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On Verbal Frames in Functional Generative Description
Part I

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0. In the present paper we attempt to analyze some important questions concerning the structure of the sentence nucleus, i.e. of the relations between the verb and its participants. To allow for an adequate specification of verbal frames, a generative description must employ clear criteria distinguishing

(i) inner participants (their use being determined by the given verb; they belong to the verbal frame) from free adverbials (Tesnière's "circonstants");

(ii) degrees of obligatoriness (obligatory and non-deletable, obligatory and deletable, optional but determined by the verbal frame, free - or other degrees);

(iii) individual participants (types of dependent sentence parts); how many of them should be specified, and on what base;

(iv) what formal framework generating the sentence nuclei according to the chosen verbal frames and to the chosen degrees of obligatoriness, etc. should be used.

We consider (i) and (ii) to be the basic questions; the hypotheses accepted as solutions of these two questions may then serve as a point of departure for an analysis of (iii) and (iv). Several other interesting theoretical questions are still open to discussion and must be considered in this context, namely as the possibility of several participants of the same type with a single verb token, the possibility of coordination of individual types of participants, the relationship between a verbal and a nominalized form of a participant, etc. Most of these questions certainly cannot be solved here, but we attempt at least to respect the bearing of possible solutions on the problems of verbal frames.

As for the terminology, we use the term participant for any element depending on a verb token (subject, complement, adverbial), distinguishing inner and free participants or modifications (the former being determined by the verbal frame as obligatory or optional for the given verb, the latter not being affected by the frame of a given verb); this dichotomy is, from a certain viewpoint, relativized to particular verbs (since a certain type of adverbials can be obligatory for a given verb, and free, i.e. optional, for others). We shall use also another partition, concerning types of participants as such, without any direct relationship to particular verbs and their frames, viz. the trichotomy of actor (agentive, deep subject), complements and adverbials. (These terms are used here for relational elements from the tectogrammatical level - from the semantic representations of sentences).

1. The problems of the verb and its participants belong to the most intensively discussed questions of contemporary linguistics. The writings of Fillmore (1968a, 1968b, 1969, 1970, 1971), whose well-known 'Theory of Case' departs, in a certain sense, from Tesnière's (1959) approach, have been followed by many other scholars (cf. e.g. Anderson, 1971, for English; Zimmermann, 1967, for Russian; Zoeppritz, 1972, etc.). Some critical comments to Fillmore's theory have been formulated by Poldauf (1970), Sgall (1972) and others. We want to comment here upon some other approaches, which are quoted less frequently.

In Czechoslovak linguistics, the term intence slovesa ("verbal intention"), which we translate as verbal frame, has been introduced in the pioneer work by Pauliny (1943), who classifies verbs from a semantic point of view, respecting the distinctions of the expression of the semantic elements denoted as actor and goal. Pauliny's theoretical view was extended and applied to the description of the Slovak language esp. by Ružička in the volume Morfológia ... (1966, pp. 389-396), Oravec (1967), and - as for adverbials - Miko (1972).

Let us also remark that even in the so-called traditional syntax these problems have attracted attention. Most often they have been studied from the viewpoint of verbal government (as one of the ways of expressing syntactic dependency), as well as from the viewpoint of the boundary between object (direct

complement) and adverbials; thus they have been studied first of all with respect to surface syntax. Even in this context one can easily see that in the pairs (i) government - (ii) no government, (i′) object - (ii′) adverbial, (i′′) obligatory - (ii′′) optional, the former and the latter members do not correspond to each other in the same manner. Thus, for instance Šmilauer (1966, p. 257) says that "an adverbial sometimes is ... obligatory, but not determined by verbal government: Cz. usadili se v Čechách (they settled in Bohemia), choval se hrubě (he behaved rudely)"; similarly with Kopečný (1958, p. 45): "The term government (vazba) is ambiguous, some are inclined to understand it as including every necessary expansion of the verb, even if its form is not determined (e.g. the necessary expansion of the verb bydlit (reside)...)". Bauer and Grepl (1972, p. 66) also conceive verbal frames as including obligatory adverbials. The existence of obligatory adverbial expansions of the verb follows, even on the level of surface syntax, from the fact that in grammatical sentences such verbs as Cz. choval se (he behaved), octl se (he found himself) cannot occur without an adverbial of manner and of place, respectively. (In English, a deletion rule must probably account for this possibility with behave). Křížková (1968) noted that in the sentence patterns of Daneš (1963) adverbials are regarded only as (free) expansions, not as inner elements of the sentence pattern; Křížková brought examples showing that the obligatoriness of adverbials is determined by verbal frames, so that such adverbials are to be considered elements of the sentence patterns; she argued that other (free) adverbials are of transformational origin.

The obligatoriness of an adverbial with certain verbs is duly respected in Miko´s (1972) attempt at a generative description of adverbials, where classes of verbs are distinguished that govern individual types of adverbials. Obligatory and free adverbials are held apart from each other in a consistent way here, but no overt criteria for this dichotomy are given, and in the respective lists also some cases deserving further discussion can be found.

A similar question concerning the lack of overt criteria is connected with the classification of semantic types of complements (objects). Oravec (1967, pp. 25f), who - departing

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from Trávníček's (1951) approach - gives the most detailed classification of objects in Czechoslovak linguistics, attempts to substantiate that his classification is not based on "the relationship of the object to the content of the verbal action" (cf. Kopečný, 1958, p. 204), i.e. on the cognitive or ontological content only, but on phenomena belonging to the linguistic structure. He works with five classes of object[1]: (1) concern (zásahový), (2) effect (výsledkový), (3) goal (cílový), (4) content (obsahový), (5) relation (vztahový). He characterizes these classes by means of structural features, some of which, however, scarcely might be considered as criteria in an operational sense; for instance, (1) and (2) do not differ in linguistic structure, though the author says (p. 73) that especially between these two classes a clear boundary can be found. But this boundary, far from being conditioned or manifested by syntactic criteria, consists in the fact that (1) expresses a thing or person concerned by the action, while with (2) things or phenomena are caused by the given action, called forth by it. Also (4) and (5) have the structural features in common, and, moreover, the features quoted by Oravec in some cases do not characterize all the listed verbs, e. g. the criterion of the synonymy between the accusative and the object infinitive can hardly be applied with all verbs of the class (4), i.e. with those connected with a content object; cf. Czech verbs potrestat (punish), zajistit (ensure), získat (gain). Thus we must state that, for the accusative complement, neither individual structural features, nor their combinations are sufficient. All what remains are again mere semantic characterizations, lacking the needed clarity and strictness. We attempt in the sequel to find whether some of the often quoted semantic distinctions are really linguistically relevant, and with which syntactic facts they are connected.

It is not difficult to show, however, that the questions are more complex than their analysis from a syntactic viewpoint (and from the viewpoint of unclear semantic criteria) could reveal; the questions of verbal frames must be viewed from a standpoint distinguishing two levels of the structure of the sentence - in the terminology of the Prague group of algebraic linguistics these are the semantic (tectogrammatical) and the

surface (phenogrammatical) levels. Such a standpoint helps to clarify various problems, such as the objectless use of transitive verbs (cf. e.g. Kopečný, 1958, p. 31, about the "indefinite" object - involving plurality - of such verbs as Cz. poklidit (tidy up), zamést (sweep)). How could this "indefinite" object, which need not be expressed, be accounted for if we worked with a single level of the structure of the sentence? Kopečný (ibid.) claims that the so-called determined verbs, such as jít (be going), běžet (be running), táhnout (be pulling), nést (carry) necessarily are accompanied by a direction of the action or by an object. But how can one then explain that the sentence Děti běžely půl hodiny (The children were running half an hour) is a grammatical sentence in Czech?

