Construction of grammar

from the semantic basis

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Olomouc

2014

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Obsah

1.

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1. CONSTRUCTION OF GRAMMAR FROM THE SEMANTIC BASIS

1.1 GENERAL DETERMINATION OF NATURAL LANGUAGE AS THE OBJECT OF LINGUISTIC STUDY

The present work involves reflections on the relations between content and form, semantics and grammar, and the resulting proposal of a linguistic model constructed "in the content → form direction". Its goals nevertheless cannot be achieved without first providing an unambiguous philosophical formulation of a certain idea of natural language as the object of linguistic study, which in our opinion constitutes a necessary prerequisite for formulating any linguistic model as a gnoseological tool. We shall provide our general formulation of natural language as the object of (linguistic) study in a very concise, summary manner, as follows:

1.1.1

Language is a system of relations between signs, which forms, via its carriers (users) as social subjects, a structural part of objective reality, being in this way, i.e. via the objective biological and social existence of man and society, a participant in the "self-awareness" of the objective reality. This assertion formulates the materialist monist determination of language in the material unity of the world, in the category of objective reality, the way this notion is understood by Lenin (1972). As shown by Petr (1980, p. 5ln) and the literature he quotes, such understanding of language (or, more precisely, of speech and the system of language tools that form a prerequisite of speech) as socially organized matter can be derived already from the works of Marx and Engels. (Cf. for certain problems of this inference: Kořenský (1979, 1982).) Language (naturally, in systemic connection to thought and consciousness, cf. Petr (1980, p. 70n), standing "in opposition" to the completeness of the material world, is at the same time a part of the completeness of this material world as one of the tools of reflection of the said material world, a reflection, the material carrier of which is man and society. This then results in the possibility to realize within the framework of the materialist monist formulation,

and based on the principle of separation of subject and object, gnoseologically substantiated formulations of the semantic qualities of the contents of language (again, in systemic connection to the respective qualities of thought and awareness) as "ideal" qualities, in the sense of "ideal seen as one of the properties (or, rather, one of the forms, modifications, shapes) of philosophically determined matter" (Petr (1980, p. 54)).

1.1.2

Language as s subsystem of the complex of systems constituting objective reality has to be investigated from the standpoint of the dialectic of essence and appearance.

1.1.3

The essence of language[1] is dynamic realization of sign relations between parts (substructures) of objective reality and certain physical qualities of acoustic and graphical nature (that is to say, the expression part of the sign relation - being, in its narrower sense, the material or "matter-based" component of language) which the social man uses, according to certain rules of selection from the complete potential of his acoustic and graphical possibilities, to label in a more or less stable manner parts of the changing reality which determines him and which is at the same time co-determined by him. These dynamic relations of reference are mediated by a complex of language meanings which are, much like the rules of constitution of the expression part of a sign relation, a product of human consciousness as the most highly organized matter there is.

1.1.4

The function of language as a system of sign relations is to reflect the states of objective reality and to realize inter-subjective communication. These are the two basic functions of language, whereas the former is the functional prerequisite of the latter. These functions determine language in a substantial manner.

1.1.4.1

It is often said that communication in and of itself (or mainly) determines language (in a substantial manner), since the necessity of understanding each other produced language, and that on the other hand capabilities of reflection are not an "exclusive" feature of language, but rather functions of thought and consciousness. This undoubtedly holds, provided we understand things dialectically - from the genetic standpoint (or, more precisely, from the standpoint of principles of origin and development, cf. also 3.2). If we consider the reflective function of language to be a prerequisite for its communicative function, this holds precisely in the purely functional sense; in order for speech to take place (as a process of communication), the prerequisite had to develop first, that is to say, a set of tools of reflection of semantic content.

1.1.4.2

Defining two of the basic functions of language does naturally in no way insinuate that these are language's only or even primary functions. We leave the relation consciousness - thought - language aside; in this respect it holds that language participates in these two functional complexes, while it is also undoubtedly true that language is primarily the carrier of communicative functions within this complex, and secondarily the carrier of reflective functions (with respect to consciousness), with dialectical dependence. – Basic functions of language are naturally not its only functions - we leave aside completely other functions which in various senses follow from the basic ones.

1.1.5

The appearance component (cf. note 1) of language is text as a product of communicative activities of the social man, as the result of realization of communicative functions of the language system.

1.1.6

The object of linguistics in its essence and completeness is the system of language as the rules of dynamic realization of sign relations (in the sense of 1.1.3), that is to say the prerequisite of functioning of language and this functioning (cf. 1.1.4)

itself, that is to say, the functional essence of language. The individual types of linguistic activities (sometimes seen as disciplines, other times as methodological specifics) specify constituent, specific objects from this whole.

1.1.7

The immediate object of linguistics is text as the product of communicative activities of the social man, that is to say the result of the communicative function of the language system and the activity of communication itself. The most immediate object is precisely text (due to its fixed graphical form and the possibility to be fixed in acoustic form).

1.1.8

Immediate objects (texts, communication acts) are immediate objects for any (general or specific) linguistic activity the "ultimate" object of which is a generally defined or specific object. – An immediate object can however become the "ultimate" object, the ultimate goal of a specific linguistic activity, provided the activity in question does have such special focus.

1.1.9

Language can be (and is) the object of other than linguistic scientific activities. The various sciences focused on language (squarely on the process of communication and text) influence each other mutually.

1.1.10

Our work focuses primarily on those components of the language system that are connected to the reflective function, without however forgetting about those properties of language tools with the reflective function that are related to the participation of these tools in the production of text as a result of the communicative activities of man.

1.1.11

The communicative functions (and the respective means of expression) are those functions (and devices) which allow for communication as a practical activity and result in the emergence of text as a product of communicative activities. (For the questions regarding the system of text-forming devices in relation to the basic devices with reflective function cf. 2.3 and 2.4.)

1.1.12

We shall consider the basic units with reflective function to be meanings of the so-called semantic basis. This expression will be formulated ontologically, that is to say, its objective existence as a substantial element of the language system defined in the sense of dialectical-materialist monism will be investigated (cf. 1.2). The notion of the semantic basis will be gnoseologically formulated in relation to its ontological definition as the basic component of the proposed type of linguistic model.

1.1.13

Communication in our context is understood as an activity of a speaker of given speech acts, which has with respect to systemic devices the character of selection from a set of referentially and functionally synonymous devices, controlled by the communicative needs of the said speaker. This given speaker is included under the expression carrier (cf. 1.1.1) and participates in this manner in creative activities with respect to language.

1.2 PROBLEMS OF CONSTRUCTING GRAMMAR FROM THE SEMANTIC BASIS

A certain generally understood type of linguistic models is represented by grammars which take the semantic core postulated in varying breadth as the basis of description and interpretation of language devices, in particular of meanings of sentences and words of natural language, to which they then attach by means of rules grammatical devices and devices of lexical formation of sentences as grammatical-semantic structures and as structures of expression. This type of linguistic modelling became widespread approximately from the mid-1960s as an immediate reaction to the formalism of the prior period, usually associated with the Chomsky "school"; it however possesses a deeper motivation in the basic views of American but also European descriptivism, e. g. the Prague school of structuralism, which achieved more significant results in its investigation of semantic properties of the forms of expression, but was less successful in its systematic and profound study of parallelism of the form and content structure of language.

It is evident that the basic complex of problems related to this type of models will be related precisely to the problem of the semantic core. In section 1.2 we shall mostly use the expression semantic foundation as an ersatz term due to its lack of terminological fixation, whereas in further discussion we shall formulate within the scope of a certain model the expression of semantic foundation in the form of the term semantic basis.

In order to make the suggested type of linguistic models more concrete, let us list a few examples of grammars which are known to the wider academia and, in our opinion, correspond well to the type of models in question. – It would appear that it is possible to count among this type of linguistic models already e. g. the first works of the so-called generative semantics (McCawley 1968, Lakoff 1971), they would also include the so-called case grammar of Charles J. Fillmore (1971) and Brekle's generative model (1970). Also in this sense can be understood a number of Soviet models, such as the conception of Gakov (1967), Alisova (1970, 1971), the models of the type meaning → text of Melchuk, Zholkovsky (1969), the applicative model, the work of Arutyunova (1976) and certain variants of the Tesnièrian valency theory, cf. Bondzio (1971). From Polish literature

it is possible to mention mainly the works of Wierzbicka (1969, 1972), Karolak (1974), Grochowski (1975), which form a continuation of the works of Bogusławski, Melchuk and Apresyan.

In the Czech linguistic literature this character is present in the works of Daneš et al. and undoubtedly also in the works of Sgall et al. (The works of the aforementioned teams of authors are listed in more detail in the bibliography.) Recently, this domain of works grew due to the significant contribution of Zimkov (1980).

It would appear practical to consider in this context the works inspired by intensional logic, cf. e. g. Montague (1970), Hintikka (1969), the Czech works from this domain, such as Materna, Pala (1976a) and others.

It is naturally not our intention to provide an exhausting overview; the aforementioned works are listed in order to provide an illustration and an example - neither is it our aim to, which will become clear in our further discussion, capture the difference between the works listed, on the contrary, we would like to point out certain problems shared by the models of the general type outlined and, in a certain way, illustrated above.

The common feature of the given type of linguistic models will be construction of models in the sense of content → form (expression). What is involved in any case is something we can call "tactic of the gnoseological method", whereas with some of the models the parallel of the two directions of construction is actually accentuated in the gnoseological sense. In the gnoseological sense however this does not constitute a substantial difference; the prerequisite of a dialectical relation between content and form is a necessity, whether it is expressed explicitly or not.

The very progression from content to expression elicits the first substantial objection from the distributist or other "formalistically" oriented researchers: they claim that while the units of the structure of expression (phonemes, morphemes, morphs, ...) are undoubtedly immediate objective given facts, the objects of the content-based, semantic foundation are essentially hypothetical, they have the character of postulates. If we however look more closely at the problems that contemporary phonetics and phonology have with their objects, especially when

they try to investigate them without considering meaning, it becomes clear that even objects of the structure of expression are not immediate empiric given facts, because without constantly bearing in mind the meanings known to the researchers (or else assumed by him), these cannot be defined reliably.

The difference between the constructive progression from content to form and from form to content therefore lies not in the empiric immediacy of the foundational objects of expression and in the speculative, postulational character of the foundational objects of content, but rather in the various approaches to semantic objects of natural language in these two instances of gnoseological activity. The method of progressing from expression to content usually assumes that the objects of meaning are at least within the scope of the so-called grammar in its narrower sense tied in a simple, if not entirely symmetrical correspondence, to objects of expression, that is to say, the systemic and functional existence of such objects of content as would have the character of a hidden semantics that is not immediately signalized by expression is not usually considered. The reversed, or mixed gnoseological approach on the other hand builds precisely on the said premise.

Another range of serious objections against the models constructed in the direction from content to expression is the question of the ontological[2] character of the semantic foundation of grammar and the related question of universality of the semantic foundation.

A general feature of the various conceptions of the semantic foundation is that: 1. it involves a certain "semantic language" which as a rule tends to be recorded by means of logical syntax or else by means derived from it, 2. it involves a set of axiomatically determined objects and the rules of their combination with varying measures of empiric motivation based on previous analysis of texts, the researcher's knowledge of the given language, intuition, etc.

It is precisely in relation to these facts that the question of the ontological character of the semantic foundation needs to be posed. This is a question of whether we should consider the "semantic language" as postulated based on empirical motivation to be a gnoseological construct, a tactical foundation of the researcher's activities, or to also be an ontologically justified functional core of natural

language. It is a question of grave importance. We stated above that the objection stating that the objects of expression are empirically justified whereas the content-based semantic objects of the semantic foundation are of a purely construct--like character is disputable. The possible objection to the effect that whereas the objects of the structure of expression are ontologically unquestionable, the objects postulated within the scope of the semantic foundation, the semantic basis, are ontologically questionable, is likewise a principal objection, should it prove to be justified.

It nevertheless involves a complex of questions. Firstly, the matter cannot be understood in the manner that only the objects of expression are ontologically unquestionable, while the objects of content are not, without at the same time denying the dialectical relation between form and content. Furthermore, the dispute actually involves any objects of expression on one side (the substantial differences between individual theories of the structure of expression nevertheless bear witness to the fact that we cannot count on a generally accepted theory of objects of expression) and certain objects of content on the other side, whereas the basic characteristic of the latter is the fact that they are not objects with an immediate connection to the objects of expression. The dispute thus in fact deals with ontology of only such objects as are not immediately determined by expression, rather than any objects of content.

In considerations of the ontological character of the semantic foundation it is necessary to proceed essentially in this manner: an active user of language has certain needs of expression; it is precisely the "semantic language" which formulates the constructional foundation of the given type of linguistic models that represents the basic prerequisite for realization of the speaker's needs of expression in the form of basic relational models, the "states of the world" which the speaker communicates. What is involved is thus a set of potential relational objects of intensional nature, which are at the speaker's disposal, if he should enter the relations of communication within the given language community. Without the existence of this dynamic, but normalized set of relational models of the "states of the world", that is to say, without a set of stable rules of depiction of reality in language, communication is just as impossible as it is without dynamic

but normalized principles of use of the means of expression. It cannot be assumed that with the complex sign relations of the contemporary natural languages it is possible to understand language meanings which are not immediately tied to expression objects as topically referential, denotative meanings, without the necessary mediation via intensional meanings. These potential meanings of an intensional nature are precisely what is modelled in the form of the semantic foundation and become the construction basis for the models of the given type. We therefore consider it necessary to attribute to the semantic basis and terms that are functionally equivalent to it not only gnoseological but ontological status as well.

Another question arises however; if these meanings do not have a relatively immediate connection to the objects of expression in language, it is then not impossible for them to be semantic objects that are closer to objects of the structure of human thought, or very general universal objects of natural languages in general, with disputable connection to the individual natural languages. In the Czech linguistic tradition, there is a distinction between the so-called contents of consciousness and language meanings, cf. already Dokulil, Daneš (1958). In most conceptions however, the authors do not take a standpoint regarding the question of whether this involves a certain structuring of meaning of the so-called contents of consciousness or an integral functional component of natural language. What is usually investigated in detail on the other hand is the question of universality of the relevant semantic component which forms the constructional foundation of the given model. This however practically amounts to giving an affirmative answer to the question of whether this constitutes an integral part of the system of language. The universalist assessment of this component of language is prevalent, the relevant component usually understood to constitute the semantic foundation of natural languages in general.

The question then arises of whether stating of certain problems related to the thought-content or integrally language-based status of the respective components and their universality can form a substantial objection against this type of linguistic models. We believe it cannot. As was already mentioned in our contemplation of the ontological status of the semantic foundation, it, in our opinion,

does not involve a mere abstract postulate of the linguistic meta-language, but rather an objectively existing category of social consciousness that covers not only "intra-language" but also "inter-language" communication. It is therefore a factor necessary from the standpoint of specific analysis of any single natural language as well as from the standpoint of investigating the language universals.

Should we decide to follow from Dokulil's and Daneš's (1958) ideas on the relation between contents of consciousness and language meanings and understand these matters in the sense of Komárek, Kořenský (1974), we shall by the way of the notion of origin-related and developmental principles of language reach the conclusion that the structures of the contents of consciousness and the structure of the semantic basis of natural language are dialectically connected not only developmentally, but also in the synchronic functional sense. For the general theory of natural languages and with regard to construction of grammar this involves a certain set of semantic relational objects of natural language which can be, based on the researcher's goal or intended application, understood and postulated from the standpoint of various degrees of universality, ranging from absolute universality where the categories involved are very general thought categories down to the degree of zero universality. What is however important to stress is that should the semantic foundation be an object of analyses in and of itself, i. e. should it be something else than primarily a prerequisite for investigation of the means of expression in language, the aforementioned definition of the semantic basis would be ontologically insufficient. All conceptions without an exception nevertheless involve precisely continuous investigation of the relations between the means (grammatical and lexical) of expression on one side and semantic objects on the other. What this means in practice is that the "risk" related to the "excessive" universality of objects of the semantic basis which forms the foundation of analysis of a given individual natural language is minimal precisely provided that the means of expression of basal relational objects are systematically investigated. If there are then in the sense of content as well as in the sense of extent postulated also some excessively universal objects or objects "other" than those functioning in the given natural language, these will be reliably and sufficiently corrected by thorough examination of the respective means of expression. More serious however

is the reverse "risk"; this involves cases wherein the objects of the semantic basis are defined too specifically, too narrowly, in too close dependence on the means of expression of an individual language while the goals of the investigation are in contrast to that universalist, confrontational etc. These reasons make it obvious that, generally speaking, a more universal postulation of the objects of the semantic basis is gnoseologically more appropriate, even though it is necessary to make sure that the objects always have the character of a language or thought representation of reality and that they not be confused for empirical or even scientific description of reality itself.

