Personal Pronouns and Their Serbo-Croatian Equivalents" (11-39). Zorica Grdanički, "Subject Composed of Clause" (40-55). Draginja Pervaz, "Verbs with One Object in English and Serbo-Croatian" (56-116). Leonardo Spalatin, "The English IT and Its Serbo-Croatian Equivalents" (117-130). Leonardo Spalatin, "The English Preterit Tense and Its Serbo-Croatian Equivalents" (131-142). Radmila Šević, "Verbs with Two Objects in English and Serbo-Croatian" (143-158). Mira Vlatković, "The Imperative and Its Periphrasis" (159-172). Vladimir Ivir, "Notes on Linking Verbs and Complements in English and Serbo-Croatian" (173-183). Midhat Ridjanović, "More on Linking Verb + Complement in English and Serbo-Croatian" (184-204).

US $ 4 - Din. 40

13. STUDIES, 5. Zagreb, 1972. Eng. text. 159 pp.

Contents: Thomas K. Adeyanju, "The Use of Sector Analysis in Contrastive Studies in Linguistics" (3-18). Rudolf Filipović, "A Compromise System" (19-29). Vladimir Ivir, "Case Frames and Transfor-

mations for Clause-Expanded Adjectives" (30-45). Carl James, "Some Crucial Problems in the Theory of Contrastive Linguistics" (45-56). W.R. Lee, "How Can Contrastive Linguistic Studies Help Foreign-Language Teaching?" (57-66). Ljiljana Mihailović, "Existential Sentences in English and Serbo-Croatian" (67-109). Midhat Ridjanović, "A Reinterpretation of Verbal Aspect in Serbo-Croatian" (110-159).

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14. REPORTS, 6. Zagreb, 1972. Eng. text. 124 pp.

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