We would like to substantiate that it is necessary to distinguish between the obligatoriness of a participant at the semantic level and the necessity of the presence of an element that realized this participant at the level of surface syntax. Outside the domain of generative description, this opinion has been pronounced by Daneš (1971a), Daneš, Hlavsa and Kořenský (1973), Helbig and Schenkel (1969), Helbig (1971). Daneš (1971a) speaks about obligatory, potential and optional elements; these are, however, terms from the level of surface syntax; Daneš attempts to find "how the transitivity of a verb manifests itself on the grammatical and on the semantic level". He analyzes in detail the relationships between the semantic pattern and the grammatical pattern of the sentences with the so-called general object, since the notion of general object (parallel to that of general subject, "man-Sätze") makes it possible to surmount serious obstacles connected with the "potentiality" (deletability) of objects. This concerns first of all such sentences as Cz. Jirka už začal číst (George began to read already); Trouba peče dobře (The oven bakes well).

It is not quite clear from Daneš' formulations whether he classes under his "systemic ellipsis" also the general object, or only such examples as the following: Jestliže se do četby pustíte, nepřestanete číst, pokud... (If you take up the reading, you'll not stop reading until...), Co dělá otec? - Čte (What is Father doing? - He's reading). Both types must be differentiated clearly, and, if we understand well, the

distinction between them could be formulated in such a way that in both cases the obligatory presence of elements of the semantic level would be admitted, while the conditions of their surface realization would differ: in the case of the general object the surface realization is zero, in the other case the element can, but need not be realized by a surface unit (which thus is potential from the viewpoint of the surface level). In any case, also the potentiality from the viewpoint of the two levels should be distinguished: cf. Cz. chlubit se (něčím) (boast (of something)), změnit se (v něco) (change (into something)) for the semantic level, and what is said below about přijít (come), odejít (leave), for the surface syntax. This means that an element that is obligatory from the viewpoint of the semantic level can also be obligatory at the surface level (potkal někoho - he met somebody, if an "actual ellipsis", conditioned by the context of the utterance, is not present, cf. Daneš, 1971a), or it is potential at this level (neruš ho, on čte (něco)) - don't disturb him, he reads (something)), or else it cannot be realized on the surface, i.e. it is necessarily realized by zero (in the "absolute" use: Náš chlapec už čte (Our boy already reads). Thus it appears that to achieve a clearer distinction between obligatory, potential and optional participant, it should be distinguished (also in the terminology) which level is concerned, and to find a framework permitting to define the possible combinations of features on the two levels.

Kacnel'son (1972, p. 196) also notes that the distinction between obligatory and optional participants is connected with questions of the level of content and that of expression, between which there is no complete parallelism. Similarly Apresjan (1969) speaks about a semantic and a syntactic government, which may be either strong or weak, with several possible combinations (semantically strong, but syntactically weak, etc.).

Helbig (1971), commenting on Tesnière's approach, shows that it is not quite clear whether his verbal frames concern primarily the "formal" or the "notional" level. To distinguish obligatoriness and optionality in syntax, relatively reliable methods can be used, which however is not sufficent, because

only surface structure is concerned. In his model (which provides also for the possibility of adverbials occupying the positions of inner participants), there is a relevant distinction, at the semantic level, between the inner participants ("enge Verbergänzungen") and the free modifications ("freie Verbergänzungen"), whereas at the syntactic level there is a relevant distinction between optionality and obligatoriness (i.e. an inner participant can be deleted by a transformation); Helbig illustrates this by a sentence containing - in the terminology used in Czech linguistics - an "actual ellipsis": Er wartete auf seinen Freund, where the complement need not be present at the syntactic level, though with the given verb it is an inner participant.

In Helbig's writings attempts can be found to formulate operational criteria for distinguishing the types of participants (cf. the questions formulated in § 0 above). Some of his criteria are taken over from Bierwisch (1963, p. 50), according to whom only free adverbials can accompany any verb (criterion 1), only free adverbials may, in a German sentence, be taken out from the "sentence frame", while the inner participants stay inside the frame (criterion 2, see Helbig, 1969, p. 32), e.g. (a) is a grammatical sentence, but (b) is not.

(a) Du hast das Buch dorthin gelegt am Vormittag.

(b) *Du hast das Buch am Vormittag gelegt dorthin.

Another criterion, formulated by Helbig (1969, p. 33; 1971, p. 46), is connected with the position of negation in German sentences; an inner participant (similarly as a detachable verbal prefix) stands always after nicht (if it realizes the sentence negation), while with free adverbials the relative position of nicht and the adverbial is free, i.e. both orders are possible (criterion 3).

Helbig's (1971, pp. 37f) further criterion consists in the possibility to paraphrase a free adverbial by a clause, while with inner participants this is never possible (criterion 4);[2] cf. the impossibility of a transformation of this kind for (c) and its presence in (d).

(c) Er wohnte in Dresden. ← *Er wohnte, als er in Dresden war.

(d) Er starb in Dresden. ← Er starb, als er in Dresden war.

Helbig (1969, p. 31) mentions also the fact that with a single verb token, there can be accumulated an indefinite number of free modifications of the same type. We shall make use of this fact, taking into account that the accumulation can be, in the actual performance, constrained by various factors (including the stylistical etc. restrictions connected with the necessity to cumulate the same grammatical means, if the given language has, say, only a single preposition realizing the adverbial in question); it will be referred to as criterion 5.

The criterion 1 will be used here in the formulation of our point of departure , see § 2. The criteria 2 and 3, which can be checked on German sentences only, are commented on by Fišerová and Stuchlá (in press), in connection with a broader examination concerning also other cases of violation of the sentence frame. Such a violation is often conditioned by stylistic factors (e.g. with regard to the length of the sentence part taken out of the frame), the authors of grammars differ in evaluating the acceptability (or "correctness") of the sentences with these violations. The quoted analysis has led to the necessity to conceive the criterion 2 only as an auxiliary characteristics.A similar conclusion has been reached for the criterion 3, which holds (as for the position of inner participants following nicht) in the case of short, relatively simple sentences. Furthermore, also in negative sentences a free adverbial can be taken out of the sentence frame and be placed at the end of the sentence (so that the criteria 2 and 3 interfere with each other).

As for the criterion 4, a more strict formulation seems to be necessary. The paraphrasing of an adverbial by a clause could be understood also in such a way, that a coordinating conjunction could be used in the paraphrase (the bigger distinction between the given adverbial and the inner participants, the closer to coordination this adverbial stands). But this is a domain still waiting for further empirical study. We therefore do not use criterion 4 in our analysis below, even if we are aware of the importance of questions of this kind.