In Chapter 2 we shall formulate the theory of the semantic foundation in the form of the semantic basis as an ontologically founded component of natural language of a thought and language based character.

Notes

[1] The dialectical-materialist category of essence and appearance is usually investigated in relation to the terms of surface and deep structure of language, cf. Komárek (1978a) and Zimek (1980).

[2] Cf. Kořenský (1978).

2.

THE THEORY OF SEMANTIC BASIS

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2.1 THE IDEA OF SEMANTIC BASIS

The aim of this chapter is to explain the general outline of the principles of the theory which in its completeness can serve to describe and interpret meanings of words and sentences of natural language (also with regard to their mutual relations) and can ultimately also be applied to text analysis, cf. 2.4 and 5. As will become clear later, context and text analysis understood in a certain manner is an empirical foundation whereupon the theory builds in its formulation of objects of meaning and expression. This is not a generative apparatus since certain formal prerequisites thereof are not fulfilled. [NOTE1]

This theory belongs to the type of linguistic thought which was characterized in section 1. Especially in 1.1, the basic gnoseological and ontological prerequisites were formulated that do also apply to the specific theory explained in this work and, in its basic outline, in the present chapter. It was also said in 1.2 that what is being discussed is a linguistic theory whose gnoseological, constructional and ontologically justified foundation is the semantic foundation which to be formulated as the semantic basis of natural language.

The semantic basis is a set of basic meanings of relational character (basic basal relations) and complex meanings of relational character which can be constructed from the basic relations by means of application of certain rules (complex basal relations). From the ontological standpoint this involves a set of devices which serve for people to express mutual relations of the individual structural units, "part of the world", usually referred to as objects, entities, whereas people enter these relations as one of these parts of the world that only differs from the others semantically. These are then thus certain relational types of the "conditions of the world" which are the disposal of a user of language not only for use in communication acts but most likely also for thought processes. These type of models, or "conditions of the world" are relatively settled. From the ontological standpoints it needs to be stressed that this in no way entails that they are unchanging a priori of a changing, developing world. On the contrary, this is a dynamically

created result of the interactions between the social man and the objective reality as an open, dynamic system of denotata. It is a set of relational meanings of intensional nature which, if they are to be recorded independently of the means of expression of natural language, since it is the relation itself between the means of expression and the basal meanings which is to be investigated - need to be recorded using a notation inspired by the predicate calculus of logic and which has in the given linguistic model the character of meta-syntax.

The semantic basis is however not the only component of natural language which has a non-expressive nature. For the sake of completeness of the model and bearing in mind the necessity of a sufficient characteristic of the semantic basis, it is necessary to formulate further functional elements of the given model.

This includes mainly the so-called pragmatic constituent of natural language. The basic characteristic of this constituent is as follows: this involves functional relations and functional devices emerging within the system of language in result of speakers taking stances toward objects of the semantic basis and their denotata, whereas other (often, e.g. in monologue, identical) structural parts of the world are considered to have the role of the listener (addressee). The character of the functional component of pragmatic dimension is then taken by the following functions of natural language: 1. the relations of referential identity/non-identity between the speaker and the listener on one hand and participants of the basal relations on the other hand, 2. the related spatial-temporal relations between the speaker, the listener and the denotatum, 3. the broadly attitudinal mutual relations between the speaker and the addressee, 4. the relations of the speaker and the addressee to the denotatum, which is reflected not only in the choice of the respective basal relational meaning from the class of meanings that are referentially synonymic, but also in the specific devices used to take a stance towards the given basal object.

The semantic basis is much like the pragmatic constituent tied to the specific devices of expression of syntactical, morphological and lexical nature. Description of the devices whose function is the expression of the basic and complex relations of the semantic basis and their differentiation from the devices of expression of the objects of the pragmatic component, cf. 2.2.1 and 2.3. The semantic basis

combines with the specific means of expression to form the semantic constituent of language, much like the pragmatic constituent combined with the specific means of expression of pragmatic functions and relations forms its pragmatic component. (For the questions regarding the mutual relations between this components cf. section 2.3.)

The third part of the theory is the component of text-forming devices which involves systemic devices which allow for immediate communication using the devices of the semantic and pragmatic components as a practical behaviour. (For the inclusion" of this component cf. also 2.3 and 2.4.)

Further discussion will focus on the actual theory of semantic basis.

The semantic basis is based on the following principles:

2.1.1

Dynamic, active (xDy) and non-dynamic, static meanings (xSy) are postulated; these two types of meanings are then further differentiated internally. The xDy meaning is differentiated into (simple) processes and mutational processes, events. We refer to symbolically recorded basal meanings as the basal formulas. The relational character of the basal meanings as asserted above needs to be understood in the following manner: non-dynamic, static relations are in their sum in complete accordance with the definition of relation which will be provided below. Further explained will be the understanding of property as one type of static relations (cf. 4.1). The mutational process, event is a relation of a specific type with the $x\,\tau\,y$ structure the essence of which is the dynamic relator with the meaning of "to change into". It is however as a rule a complex relation in the sense of 2.1.4 the variables of which assume the obligatory values of the basic or complex basal relations; what is therefore usually involved is $(xZy)\,\tau\,(xZ'y)$. The relational quality of the process needs to be understood in the sense of dynamic intensionality of the object outside itself (action processes and processes with a carrier) or in the sense of a dynamic entity that cannot be semantically subdivided (primary processes). For content-related but mostly space-related constraints we shall not discuss dynamic meanings in more detail, we nevertheless use this opportunity

to refer the work by Daneš, Hlavsa et al. (1981) which is dedicated to thorough analysis of dynamic meanings.

2.1.2

Basic basal relations (formulas) are such relations (formulas) the argument (variable) of which is the minimal semantic element which has the character of an object, process or state that cannot be further relationally interpreted (minimal object, minimal process, minimal state).

2.1.3

Basal relations recorded as basal formulas can be understood in the sense of various degrees of generality; e.g. xDy ("x is in a relation of action to y")[NOTE2] is more general than xTy ("x affects y") and xRy ("y is the result of x's action"); the xRy and xTy formulas are more general than formulas of the type (xZy) τ (xZ'y) ("relation Z between the variables x,y is changed into relation Z' between the variables x,y"). Similarly, the xSy formula is more general than the xKy formula ("x has the property y") or xCy ("x is circumstantially determined by means of y"); xCy is more general than xLy ("x is localized in y") etc. In this respect it is possible to speak of specification of formulas (especially of a more general formula to a more specific formula of the given type) and "generalization" of formulas (especially of a more specific formulas to a respective more general formula). The degrees of generality represent sets of hierarchized relational symbols; their number, relations and semantic properties can only be revealed by means of empirical analysis of texts in natural language, which forms, as far as xSy classes are concerned, in its basic features the subject matter of chapter 4.

2.1.4

The formal device for construction of complex relations (formulas) of the semantic basis is the principle of degrees of complexity of the relations (formulas) of the semantic basis. From this standpoint, basic basal relations are relations of the 1st degree. The Relator (the constant of a basic basal relation, i.e. a 1st degree relation) can be "put in place" of the argument (variable) of a 2nd degree relation,

i.e. the argument of a 2nd degree variable can "acquire the value" of the relator of the 1st degree. Similarly the relator (constant) of a 2nd degree relation can be "put in place" of the argument (variable) of a relation of the 3rd degree. The rate of complexity, i.e. the number of degrees of complexity is determined by the requirements of interpretation, which are on the most general level defined by the neeed to record the meanings of words, sentences and text units as complex basal relations (formulas) or sequences of complex basal relations.

2.1.4.1

The degrees of complexity of basal relations are independent of the degrees of generality of basal relations (see 2.1.3) in the sense that an nth-1 degree relation can be more general than the nth degree relation.

2.1.5

The meanings of relational type (in the sense of 2.1.1) which can be realized and expressed (see 2.1.7) as a word, predicative or non-predicative syntagma of a given language have the character of basal relations. A basal relation in a given language is such meaning in a given language as can be realized and expressed in the said language in at least one of the manners listed.

2.1.6

For the sake of its completeness, it is necessary to introduce the notion of "framing" basal modifiers into the theory of semantic basis; this involves introduction of meanings such as the meaning of existence, phasing, defining of validity of basal relations, continuing validity of basal relations, volitive modality in the broader sense and others. (see 4.3). From this discussion it follows that the specific constructive feature of the "framing" modifiers lies in that it is possible to put the constant (relator) of any "non-framing" relation in place of the argument (variable) of a "framing" meaning, but that it is not possible to do the reverse. The "framing" modifiers represent a special hierarchy of the degrees of complexity which does not have a merely formal character, since it is given by the semantic ordering of the individual types of the "framing" modifiers (see 4.3).

In works such as that of Daneš (1971b) and many others that followed it, meanings of this type, such as basal meanings, were postulated axiomatically, whereas there are significant differences regarding the number, character and mutual relationships between the relations.[NOTE3] It is possible to make the postulation of the basic element of the semantic basis (basic meanings) and the definition of the relations between the individual parts of this element more specific since we shall try to define the basic element of the semantic basis on the background of the spatio-temporal system of the semantic basis.[NOTE4]

We shall start from the notion of minimal object (o). Minimal object is to be understood as an "empty" concept of object, as object in itself. If the symbol o is put in place of a variable of any formula, this means that the variable of the given formula cannot be in and of itself interpreted as a semantic relation; it means that the semantic interpretation of the given variable has already been completed. From the above follows that the real objects of the world, the semantics of which is reflected by the formulas, are interpreted in our theory as intersections of relations of the semantic basis, whereas the point of such intersection is in itself identical with the symbol p, the semantics of which is "empty" as far as the relational devices of basal semantics are concerned. This notwithstanding, objects understood in this manner differ semantically, precisely in the sense of the spatio-temporal system of the semantic basis. It holds that the respective temporal and spatial coordinates have to necessarily be assigned to each object understood in the sense of o. Otherwise it would not be possible to speak of o in the system of the semantic basis unless it was to have the character of a mere signal of completion of value acquisition operations. If it is defined in this way by a system of spatio-temporal coordinates, it is possible to use it as a basis for differentiation of basal semantic relations. From this standpoint, basic basal relations are understood as relationships between objects understood in the aforementioned manner. Generally speaking, a static relation is defined in a way where it does not entail a change of spatio-temporal coordinates, or to be more precise, it is a feature in the sense of 'nothing is being said about' any change of spatio-temporal coordinates.[NOTE5] Semantics of action is defined by a change in

the system of spatio-temporal coordinates, in case of a process this involves an interval on the time coordinate with nothing being said about any change on the space coordinate; if case of event on the other hand the relation is defined by a change of both of these spatio-temporal coordinates. This is the most general definition of the basic semantic relations whereas it is necessary to bear in mind that the specifications of these abstract semantic relations bring into their semantics even such features as may be in a certain sort of contradiction to the basic definition. These cases are nevertheless to be seen not as a refutation of the definition or a proof of its invalidity, as we might consider them to be in the event that we should in this respect strictly respect the formal logical negation, but rather as a contradiction in the sense of the dialectical law of positive negation (negation of the negation) which is a contradiction representing merely another, in this case more specific, element of the same system. It is therefore necessary to strictly respect the meta-language meaning of "nothing is being said about ..." which is radically different from the meaning "it is not true that ...". This can be illustrated on the case of general meaning of process. It was said that the defining feature of process is change on the time coordinate in the sense of an interval. The definition of the interval with respect to being open/closed is then a matter of specification. With the space coordinate the negative meaning of "nothing is being said about..." means that the information concerning a change on the coordinate of space is not an obligatory feature, within specifications which represent the various degrees of specificity of meaning of a given unit this feature can be contradicted with accordance to the law of negation of the negation, i.e. features of the specified process may include the optional feature of change on the space coordinate. Should we understand the sentences Benedict is running, Benedict is running in place, Benedict is running around as sentence realizations and expressions of processual meanings (for more on these terms see below), this then in no way contradicts the fact that the last example listed involves, from the empirical standpoint and the standpoint of specific, optional semantics, a change of place; to be more precise, this means that the given contradiction between the basic definition of the process and its specification has the nature of a dialectical contradiction. On the contrary, the sentence Benedict is running

to school involves an event, hence there is an obligatory, defining change on the space coordinate as well.

A similar problem is that of the relationship between processes and static relations from the standpoint of the time coordinate. It is clear that even static relations can be phased as part of their semantic specifications, which however also means they are transformed into events (see 4.3). Apart from that they can also be defined in the sense of temporal validity, this however always means that such facts are not obligatory parts of their abstract definition, i.e. such information does not define or change their semantic essence. Continuous duration on the other hand is an obligatory, defining feature of processes. Likewise, when it comes to the space coordinate it is necessary to accentuate that the abstract definition of static relation[NOTE6] is based on absence of change of this coordinate in the meta-language sense; nothing is being said about change on the space coordinate. This naturally does not rule out the fact that localizations as specifications of static relations are defined in the sense of spatial relations between two or more elements. This however involves, which is essential from the standpoint of abstract definition, local relations between objects rather than change of localization of an object or a group of objects.

This explanation allows for a more precise definition of the theory of basic basal relation and characterization of the relevance of time and space within the semantic component of language. It is clear that for the model characterized above, the spatio-temporal system[NOTE7] forms the foundation for introduction of basic basal formulas. This however involves a specific understanding of spacetime which cannot be understood to be the same as the physical or philosophical notion of spacetime. It is impossible to define the specifics of the category of semantic spacetime given the present state of linguistic inquiry and with respect to the framework character of the model in question, it is merely possible to point out its most prominent features. Time and space need to be understood in a very abstract matter, so that they in this sense allow even for interpretation of event sof change of "spiritual property", cf. Daneš, Hlavsa et al. (1981), as well as all abstract changes of togetherness, co-occurrence and class membership in the sense of abstract localization (cf. ibid). This is why e.g. events such as The teacher taught the student how to count, The brother was exempt from military service involve changes on the time and space coordinate, much like the sentence Money belongs to tools of exchange involves an abstract localization.

2.1.7
The notion of realization of basal meanings, the structure of expressing the realized basal meanings

The structure of realization of formulas of the semantic basis has two degrees:

A) the basal semantic degree, namely lexical, syntagmatic and sentential realization; this is a purely semantic operation of formula hierarchization

B) word-formational and morphosyntactic expression; this involves structures of expression of realized basal relations.

The structure of the means of expression is the subject matter of chapter 3, since it involves description of devices of a grammatical-lexical nature. In section 2.1.7 the element A, that is to say realization of basal formulas will be explained in more detail.

a) Lexical realization

From this standpoint, the semantic basis (in principle common to all types of realization) represents a system of onomasiological structures realized word-formationally in the sense proposed by Dokulil (cf. Dokulil (1962)). If R, x, y, z, ... are symbols of a formula, then as part of lexical realization one of the symbol becomes the onomasiological foundation while the others take the place of onomasiological attributes. This implies that each word of the given language has this onomasiological structure, regardless of whether this structure is

completely or partially revealed, or not revealed at all, by the word-formational structure. This part of the matter then depends on the structure of the expression in question in the sense of B.

b) Syntagmatic realization

In this sense, the semantic basis represents a system of semantic relations which can form a meaning-based foundation for non-predicative sentential syntagmas. If R, x, y, z, ... are symbols of a formula, then as part of syntagmatic realization one of the symbol becomes the syntagmatic foundation while the others take the place of syntagmatic attributes. The manner of expression by means of morphological-syntactical devices then depends on structures of the B type.

c) Sentential realization

In this sense, the semantic basis represents a system of relations which can form a meaning-based foundation for predicative[NOTE8] sentential syntagmas. If R, x, y, z, ... are symbols of a formula, then one of the symbol becomes the sentential foundation while the others take the place of sentential attributes. The morphological and syntactical devices of this process (including the role of the so-called grammatic subject) then depend on the expression, and consequently on the B type structures.

It is evident that definition of the foundation and attribute is in a) through c) a question of basal semantics, it involves semantic hierarchization [NOTE9], semantic accent, the proverbial "mise-en-scène" of members of the given semantic relation; more precisely, it is a hierarchization of the basal relation in the sense that the relation in question is understood with respect to the element which was in the process of realization determined as the foundation. The secondary semantic features which differentiate the individual types of realization have the semantics of topicality, non-topicality, being static, dynamic, independent, dependent etc.

These secondary semantic distinguishing features are prominently manifested precisely in the content component of the B type means of expression.