2. We have already pointed out that it is necessary, in analyzing the nucleus of the sentence, to distinguish between the inner participants of the verb and its free modifications. not determined by the frame of the given verb.[2a] We have also seen that it is not sufficient for a complete description of language (including its semantic structure) to work with the syntactic notions of strong and weak government, of obligatory and optional modifications, but that it is necessary to take into account the two levels of the structure of the sentence - the tectogrammatical, or semantic, and of the surface syntax. Our analysis is based on the functional generative framework, which works with the mentioned two levels and uses dependency grammar (the latter fact also appears as advantageous: since Fillmore's abandoning of the dichotomy of the sentence into NP + VP even the transformational grammar can be said to permit an effective formulation in terms of dependency; see also Robinson, 1970).

2.1 In looking for a proper statement of the boundary between the inner and the free modifications at the tectogrammatical level[3], we try to answer two following questions:

(1) Can the given type of participant depend on every verb? (This is the criterion 1 from § 1)

(2) Can the given type of participant depend more than once on a single verb token (cf. the criterion 5 in § 1)?[4]

For the participants that can be included under the heading "complement" (object), we easily come to a negative answer to both the questions. This answer clearly substantiates the classification of complements as inner participants (see § 1). If we accept this conclusion, we are faced with another problem, namely the obligatory or optional character of complements at the tectogrammatical level. Leaving the latter point to be discussed in the sequel (§ 4), let us return to questions (1) and (2) with regard to other types of participants.

With the actor[5] the answer to the first question is positive, to the second question - negative. More detailed analysis of actor and some possible objections see in Panevová (in prep.).

The adverbials are, as we have already noted, differ to

a great extent in their semantic aspects, and thus it is necessary to analyze them in more detail, taking into account the individual types (in the functional generative description treated in the form of the grammatemes, see Note 5).

After an examination of a sample of Czech verbs, consisting in 150 verbs with highest frequency (according Jelínek, Bečka, Těšitelová, 1963), the group of verbs of motion (about 20), verbs of saying (about 60), verbs of simple working activities (about 50), we have found that the following adverbials can occur with each of the examined verbs:[6]

when (He came yesterday.)
since when (It has lasted since Christmas.)
till when (It lasted until Christmas.)
how long (It lasted for two years.)
means (He writes with a pen.)
criterion (He recognized her according to her voice.)
regard (As for his figure, he is a tall man.)
cause (She swept for joy.)
condition (With higher temperature this liquid boils.)
concession (It happened in spite of his objections.)
aim[7] (Is there anything to eat here?)
consequence (He was ill, therefore he didn't come.)
manner (He sings beautifully.)
outcome (It went to pieces.)
comparison (He is like me.)
extent (He spent his money to the last penny.)
restriction (Nobody was late except me.)
accompaniment (sociative) (He came with his daughter.)
interest (benefit) (The letter is for my father.)
substitution (He acts for his father.)
where[8] (He is at school.)

More questionable is the occurrence of the modifications from where, which way, to where with all verbs; it seems that the exceptions, i.e. the verbs not being accompanied by these directional types, are more numerous (not only such verbs as sedět (sit), stát (stand)[9], but also přestat (cease), připozdívá se (it gets late), vzpomenout (remember) have been found not to take all these directional adverbials). But we regard

also the directional adverbials as combinable with all verbs (as far as the combinatorics of the language system is concerned), since in the quoted and other cases it can be stated that the adverbials can be combined with any verb, as far as the conditions of the cognitive or ontological content make it possible. It is difficult to exclude a priori that some specific context can be found for this or that verb, in which the given type of adverbial can be present (e. g. Natáhli jsme provaz tak, že ležel ode dveří přes koberec až k oknu. We stretched out the rope so that it lay from the door over the carpet up to the window). Furthermore, the positive answer to the question (2) substantiates the possibility to consider the directional adverbials as free.

In the previous versions of the functional generative description we distinguished, with a single functor R_m, several tectogrammatical units accounted for as grammatemes (instrument, manner, condition, etc.), see here Note 5. With some grammatemes a further semantic differentiation ("variety") is present, e.g. the grammateme where is differentiated accordingly to the semantics of the preposition (in, on, above, under, etc., see Sgall, 1967, p. 99; Pitha, 1972), the grammateme when is differentiated into when-simultaneously, when-after, when-before, when-parallel (see Panevová, 1967). An alternative proposal, which could be supported by arguments from the domain of verbal frames, consists in accounting for the tectogrammatical distinctions of the former type by syntactic means of the tectogrammatical level, i.e. by different functors (thus splitting the functor R_m in several new functors), the distinctions of the latter type (the semantic variety) being treated in the shape of morphological grammatemes (i.e. in a way similar to such distinctions as number, tense, etc.).

It is necessary to examine whether such two degrees (one concerning the combinatorics of the semantic level, the other semantic distinctions inside a class with the same combinatoric properties) are present also with types of adverbials other than those of place and time. One of such domains, where semantic variety could be united by a single syntactic function, might be the adverbials of cause, but it appears that for instance the possibility of free coordination of se-

veral elements of the same syntactic function is much greater with place and time than with cause: (e) and (f) are possible and quite acceptable, while in the latter domain cause and aim can be coordinated, cf. the acceptability of (g), but a coordination of aim with concession - as in (h) - appears questionable, and cause and condition cannot be combined at all, as the unacceptability of (j) shows.

(e) Věci ležely na stole, vedle stolu i pod stolem.
(Things lay on the table, beside the table, and even under it.)

(f) Budu v Praze před vánoci, o vánocích i po nich.
(I'll be in Prague before Christmas, during Christmas and also after Christmas.)

(g) Udělám to kvůli vám a abych už měla konečně pokoj.
(I'll do it because of you and to have peace, at last.

(h) (?) Přes svou naprostou vyčerpanost, ale pro své zdraví odjel na venkov už včera.
(In spite of his total exhaustion but for the sake of his health he went to the country already yesterday.)

(j) *Při zvýšené opatrnosti v jízdě a pro dobrý stav komunikací se nemůže nic stát.
(With an increased cautiousness in driving and because of the good state of the roads nothing can happen.)

On the other hand it appears that the grammateme "regard" should be divided into several semantic units (cf. Stuchlá, 1974), some of which might be assigned the same syntactic position on the tectogrammatical level, differing e.g. in a positive and a negative value of the given function, cf. (k).

(k) Úvod lze formulovat se zřetelem na zasvěcené čtenáře nebo bez zřetele k jejich zasvěcenosti.
(The Introduction can be formulated with regard to well-informed readers or without regard to their knowledge.)

A similar question is that of accompaniment and its negative counterpart (with such prepositions as without).

Thus, in a certain sense, a type of adverbial that would receive, in this alternative solution, the shape of a functor, would correspond to Fillmore's (1971) "hypercase".[10]

With all quoted adverbials we also get a positive answer to question (2). Certainly, it is difficult in some cases to find an occurrence of a verb with two (not to speak about three or more) adverbials of the same type, since it is not simple to find an acceptable lexical setting and a stylistically plausible combination of morphemic means. This, however, is connected with the recursive properties of the language as a whole and with its potential infiniteness, which contrasts with the restricted and finite character of performance. We assume that the possibility of accumulation of free adverbials of the same type is connected with the recursive properties of linguistic competence; at least in some cases a distinction between a closer and looser connection between the adverbials and the verb might be relevant (cf. Panevová (in prep.)); but in actual utterances the number of such adverbials is restricted by such stylistical factors as the lenght of the sentence, its balance, its understandability, etc. Let us quote some examples:

cause: Z bídy umíralo hodně lidí na tuberkulózu, protože její léčení bylo nákladné.
(From poverty many people died on tuberculosis, since its treatment was expensive.)

aim: Za účelem rychlého zásobování rozvezli zboží do obchodů, aby se ukázalo, že je ho dostatek.
(For the sake of fast supply they distributed the goods into the shops, to show that there is goods enough.)

when: Včera přišel večer domů o půl sedmé.
(lit. Yesterday he came - in the evening - home at half past six.)

condition: Za horka stoupá při nakažlivých nemocech počet nemocných velmi rychle.
(lit. In hot, the number of patients rises very quickly, in case of infectious diseases.)

Among the grammatemes regarded generally as adverbials, only origin and result are characterized by a negative answer both to the questions 1 and 2. The verbs on which origin or result can depend are not numerous, and neither of these participants can accumulate with a single verb token. Thus, they both could be characterized as the complements (cf. below §

4.2). After all, also in the classical syntactic literature these two participants occupy a specific position among the adverbials; Šmilauer (1966, p. 329) characterizes them as two specific types of adverbials that do not belong to any of his four basic types (place, time, manner, cause); Kopečný (1958, p. 204) states that, among the adverbials, result and origin more than others resemble the complements (but according to Kopečný this concerns also instrument, aim, partly also regard). Klemensiewicz (1954, quoted from the 6th ed., 1969, p. 45f) includes origin (but also instrument) fully into the class of objects (complements).

We can state, then, that the adverbials, with the exception of origin and result, are free, recursive participants,[11] except such cases, where the given adverbial is an obligatory modification (and thus an inner participant) of the given verb. "Obligatory" means here necessarily present at the tectogrammatical level; on the surface level, it may be also necessarily realized (octnout se někde - find oneself somewhere), or deletable (přijít někam - come somewhere). The objective of the next part of this paper is an analysis of means that make the specification of the semantic obligatoriness possible.

3. Such sentences as Octl se (He found himself), Bydlel (He resided) are understood (in Czech) as incomplete, and possible only in case of an "actual ellipsis" conditioned by the context, first of all in answers to yes-no questions with the same verb: Bydlel tehdy v Praze? (Did he live in Prague then?) - Bydlel (here the English equivalent would be He did); cf. also Daneš (1971a). This type of deletion quite clearly concerns the relationship between the level of semantic representations and some lowerlevel, i.e. it must be described in the (transformational or other) transductive parts of the description. But we would like to show that also such sentences as Právě přišli (They have just come), Právě se vrátili (They have just returned), where one cannot speak about actual ellipsis, have an obligatory directional modification at the tectogrammatical (semantic) level. One can check the presence of such a deleted but semantically obligatory participant by the method of "given and new information", which was briefly sketched by Sgall and Hajičová (1970, § 3.1), and which can be cha-

racterized as follows:

If someone utters the sentence Moji známí právě přišli (My friends have just come), and the hearer asks Kam? (Where to?), then his question, in a certain sense, digresses from the given dialogue; it is not such a natural continuation as e.g. the question Odkud? (From where?) would be. The distinction between these two types of situations consists in the fact that in a "natural continuation" the question concerns new information, i.e. data that have not yet been mentioned in the dialogue and are not obvious in the given situation; on the other hand, the "deviating" question concerns an item of given information, it could be uttered either in case the hearer was not attentive enough, or the relevant part of the preceding dialogue was not formulated properly, was disturbed by some intervening factor, noise, etc., so that the hearer lacks an item from the information assumed as given. (As regards the example in question, the hearer probably assumes that the deleted element is not here - e.g. since the sentence is a part of a story - but he does not know which place is meant before, so that it is not sufficient for him to interpret the deleted item as there.) If the question concerns the information assumed (by the speaker) as given, then, evidently, the speaker must be able to give an appropriate answer. (He can answer something as To my place, or Why - didn't I tell you that I was then at Mary's?) He simply cannot answer I don't know, since in doing so he would deny the premises of his message, and interrupt thus the given dialogue. On the other hand, if the question concerns new information, as with Odkud? (From where?), the speaker certainly can answer something as Well, I don't know for sure where they had been before, which has no disturbing effect on the discourse as a whole.

To sum up the discussion on the criterion and its use, we resume the distinctions between the two types of dialogues:

A: My friends returned.

B: Where to?

A: I don t know. - Or: To Belgium.

Such a piece of discourse is not a continuous dialogue; if A gives a definite answer, he reminds an item of information he assumed to have been already given (and thus deletable in

the first utterance); if he says he cannot answer the question, then the dialogue is disturbed, since he says he doesn't know an information he previously assumed to be given. Thus, the directional adverbial is a semantically obligatory participant with the verb return.

A: Helen knits a sweater.

B: From what?

A: I don't know. - Or: From wool.

In this case, the dialogue is quite smooth and continuous; the answer to the question, if uttered, brings new information; As contingent ignorance in this respect does not disturb the dialogue, the given participant is not obligatory with this verb.

A general formulation might be: If A uses a sentence S and B asks him a wh-question concerning the participant P, A's answer might be "I don't know" (without disturbing the dialogue) if and only if the participant P is not semantically obligatory in S. (If S contains an embedding, it must be specified which verb is expanded by P in the question, and the answer must not, of course, switch to another verb.)

This test shows that the Czech verbs vejít (enter), přijet (arrive), přiblížit se (approach) all have the obligatory adverbial of the type where to, that odejít (go off) has the obligatory adverbial from where, etc. etc.

The rules of transduction must then distinguish those cases in which a semantically obligatory participant can be deleted, in surface syntax, only under actual ellipsis (the type octl se - he found himself; směřoval - he aimed at; působil - he acted), from those in which such a participant can be deleted even under other conditions (which should be specified in connection with the structure of the discourse) - the type přišel (he came), odešel (he went off), vrátil se (he returned). Similarly e.g. Daneš, Hlavsa and Kořenský (1973) infer that with odejít (go off) the denote of the modification of the type from where "necessarily is known to the speaker", but is expressed by a potential sentence part; but they do not present a method identifying this type of obligatoriness.

The quoted method of the given and new information was checked (in a slightly different form) by Beranová (1972) on directional participants of Russian verbs of movement. Every verb connected hypothetically with an obligatory directional participant was tested as for the preceding context (often it was necessary to go through a longer piece of text), where the given item was looked for. The author has shown that if a semantically obligatory participant was not present in the surface form of the text, the reader of the given written text had always been acquainted with such a participant in advance.

The proposed method of identification of semantically obligatory participants permits to avoid extreme approaches, which are connected, on the one hand, with a restriction of the analysis to surface structure only (i.e. the impossibility of deletion), and, on the other, with a confusion of linguistic structure and cognitive (ontological), "notional" relations, as with the approach according to which every action (and state) finds place somewhere, at some time, in some manner, because of something, and, perhaps, also to some purpose (aim), etc. (In this way - without a proper linguistic motivation, as far as we can judge - some authors work with a broader understanding of the adverbial of time, considering it obligatory with many or all verbs; cf. e.g. Miko, 1972, p. 75 for such verbs as vzniknout - come to existence, zemřít - die.)

4. The method proposed in § 3 can be applied not only to adverbials, but also to complements. It is to be noted, of course, that the complements cannot function as free participants (while adverbials can, see § 2); none of them is connected with all verbs.