The structure of the semantic basis and the structures of the basal semantic realization in their functional co-operation need to be elucidated on several examples. In Czech, there is a complex basal relation which can be written down as 'xKy (medieval fortress), whereas this xKy is qualified as being ruined'. In this relatively abstract form we can write down the given meaning as (xKy) K'z (K and K' are mutually different qualifications); let us suppose that we shall mark the onomasiological foundation by the antiqua typeface, the syntagmatic foundation by a cursive typeface and the sentential foundation by a semi-bolded variation of the Antiqua; the result will be the basal word (xKy)K'z, the basal syntagma (xKy) K'z, the basal sentence (xKy)K'z. Already in this degree several semantic differences appear. These involve mainly difference due to the varying rate of topicality and stability of the qualifying attribute. They are constitutive features of the individual types of realization which affect in the process of communication, along with purely formal text-constructing reasons, the choice of the type of realization on part of the speaker; that is to say the speaker's decision as to whether he realizes the basal relation as a word, a syntagma or a sentence. It is a complicated area of choice which to which attention should be paid when elaborating on the textual component; the semantic features involved however are features on which the textual component builds but which are themselves based on the basal and realizational structure. The word-forming, syntagmatic and sentential realization naturally presupposes further specification of the aforementioned complex formula, namely varying degree and character of specification for the individual types of realization. By assigning the respective formal and content-based devices of expression (word-forming, morphosyntactic) of the B type, what is formed are e.g. the Czech word zřícenina (ruin), syntagma zřícený hrad (ruined castle) or sentence Hrad je zřícený (The castle is ruined) etc. It is evident that the respective content part of the expressional word-forming and morphosyntactic processes and their possible variations cause the non-identity in semantics and especially in referential scope between the individual realizations and expressions. It is necessary to bear in mind that it is only possible to speak of semantic (but not

functional) identity on a high level of abstraction of basal semantics; it is an identity with regard to basic semantic context rather than a semantic, functional and referential unity of the results of various realizations and expressions of the same formula.

In the area of sentential realization of basal formulas it will be necessary to look for semantic foundations of the differences between e.g. active and passive constructions and the general semantic foundations of the relations between numerous further construction which are usually interpreted transformationally. (Cf. 3.1.)

Let us present another example. In Czech, there exists a complex basal formula which in the respective degree of specification acquires the meaning of 'object y belongs to owner x; this object y is located in the place z'. From this formula, it is possible to derive basal sentences[NOTE10] which, after further specification and the process of lexical, syntagmatic realization and expression acquire the form of Benedikt má klíče ve dveřích (Benedict has got his keys in the door) and Benediktovy klíče jsou ve dveřích (Benedict's keys are in the door). Determination of the sentential foundation is of a purely basal semantic nature, yet this step substantially motivates the whole process of expression, especially when it comes to selection of morphological and syntactic devices of expression in the sense of both form and content. It needs to be pointed out once again that the notion of sentential expression includes also the functional places which are usually interpreted in terms of the parts of sentence. Generally speaking, i.e. from the standpoint of abstract basal semantics, it can be assumed that any of the symbols of the formula can become a foundation (sentential foundation in the given case, but the same holds for onomasiological and syntagmatic foundations). The B type structure of means of expression however usually implies a number of restrictions.

In case of sentential realization in Czech, the likely result of these restriction is the fact that sentential foundation does not have a sole morphosyntactic device of expression, because the so-called grammatical subject is only the main device, because not every symbol of a formula can become a grammatical subject

without the formula itself being altered. In result of this, devices such as word order and intonation that are primarily tied to functional sentence perspective become devices of expression of the sentential foundation, despite the fact that the essence of their function does not belong to the area of the semantic basis and realizational basal structures. Let us further discuss the sentences Benedikt má klíče ve dveřích (Benedict has got his keys in the door) and Benediktovy klíče jsou ve dveřích (Benedict's keys are in the door). If we wanted the localizer in the z position to become the grammatical subject, we would formulate the sentence as Dveře jsou místem, kde se nacházejí Benediktovy klíče (Door is the place where Benedict's keys are located); since the formula needs to, apart from the relations of ownership and localization, be used to also interpret the meaning of 'z (the door) is a location', the newly formed sentence corresponds to a different formula and is thus not equivalent to the two original sentences in the sense of basal semantics. Despite this, the localizer can become the sentential foundation, namely by using word order in written language and word order and intonation in spoken language. This most probably does not yet involve functional sentence perspective, i.e. the semantic device of the text component which can, for contextual reasons, "amplify" the sentential foundation, which can however also "restructure" this primary semantic structuring in relation to contextual needs and attitude of the speaker, which is the actual function of functional sentence perspective. The means of expressing the functional sentence perspective are, it would seem, at the same time also employed here as devices of basal semantics. If should assume the opposite, that is to say, that not only certain means of expression but rather also functional sentence perspective as a sign relation serve the function of a device of expression, we would have to admit that functional sentence perspective is functionally involved in both of the complex components and that it even serves, despite the fact that it primarily a device of the text component, as a device of expressing basal meanings or as part of basal semantics. We consider the assumption that what we are dealing with is merely a dual involvement of certain means of expression (word order, intonation) to be more adequate.[Note11]

2.2 FURTHER NOTIONS IN THE THEORY OF SEMANTIC BASIS

In the section above, we explained and illustrated the notion and construction principles of the semantic basis. The character and properties of the semantic basis are thus also dependent on the manner in which the ratio is defined between relation and element in the most general sense. We consider it necessary in this place of our discussion to prevent a metaphysically isolating, non-dialectical understanding of the basic entities.

> We believe that the basic principles of dialectics of relation and element which science and philosophy reveal in their analysis of the objective reality will undoubtedly prove to be also the basic principles of natural language, even though these principles did not always use to be sufficiently revealed by linguistic and are therefore not a common part of linguistic, grammatical thought. This is understandable, since the philosophical foundations of even the classical structural linguistics points in its sum (with, naturally, prominent exceptions) towards other philosophical and scientific sources than dialectical materialism and contemporary theoretical physics and chemistry which form the support of the dialectical-materialistic principles of thought on the objective reality. The aforementioned philosophical and methodological problem is complex and in this place we can merely hint at the form in which we understand the formulation of the dialectics of relation and element within the given type of grammar, rather than thoroughly derive the proof of these relations from the relevant philosophical and scientific knowledge. Cf. Javůrek, Zeman (1979).

The theses involved are the following:

(1) The semantic nature of an element is given by a relation and by this relation alone, (2) a relation is determined by its elements, (3) the only properties that exist are relational properties, because if no element is determined by and in itself, it follows that it cannot have any property in and of itself, either. The so-called internal, immanent property of an element is in fact the relational property of this element in a relation, whereas this relation is understood as an element. Every

property participates in a relational structure of an element, is a property of an element determined by the relation, and is an inseparable part of its relational structure.

In this place, it is necessary to further specify the three terms with which we have been working in our explanation; namely the terms relation, property and element. Russell (1924) states that "[a]ttribute-words and relation-words are of the same type, therefore we can say significantly 'attribute-words and relation-words have different uses [...] [b]ut we cannot say significantly 'attributes are not relations'" (p. 212).

Precisely because we consider every property to be a relation, we in the sense (1), (2), (3) do not work with immanent properties (given "prior to" the relation). When we use the term property in the sense (1), (2), (3) what we have in mind is thus a very generally conceived sum of relational features of any given element. We do not however introduce the term property as a basal semantic entity, that is to say as a linguistic parallel of the intensional concept of relation as the subject matter of the expression theory, for reasons that follow from, among other things, problems associated with this term in the field of logic. Within the framework of the semantic basis, what we work with is a specific type of qualifying relation which factually roughly corresponds to property as the subject matter of the theory of expression in logic. The term property thus appears in the present work merely as a meta-language term, see (1), (2), (3) above, and further as part of the complex term "formal properties of static relations".

With respect to (1), (2), (3) it is also necessary to elucidate the term participant which we shall use throughout the present work. In linguistic literature this term is usually used to refer to a "participating member" of a relation, that is to say an individual, an element, an object in a relation. Given our understanding of the dialectic of element and relation it needs to be stressed that the participant is the element which constitutes an inseparable part of the relation together with other participants of the same relations, and which is defined solely by this relation. Outside of the relation, it does not exist. In discussions of individual relations, participant tends to be characterized by various semantic features such as person, thing, abstraction; all of these cases however involve a part of the semantic

characteristic of the relation as a whole. That is why with respect to these features, only features with relational nature are used, such as heterogeneity/homogeneity of the participants of the given relation (see 4.2) etc.

It was already mentioned above that the foundational element of the semantic basis is determined by two basic semantic relations and the minimal semantic element. With respect to what was said about the principles of the degrees of complexity, and with respect to the given understanding or relation, it is necessary to also elucidate the term minimal semantic element, especially when it comes to minimal object, because it occupies a prominent place in the process of construction of the semantic basis. The general term element (as opposed to the term minimal element) is relatively simple: an element is any entity of the semantic basis supplied in place of a variable of any formula. An element can be a relation or a minimal semantic element. In order to clearly explain the functional properties of minimal semantic elements we need to return once more to the position of complex basal formulas which result from constructive and specifying formation of the foundational component of the semantic basis. Any complex semantic relation of natural language always has, as a whole, the meaning of one of the basic or specified basal relations - that is to say of action or static relation in either the most general or specified sense, whereas the individual components of the complex, based on the principle of degrees of complexity and the principle of degrees of generalness, can and usually do represent, different semantic relations that the semantic of relation as a whole. From the standpoint of the theory of semantic basis as a set of constructed complex basal formulas of language the decisive factor is not whether individual relations put in place of variables based on the principle of degrees of complexity, that is to say the individual elements of a complex formula, are realized and expressed as clauses in a complex sentence, as non-sentential syntagmas or as words in a sentence. This is a matter of realizational structures and structures of expression. (For example, the specified complex basal relation 'the agricultural machine which carries out reaping and threshing of crops' can be realized as a sentences - see the aforementioned phrase -, as a syntagma such as 'the agricultural machine for reaping and threshing of crops' or lexically as the word 'harvester', even when functioning as a part of more complex basal relations.)

From the standpoint of the semantic basis it is essential for all relevant semantics to be interpreted in form of a relation, that is to say in accordance with the construction principles of the semantic basis and the notion of relation and the minimal element. From the linguistic standpoint, relevant semantics is usually expressed semantics, i.e. semantics signalled by one of the expression structures of the B type, but for different purposes, for instance for content analyses, for analyses of communicational relations and situations, even semantics the realizational structure of which involves different devices is relevant. If then the complex semantic relation is fully interpreted from the standpoint of relevant semantics, the variables of the most specific formulas acquire the values of the minimal object which is, theoretically speaking, defined by spatio-temporal relations (more on this above) and relations defined by the respective relations of the semantic basis in which it participates. From the standpoint of construction principles of the semantic basis this is actually a signal for termination of construction operations.

This makes it clear - as was already in part said above - that the issue of object and its relations as it is understood by traditional syntax, word formation and in particular lexicology, is for us, taking the standpoint of the semantic basis, a matter of hierarchy of relations of an abstractly understood, "semantically empty" minimal object to other, similarly understood objects. In other words - semantics of any lexicologically understood object (in the most general sense of the word object) morphs in our interpretation into a semantics of relations of an empty minimal object. The semantic interpretation of any given object is in the theoretical sense finished provided that all variables of the most specific formulas acquire the values of the minimal semantic object and all relevant semantic quantities are interpreted as relations.

E.g. if from the lexicological standpoint the sentence 'The Master rebukes his apprentice' contains two objects (allow us to repeat that we use the term object in the most general sense as a label for the so-called individually understood phenomenon in the semantic sense), then from the standpoint of the theory of semantic basis it is necessary to repeat operations of value acquisition until all semantics of the lexical meaning 'master' and 'apprentice' is interpreted as relations and until it is posible to put a minimal semantic object in place of variables of the most

specific formulas. All of the above holds from the standpoint of complete analysis. It is however also possible to stop at e.g. the level of realization and expression of sentence, or syntagma, or on the level of word formation. The complete analysis goes beyond the boundaries of language meanings, provided we associate these boundaries with the limits of existence of the relevant structures of expression.

In relation to the introductory theoretical discussions of our terminology, the characteristic of the basic basal relation was provided as well as the characteristic of the relevant structures of morphological-syntactical expression.

It is evident that the needs of classification of these relation which have to be based on semantic devices rather than means and criteria of expression require that such classification be based on purely semantic but sufficiently formal criteria. Analysis of texts showed that it is possible to see formal properties of relations, symmetries, semi-symmetries and asymmetries can be considered to form an adequate criterion and that one can in this context also heed the notion of inversion which has been often used in linguistic literature in this manner.

With respect to these terms being terms of logic and mathematics it is necessary to turn to them in this place so as to make make it clear in which sense we use them in the present work.

Let us take as the point of departure the discussions of conversion/inversion which considered from our standpoint do form a certain problem. E.g. Tarski (1969) speaks of inversion (relation R' between x and y is valid if and only if R is valid between y and x). He at the same time however speaks of conversion in relation to proposition equivalence. (If we change the places of consequent and antecedent in a conditional proposition, we shall obtain a new proposition which in relation to the original proposition we name a converse proposition or the conversion of the original proposition.) Weinberger–Zich (1964) define the relation of inversion as xRy = yR'x (for each xRy it is possible to form the inverse relationship of R'). Conversion is defined in the same work as a turn wherein the predicate of a premise becomes the subject and the subject predicate of the consequent, whereas the quality of the proposition is preserved. Zich et al. (1958) define the relation of inversion in this manner: "If there is a relation of xRy, it is

possible to define the inverse relation of xR'y, or the inversion relator R' as follows: xR'y is valid for every pair of elements in the field of investigation x and y if and only if the relation yRx is valid." It is necessary to also list examples of definitions from linguistic works: e.g. for Sundén[NOTE12] (1916) conversion is an operation applied to a predicative relation wherein there is equivalence between the logical and grammatical subject, whereas the application of the operation of conversion results in a predicative relation of the same semantic value but characterized by a discrepancy between the grammatical and logical subject. If an operation of conversion character applied to a predicative relation with equivalence between the logical and grammatical subject results in a relation distinguished once again by equivalence between the logical and grammatical subject, Sundén no longer speaks of conversion, because according to him, in such case a change in the semantic quality of predication always occurs, i.e. another member of the semantic relation becomes not only the logical but also the grammatical subject. Sundén is indisputably right to use the term conversion the way he uses it with respect to the operational understanding of the respective device. – On the contrary, Apresjan's (1974) understanding of conversion presupposes exchange of actant roles but at the same time preservation of denotational properties. In this manner his understanding is closer to the prevalent ones based in logic than to Sundén's understanding.

What follows from the several listed definitions of conversion and inversion is: Conversion is an operation on a proposition, which is usually associated with the notion of equivalence. Inversion is usually defined as a type of relation between relations. It also follows from the same definitions that for each xRy, yR'x is valid, or for each given R the respective R' is valid. What does all of this entail for natural language?

From the standpoint of the semantic basis it is possible to define for each basal relation xRy a corresponding relation yR'x. It is evident that from the standpoint of natural language as a functional whole and with respect to the selected type of model, two essential questions arise: a) the question of perceptive or denotational difference and identity of mutually inverse relations, b) the question of

expression of mutually inverse relations by means of grammatical-lexical devices. Zich et al.(1958) note that with inverse relations what is being discussed is "the same reality, the same kind of relation in reality. The difference lies only in the meaning of the relation (= the sequence of the members of the relation); in one case we express the relation as x k y, in the other as y k x" (p. 133). Also important is the claim that "an inverse relation is usually a different relational connection (a different relator); ...". Based on the listed definitions, what is involved are the following constituents upon which a relation of inversion is built: 1. the same reality, 2. different meaning, i.e. sequence of the members of the relation, 3. different relational connection. From the linguistic standpoint it is important that the said different "meaning" seen as equivalent to the varying order of the relation is closely connected to existence of the relevant devices of relational connection, which have lexical and grammatical character. Thus, two elements are essentially involved: (1) the element of identity and (2) the element of difference. According to the aforementioned characteristic provided by Zich et al. (1958) (1) is reality, (2) is meaning + expression.

As for the linguistic understandings of inversion, it is true that the authors based their ideas on the notion of inversion in logic. Two different tendencies are nevertheless apparent here: the aforementioned understanding of Sundén, based on identity/non-identity of grammatical and psychological subject, which presupposes that (1) = semantic structure of sentence (represented by the terms psychological subject and predicate), (2) = grammatical structure of sentence (the terms grammatical subject and predicate). Naturally then, (2) also represents the said "different sequence of the members of the relation" and, as a rule, and especially in certain languages, also the "different relational connection (different relator)". Based on gnoseological evaluation of Sundén's terms psychological subject and psychological predicate it can be assumed that the semantic structure of sentence is understood by Sundén in the intensional sense. (On the contrary, Apresjan's understanding is, with respect to (1), completely equivalent to the logical understanding (he speaks of denotation), (2) having intensional nature (it counts on exchange of actant roles), and is thus in contradiction of Sundén's view. In reality, it is evident from the complex properties of Sundén's and Apresjan's semantics that

Apresjan's actants are more superficial, more closely tied to the syntactic devices of expression and are thus closely connected to the "sequence of the members of the relation". Concerning (2), the difference in the two understandings in in fact not so profound as it may appear from the confrontation of the respective formulations.) In any case, Sundén's understanding is different, precisely in that his (1) is semantic, and most likely of an intensional nature. We believe that from the standpoint of linguistic semantics, this understanding of (1) is fully adequate. This is likely related to the basic difference between logical and linguistic semantics which lies in that logical semantics work with formal ontology which has properties that favour construction, whereas with linguistic semantics it is necessary to work with such ontology of the universe as presupposes its understanding in the sense of dynamic, open systems with complex, dynamic asymmetry (linguistic term) between language meanings, intensional meanings and extensions. For these reasons, it is not possible to base (1) on extension. Should we however admit that (1) has a semantic, intensional character, then the question arises of what consequences this has for (2), where we stated meaning + expression to be involved. Meaning, represented by various sequences of the members of a relation, by expressing the varying "directions" of the relation between the members of the relation is equivalent to the linguistic notion of semantic accent, cf. Kořenský (1972a, 1974a), the expression is equivalent (in accordance with logical and linguistic definitions of the universe) with the morphological-syntactical devices of a sentence.

In the conditions of our terminology, inversion is defined in the following manner: (1) is represented by the given basal relations, (2) by the pair of sentential realizations of the same basal relation fulfilling the formal conditions of logical inversion and representing "the relation x k y as well as the relation y k x" depending on the double lexical connection, and thus double expression in the sense of B. In this understanding, inversion is thus a relation between two sentential realizations of the same basal relation depending on double expression in the sense of B.

Naturally, the semantic identity between the inverse expressions has to be understood on a sufficiently high degree of abstraction. This entails that the lexical and grammatical difference between the relevant means of expression is the carrier of differences in meaning which are not identical only with the mutually inverse realization of the given basal formula. The broader our understanding of the paradigm of the devices of inversion, the more pronounced these differences become. This however is a question of the extent of inversion in natural language, which is not the subject of our present discussion and which will become clear from its discussion in 4.1 and 4.2.

Furthermore, it is necessary to give attention to the formal properties of relations such as symmetry, semi-symmetry and asymmetry.

The formal properties can be defined in the following manner:

a) the relation R is symmetrical in class S if and only if xRy and yRx are valid at the same time, i.e. the equivalence $(x)\,(y)\,xRy = yRx$ is valid,

b) if it is valid for certain pairs of x and y under the conditions a), the relation in question is semi-symmetrical.

c) if it is not valid for any pair of x and y, the relation in question is asymmetrical; the class S is a class of static relations of the semantic basis.

In order to clarify of the manner of use of formal properties and inversion within our terminology we need to clarify the functional ratio between formal properties, inversion and the notion of sentential realization of basal relations.

What holds here is:

1. If a basal relation is symmetrical, then the sentential realization of the said basal formula is given under the conditions $xRy = yRx$ where x,y are sentential foundations. The structure of expression of sentential realization of the given basal relation is based on the same lexical-grammatical relator.

2. If a basal relation is asymmetrical, then the sentential realizations of the said basal formula are given under the conditions $xRy \neq yRx$ by a pair of mutually

inverse relations for which it is true that xRy = yR'x, whereas the expression of both of these mutually inverse relations is based on different mutually inverse relators.

3. If a basal relation is semi-symmetrical, then either 1. or 2. holds under the conditions set for semi-symmetry.

Under these conditions the basal relation 'X sits next to Y' is a symmetrical relation, the respective sentential realizations, expressed as e.g. "Marie sits next to Věra", "Věra sits next to Marie" are based on the same lexical-grammatical realizator. On the contrary, the basal relation "X is above Y" is asymmetrical, which entails that the respective sentential realization expressed as e.g. "The lamp is above the table", "The table is above the lamp" are mutually inverse and are based on mutually inverse lexical-grammatical relators.

Static relations of the semantic basis need to be, in relation to formal properties, understood as a class of mutually disjunct relation which differ in either semantic quality of their relators or their degree of generalness. The matter has to be understood as a network of relational meanings wherein, in the horizontal sense, relations are mutually disjunct semantically and, in the vertical sense, the varying degrees of generalness of those same relations are involved. Explicitly put, there is a set S (S1, S2, S3 ... Sn), where S1 ... Sn are subclasses corresponding to mutually different static relations; on these subclasses, the partition of the type Smn is defined - Smn (sn1, Sn2 .. Smn) where 1...m corresponds to the degrees of generalness. The respective formal properties are then defined for each Sl.mn.

Within horizontal relations, there are axes of semantically related relations mutually differentiated precisely by their varying formal properties with regard to specification of the participants of the respective relations (cf. also e.g. the relation of affiliation in 4.2). In the vertical sense (i.e. with relations differing only in their degree of generalness) the given formal property is usually preserved given the same relational meaning, there are however notable exceptions to this rule (cf. e. g. the relation of kinship, the formal properties of which change based on

the degree of generalness - see 4.2). These cases are precisely where the scale of generalness requires further empirical development.

Horizontal differences, that is to say the differences between the individual mutually different relations (S1 ... n) rely on empirical analysis based on study of sentential properties of the most frequent Czech verbs (in chapter 4. naturally only those verbs which establish sentential constructions with non-dynamical, static meanings), whereas the basic principle of discussion involves differences in the formal properties of non-dynamical, static relations; there are substantial differences between asymmetrical relations on one hand compared to symmetrical and semi-symmetrical relations on the other hand. The aforementioned horizontal scales of relations close in their meaning with varying formal properties represent axes of continuous transition from symmetry to semi-symmetry and asymmetry. (Cf. the already mentioned relation of affiliation or the relation of local definition in its broad sense - see 4.2.)

2.2.1

The terms semantics, syntax, pragmatics and their linguistic understanding from the standpoint of the theory of semantic basis

Linguistics discussions of the pragmatic function of language devices cannot be formulated without regard to the point of departure as proposed by Morris's (1938 and others) notion of pragmatic dimension. His term pragmatics is used more and more often in linguistics, it however appears that each of Morris's dimensions represents, from the standpoint of the theory of natural language, a functional whole with complex internal structure, and mutual relations between the individual dimensions thus represent a complex of open problems. In this context it is impossible to overlook the fact that the notion of pragmatic dimension is at least in its initial formulation significantly influenced by pragmatic philosophy. The goal of this part is not analysis of the given terms from the standpoint of philosophical context (which includes e.g. the open questions regarding the relation between Morris's notion and the ideas of James and Peirce), nor their "generally semiotic" evaluation; the aim is to merely consider the possibility and usefulness of the term pragmatic dimension in linguistic theories similar to the

conception proposed in the present work. The term pragmatic dimension is to be formulated as a part of the terminological framework of the linguistic theories in question and to find out whether introduction of the term increases adequacy of these theories of natural language. It is naturally not possible to investigate the functional devices corresponding to the term pragmatic dimension without at the same time investigating the terms semantic and syntactic dimension.

Let us start from the term semantic dimension: leaving aside the continuing investigation of the, in general context, very grave question of what is the relation between Morris;s notion of semantics to Frege's (1962) terms "Bedeutung" and "Sinn" and the terms used in intensional and extensional semantics. We shall merely respect the fact that basal meanings are objects of an intensional nature.

The term semantic dimension in our understanding corresponds to semantic component at the core of which is the semantic basis of language.

The basic characteristic of the pragmatic dimension of natural language can be found in 2.

We consider the question of what character does Morris's notion of syntax with respect to grammars which form the subject of our interest in this context, to be the relatively most complex. Let us start with a more general discussion of the relation between Morris's notion of syntax on one hand and the linguistic terms syntax and expression on the other hand.

It is evident that the linguistic term syntax is too narrow; even if we should understand the rules of connecting meanings in the sense of connecting lexical meanings, it would be clear that apart from the so-called syntactic devices, the devices of morphological word formation are also functionally participating, provided of course they are actually developed in the natural language in question. From this standpoint not merely linguistic syntax but also linguistic morphology can be understood to fall under Morrisean syntax in the sense of expression.

The linguistic term expression (understood of course in the sense of a complex expressive sentence structure, cf. Kořenský (1972c), that is to say not merely as morphological word formation, but also as the ordering of word forms in the sequence of expressive sentence structure), which is in this understanding very close to the logical term expression which expresses the individual intensional

objects of the semantic basis. Given our aforementioned understanding of the semantic and pragmatic dimensions it is therefore necessary to see the term complex expressive structure as the third member of the given triad corresponding to the term syntax.

The linguistic terms syntax and morphology understood in the sense of the theory of grammatical sentence patterns (GSP) and its derivatives which are the means of expressing sententially realized basal meanings cannot however be understood as a mere complex expressive sentence structure. These are essentially complex sign structures (cf. Kořenský (1970a)), in the sense of basal meanings being being expressed by the respective means of expression via morphological categoric meanings which are in turn constituents of grammatical sentence patterns. It has however been known for a long time that the individual grammatical, and especially morphological categories do not all participate in constitution of grammatical sentence patterns equally, with the extent of the said participation ranging from having the character of a necessary constituent to zero participation in the given sense. This is what lies at the hear of Daneš's (1965) term syntactic bond. Since we shall however, due to the aims of the present work, distinguish between the various types of syntactic bonds of morphological categories, we shall refer to the constitutive function of grammatical categories in the grammatical sentence pattern as GSP-constitutiveness, and to the lack of this property as GSP-variability.

If then the functional position of Morris's syntactic dilemma is in our understanding occupied by syntactic and pragmatic dimensions of the complex expressive sentence structure, the question needs to be raised as to what functional place in our understanding of the Morrisean triad is to be taken up by meanings of morphological categories. With respect to the theory of grammatical sentence patterns, we shall speak of two types of morphological categories: 1. GSP-constitutive categories, 2. GSP-variable categories. GSP-constitutive categories can theoretically be expected to mediate expression of basal meanings via expressive devices of the complex expressive sentence structure. These thus involve specific "non-basal" meanings closely tied to means of expressions, meanings which serve

to express intensional basal objects. For the time being, let us merely note that their classification with respect to the Morrisean triad is difficult.

What is then the position of GSP-variable morphological categories? From the standpoint of the GSP-theory, they are considered to be variations of the individual GSP which do not alter the respective basal meaning, provided that it is understood in the same sense in which basal semantics was characterized above. With respect to introduction of the pragmatic dimension it is nevertheless necessary to raise question such as: Do not these GSP-variable categories have similarly mediating function with respect to the pragmatic dimension as the GSP-constitutive categories have with respect to basal meanings? Does not the content side of GSP-variable morphological categories constitute an essential component of pragmatic relations?

We previously characterized the pragmatic dimension of language in general functional context. Now we shall ask:

1. Which functional devices (in their traditional linguistic formulation) "fill up" the pragmatic dimension of language?

2. What are the functional properties of GSP-variable morphological categories (including certain parts of speech) from the standpoint of the pragmatic dimension of natural language?

We shall understand question 2. as a narrowing down of question 1., and, as was already mentioned, we shall focus on those components of the pragmatic dimension which are traditionally given less attention.

Languages have functional devices serving to designate speakers and hearers. These involve means of pragmatization of basal meanings the essence of which with respect to function and meaning is the fact that the speaker or the hearer are referentially identical with some of the participants of the given basal relations; these include devices such as "I" and "you". On the contrary, devices of the "he" type do actually possess a representative, pronominal, or referential character. All of these three types of devices are rightly considered to be GSP-variable. From the

standpoint of the pragmatic dimension of natural language it is however evident that devices such as "he" are not, unlike "I" and "you", functionally relevant even with respect to the pragmatic dimension; devices such as "I" and "you" have the character of pragmatic functions and are, with respect to the pragmatic dimension, constitutive elements.

Similarly functioning devices such as "mine" and "yours" the functional essence of which is the relation of identity between the speaker, the hearer on one hand and participant with the semantics of possessor on the other hand. Once again, the devices in question are pragmatically bound. Special functional properties with significant differences between individual languages are displayed by devices such as the Czech "svůj" ("one's own"). In Czech, this device is not pragmatically bound (cf. "Vezmu si svoje boty" ("I shall take my (own) shoes") – "Vezmi si svoje boty" ("Take your (own) shoes")), it is a device which expresses relations between the actual participants of basal relations in the conditions of their syntagmatic realization, much like the devices of the "his" type.

We discussed the pragmatic bond of the so-called morphological category of time on a different occasion, cf. Kořenský (1975); let us merely restate here that apart from pragmatically bound devices which have grammatical, morphological nature (the grammatical category of time) and lexical nature ("yesterday, today, tomorrow, now, afterwards"), there exist also devices of temporal character which have semantic, basal nature, since they mutually temporally orient participants of the basal relations (cf. "before the war, during the war, after the war") or the basal relations with respect to each other, cf. "sooner than, thereafter" etc.

Similar functional devices such as "here", "there" (in the static sense) and "here", "there" (in the dynamic sense "hither", "thither") represent a complicated system of relations of identity/non-identity of the spatial coordinate of the speaker and the denotatum. Here too it naturally holds that the devices which mutually locally determine the participants of basal relations bound to the so-called static local determinations are of a basal semantic nature, but can nevertheless be identified with the speaker or the hearer (cf. "The dog is next to the dog house - The dog is next to me/you"). For a more detailed analysis and focus on

spatio-temporal context see Žaža (1979). The listed devices "here", "there" are thus again pragmatically bound.

Based on even a minor probe it is possible to state that GSP-variable functional devices form an important part of the pragmatic dimension of language, being lexical, and especially morphological categories in the traditional sense. Such categories as form constitutive elements of pragmatized basal semantic relations need to be referred to as pragmatically bound, whereas the pragmatical bond is a type of syntactical bond in the broader sense. Differentiation between GSP-constitutiveness and pragmatic constitutiveness is, along with other functional aspects (e.g. the specific referential function, the devices of intratextual reference, the so-called cross-references) a prominent criterion which establishes the hierarchy of primarily morphological categories with respect to their functions. It is evident that certain morphological categories are not functionally bound to GSP-constitutiveness, pragmatic constitutiveness or within text; they are in fact merely a part of the complex expressive structure of language and their sign character can be questioned as it is usually only their secondary functional property. Such character is found in e.g. the category of grammatical gender in substantives (in contrast to natural gender as an important lexical semantic category). GSP-constitutive categories (e.g. case in substantives) are very closely tied to expression of the participants of basal relations, they are close to means of expression and their tentative character of a mediating sign category is to be considered one of the open questions. (Regarding case in Czech e.g. the possibility does not seem to be ruled out of the complexly understood expressive structure of the forms of substantives, cf. Kořenský (1972c), referring directly to basal meanings, without the mediating function of the so-called general case meanings.) The GSP-variable categories are then not, as was made evident above, merely a question of grammatical variations of the same basal meaning, but often constitute functional devices of the pragmatic dimension.

These consideration then in our opinion entail the necessity of continuous investigation of the pragmatic dimension of natural language as a functional whole and of formulating it as a specific component of linguistic models, which allows for a more adequate and systematic description of the functional

properties of, especially GSP-variable, grammatical and lexical categories. This approach makes it possible to formulate in a sufficiently sharp manner, even from the linguistic standpoint, the essence of the semantic and pragmatic dimensions of language and at the same time contribute to solving of the problems related to linguistic interpretation of the Morrisean notion of syntax, which, once the functional affiliation of content components of morphological categories is made clear, corresponds to the term complex expressive sentence structure.

We would like to point out the position of the pragmatic component with respect to grammar as explained the Teoretické základy (Theoretical Foundations, 1975). According to this conception, the pragmatic concept corresponds to the component of the section of the actual realization of foundational sentence structures (FSS) in utterance, which includes the following functional components of language:

1. Quantification and identification
2. Voluntative modality
3. Negation
4. Removal of agency (dispositional removal of agency)
5. Relating propositions to partners in a communicative act
6. Relating propositions to a moment of utterance
7. Attitudinal (intentional, general) modality
8. Modality of certainty
9. Intensification
10. Emotionality
11. Utterance perspective

1.–4. are in our understanding of the relations between the semantic and the pragmatic component seen as belonging to modifying devices of the semantic basis (modifying devices of proposition), or to devices of sentential realization and expression of basal relations. Certain factors of 6. (semantics of usualness, topicality, resultativeness) are in essence also a question of propositional meanings and devices of expression of their objects. As for 9., it is possible to consider that

lexical devices of intensification such as "velikánský, malilinký" (humongous, tiny) would have to be interpreted within the framework of the semantic component. Nevertheless, 5.-11. essentially represent a set of functional devices of the pragmatic component extended to include grammatical and lexical devices of pragmatic nature with temporal and local function (see above).