Let us take such a sentence as Syn napsal matce srdečný dopis (The son wrote a hearty letter to his mother). If someone asks O čem? (About what?), then the answer Nevím (I don't know) can be quite appropriate in an acceptable dialogue. Thus the participant of the type about what cannot be understood as semantically obligatory with the verb psát (write). But the answers to the questions (1) and (2) from § 2.1 are, of course, negative, so that the given participant is not free; there is only a limited set of verbs taking this complement.

Complements of many verbs can be characterized in a similar way. One can state that the complements, which are characterized negatively with respect to the questions (1) and (2), only in part are semantically obligatory, being optional in other cases. (Cf. also the table given in Panevová, in prep., as for the features connected with the boundary between inner and free participants.) The method of given and new information can be used here also as a means for checking the distinction between obligatory and optional participants.

4.1 With a complement such as the objective (patient) there are also cases where the speaker and the hearer have a general understanding of the deleted object, which, however, cannot be expressed by a particular word without difficulties. Daneš (1971a) speaks about a general object (or about a "systemic ellipsis") in such sentences as Náš chlapec už čte (Our boy already reads), but he quotes also other types, the surface expression of which is "potential" (Když jsem četl asi deset minut, někdo zazvonil - When I was reading for about ten minutes, somebody rang the bell).

We have come to the conclusion that the following types of constructions must be distinguished in which the patient is semantically obligatory, but its realization must not or need not appear at the level of surface syntax (even if the case of actual ellipsis is left out of consideration):

(i) The type Náš chlapec už čte (Our boy already reads), Žáci této třídy dobře počítají (The pupils of this class reckon well), Chlapec pěkně píše (The boy writes well), Dědeček dobře vypráví (Grandfather recites well), where cokoli (anything) ought to be inserted, if we want to find a paraphrase in which the patient would not be realized by zero; but even this paraphrase is not strict enough. It is assumed that a specific type of modality is present, and the aspect can only be imperfective (more exactly, processual, cf. Hajičová, Panevová, 1969). With some exceptions (such as vidět - see, slyšet - hear) there is a more or less synonymous expression including a modal verb: Náš chlapec už umí číst (Our boy can read already), Žáci této třídy umějí dobře počítat (The pupils of this class can reckon well), etc. We propose therefore to denote this type of general patient by a specific symbol, e.g. Δ_{abil},

which could be combined only with the verbs belonging to a specific class, only in case the verb has the aspect processual and the modal grammatemes of modality denoted by Benešová (1972) as ia-P (i.e. facultative, or possibilitive with the identity of the actor and the source of modality). On the surface syntax level this type of patient has only a zero realization.

(ii) The type Neruš ho, on čte (Don't disturb him, he is reading), Když jsem četl deset minut, někdo přišel (When I was reading for ten minutes, somebody came), Učitel píše na tabuli, žáci píší do sešitu (The teacher writes on the blackboard, the pupils in their copy-books), where no patient can be implemented from the context, and no pronominal complement can be regarded as synonymous with the zero complement, i.e. in the semantic representation of these sentences no patient is present. Thus, with the Czech verbs číst (read), psát (write), kreslit (draw), etc., the patient or objective is only optional. But the absence of patient here is possible only if the verb is connected with the aspect grammateme processual, so that the frame of such verbs differs according to aspect. This solution is connected with the assumption that also for other types of complements optionality can be stated if no lexical unit can be inserted (synonymous with the zero complement: Říkal, že přijde včas (He said he'll come in time - to whom did he say so?), Zvolal, že musí rychle odejít (He exclaimed that he had to leave quickly)). It would perhaps be worth while to consider also an alternative solution, with such pronouns as something, somebody being considered equivalent to the zero complement, i.e. yielding paraphrases. But this insertion of something (i.e. the assumption that it was deleted in the above examples) could be applied also to other constructions, including free adverbials that we up to now have considered to be optional. One can say, certainly, that everything happens somewhere, at some time, by some cause, with regard to something, etc. But to understand something as synonymous with zero in all these cases would just mean to identify the "deleted something" with a free place (cf. e.g. Bogusławski, mimeo, p. 25). And, moreover, with some verbs the complement something is not in general deletable (e.g. potkat, meet);

the most decisive argument consists in the lack of a complete synonymy between something and zero; the sentence Křičel do skal (He shouted to the rocks) is not exchangeable with Křičel na někoho do skal (He shouted at someone to the rocks), and each of them must have another semantic representation.

(iii) With the type zamést (sweep), ustlat (make the bed), uvařit (cook) the patient can often be left out, since its range is specified enough by the verb itself (if a regular activity - often concerning the household - is meant, it is possible to say only Wait, first I'll sweep, in the sense of "do my sweeping", "sweep, what there is to sweep this time"). These cases are more or less lexicalized (and idiomatic), but they can be transferred (inside the individual semantic domains) to other types of regular activities expressed by primarily transitive verbs. For this type of "regular usage" we have chosen another dummy symbol, Δ_{us}. It can be combined with verbs belonging to a specific class only, but - unlike in (i) and (ii) - with any grammateme of aspect, cf. Hospodyně sypala (nasypala) drůbeži (The housewife gave (grain) to the fowls).

(iv) The last type of a "general patient", realized by zero on the surface level, can be characterized by such sentences as Tímhle nožem se dobře krájí (lit. One cuts well with this knife), V téhle troubě se dobře peče (lit. One bakes well in this oven), Z téhle vlny se mi dobře plete (I can knit well from this wool). It is a type of syntactic construction called dispositional by Grepl in Bauer and Grepl (1972, pp. 61f), since they express "a positive or negative disposition (relationship) of the agentive to the action". The agentive is realized either by a dative, in Czech (Matematika se mi studuje lehce - It is easy for me to study mathematics), or it is general (Ta kniha se dobře čte - The book reads well; Tímhle nožem se dobře krájí - One cuts well with this knife). Dokulil (1941) chracterizes such constructions as those in which the "quale" of the activity is foregrounded, i.e. the manner of performing the action is in the centre of interest; furthermore, the "quale" of the activity is neither strictly passive, nor active here; in such sentences the specific semantic aspect consists in "an evaluation of the easiness or

difficulty, agreableness or unagreableness, with which the action is performed by the speaker or some other actor." We would like to add that in these constructions the patient is often left out, as our first three examples show. We shall denote the patient in these constructions by a third dummy symbol, viz. Δ_{disp}. (This symbol must be connected with a specific modality of the verb, which is present also in those cases in which a specific patient is realized on the surface level, cf. Matematika se mi studuje lehce - It is easy for me to study mathematics; the patient is realized as subject here, which relates these constructions with the passive.)

The choice of this symbol is constrained again to a specific class of verbs, to a specific modality, and to verb tokens expanded by one of the evaluation adverbs such as dobře (well), špatně (hard), snadno (easily), nesnadno (uneasily). When emphatical intonation is present, these evaluation adverbs probably can be omitted.

It is probable that the third dummy symbol is, in fact, dispensable, its presence being deducible from the specific modality of the verb, the presence of the adverb and the verbal frame; it is necessary to use this fact in the set of rules (generating the sentence nucleus). But in the examples we use the dummy symbol, to get a more perspicuous representation.