We consider it to be useful to note that: we understand the Morrisean notion of syntax in the sense of the linguistic term complex expressive sentence structure, which is in turn to be understood as a structure specifically bound to the semantic as well as the pragmatic component of language. The traditional grammatical, and especially morphological categories, functionally participate in the individual dimension of the Morrisean triad, in particular syntax and pragmatics. The functional devices of the pragmatic dimension of language characterized above give out a signal by means of their referential properties to the effect that intensionally understood basal semantics needs to be, with respect to the pragmatic dimension, complemented by continual study of extensional semantics, which from the linguistic standpoint cannot be, not even in the methodological sense, reduced to intensional semantics.

The questions of extensional semantics are, seen from our viewpoint, the questions of text theory and it is only within that framework that the relations of extensional (referential0 semantics and semantics of the intensional, basal potential of language can be investigated.

<center>***</center>

One of the problems of semantics is investigation of the question of which expression of language lack extensional meaning, denotation[NOTE14] and in relation to this, solving of the question of determination and quantification. The question is posed of which expressions of language (usually in terms of parts of speech) have and which expressions lack extensional meanings (denotation). Among the elementary parts of speech, this meanings is often seen as absent in adjectives and certain substantives, cf. Hlavsa (1975). What the question in fact seeks to decide is of course under which conditions do the individual elementary parts of speech express or fail to express extensional objects. The answers then depend on the respective functional understanding of the theory of parts of speech as it is outlined in the 3rd chapter, and are mediated by a certain theory of intensional meanings, which is in out case represented by the theory of semantic basis.

Our understanding of the character of basal meanings entails:

1. It is not possible to raise the question of referentiality of expressions (parts of speech) in a manner other than the aforementioned mediated one; this is why we consider individual parts of speech in their primary and secondary functions (cf. 3.1) as means of expression the semantic properties of which cannot be investigated "absolutely", but only depending on the basal meanings expressed.

2. It is possible to raise the question of referential properties of participants in basal relations, given our understanding this question is however relevant for the component of word-forming devices.

Because the work discussing denotation in Czech, Hlavsa /1975/, unequivocally associates determination and quantification with denotation, it appears clear that the question of quantification cannot be the subject of the present work which focuses on the issues related to the theory of semantic basis. With respect to our terminological system it appears to be clear that the specific expressions expressing determination and quantification can be functionally interpreted within the framework of the text component, in an extensional manner. It is nevertheless necessary to raise the question of whether the meanings of participants of certain basal relations do not include such semantic features as have the character of determination or quantification, without the relevant means of expression being necessarily part of expression of the said basal relations. This question should be investigated from two basic standpoints:

1. which of the basal relations introduced are defined by semantic features having the character of determination, quantification, without this necessarily

resulting in use of the relevant means of expression when these semantic features are expressed,

2. which of the basal relations introduced have the same semantic features, bound to the necessity of using the relevant means of expression when expressing them.[NOTE15]

2.3

The notion of the pragmatic component and the question of the component of word-forming devices

Let us follow up on 2.2 by assuming that, with respect to semiotics, it is necessary to distinguish between devices that have, function-wise, syntactic, semantic or pragmatic character. Let us also suppose that as a result of these properties it is necessary to introduce semantic and pragmatic components into the relevant linguistic model. In case of our tyoe of linguistic model, this means introduction of a semantic component the functional core of which consists of the notion of semantic basis as defined above. This is also approximately how we presented the pragmatic component as we understand it. In case of semantic basis, this is a component which is at the heart of the whole model, whereas the question of necessity of introduction of the pragmatic component was discussed in 2.2. In 2.1 (see also 3. for more detail) we also hinted at the fact that we are working, when it comes to realization and expression of basal meanings, with terms originating in classical grammars of the stratification type. We have however not yet tackled the question of the "consequences" of introducing "new" components into model which works with more or less classical understanding of the syntactic and morphological component, albeit in a specific interpretation in the sense of grammatical sentence patterns. We consider it to be useful to phrase this question in the most general manner possible, as follows:

1. Which terms of grammatical (syntactic, morphological) character belong, for functional reasons, with the pragmatic component; to phrase this specifically from the standpoint of our model - what are the consequences of introducing the pragmatic component for our understanding of syntagmatic and sentential realization (and expression) of the basal formulas?

2. In what way are we to solve the systemic term text within the framework of grammar constructed from the semantic basis, understood in the aforementioned manner?

In each natural language, there exist functional operators which serve to refer to the person of the speaker, the person of the hearer and the object/person which is the element (substructure of the world) being the object of the communication. Let us express these meta-language functional devices by the Czech pronouns "já, ty, to/on" ("I, you, it/he"). The "to/on" ("it/he") operator functions as a pronominalizational substitutive device of expressing the substructure of reality which forms the object of communication. It is precisely this pronominalizational device which we can refer to as being GSP-variable (cf. this term in 2.2). In the pragmatic sense however, i.e. in the functional relations with "já" and "ty" ("I" and "you") (as non-I and non-you) it only functions with respect to the pragmatic component. Let us suppose that we refer to any actant with the verbum dicendi/ quotative ... type semantics as D and any other basal actant as X. The questions related to semantic ordering of actants of the basic type and actants having the character of "framework" modifiers is discussed in 4.3. In this place, we focus on their functional sequence with respect to pragmatics. From the pragmatic standpoint it is necessary to write down the sentence "Říkám mu, že" ("I am telling him that ...") as 'Já říkám tobě, že říkám jemu, že...' ('I am telling you that I am telling him that ...'). The sentence "Říká ti, že jsi mi řekl, že..." ("He is telling you that you told me that...") needs to be "pragmatically" written down as 'Já ti říkám, že on ti říká, že ty jsi mi řekl, že …' ('I am telling you that he is telling you that you told me that...'). It is evident that in Czech[NOTE16] there is a rule of elimination of the operator "já" ("I"), provided the semantic formula does not contain the quotative basal relation and the sentence does not involve, with respect to expression, the relation of identity between the functional element X and the operator "já". The phrase "Já ti říkám" ("I am telling you") is "eliminated" whenever the basal semantics that corresponds to it is not included in any respective realized, expressed basal relation which forms the content element of the communication act in question. Functional relations of identity/non-identity between the operators "já, ty, on/to" on one hand and the actants of basal semantic formulas on the other hand show that the functional character of personal pronouns is necessary to investigate from the standpoint of the pragmatic component. As was already said in 2.2 (with respect to the notion of the syntactic bond and its stratification), these

pronouns were often understood as elements of equal standing with morphological variations of the basic grammatical patterns (which are seen as mediators of syntagmatic and sentential realization of basal relations in our terminology).

Further pronouns, formerly also often considered to be devices of variation, do function in yet different manner. E.g. possessive pronouns ("můj, tvůj, jeho, ..." ("my, your, his, ...")) need to be understood as operators of identity/non-identity between the speaker, the hearer, ... on one hand and the actant of the possessive relation on the other hand. This is why too form a functional part of the pragmatic component. – Demonstrative pronouns (pronoun operators of reference) and interrogative pronouns (operators serving to identify determination of lexical specifics of actants of basal semantic relations) have a completely different character. These function essentially within the relationships between actants of basal relations; as a result it is necessary to raise the question of whether they functionally belong to the semantic or the text component.[NOTE17]

Another important area related to the manner in which the pragmatic component is to be introduced in the model is the issue of operators of temporal and spatial relations. Firstly, it is necessary to once again remember the notion of the spatio-temporal dimension of the semantic basis (cf. 2.1). Much like with participants of the semantic basis understood it this sense, it is possible to similarly spatially and temporally determine the basic participants of the pragmatic components - the speaker and the hearer. The spatial and temporal operators of the pragmatic component are then to be understood in relation to the above. The basic structural relationship in this respect is the identity/non-identity of temporal coordinates of the speaker and the structural element of reality (referred to by the respective relation of the semantic basis), which forms the foundation of the so-called grammatical category of tense. These temporal relations thus need to be understood as a functional element of the pragmatic component. A completely different functional character is that of temporal relations such as "před válkou", "do války", "po válce", "za války/ve válce" ("before the war", "until the war", "after the war", "during the war/at the time of the war"). They are of course functionally independent from the temporal coordinate of the speaker and are consequently fully a part of the functional relations of the semantic component as

lexical realization of formulas with temporal meaning. – Operators such as "zde", "tady" ("here"), "sem" ("hither"), "tam" ("thither") belong to a set of expressions of relations of identity/non-identity of spatial coordinate of the speaker and the structural element of reality (expressed by the respective basal relation); they too therefore need to be interpreted within the framework of the pragmatic component. Functional devices such as "vedle", "před" ("next to", "in front of") have their functional place within the semantic basis (lexical realizations of relators of basal relations).

It is however not the goal of this chapter to list and classify all functional devices of the pragmatic component. Even given only what was already said however it is however clear that such functional devices as are interpreted as the grammatical category of tense or the lexical devices of expressing spatial and temporal relations need to be given different functional evaluation based on whether they function within the framework of semantic or pragmatic relations. Hence the necessity of notion of the pragmatic bond as a type of syntactic bond, as stated in 2.2. Only such devices as are not only GSP-variable but also pragmatically variable can be considered to be devices of variation with respect to syntax. It is necessary to count with pragmatic patterns in the content sense as well as with the respective means of expression of a grammatical nature.

We shall provide examples of certain basal relations in order to illustrate the "consequences" of introducing the pragmatic component into a model of our type.

Let us suppose there exists a basal formula of the type xD (zTy) and the formula zRy, where D is a quotative relator and R a relator of the relation of resulting. Let us further suppose there exist sentences such "Benedict is writing a book", "I am writing a book", "Benedict will be writing a book", "Benjamin said that Benedict would be writing a book". Even if we do not introduce the pragmatic component into our model, we shall find that there is a difference between the sentences "Benjamin said that Benedict would be writing a book" and "Benedict is writing a book" with respect to the notion of the semantic basis, because these sentences represent realization and expression of different basal relations. The respective differences between the sentences "Benjamin said that Benedict

was writing a book" and "Benjamin says that Benedict is writing a book" on one hand and between the sentences "Benedict is writing a book", "Benedict will be writing a book" and "I am writing a book" on the other hand have with respect to realization and expression of basal meanings a character of variation, because the differences between these sentences are due to GSP-variable grammatical devices. Unless we therefore introduce the term pragmatic component, we shall understand the relevant differences in tense and person as variational grammatical devices wherein the essence of meaning is interpreted in the sense of the so--called morphological meaning. Given the pragmatic component however, these differences have to investigated in a different manner.

The sentence "Benjamin says that Benedict is writing a book" needs to pragmatically written down as 'I am saying that Benjamin is saying that...' and the sentence "Benjamin is writing a book" as 'I am saying that...'. (From the standpoint of the theory of expression, the aforementioned elimination rule naturally holds.) Along with the content-based and pragmatic difference, the basal difference too remains intact, as defined by the formulas xD (xRy) and zRy. This means that quotative semantics has a basal as well as pragmatic character. The qualities involved are however functionally different, and are identical only in a certain manner, with respect to the means of expression used.[NOTE18] Let us now raise the question of mutual relations between the sentences "Benjamin is saying that Benedict is writing a book" and "Benjamin said that Benedict was writing a book". The differences involved are undoubtedly of pragmatic nature. As a result, it is possible to consider the "temporal variations" of the given semantic formula to be, from the standpoint of semantic basis, free with respect to content, but not from the pragmatic standpoint; the traditional grammatical category of tense is a pragmatically bound device, it constitutes patterns (structural units) of the pragmatic component. Let us now evaluate the relation between the sentences "The book is lying on the the table", "The book is lying here", "The book is lying there". Unless we introduce the term pragmatic component, these sentences need to be understood as realized and expressed variations of the basal formula xLy (the relation of localization). Once the pragmatic component is introduced, nothing is changed about the basal identity, however the differences associated with the

relevant devices of localization represent differences of a pragmatic nature, because the functional variety is based on pragmatically relevant relations between the speaker and the relevant participant in the basal relation. It is possible to say that the sentence "The book is lying on the table" is pragmatically neutral, the sentence "The book is lying here" is based on identity of the spatial coordinate of the speaker and the locality, while "The book is lying there" is based on non-identity of the spatial coordinate of the speaker and the locality.

Before we raise the question of what the relations are between the pragmatic component and the text component, it is necessary to define the relations between the pragmatic and the semantic component globally. If we consider a grammar constructed from the semantic basis of a language as a device of functional interpretation of texts, this question loses some of its importance. In such case, it suffices to make clear the basic functional relations. If we however consider this type of model as a so-called functioning grammar, the question has to be investigated in more depth.

Let us consider "serial" and "parallel" functional participation of both components:

1.   semantic component
                           pragmatic component
2. semantic component   pragmatic component

The semantic component was characterized above as semantic basis and the relevant devices of lexical, syntagmatic and sentential expression of basal relations. Likewise, the pragmatic component is defined as a system of pragmatic relations which are the result of the so-called pragmatization of basal relations; where under pragmatization we understand, generally speaking, the rules which introduce basic participants in communicational relations into the realized basal structures, i.e. the speaker and the hearer. The rules involved are content-based and grammatical (related to expression). In this context it is necessary to

1. understand as:
3.   semantic basis
                  devices of realization and expression
                           pragmatic basis
                  devices of realization and expression

We must furthermore raise the question of whether the rules of pragmatization are to be applied to realized basal formulas or even to already expressed basal formulas.

Much like we noted down 1. as 3., it is necessary to write down 2. as:

4.   semantic basis   pragmatic basis
      devices of realization and expression   devices of realization and
                                              expression

The two question complexes mentioned (i.e. the question of whether to apply pragmatization to realized and expressed basal formulas, or only to realized formulas, and the question of whether the semantic and the pragmatic component are to be applied "serially" or "in parallel") will not be discussed in the present work, because it does not aim to formulate the proposed linguistic model as a functioning grammar; we shall therefore limit ourselves to application of the theory of semantic basis to systematically describe meaning of sentences and the possibility of using semantic basis to interpret texts. It is nevertheless possible to make the preliminary assessment that the serial application would probably be more appropriate. If we should decide for the procedure which leads to application of the content-related principles of pragmatization to realized (and not expressed) basal relations, it is necessary to consider whether the structure of expression would participate only after the content element of relations of pragmatization of the semantic basis is realized.

This method has certain advantages. With respect to content, it is possible to carry out a thorough functional differentiation of the relevant devices (traditionally speaking, grammatical categories and lexical devices) based on whether they

have a basal semantic or pragmatically functional character, and, on the contrary, the devices which have a purely expressive nature can in this manner be, without further superfluous differentiation, applied only later, in the stage of the process of expressing of pragmatized, realized basal relations. This corresponds with the fact that word-formation devices in Slavic languages are characterized by a significant degree of homonymy.[NOTE19]

The questions of functional participation of semantic and pragmatic content complexes in relation to the complex of the means of expression will be discussed in a thorough manner in 3.

Let us turn our attention here to the relations between the pragmatic component and the component of text-forming devices. Let us start by assuming that the basic unit of the component of text-forming devices is utterance;[NOTE20] given our standpoint, utterance is to be understood as a realized, pragmatized and expressed basal relation.[NOTE21] This unequivocally entails that the pragmatic component be functionally "plugged in" between the semantic basis and the component of text-forming systemic devices. It is necessary to consider text-forming devices to include all content elements associated with expression of the speaker's attitude towards the hearer as well as with the content of the utterance, that is to say a wide range of not only traditional modes of attitude but also the so-called speech (illocutionary and perlocutionary) acts. From the discussion in 2.2.1 it follows that these content qualities have, much like the content qualities of the temporal and spatial dimensions of communicative acts, a pragmatic nature. It is therefore evident that content devices of the pragmatic component as defined above have, as do many text-forming devices - seen through the prism of the basic semiotic triad - a pragmatic character; we could say that this involves a continuous scale on the axis between generalness and specificity, topicality of the pragmatic character of content devices. In this context we can consider the possibility of understanding the devices we investigated in the relation to the notion of the pragmatic component as a part of the set of text-forming devices. In other words - introduction of all functional devices related to the speaker's attitude towards the hearer and to the content of utterance would then be understood as the first step of textual realization of basal relations. The pragmatic component as

defined above was seen as the initial subcomponent of the component of text-forming devices. In such case, the boundaries of text are somehow "lowered", to put it in a sort of stratification perspective, pragmatized, sententially realized basal relations become the elementary units of text. The basic unit in text would then be utterance, being a sententially realized, pragmatized and expressed basal relation. The "lowering" of the boundaries of text, or, to be more precise, inclusion of the pragmatic component in the text component, brings linguistic theory closer to the general semiotic notion of semantics and pragmatics; the advantage of this approach is in that it leads to distinct differentiation of content devices of depiction, reflection of reality from content device of communication. This is doubtlessly methodologically useful.