On the other hand, it is necessary to use a new grammateme for the dispositional modality, since such sentences as Matematiku mohu studovat dobře (I can study mathematics well) and Matematika se mi studuje dobře (It is easy for me to study mathematics) are not paraphrases; they differ among other by the fact that with the former it is not clear whether the speaker already studies mathematics or not, while with the latter he already studies now.

In the semantic representation of the sentence Z téhle vlny se mamince dobře plete (It is easy for mother to knit from this wool) the verb has the dispositional modality, the noun Mother figures here as the actor (agentive), Δ_{disp} as patient (objective), wool as origin. The semantic representation of the sentence Z téhle vlny se dobře plete (It is easy to knit from this wool) differs in one point only, viz. the actor is "general". Such constructions as Tahle trouba dobře

peče (This oven bakes well) and V téhle troubě se dobře peče (It is easy to bake in this oven) are not paraphrases in Czech, since their truth conditions differ; with the former the result of baking must be good, well baked, but to work with the oven need not be an easy matter, while with the latter sentence the work is easy, and nothing specific is said about the result of the baking. This semantic distinction is accounted for, with our approach, by the difference between the types (i) and (iv) above; a similar distinction can be found between Tahle pračka dobře pere (This washing-machine washes well) and Touhle pračkou se dobře pere (It is easy to wash with this washing-machine).[12]

4.2 From the fact that several functionally distinct complements can accompany a single verb token it follows that in such cases we should count with different types of complements (cf. also Konečná, 1966). As we have already seen, origin and result have a similar position and we class them at the tectogrammatical level as complements. We thus work here with four types of complements (as for other alternative solutions, cf. below):

(I) patient or objective, including the complement of the type o čem (about what, with verbs of saying), denoted Pat; we class the direct complement under this heading (the goal, the object affected by the action, but not the so-called resulting or effected object, cf. (IV)[13]); examples of patient: uvařit brambory (cook potatoes), dotknout se drátů (touch the wires), hledat brýle (look for spectacles), dosáhnout úspěchu (achieve success), pomoci s úkolem (help with the task), mluvit o dovolené (speak about the holiday), psát o katastrofě (write about a catastrophe), ptát se na váš názor (ask your opinion);

(II) addressee or dative, denoted as Addr, well known from traditional syntax (also under the heading of indirect object); examples: říci někomu (tell someone), otázat se někoho (ask someone), pronášet k někomu řeč etc. (address someone with a speech etc.), přinést někomu něco (bring sth. to someone), zaplatit někomu (pay someone), učit někoho (teach someone);

(III) origin, denoted as Orig - a participant that is never obligatory (according to our material); it must be understood as a specific type of participant (and cannot be classed under any other of our tentative types), since there are such strings as odevzdat něco někomu od někoho (hand something over to someone from someone), where we have Pat, Addr and Orig (the Czech dative case cannot be understood here as realizing the free adverbial of benefit, since pro někoho - for someone - can be added, and has another functional meaning), měnit něco z něčeho na něco (change something from something to something), ode mne se dověděl o té věci plnou pravdu (from me he learned - about that matter - the whole truth), where Pat, Orig and Eff cooccur; examples of Orig: vědět něco od někoho (know something from someone), zjistit to od někoho (learn about it from someone), něco vyrostlo z něčeho (something grew out of something), tvořit z něčeho něco (create something from something), mlít z něčeho něco (grind something from something), stavět z něčeho něco (build something from something);

(IV) result, effected object, denoted by Eff (but not identical with the free adverbial called outcome, for which such means of realization as so that are typical); we class under this heading the so-called second (inanimate) object, further (with the verbs of saying) the direct and indirect discourse, the predicative complement (with such verbs as elect, nominate, promote) and the traditional adverbial of result; we are aware that this participant has, from the viewpoint of cognitive structures, a rather heterogeneous character, but its unified treatment is perhaps substantiated sufficiently by the identical syntactic properties; as for the so-called effected object with verbs having no (other) patient (kopat jámu - dig a hole), it could be classed from the cognitive viewpoint, but there are also other possibilities, as we shall see below; examples of Eff: vyprávěl tuto příhodu (he narrated this event); vyslovil to přání (he uttered that wish); vysvětlil, že to nemůže udělat (he explained that he could not do it); řekl pravdu (he said the truth); znal všechno (he knew everything); roztrhal to na kousky (he tore it into pieces); postavil kostky v pyramidu (he built the cubes in the shape of a pyramid); umlel to na prášek (he ground it

into powder); učinili ho předsedou (they made him the chairman).

It appears questionable to class the direct and indirect speech (and their equivalents) under (IV); our treatment is based on the fact that the speech is the result of the action referred to by a verb of saying, while the object of the type o čem (about what) is most simply accounted for as Pat. If we class Řekl, že přijede (He said that he would come) to Eff, we must class there also Řekl pár slov (He said a few words); similarly, Četl knihu (He read a book) must be classed with Četl, že na Nilu jsou povodně (He read that there are inundations on Nile), and Psal dopis (He wrote a letter) must be classed with Psal, že se má dobře (He wrote he was going on well). The appurtenance of both these sets of constructions to the same participant is corroborated first of all by the fact that they cannot be combined with a single verb token, while both of them can be well combined with Pat of the type about what, cf. O svém pobytu v lázních psal, že se má dobře (About his stay in the spa he wrote that he was going on well) and O svém pobytu v lázních psal dopis (About his stay in the spa he wrote a letter). With verbs having the frame Ag (Pat) (Addr) (Eff), i.e. all complements being optional (e.g. vyprávět - narrate; povídat, vykládat - recite), we assume the following assignment of participants to be appropriate: Vyprávěl smutný příběh (He narrated a sad story) - Eff; Vyprávěl o mamince (He narrated about Mother) - Pat; Vyprávěl o svém odjezdu (He narrated about his departure) is ambiguous, being the surface realization (nominalization) corresponding either to Vyprávěl, že odjede or že odjel (He narrated that he would leave - or ...that he left) - Eff, or to Vyprávěl o tom, že odjede (He narrated about the fact that he would leave) - - Pat (in the latter case the sentence can continue with another that-clause, functioning as Eff).[14] We assume that it is not necessary to distinguish two different participants (on the tectogrammatical level) for such sentences as Řekl mi své tajemství (He told me his secret) and Řekl mi, že... (He told me that...), cf. Daneš' distinction between the frame (rámec) and the content (obsah) of the message; but it is necessary to distinguish between Řekl mi své tajemství

(He told me his secret) and Řekl mi o svém tajemství (He told me about his secret), which is accounted for by the distinction between Eff and Pat.

An advantage of this approach consists in the possibility to distinguish between the so-called effected object and the proper (affected) direct object. However, for such cases as kopat jámu (dig a hole) and čistit koberec (to sweep a carpet) - i.e. for cases where the effected and the affected object do not cooccur - we prefer to treat them as a single participant, Pat, i.e. to distinguish only between a primary Pat and a cognitive effected object, shifted at the tectogrammatical level into the position of Pat (cf. below to this kind of shifting).[15]

We have already mentioned several objections against this solution; it is therefore necessary to consider also possible alternative treatments of Pat and Eff.