In no event is it however possible to consider pragmatically bound content devices to be mere grammatical variations of basal structures, because such approach does not allow for construction of grammar of a language in the direction from its semantic basis towards real text. In answer to question 2 from 2.2.1 we assert that the character of pragmatic devices (whether they be understood within the framework of the separate pragmatic component or the pragmatic subcomponent of the component of text-forming devices) is shared by not only many traditional grammatical categories previously often seen as devices of expressing sentential meanings via grammatical variation but also by certain devices related to parts of speech (sometimes seen as lexical variations of variables in sentential patterns). In 2.3 we came across certain problems of "stratification-based" inclusion of devices of lexical and grammatical expression of pragmatized basal relations. We shall discuss these questions in 3.

The functioning of realized basal structures in texts shall be discussed in 2.4.

2.4 ON THE PROBLEM OF HOW BASAL MEANINGS FUNCTION IN TEXT

The question of how basal meanings work in text will be understood with respect to what was said in 2.2.1 and 2.3, that is to say as a question of how realized, pragmatized and expressed basal meanings function in text.

Considering the wide attention given in contemporary linguistic and non-linguistic alike to the term of text and the fact that along with the aforementioned attention naturally comes a wide range of manners in which the term is understood even in linguistic literature alone, we believe we need to start from broader considerations.

2.4.1

If the conditions under which basal meanings function in text are to be assessed, it is necessary to first pose the question of whether it is possible to understand the whole matter in this manner, i.e. in which types of (linguistic) description of text can the conditions of functioning of basal meanings be investigated.

2.4.2

If we start from the basic typology (Viehweger 1977) of approaches to text linguistics, represented by distinguishing between the so-called propositional approach and (human) action theory based approach (Handlungstheorie) we find out that similar investigation is seen as meaningful within the framework of the former approach, but not within the framework of the latter. These approaches are usually understood as being mutually alternative: even though there has been enough attention given to this issue, we consider it useful to ask again about the reasons behind these different, alternative approaches to text linguistics, namely from the standpoint of the more recent developments in linguistics.

2.4.3

The answer can be looked for in the form (forms) of the context of scientific investigation, from wherein various contemporary linguistics of text originated or

continue to originate. Principally, the following types of contexts of scientific investigation can be distinguished:

2.4.3.1

Linguistic theory of text can be understood as the result of a certain tendency of thought in the period of classical structuralist thought (seen from the standpoint of European, primarily Central European context) which we can label as "syntactization of langue"; if we assume that the classic Saussurean and Prague school structuralism understood the system (langue) as being primarily a matter of phonetics while syntax was understood to be a matter of utterance, "parole" activities, whereas the question of systemic prerequisites was either not posed at all or was (de facto) answered negatively, we can conclude that starting from Karcevski's (1931) terms proposition - phrase, Mathesius's (1947) sentence as abstract pattern and sentence as utterance and his general efforts to explain functional onomatology and functional syntax, the process of investigation and formulation of systemic rules of sentential and super-sentential syntax. What emerges in this process are grammars of essentially stratificational type, which apart from the traditional branches of linguistic also distinguish the branch of syntax of meaning-related and grammatical (expressive) components of text. If these models propose a systematic investigation, formalization of the relations between the neighbouring branches of linguistics (e.g. in the sense of terms form-function and the term representation, cf. Sgall (1967)), then within the scope of these grammars it is completely meaningful to ask about the manner in which elementary sentence units of semantic and grammatical nature function on the level of text understood as the level of higher syntax, hypersyntax etc. (cf. Daneš, Hausenblas (1969)).

2.4.3.2

The contemporary linguistic theory of text originated (partly or completely) outside of the framework of linguistics, in the areas of psychology, social psychology, theory of social communication or structural analysis of literary texts. These inspirations are extra-linguistic, they can however not be considered random from the linguistic standpoint, because they have a legitimate, persuasive motivation within the process of development of 20th century linguistics. Classic linguistic structuralism negated psychologism of the previous linguistic era in its effort to formulate a specifically linguistic apparatus; it was precisely this negation that resulted in semantics, including sentence semantics, being removed from the limelight even at times when attention was focused to systematic investigation of sentence. When linguistic models which to certain degree followed up on the principles of classic structuralisms, started to focus on semantics of sentences and higher units, linguists naturally turned their attention back to the social and psychological contexts of the functioning of language; nevertheless, rather than return to the pre-structuralist period of linguistics, they tend to turn their attention to the contemporary social and psychological theories. This is exactly the root of the negative attitude of the "action theory" based approach towards propositional theories of text: while propositional theories investigate text as a system of rules of its formation in the process of speech, "action theories" thoroughly investigate text as parole, as utterance related activities in themselves with focus on their functional description beyond the scope of traditional systemic linguistics of the structuralist period. The question of systemic prerequisites of communication is either not posed at all or else is posed and answered fully or partially outside of the context of "traditional" linguistics. We shall illustrate this aspect of the matter in some more detail: certain theories of social communication which are by now considered classic do not in their set of basic terms count in language as a systemic device enabling communication, at all. E.g. in Lasswell (cf. the anthology Reader in Public Opinion and Communication (1953)) the set of elements of communication acts lacks the elements "means of expression", "system of sings" (cf. the contrary case in Platt (1965)). If they are present, the terms that are worked with are those where reference can be made to Mead, Dawey, Morris, Carnap, Frege, Church, or Bühler (cf. Janoušek, (1968)), whereas what is being discussed are the most basic terms of semiotics and logical semantics. Due to the fact that relations are only being built between the classic linguistic terms and terms from the area of general semiotics and logical semantics, the "distaste" towards linguistic terms in communication and text theories of this orientation is entirely "justified".

2.4.4

In order to prevent undesirable misunderstandings with respect to the afore-mentioned "dispute" between propositional theory of text and action theory, we consider it necessary to state that our discussion to follow shall be based on the assumptions presented in 1.1.1 - 1.1.13.

2.4.5

This involves context-dependent realizations of basal meanings in text which emerges in the process of communication based on selection (lexical, syntagmatic and sentential) of realization of basal meanings (as an essential prerequisite of communication activity) and selection of means of expression, the manner of their pragmatization and text cohesion. This process of selection of standardized, referentially synonymous devices which are variant on the principle of asymmetric dualism is governed by the expressive and communicative needs of the speaker. – We shall illustrate the differences in the manner of realization and expression of basal meanings in "isolated" expressed basal sentences in text on the following excerpt:

Benedict sat down: "Beer," he said, "thirsty as a dog," he went on sullenly, "won't go out until after dark, when it's colder [...]"
Let us first separate (author speech) meta-language from the speaker's (Benedict's) monologue.

I.1 Benedict sat down: "…", 2 he said, "…", 3 he went on sullenly, "…".

II.1 "Beer,"… , 2 "thirsty as a dog,"… 3 "won't go out until after dark, when it's colder [...]"

In 1. the following holds:

1. (Author of the text = author of meta-speech) ≠ the speaker of quotative basal meanings in speech as part of the reflected "state" of the objective reality.

2. Symbolic notation of meta-speech in terms of basal meanings (to facilitate comprehensibility, English will be used a [gnoseological] metalanguage).

1.1 Benedict is the internal agent of the mutational process of change of body position in the sense of 'change of position from standing/walking/lying down to a sitting position'.[NOTE22]

1.2 Benedict is the speaker of a quotative activity.

1.3 Benedict is the speaker of a quotative activity.

1.1: The construction S nom VF ref is lexically occupied by "sat down". In this case, the author chooses from the set of lexical possibilities offered by the language a so-called stylistically neutral device.

1.2:(S nom) VF 3sg the author opts for the most neutral lexical device of the language.

1.3:The construction (s nom) VF 3sg ADV has the semantic interpretation 'the speaker, originator of the quotative activity, continues with this activity; the author assesses this activity as marked by absence of a good emotional state'.

The (author's) meta-speech as a whole has the following basal semantic structure: the speaker as the object of this meta-speech (and thus a part of the state of reflected objective reality) changes the position of his body, manifests a quotative activity and continues with it. The element of continuation can be seen as a manifestation of text cohesion, not a text grammateme but rather a basal semantic device functioning as a result of a certain structure of the text of meta-speech as a device of text cohesion.[NOTE 23] The example demonstrates the possibilities of "functional re-evaluation" of a basal semantic device into a device of text cohesion.
In II. it holds that:

The author of the text = the speaker = the author of quotative basal meanings in speech are part of the "state" of objective reality.

II.1 The content of quotative activity is in the basal semantic sense 'I want to be given a beer' (dictally-modally "framed", de-agentively expressed event relation) with the grammatical structure (S nom VF 3sg mod INF) S acc. (The parentheses stand for absence of elements in the sense of lexical and grammatical expression. With respect to basal semantic interpretation, 'I want to be given a beer' represents mostly a class of basal meanings that are synonymous within the given context.)

II.2 The relation of affiliation with the meaning of affiliation of a bodily state qualified by the relation of confrontation, with the grammatical structure (S nom VF 3sg) S acc as S nom.

II.3 Once the validity of the postcedent state of the mutational process of change of air temperature to lower value is reached, what follows temporally (in the sense of causality) is validity of the relation of the mutational process of change of location; the carrier of location is identical with the speaker. This complex relation is (semantically?)[NOTE 24] presented by a form of double negation; it has the grammatical structure (S nom) VF 3sg prep S gen until VF ref sg.

The semantic elements of the content of quotative activity II.1 and II.2 are however likely in terms of content (but not in the sense of basal semantic interpretation) in a causal relation, i.e. 'I want to be given/give me a beer, because I am thirsty...' is a single utterance as the basic unit of text structure. On the contrary, II.3 is with respect to II.1 and II.2 an independent utterance.[NOTE 25]

The analysis outlined (which could definitely be further elaborated on with respect to basal semantic analysis, and even more so with respect to the theory of text production in the process of communication) shows that given a certain understanding of semantic analysis of "isolated" sentences (sententially realized

basal meanings) it is possible to use systemic units for interpretation of meaning and expression related "devices" of text in the aforementioned definition of the term. Especially worthy of attention in this context is the systemic textual presence/absence of means of expression wherein it is possible to look for connection to the known differences between various types of constitutive presence of participants.[NOTE 26] This can be aptly demonstrated on the difference between II.1 and II.2 on one hand and II.3 on the other hand.

While the structure of expression of segment II.3 is "complete"[NOTE 27], all meanings with the exception of the carrier/initiator of the change of location are expressed explicitly, the structure of segments II.1 and II.2 is "incomplete", with a number of semantic elements being unexpressed. This can be demonstrated well on the relation between the basal semantic analysis of structures 1-3 with respect to text analysis and analysis of "isolated" foundational structures. While the results of semantic analysis of II.3 with respect to "isolated" structures and with respect to basal semantic analysis of text would be identical, the results of analysis of II.1 and II.2 from those same perspectives would be markedly different. From the standpoint of isolated analysis, it would be necessary to interpret Segment II.1 as a specific grammatical pattern of nominative of nomination and segment 11.2 as a non-sententially expressed qualification by means of confrontation. Compared to analysis of II.1 wherein the result of both analyses was completely different, the result of isolated analysis of II.2 would be, with respect to text analysis, incomplete.

2.4.6

We can (or rather must) raise the question of which of these analyses is more adequate from the perspective of generally understood object of linguistic investigations (in the sense of 1.1.6). We believe that there can be little doubt that the answer is text analysis. For these reasons it is necessary to consider isolated analysis (propositional analysis of realized and expressed basal sentences and other terms) not only to be special, but in fact to be more special than basal semantic analysis of text. This is why a truly propositional analysis of text in the sense of 2.4.2 (and cf. Viehweger (1977)) is "unwarranted", because it puts results of the

more special analysis in a de facto superior position compared to those of the analysis the object of which is undoubtedly closer to the object of linguistics in the sense of 1.1.6, and which is forced to understand rules of text as "mere" rules of connecting of these propositional structures. This statement however does not comprise the aforementioned basal semantic analysis of text, because in this particular case results of the basal semantic analysis of the FSS and its derivatives (in the sense of sentential realization and expression) are not the input elements of text analysis. The fact that the complaints against the so-called propositional theory of text stated in literature are justified (with respect to our perspective of the matter) nevertheless does not mean that linguistics has to resign on the purely linguistic "systemic" approach to investigating its objects, if it wishes to give continuing attention to text. The definition of the object of linguistics in 1.1.1-1.1.13 hints at the fact that in this understanding of the object of linguistics it is completely necessary to pay attention to text as an object, even though the analysis involved does not in this case go beyond the boundaries of thought on language as a system of devices with sign character.

Notes

1   This basically means: the term generative grammar is used in relation to models which generate from semantically a grammatically correct sentences of a given language by applying explicit rules to a certain axiomatically defined narrow set of devices. (In this context we note that within the field of generative grammars, Hutchins uses the term semantic basis in the title of one of his works (1971), the conceptual notion behind it is however different from the one we use.) In a broader sense the term generative grammar is also applied to stratification grammars of the meaning→text type, which rely on automatic functioning in the sense of their containing explicit rules according to which it is possible to match the postulated meanings of sentences and words with formalized mutual relations to the means of expression of a given language. (For a discussion of the problems of functioning of these models, especially when it comes to their transferring grammatical element, cf. 3.3. We discussed certain issues related to development of this type of grammar, cf. Kořenský (1974b and 1974a).)

2   Due to the high number of basal relations which need to be noted down, we consider it the basic form of notation to be that of meta-language formulation put in Czech between ' '. The notation of formulas is to primarily inform on the number of participants in a relation and on its basic structuring. This is why certain relator symbols are used beyond the framework of static relations in various meanings, cf. R = the general relator symbol as well as the action relation of resulting. The term variable is used in the sense of 4. and 5. and in the discussion

of correspondence between lower case letters from the end of the alphabet and the respective participant. The meaning of the term variable thus follows from the conception of the theory of relation and meaning which we build upon. – In accordance with these theoretical assumptions as explained, we furthermore use the terms basal meaning and basal formula more or less synonymously in the sense of basal relation being a basal meaning of relational character (usually when relations of relators and participants are being spoken of), while basal formula is a basal meaning of relation character as written down (symbolically, by a meta-language paraphrase).

3   The terminology, introduced in the Czech context by Daneš (1971b) was later further developed. This is why we also used the synonyms dynamic meanings - actions, static meanings - non-dynamic meanings (earlier also referred to by the term states), events - mutational processes (the latter term proposed by M. Komárek). Among notable works which systematically use this semantic terminology are those by Daneš, Hlavsa, Kořenský (1973b). Teoretické základy (Theoretical Foundations, 1975) and Daneš, Hlavsa et al. (1981); with respect to the last cited work our understanding is conceptually parallel, with identical assumptions.

4   For a proposal of this solution cf. Kořenský (1975).

5   The feature "nothing is being said about' has to be understood in the sense of linguistic ternary oppositions, wherein apart from signalization of (necessary) presence of a feature and signalization of (necessary) absence of a feature there is also non-signalization of presence/ absence of a feature. Cf. e. g. Dokulil (1958). This most significant of linguistic features is to be understood as a manifestation of the law of negation of the negation in the system of natural language.

6   The discussion here is to be understood as a refinement of formulations of static relations (that is to say, situation), cf. Kořenský (1971, 1972b, 1975).

7   This theory of semantic spacetime can be used as a foundation of a theory of pragmatic aspects of spacetime, cf. Kořenský (1975) and 2.2.1.

8   Our notion of (predicative) realization has the character of semantic assumption of expression of the respective basal relation by means of a construction based on a finite verb (VF) a fulfilling the requirements on minimal sentential completeness, cf. 3.1.

9   It can be said that this prominent systemic feature of natural language, especially when it comes to sentence, captured linguist's attention already at the time when it was first found out that the notions of subject and predicate derived from logic are applied in close relation to certain devices of grammar and expression (parts of speech, substantive case) and do not always represent dualization of sentence structure from the perspective of semantics, neither with regard to content (high degree of generalness of the semantics of subject and predicate), nor with regard to the asymmetries between grammatical and semantic sentence structure. The solution used to be looked for in terms such as psychological subject and psychological predicate (cf. prominently Sundén (1916) and many others; a different approach to these matters was proposed e.g. by Tesnière (1934)). For more on these issues see Daneš, Hlavsa, Kořenský (1973a). In Kořenský (1972a) we pointed out the relation between this semantically dual sentence structuring (using the term perspectivization) and onomasiological dualization to basis and feature as proposed by Dokulil. The discussion in the present work follow up from this approach, we nevertheless use the term semantic accent with certain terminological modifications; this term is seen as superior to definition of the foundation of not only sentential but also lexical and syntagmatic realization of basal formulas. The term perspectivization does not fit well in this context due to the term functional sentence perspective, the term basis was replaced by the term foundation in order to differentiate it from the key term semantic basis.

[10]   The term basal sentence refers to a sententially realized basal relation, the term basal syntagma to a syntagmatically realized basal relation and the term basal word to a lexically realized basal relation.

[11]   We are aware of the fact that representative works on functional sentence perspective assume functional participation of this semantic device within the basic semantic structuring of sentences. Cf. the earlier note 13 on page 248. in Kořenský (1974a). In our understanding, functional sentence perspective is a device of the text component, because it has pragmatic character; its essence is placement of sentence into context and situational perspectivization of sentence elements.

[12]   In Sundén, it is the definition of conversion that is discussed, however, due to the fact that the result of the operation of conversion is inversion of the relation of the respective expressions, Sundén's and similarly also Apresjan's approach to conversion entail the respective understanding of the inverse relation. The two terms are after all often treated as synonymous, cf. e. g. Tarski (1969), p. 100.

[13]   We opt for terminology acceptable for logical terminology systems, e.g. we understand the term dynamic, open system in the sense of Bertalanffy (1972). We nevertheless consider it adequate to raise the following objection to the formulation of reality, to which language refers, in the philosophical terms of category of objective reality with the respective gnoseological consequences of this standpoint: the so-called actual world is precisely a formally perfect formulation of the objective reality. The issue lies in that the ontological character of the universe (a permanent set of mathematically distinguishable and empirically testable objects) is also valid for the actual world as one of the possible worlds; the term actual world cannot thus be considered to be a formal theory of the category of objective reality.

[14]   The most up-to-date issues of reference (denotation) are investigated by Arutyunova (1976) with special regard to the shifting opinions in the field of logic.

[15]   Certain relations assume individual determination of participants; these include mainly the specified relations of kinship, an owned object in the relation of material ownership etc. The existential qualification relation (There are people who ...) is of course an expression of the so-called existential quantifier in natural language, which is related to the bound position of the finite verb (VF) "to be" in the structure of expression. For more on the ostensive nature of this position see 4.3, these construction therefore have a somewhat different character than basal relations which are the actual object of the present work. A number of relations discussed here are directly based on quantization. There are open questions regarding the relationship between extensional determination and the properties of structures of grammatical expression (e.g. the question of potentiality and generalness of the GSP element). It is however possible to give the negative answer to the question of whether functional semantic features, being the essence of extensional determination, are at the same time the defining features of basal semantic relation, be it in the sense 1. or 2. They are in fact closer to being certain preconditions for application of these operators which are in some cases unfavourable, e.g. with a qualifying entity or an entity defined by the feature of abstraction, in case they are situated in the right-intention position (the y position) of asymmetrical relations. It would be for the sake of completeness naturally be necessary to also investigate determinability and quantifiability of the individual relations, i.e. of the possibility of joining the respective operators to the individual participants. This is however clearly a matter in the domain of the text component. In such cases it is necessary to distinguish:

a)   Intra-language development beyond the boundaries of sentential minimality, if it is based on devices of reference, which can have the character of quantization or quantification, cf. Benedict is such a fool that ...

b)   Intra-textual reference as an issue of the text component, cf. Benedict is a fool. There is no changing that.

c)   Identification as a type of extensional relations within text, cf. I can see some fool running a red light. I take a closer look in the car and I see: the fool is Benedict.

a), b) have to be considered a general property of realized and expressed basal relations in text; c) is usually seen as proof of the fact that the devices of determination transform basal relations in various ways (in our specific example, relation of qualification is transformed into relation of identity). In c) the extension of the proper name "Benedict" and the extension of the lexically realized qualification 'x is a fool', a part of non-minimal complex qualification by action within the relation of perception, are identical.

d)   Quantization as quantitative definiteness in the sense of definite and indefinite countability, rate and quantification as individual, existential, general and variable definiteness (cf. in this context the operator of variability in Hlavsa (1975)).

[16]   For the sake of preciseness of formulation it is necessary to note that this is a rule related to structure of expression of content (semantic and pragmatic) qualities.

[17]   It will become evident that, with regard to the close functional relationship between the pragmatic component and the component of text-forming devices, it is not necessary to attempt to solve this issue.

[18]   It is not possible to raise the question of "where do quotatives belong"; these verbs are devices of lexical expression of certain semantic and pragmatic content qualities, whereas rules of the type mentioned above apply to their presence or absence in expression.

[19]   It is precisely the high degree of homonymic polyfunctionality of the word-forming expression devices that is often used as an objection against thorough component analysis of functional content properties of language. This objection nevertheless does not hold even in traditional stratification models, because they are, generally speaking, based on stratification of sign properties of the language system. The argument of expression identity cannot be an argument for content identity, because the model has to analytically come to terms with the fact that homonymic polyfunctionality of word-forming devices "obscures" substantial functional differences.

[20]   We are aware of the fact that utterance understood in this manner does not have all features of the classic definition of utterance (which is different from an utterance event), cf. Dokulil, Daneš (1958), Daneš (1964a).

[21]   The classic understanding of utterance as a system unit which "is the closest" to speech act was in our opinion justified precisely because it was "the highest", "the ultimate" system unit. Today, as systemic though on text leads to introduction of much more complex system units than that of the classic utterance it is probably possible, or rather even necessary to understand utterance as an elementary unit (from the perspective of the theory of text-forming devices); this however necessitates its more abstract understanding and giving up on attempt to solve the known issues of sentential, non-sentential and other utterances within the scope of this term. Our abstract notion of utterance as the elementary unit of the component of text-forming devices would then always be bound to non-sentential realization of basal meaning in the sense as we use it. Non-sentential utterances can then be explained as specific rather than sententially realized types of text units.

[22]   The semantic interpretation of change of body position is an example of how its is impossible to reliably decide, not only within an isolated foundational structure, but also within a narrow context, what kind of antecedent component (out of the class of possibilities) is found in the given mutational process. A broader context would be necessary in order to identify one out of the possible antecedents.

23   What we encounter here is a difference in semantic interpretation of text in comparison with interpretation of isolated basic structures. If we were to interpret segment 3 in isolation, the notation would be 'the originator of the activity continues with this (unknown) activity; this continuation is qualified by absence of a good emotional state'. There is thus a contrast of meaning between qualified continuation of activity (isolated interpretation) and qualified continuation of quotative activity (text interpretation).

24   The question of what is the level of analysis on which to interpret the presence of negation will be left aside, since its solution does not affect the relationships between isolated and text interpretation of the segment. The problem of presence of negation lies in whether the presence of the respective language devices can be understood as presence with respect to the basal semantic component or rather only with respect to lexical and grammatical expression.

25   It is necessary to note there that this involves two (interrelated) open question: (1) There would again be a significant difference from isolated interpretation (wherein the connection between II.1 and II.2 could not be detected). (2) This connection can only be detected in text analysis, whereas it however begs the question hinted at above of whether it should not have been posed only as "late" as during content analysis, being a non-linguistic type of analysis. A possible criterion could be that of whether the respective semantic connection is (in text analysis) or is not (in content analysis) signalized by means of expression. To allow for (2) would nevertheless interfere with thoroughgoing understanding of utterance as a unit of linguistic analysis.

26   When it comes to typology of constitutive presence of means of expression of participants of basal meaning structures, what needs to be briefly addressed is the following: The theory originated in the framework of analyses of "isolated" foundational sentential structures and was in this regard assessed as potentiality of expression of grammatical subject, or "inference" of a participant from context. It in fact involves a certain "lack of thoroughness" which serves to prove the limits of analysis of isolated structures. The typology of manners of expression of participants of basal meanings (propositional meanings) belongs to the theory of (in our terminology) basal semantic interpretation of text. From this standpoint we are aware that we speak of a contrast between "isolated" and text based semantic analysis as they are presumed to be in theory; an actual isolated analysis performed in practice more or less always stepped beyond this framework towards text analysis, whether intentionally or not. What "isolated" analyses uncovered are in essence the basic rules of potential (context-dependent and context-independent) presence of devices of lexical grammatical expression of right- and left-intention "substantive" participants; only text analysis can however uncover the context-bound rules (which apply to all elements of basal meaning) completely.

27   "Completeness" here comprises the potential absence of the S nom symbol.

3.

THE THEORY OF EXPRESSION OF BASAL MEANINGS IN SENTENCES

3. THE THEORY OF EXPRESSION OF BASAL MEANINGS IN SENTENCES

3.1 GENERAL DISCUSSION

The following discussion relates to the devices of morphological-syntactical expression of sententially realized basal meanings, that is to say the so-called sentential expression. This is a very extensive complex of problems which in their most general formulation comprise a question of relation between semantics and grammar in the conditions of contemporary linguistics which arrived at the conclusion that it is necessary to work, apart from lexical meanings, also with global meanings of minimal sentence structures, represented in our case by the term sententially realized basal relation.

In 3.1 we shall first limit ourselves to traditional correspondence based understanding of the relation between sentential semantics and grammar, even though we are already aware of the theoretical limitations of such conception of sententially realized basal relations and the respective morphological-syntactical expression of these relations. In 3.2 and 3.3 we shall therefore make use of a more profound stance on the relation between semantics and grammar.

Our discussion of structures of expression is based mainly on works of Daneš who gradually, starting from the 1960s developed the notion of grammatical sentence pattern (GSP), introduced the notion of semantic sentence pattern (1968a), formulated their mutual relation by introducing the term complex sentence pattern (1968b) and thus laid the foundations for the type of description of natural language which the model proposed in the present work essentially adopts. The theory of grammatical sentence pattern itself as first defined by Daneš in (1963I) presents a broad complex of questions that, among other things, relate to the problem of grammatical sentence pattern having or lacking sign nature.

Bearing in mind that our notion of expression of sententially realized basal meanings is based on the notion of GSP, we need to give respective attention to the GSP theory.

There exist tendencies of understanding GSP as one of the planes of a generative-type stratification model (cf. Daneš, Hausenblas (1969)); in such case the matter is to be understood in the sense of terms form-function as per Hockett (1947) and Sgall (1967) and to consider the complex of strata to be a "vertically placed" complex sign, cf. Kořenský (1972c).

In relation to our model we consider it necessary to understand GSP as a structure formed by a specific element of expression and an element of grammatical meaning. We tackled this problem in more detail, cf. Kořenský (1972c); this understanding of GSP is adequate for languages such as Czech in that it allows for investigation of meaning differences represented by a developed system of parts of speech and morphological categories and at the same time allows us to understand basal meanings in a sufficiently general manner. If the sentences "Benedict is a fool" and "Benedict is foolish" express the same highly specified basal formula, this in no way entails that the semantic difference between the words "fool" and "foolish" which is on the background of onomasiological isomorphism[NOTE 2] is represented precisely by the grammatical-meaning difference between adjective and substantive.

If then GSP is a sequence of symbols of parts of speech with the relevant GSP-constitutive information on morphological category, it is necessary to support the GSP theory by a certain theory of morphological parts of speech and categories. This is the only way to achieve correct inclusion of the GSP system in a generally conceived grammatical model presented as a morphological-syntactical structure which is a means of expression of basal meanings in the sense of minimal sentence completeness, cf. below.

We shall briefly reproduce the theory of parts of speech based on Kořenský (1969) (and the literature cited therein), as discussed in Komárek, Kořenský (1974), especially in Teoretické základy (Theoretical Foundations, 1975) and most recently in Komárek (1978).

Generally speaking it holds that parts of speech form the basic system of the morphological component. The basis of construction of a functional structure of parts of speech consists of symmetrical signs (a linguistic term) non-attribute (substantive), attribute dynamically happening in time (verb), attribute of an attribute happening in time (adverb), attribute of a non-attribute not happening in time (adjective). This is the manner in which primary meanings of the basic parts of speech are defined. The system of primary, secondary, or even tertiary meanings of parts of speech is described by a table which in its vertical column contains the basic meanings of parts of speech as the functional basis and in the horizontal row the basic meanings of parts of speech as functional attributes. In the diagonal intersection of the identically named terms for parts of speech the basic functions of parts of speech are written down, whereas the rest of the table contains secondary, or tertiary functions, characterized by asymmetry between function and expression.[NOTE3] Pronominal and quantitative expressions are listed in a specific manner.[NOTE4] Pronominal expressions form a special table which has the character of pronominal aspects of the structure of basic parts of speech. Quantitative expressions can also be included in the table of basic parts of speech as an "extension" thereof. What we need to bear in mind is the fact that the functional attribute of quantitativeness has a different semantic character than the other functional attributes in the table of basic parts of speech. The complete tables thus contain descriptions of all sententially constitutive functions of morphological meanings of parts of speech (regarding substantives, adjectives, verbs and adverbs) as well as the constitutive functions of the respective word forms with specific semantics and functions (with respect to quantitative and pronominal expressions). This provides the basic elements and combination rules of construction of a GSP system, which can be referred to as morphological structure with syntactical function. Between primary and secondary functions of morphological parts of speech on one hand and relators and participants of basal relations on the other hand, the relations of expression are defined. From the individual data in the table, functional places of primary and secondary functions of parts of speech in Czech sentences thus follow and along with them the respective meanings of morphological categories related to the said functional places.

In this manner we arrive at the question of morphological categories as a GSP constituent. Daneš (1963) introduced differentiation between syntactically bound and syntactically variable categories, whereas he considered such categories to be syntactically bound as form the necessary constituent and distinctive feature defining GSP and differentiating between individual GSPs. We adopt this concept with the remark that we take the notion of syntactically bound categories to practically involve solely such categories as constitute GSP, that is to say, GSP-constitutive categories. This character is manifest in e.g. all cases of substantives with the exception of adnominal genitive which does not constitute any GSP. This type of genitive is nevertheless constitutive with respect to syntagmatic realization of basal meanings. This then involves syntactical binding.[NOTE5]

We consider it to be necessary to provide a brief overview of functions of morphological categories of basic parts of speech, with special attention given to those categories which are GSP-constitutive, as this will allow us to elucidate our standpoint in relation to global sentential meanings (represented in our case by sententially realized basal meanings) and the so-called morphological meanings.

Firstly, it is necessary to once again bring up the already mentioned term function. It was said that we use this term to refer to the role which a minimal or complex sign or non-sign element plays within the mechanism of reflection of reality, or within the mechanism of communication. The task here is to assess the degree to which the individual traditional morphological categories a) are devices having or lacking sign nature, b) are functionally involved, with special regard to functional participation in the structure of sentential expression of basal meanings, that is to say, with respect to the the GSP system. The remaining functions will only be mentioned in passing, but will not constitute focus of the discussion. Those categories which participate functionally in sentential expression of basal meanings differ mutually with respect to the extent to which they participate in functioning of the meaning or expression element of GSP. Morphological categories seen in this manner form a "path" from morphological meaning to morphological expression, much like GSPs form a "path" from sententially realized basal meaning to morphological meaning.[NOTE 6]

The foundation of the system of morphological categories is the structure of categories and grammatical devices of substantives and verbs.

The core of the functional system of categoric means of expression of substantives is the substantive case which participates in differentiation of primary and secondary functions of substantives, and thus in constitution of the GSP system. The information on case form is thus undoubtedly a part of the GSP expression structure. Whether and to what degree is substantive case to be considered a sign grammatical-meaning value which mediates the relation between the form of substantives (case formant) and the participant in a given sententially realized basal relation remains to us an open question.[NOTE 7]

Case as the core of the functional system of categoric devices of substantives is with respect to expression bound to gender and number, as it works together with them to create the paradigm of declination formants of substantives, cf. Kořenský (1970a, 1972c). Number and gender as devices of meanings are functionally relevant outside of the structure of sentential expression of basal meaning; hence they are GSP-variable devices. (Cf. also Teoretické základy (Theoretical Foundations, 1975).)

An important, albeit functionally very complicated element is formed by categoric devices of verbs. Verbum finitum (VF) is a basic constitutive element of GSP.[NOTE8] It constitutes GSP with the individual types of its valency potencies; this constructional feature it possess is of a purely syntactical, GSP-constitutive nature.
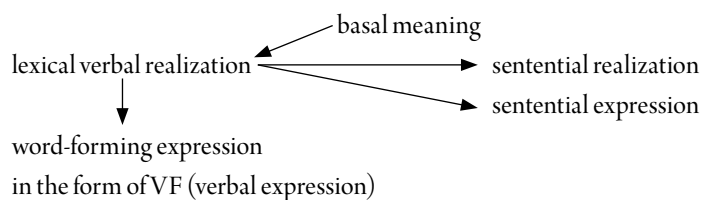
VF as a lexical grammatical device expressing the relator of basal formulas is a carrier of syntactical-semantic property which makes it the core of Czech sentence. The said property is the ability to form arrays of relations, into which enter participants of relations, that is to say those part of speech units which express the variables of the given formula. With regard to the semantic essence of this sentence-forming potency of VF, the term intention is used, cf. Daneš, Hlavsa, Kořenský (1973b)[NOTE9]; in relation to discussion of the theory of sentential expression of basal meanings we shall nevertheless focus our attention to the grammatical side of the said phenomenon, that is to say the GSP-constitutive ability of VF; we use the term accordingly in this sense. As for the historical side of origin

and development of the terms intention and valency in linguistics, we refer completely to the relevant discussion in Daneš, Hlavsa, Kořenský (1973a); whereas in this place we shall focus solely on discussion of valency within the framework of the type of grammar which we use as our point of departure.