One possibility would consist in taking the direct and indirect discourse (and their equivalents) as a specific participant. In this case, however, it would be difficult to find a clear boundary between the equivalents of direct speech and some other actant: Vyslovil dvě věty (He pronounced two sentences) can be considered an equivalent of direct or indirect speech, with Napsal článek (He wrote an article) we have already a specific name of a type of discourse (text), and with Řekl pravdu (He said the truth) we are faced with an evaluation, not a mere name of a discourse; but should these distinctions be included as relevant in a linguistic description? - Other difficulties of this solution, which are typical also for the next one, are discussed in the next paragraph.

A third solution would be connected with a treatment of the object of the form about what as a specific surface realization of a part of the indirect speech: Řekl o mamince, že brzy přinese oběd na stůl (He said about Mother that she would soon serve the lunch) would have then the same semantic representation as Řekl, že maminka brzy přinese oběd na stůl (He said that Mother would soon...); similarly Tvrdil o Karlovi, že ho dnes učitelka dvakrát napomínala (He claimed about Charles that the teacher reproved him twice today) would be

derived from the same underlying structure as Tvrdil, že Karla dnes učitelka dvakrát napomínala (He asserted that Charles was reproved twice by the teacher today), etc. These sentences would contain only Pat, not Eff at the tectogrammatical level, i.e. the indirect speech would not then be treated as Eff. It would be left to by the transduction rules to specify under what conditions (probably connected with the dichotomy of topic and comment or focus, cf. Benešová, Hajičová and Sgall, 1973) the sentence part with about what can be taken out of the indirect speech. Such a sentence as O slovese napsal monografii (lit. About a verb he wrote a monograph) ought then to be understood as containing, in its surface (morphemic) shape, a non-projective word order, and, in its semantic representation, an adjunct (as in ... a monograph (which deals) about verb). If this unprojective word order were a result of transduction rules applying in case such a noun phrase is divided between the focus and the topic of the sentence (in our example the head noun belongs to the focus, the adjunct to the topic), then what about such sentences in which the surface word order is projective, but still does not correspond to the transduction rules concerning noun phrases, such as Napsal o slovese monografii (lit. He wrote about verb a monograph)? There are also other cases in which the object of the type about what cannot be included in the semantic representation of the indirect speech without hesitation; one such example has been already given above (see the sentence translated as About his stay in the spa he wrote that...); there are also examples without indirect speech (cf. above such sentences as He told me about his secret). - On the other side, this solution has also several advantages: The element that becomes subject with passivization in Czech is always classed as Pat here (nádobí se myje - dishes are washed; kniha je čtena - the book is read); some statements that must be repeated, with the first alternative, for Pat and for Eff, can be pronounced only with Pat under the present solution (e.g. the statements about "general patient", cf. § 4.1).
It seems that also the relationship between a verbal construction and a corresponding nominalization can be more easily treated in this third solution were chosen, since this would

permit to speak about the same participant then in all the four following sentences: Oznámil nám, že přijedete (He announced us that you would come); Oznámil nám váš příchod (He announced us your arrival); Řekl nám, že přijdete (He told us that you would come); Řekl nám o vašem příchodu (He told us about your arrival). Furthermore, the sentence Řekl nám o mamince, že přijde (He told us about Mother that she would come) can be nominalized into Řekl nám o maminčině příchodu (He told us about Mother's arrival), and not into *Řekl nám o mamince její příchod (lit.: He told us about Mother her arrival), i.e. the sentence part about Mother is included in the nominalization, which corroborates the view according to which this sentence part is derived from a part of the indirec speech. When generating these sentences, we do not need, with this alternative solution, complicated rules ensuring the referential identity between the object of the type about what and the corresponding element inside the indirect speech: Řekl o Karlovi, že Karel odešel (He said about Charles that he (Charles) went off); Řekl o Karlovi, že se na něj (Karla) zlobí (He said about Charles that he was angry with him (Charles)), etc.[16] The shifting of participants of some verbs, discussed in Part II, will yield a further support for the present solution.

We have chosen at present the first solution (for an account of the given set of verbs, also in the form of rules generating the nucleus of the sentence), since for the third solution some prerequisites are still lacking (such as the elaboration of an appropriate choice of the part that can be taken out of the indirect speech). In further research it will be necessary to consider the arguments for each of these alternative solutions, and to analyze more thoroughly also the phenomena of languages other than Czech.

5. The approach characterized above avoids the extreme standpoints of Tesnière as well as of Fillmore. We attempt to avoid the subjective or impressionistic classification of "cases" by looking for operational criteria conditioned by the language system, but we also accept a broader understanding of "actant" (inner participant) and try to class the modifications having the same relationship to the action under the

heading of a single participant, as far as this appears to be corroborated by the facts of linguistic structure. The (more accessible) surface structure supplies here a certain support; for claiming a new tectogrammatical distinction (a new participant), we consider it necessary to have relevant syntactic-semantic arguments.

While with Fillmore the instrument or objective remains instrument or objective with most different surface realizations (in The key opens the door the noun key is regarded as instrument, in The book appeared the noun book is regarded as objective), with Tesnière the assignment of a certain "actant" depends on the number of participants of the verb, and accordingly both key and book would be classed as the first "actant", the actor. In this point our approach coincides with that of Tesnière, understanding the surface subjects in the following sentences as realizing the actor, or actor/bearer: Jeřáb zvedá náklad (The crane lifts the load); Počítač rozbírá text (The computer analyzes a text); Mlýnek mele kávu (The mill grinds coffee). Since there is no clear criterion allowing us to distinguish between (Fillmore's) agentive and instrument in such cases, we prefer to remain as close to the surface structure as possible.[17]

Thus we assume the participants to be defined, essentially on a semantic basis, but if the verb does not have all the non-adverbial inner participants (i.e. the actor and the four types of complement) in its frame, then the tectogrammatical participants differ from the cognitive units in a way that can be illustrated by the following shifts" (in Fig. 1 they are denoted by numbers, in the examples the tectogrammaticl participant is illustrated by means of one of its surface realizations):

1: Pat → Ag : Kniha vyšla (The book appeared)

2: Addr → Pat : oslovit někoho (address someone), rozumět někomu (understand someone); sloužit někomu (attend on someone)

3: Orig → Pat : jmenovat se po někom (be called after someone); zůstat po někom or z něčeho (remain after someone or from something)

4: Eff → Pat : doporučit, aby... (recommend to do...); kopat jámu (dig a hole)

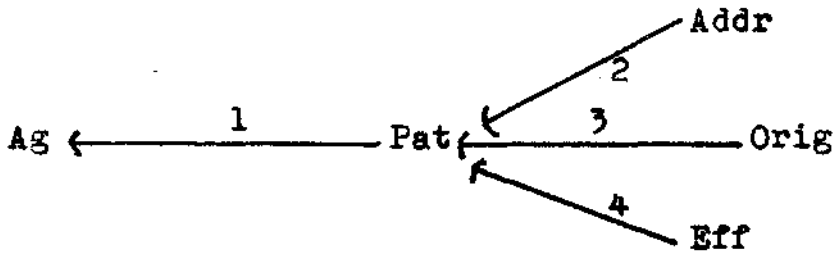

Fig. 1

If, in the cognitive stratum, an action has not among its elements an item that could be the base of Ag and/or Pat (for the tectogrammatical level), then the "free position" is filled, in its frame, according to the arrows from Fig. 1. In case of a possible choice, the position of Pat is occupied by what oterwise (with a verb having a larger number of participants) would function as Eff, while Addr and Orig remain unshifted: Doporučili mi (Addr), abych odjela (Pat) - They recommended me (Addr) to leave (Pat); Udělali z někoho (Orig) předsedu (Pat) - They made someone (Orig) the chairman (Pat).

When we speak about shifting in these cases, we have in mind - from the heuristic point of view - first of all a comparison with Fillmore's system, which does not include such shifting (his participants being specified more or less directly on the cognitive base, disregarding the number of participants of the given verb). At the same time this shifting can be understood as one aspect of the relationship between linguistic meaning and cognitive content. It can be said that the "unshifted" units correspond rather to the cognitive or ontological content, while individual languages "shift" them according to relevant conditions, i.e. every language classifies them with regard to its structure, so that at the level of linguistic meaning there appear "shifted" (already classified) participants.

6. To sum up, we distinguish, at the tectogrammatical level, semantically obligatory and optional participants (both being inner participants, determined by the frame of the verb), and free participants (independent of the verbal frames). At the level of surface syntax, the semantically obligatory

participants can be realized either by a syntactically obligatory sentence part (potkat někoho - meet someone; dostat se někam - get somewhere), or by a potential sentence part (přijít - come).

Examples of verbal frames specified on this basis (together with a discussion of questions arising with certain verbs) and the rules of a context-free phrase-structure grammar generating the verb with its inner participants will be presented in Part II of this paper.

N o t e s

1 Cf. Horecký (1969) for an account of these semantic types of objects in the form of phrase structure generative rules.

2 A similar criterion can be found with Apresjan (1969) and with Manykyan (1972).

2a Even though we do not consider the semantic representations to be necessarily the same for all languages, we dare to base our analysis on Czech examples, the number of speakers not being decisive for the properties of linguistic structure. On the contrary, every consideration of a non-English linguistic item may be expected to bring some new insight with more probability than the usual regard to English. For the convenience of the non-Czech readers, nevertheless, the Czech examples are accompanied by their English counterparts (when necessary, a literal translation is given).

3 Respecting the fact that the inner participants comprise complements as well as adverbials, our considerations concern elements that, at the tectogrammatical level, are connected with the verb by means of the functors R_p, R_i, R_n and R_m (under the last functor various adverbial modifications, treated as grammatemes, are classed - those of place, time, manner, cause, means, etc.). For the role of functors and grammatemes cf. Sgall, Nebeský, Goralčíková, Hajičová (1969). Similarly as Pauliny, Tesnière,

Fillmore and others, we regard also the actor (i.e. element connected with the verb by means of functor R_a) as an inner participant (for the discussion of the actor cf. Part II).

4 We do not, however, refer here to a cumulation having the form of coordinated or appositional strings.

5 Pauliny speaks here about the left-hand side of verbal intention (with regard to the usual position of the actor before the action).

6 Saying that they are combined with "all verbs", we are aware of exceptional groups or individual verbs with which the given participant is not used; it appears as a rule that such a combination is not grammatically excluded but is unusual due to cognitive or ontological reasons: for instance, aim is combined neither with a verb of change of state (but cf. Zhrbatěl, aby byl potrestán za svou pýchu - He got hunch-backed to be punished for his pride) nor with verbs rendering states of mind not controlled consciously (Raději mi nerozuměl, aby se vyhnul odpovědnosti - He preferred not to understand me in order to avoid the responsibility); accompaniment is not combined with impersonal verbs (připozdívá se - it gets late; prší - it rains); means is not combined with verbs of unconscious activities; furthermore, similar reasons lead to combinatoric restrictions of the lexical units. Such cases can be considered as not contradicting the general possibility, which is at the speaker's disposal, similarly as e.g. some groups of adjectives usually do occur in comparative, but if one needs, such forms as greener, more wooden can be used, which possibility is accounted for by the general rule of comparison of adjectives as such.

7 Besides aim also another unit should be distinguished, as Paldauf's záměr (intention), to account for the difference between jít na ryby (go fishing) and jít pro ryby (go for fish); we owe this point to a personal communication of Dr L. Řeháček. The given criterion (question (1) in § 2.1), however, leads to considering this specific participant as

an inner one, determined by the frames of verbs of motion and some other.

8 We work here essentially with the types of grammatemes discussed within the framework of functional generative description by Sgall, Nebeský, Goralčíková, Hajičová (1969). Most of the illustrative examples here are taken over from the quoted book, see p. 99f.

9 Seděl u okna od Londýna až do Doveru (He sat at the window from London to Dover) includes adverbials that can be determined as temporal rather than local.

10 Fillmore (1971, p. 30) speaks about "hypercases" with such units as duration and distance, which cover the cases of source and goal. We cannot accept Fillmore's analysis of these constructions, but the idea of a semantic hierarchy of participants is certainly useful; it is applied also by Zoeppritz (1972); in the framework of functional generative description it is connected with the distinction between functor and grammateme (cf. here § 2.1 and Note 3). When Fillmore speaks about the necessity of rendering the semantic distinctions between locative prepositions, this concerns what we call semantic variety inside a single participant.

11 This means that in a generative description they can be derived by means of a single rule scheme, which has a recursive character, cf. Sgall's (1967) original proposal

12 Cf. also Poldauf (1969), who deals with constructions of this type as transformations of an evaluative predication and specifies the conditions under which this transformation can be performed (e.g. The book seels well but not *The rule knows easily; the evaluation in the former example refers to some resistance which must be overcome in realizing the activity in question).

13 For the relationships between them from the point of view of linguistic meaning cf. § 5.

14 Similarly also Přemýšlel, zda má odejít (Eff) - He was reflecting whether he should leave; Přemýšlel o mamince (Pat) - He reflected upon Mother; Přemýšlel o mamince (Pa

zda ji bude moci navštívit (Eff) - He reflected upon Mother, whether he would be able to visit her; Přemýšlel o svém odjezdu (Pat or Eff) - He reflected upon his departure.

15 We shall show below that this "shifting" can be interpreted as an aspect of the relationship between cognitive content and linguistic meaning. There are, however, also verbs that can be combined with a complement belonging cognitively to the result (vařit oběd - cook lunch; péci dort - bake a cake) and also with that belonging to affected object (vařit brambory - cook potatoes). It appears that this distinction belongs only to the cognitive stratum and that the Czech language classifies both types as a single linguistic category (after all, a cake may be referred to before being baked, e.g. as a mass which is to be baked).

16 This, however, concerns the anaphorical relations in general (the last sentence probably should be considered as ambiguous). As we have already remarked, the sentences of the type Řekl o své rodině, že rodiče už dávno ztratil a starší bratr je lékařem ve Vídni (He said about his family, that he lost his parents long ago and his brother is a doctor in Vienna), where a certain identity of reference is present, but not expressed linguistically, are connected with difficulties in such a treatment.

17 The position of Ag is from time to time occupied by participants having cognitively a character other than instrument, e.g. Noviny píší ... (The newspapers say ...), Rozhlas hlásil ... (The radio announced ...). Tesnière's statement that if the verb has a single participant it is necessarily the first one, i.e. the actor, cannot be taken literary, since there are impersonal verbs with an obligatory participant, such as Nateklo do sklepa (Water ran into the cellar); Kouří se z komína (lit. It is smoking from the chimney). It would be perhaps more appropriate to list such cases of this type in which the adverbial can function as the first participant.

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