To present the essence of valency is to deal with the relation between verbal lexical realization and sentential realization of the same basal meaning. In Chapter 1 we actually paid attention solely to the "vertical relations" within the given model:

basal meaning

lexical realization ←→ ←— sentential realization —→ ←— syntagmatic realization
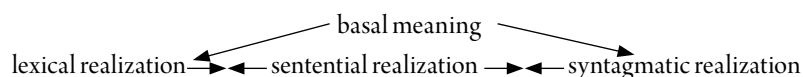
In order to explain the essence of valency, it is necessary to also pay attention to the "horizontal relation", i.e. the relation between verbal lexical realization (i.e. realization of basal meaning as a basal verb) and sentential expression of the same basal meaning. This involves effect of the meaning structure of VF (that is to say, verbal realization of the basal meaning, basal verb) on the structure of sentential realization and expression of the same basal meaning, hence:

basal meaning

lexical verbal realization ←—→ sentential realization

↓   → sentential expression

word-forming expression
in the form of VF (verbal expression)

The relation is comparable between the relation between genotype and phenotype in genetics; verbal realization being a type of lexical realization, that is to say a semantic factor, is a piece of semantically seminal information, it represents the "semantic nucleus" which governs the structure of sentential realization and sentential expression of the basal meaning in question. In languages such as Czech, this sort of seminal semantic information forms the essence of the GSP--constitutive function of VF.

Against this background, it is possible to formulate the basic typology of GSP-constitutive functions of Czech verbs:

1 VF can be semantically interpreted as a "semantic nucleus", usually there is however more than one "semantic nucleus" involved. VF as a lexicographic entry usually corresponds in its capacity of a means of expression to several basal verbs, it thus constitutes several basal sentences (realized basal meanings).

2 VF cannot be interpreted in this manner.

In the second case, VF is not a verbal expression of a basal meaning, it merely has a grammatical, GSP-constitutive function.

In case (1) there is verbal expression of a basal meaning, whereas:

1a It is impossible in sentential expression of the same basal meaning, i.e. in construction of a GSP based on the given VF to "transcendentally" express the participants of the given basal relation, or else it is only possible to express one of them. In this case the semantics of sentence is "immanent" to semantics of VF, VF being the only or one of two symbols of GSP; this type of verbs constitutes GSP such as VF 3sg (Svítá) ("The dawn is breaking") and Snom VF (Benedikt umírá) ("Benedict is dying").

1b In constructing GSP based on a given VF it is necessary to express the participants of the respective basal relation "transcendentally", namely those in absence of which the resulting construction would fail to constitute a grammatically complete Czech construction. In this manner, obligatory constitutive elements (symbols) of GSP are given, cf. the terms constitutiveness, obligatoriness in Daneš (1971a). This involves GSP of the type (Snom) VF Compl, whereas the obligatoriness relates only to the right-valency symbols, i.e. those part of speech symbols which are written down in the formula to the right of VF; a left-valency symbol is usually defined by a list of semantic participants it expresses, and is in this manner semantically distinguished from

right-valency symbols, i.e. by means of reference to the basal meanings it expresses. It can nevertheless also be defined by reference to the fact that it involves a Snom symbol defined by agreement with VF in the sense of traditional subject predicate agreement. In Czech sentences, this left-valency symbol is potential.[NOTE10]

1c Participants of the given basal relation realized as basal verb and expressed by the respective VF are likewise "transcendentally" expressed, namely precisely those without the functional presence of which the construction in question would not be a GSP, and thus a grammatically and semantically minimally complete Czech sentence construction; depending on the system principles of text construction, they nevertheless do not always have to be expressed. This involves constitutive elements that are potential (there is a real possibility of complementing an element as a lexical unit on the same level of abstraction with the given basal relation) and general (abstract constitutive presence on a relatively higher level of generalness than the degree of generalness of the given basal meaning, without a possibility of concrete lexical specification).

VFs of the type (1) find their place mostly in expression of dynamic, action-related basal meanings, whereas they are use only marginally with non-dynamic, static basal meanings. We shall not discuss them further. The theory of static basal meanings nevertheless requires that we pay attention to certain types of GSP which express basal meanings representing transition from action-related to static meanings. These involve a number of sentences such as: "Benedict is drinking rum" (=at the moment) – an event; "Benedict drinks rums" (=habitually) – qualification by means of action in the sense of 'is rum-drinking'; Benedict drinks (=alcohol, habitually) where it is not the potential but rather the general element which "transfers" the given meaning to a plain qualification marked by equivalence of meaning with the sentence "Benedict is an alcoholic".

For the theory of expression of static meanings in Czech sentences, the type (2) VF are particularly important, wherein in case:

2a VF, as was mentioned, is not an expression of any basal meaning and has solely grammatical GSP-constitutive function; this involves mainly patterns of the type (Snom) VF to be S/A and (Snom) VF to have Sacc. The semantic "emptiness" of VF can however also be interpreted as a high degree of polysemy, i.e. the capability of verbally expressing a high number of basal meanings, whereas in VF of type (1) this capability is incomparably narrower. It would nevertheless appear, intuitively speaking, as if the verbs "to be" and "to have" in and of themselves expressed existence and possession, these are however merely ur-phenomenal, developmentally basic meanings; from the synchronic standpoint there is no unambiguous structuring link between the basal meanings which the syntactical relations based on these verbs express; this is especially true of the verb "to be".

2b VF expresses the basal meaning together with the "non-participative" complement; the lexically realizational semantic interpretation can be applied to the whole expression {VF   Compl}, hence the GSP involved is of the type Snom {VF Compl} Compl, whereas the Compl symbol outside the brackets is a constitutive obligatory symbol. The relator of the basal relations is expressed by expressions such as "is bigger than", "is related to"; the fact that it is some sort of a complex relator (with respect ti its expression) is often documented by it being a synonymic "analytical" expression of a meaning which can also be expressed by a VF of the type (1). Cf. "to be greater than" - "to surpass", etc.

The presented syntactically relevant typology of Czech verbs is thus based on "horizontal relations" between verbal realization of basal meanings (by means of basal verb) and sentential realization and expression of the same basal meaning. It allows for empirical elucidation of the essence of the hierarchy of generalness of basal meanings.

In the discussion of the given model (see 2.1) and explanation of the function of formal properties within the system of static relations of the semantic basis (see 2.2) we pointed out that the system of basal meanings is defined, among other

things, as a hierarchy of generalness, whereas each character of this hierarchy was illustrated merely by examples. We understand the individual "vertical" sequences of basal relational meanings as meanings derived from the single most general meaning, and whose hierarchical structure can be depicted in the form of a tree diagram. With respect to the empirical character of Chapter 4 which contains descriptions of minimal sentence meanings in Czech, whereas the material used consists mostly from sentence-forming properties of the most frequent Czech verbs, we shall not attempt to formulate a deductive theory of the said hierarchy. If we however should apply a fully developed and formally defined apparatus to Czech, it would become clear that theoretical places of the hierarchy of generalness of basal meanings are often left vacant, precisely depending on the conditions governed by the aforementioned relation between verbal realization and sentential realization and expression of basal meanings. From the perspective of sentential realization, the scale of generalness is dictated by the scale of generalness of verbal realization of the given basal meanings, that is to say, by the scale of generalness of basal verbs. Traditionally put, it is dictated by the semantic properties of the set of Czech verbs. This is a consequence of the basic constitutive function which verb has in Czech sentences. This holds fully for dynamic, action-related meanings, and only partly for static ones. In the sense of (2b), the hierarchy of generalness is dictated by the hierarchy of relators expressed as {VF Compl}, that us to say, by a certain paradigm of lexical units in the functional position of Compl. Finally, with the type (2a), the hierarchy of sentential realization is dictated by the paradigm of generalness of lexical units in positions of participants of the given relations. This means that with VF of the type (2) the contradiction between the grammatical function (which is the same as with VF of the type (1) - VF constitutes the structure of sentential expression) and the semantic function (the generalness or specificity of the static relation is "due" to semantics of complements of the relator and semantics of the units in the participant positions). It however holds even for statistic relations that from the empirical perspective, completeness or incompleteness of occupation of places in a theoretically postulated hierarchy of generalness is subject to semantic properties of the Czech lexical system, however not in the manner it is traditionally understood but rather in the sense of lexical

realization of basal meanings. It is thus a hierarchy of generalness of basal words. Consequently, certain meanings create a very complete hierarchy of generalness (cf. e. g. the relation of kinship, 4.2.2), while others only exist solely as either very general or very specifically realized basal meanings. The theoretically postulated system of basal meanings can therefore be schematically presented as follows:

Dotted lines mark the individual levels of generalness postulated in the sense of the semantic basis, edges mark the relations between basal meanings, nodes mark the individual abstractly postulated meanings. Based on the abstract system of basal verbs and other basal relators, only certain nodes are actually realized and expressed in sentences.

Theoretical relations between verbal realization and sentential realization and expression justify the material-based method of our research which aimed primarily at the GSP-constitutive properties of the most frequent Czech verbs marked by a broad scale of basal meanings expressed.

From the perspective of the theory of expression, it is important to also evaluate the constitutive properties of the so-called morphological categories of VF. In reference to 2.3 we merely remark that the category of person is not GSP-constitutive since it is pragmatically bound within the text component, the category of number is with regard to GSP syntactically free. Only rarely, cf. VF 3sg Sgen ("Ubývá vody") ("Water is running out") are expression formants of these categories bound by the pattern, i.e. they constitute it, the bond however affects the form (expression) rather than meaning. Due to their semantic properties, the categories of person and number are bound within the text component. The category of time is a functional value of a pragmatic nature, irrelevant from the standpoint of the GSP theory. The same holds for the so-called grammatical mood of verbs, which is likewise relevant within the text component.

A serious problem from the perspective of the semantic component is posed by the aspect and gender in verbs.

Let us first focus on questions related to the problem of gender. With respect to the selected type of grammar we tend to opt for those concepts which explain the relation between active and passive verbs in the sense of the so-called diathesis (or voice), cf. Grepl's concept in Teoretické základy (1975), that is to

say, de-agenting of active constructions. We believe that de-agenting[NOTE11] is essentially related to the structures of sentential realization and is tied to the act of sentential hierarchization of basal relations, i.e. definition of the sentential foundation of the basal relation in question, cf. 2.1.[NOTE12]Dotted lines mark the individual levels of generalness postulated in the sense of the semantic basis, edges mark the relations between basal meanings, nodes mark the individual abstractly postulated meanings. Based on the abstract system of basal verbs and other basal relators, only certain nodes are actually realized and expressed in sentences.

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related to the structures of sentential realization and is tied to the act of sentential hierarchization of basal relations, i.e. definition of the sentential foundation of the basal relation in question, cf. 2.1.[NOTE12]

For the theory of static meanings however, it is essential to distinguish between de-agenting as an operation on a sententially realized basal formula, whereas the same basal meaning is preserved, and, consequently, so is its event character, from the basal relation of qualification by result of an action ("Kabát je ušitý") ("The coat is finished"), which is usually explained as an operation of resultivization applied to the result of the operation of de-agenting, cf. Teoretické základy (1975). There is usually a difference in grammatical aspect (prefixed perfective aspect verb in relation of qualification by result of action, primary imperfective aspect verb in a de-agented action relation) Cf. "Kabát je šit krejčím" – "Kabát je ušitý" ("The coat is being finished by the tailor" - "The coat is finished"). This does not however hold without exceptions, at least if we, like Teoretické základy (1975) consider sentences such as "Žák je pochválen" ("The student is praised") to be de-agentively realized events rather than qualifications by resulting action, unlike "Žák je chválen" (The student is being praised"). We however believe that this does not rule out the possibility of seeing the boundary between de-agented action and qualification by result of action precisely in the different expression by means of opposite aspects.

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Even though we found certain open questions in the field of traditional category of verbal gender which is one of the areas of the operation of de-agenting, we can asssert that this category is a prominent GSP-constitutive element, since it establishes the pattern Snom {VF A} S instr.

Another serious problem from the perspective of models such as ours is posed by the traditional category of grammatical aspect, the traditional views of which in and of themselves bring about a number of issues and various solutions. [NOTE13]

From the standpoint of the theory of sentential meanings of our type, the problem of aspect has in its broad outline already been tackled, cf. Komárek, Kořenský (1974), Teoretické základy (1975). In relation to the said solution we consider the question of grammatical aspect with respect to our problem as follows:

Even in the case of aspect, the question of its functional relevance within the system of sententially realized basal meanings and within the system of devices of sentential and lexical expression of these meanings needs to posed. The following rules are to be observed:

a) Aspect has a purely morphological device of expression - affixation; given a broader understanding of grammatical aspect, this also involves affixation in the area of lexical expression (word-forming operation) and suppletive pairs such as "klást - položit" in Czech ("lay (+imperfective aspect) - lay (+perfective aspect)").

b) If the application of one of the said formal operation results in alteration of the basal semantic formula, i.e. if each of these devices is tied to expression of a different sententially realized basal formula, then the semantics of the so--called aspect becomes a prominent part of basal semantics. In this context

it holds that perfective verbs as a rule express solely events. Many secondary imperfective verbs with affixes express events much like the respective perfective verbs with prefixes do, as do many primary imperfective verbs; cf. "vázat – přivázat – přivazovat" ("tie (+imperfective aspect) – tie down (+perfective aspect, +prefix) - tie down (+imperfective aspect, +prefix)" all expressing event formulas. In certain cases, such as with the so-called aspect pairs which are not part of the same lexeme (cf. Teoretické základy (1975)), both cases may involve expression of an event, but the actual semantic formulas may differ (cf. "trhat – roztrhat, blížit se – přiblížit se" ("shred (+imperfective aspect) – shred /to pieces/ (+perfective aspect, + prefix), approach (+imperfective aspect) – approach (+perfective aspect, +prefix)). This becomes even clearer for pairs of verbs based on word-forming prefixation (cf. "psát – vypsat, rozepsat, připsat" ("write (+imperfective aspect) – write out/copy out/list (+perfective aspect, +prefix) - start writing/break down (+perfective aspect, +prefix) – add in writing/inscribe (+perfective aspect, +prefix)). It is therefore evident that semantics represented by the traditional category of grammatical aspect is relevant to the theory of basal meanings, even though a number of open questions remain (cf. the questions of whether members of sets such as the aforementioned "psát – vypsat, rozepsat, připsat" or pairs such as "blížit se – přiblížit se" actually express different basal meanings. Regarding the relation between process and event, it is clear that each perfective verb expresses and event, but not each imperfective verb expresses a process.

The basic question with respect to the aims of Chapter 4. of the present work is the context of the problem of grammatical aspect regarding the relation between static basal meanings and actions. To sum up, we could say that in expressing static basal meanings such VFs dominate as do not form aspect pairs (cf. "chybět, scházet, postrádat, pohřešovat, patřit, náležet, příslušet, vyznačovat se, znamenat, vejítse, smět, muset, mít, chystat, potřebovat, vadit, nechat, záležet" (roughly: "be absent, lack, miss/want, miss, belong to, belong/pertain to, belong/pertain to/rank among, be distinguished by, mean, fit in, may/be allowed to, must, have, prepare, need, bother, let/leave/allow, matter"). In expressing the relator

of static formulas, a number of lexical verbal vocabulary entries use only one of their meanings, whereas this functional narrowing affects precisely members of aspect pairs; the static relation is expressed solely by the imperfective verb of the given lexeme. Cf. "označovat – označovat, označit; předcházet – předcházet, předejít" ("signify (relation of sign and symptom) – mark (+imperfective aspect) - mark (+perfective aspect) (event); precede (relation of sequence) - overtake (+imperfective aspect), overtake (+perfective aspect) (event)"). Certain groups of verbs which express relators of static relations formally represent an aspect pair, whereas one of the members expresses one static meaning and the other member a different static meaning, or a meaning broader than the static one. Cf. "obsahovat – obsáhnout" ("contain (+imperfective aspect, local relation) - span/cover (+perfective aspect, relation of extent, but possibly also even-based relation) Certain verbs do form formal pairs, but this fact has no bearing on the sentence semantics of the relators they express, cf. "převýšit – převyšovat, vyniknout – vynikat" ("exceed/surpass (+perfective aspect) – exceed/surpass (+imperfective aspect), stand out (+perfective aspect) – (+imperfective aspect)"). The verbs "vyniknout – vynikat" ("stand out") can nevertheless, when applied to living creatures, assume the character of an event. The verbs "připadnout – připadat" ("seem/appear (+perfective aspect) – seem/appear (+imperfective aspect)" can apart from a static relation both often express an event relation as well cf. "přijít – přicházet" ("come (+perfective aspect) – come (+imperfective aspect)"). Likewise, members of an aspect pair often differentiate a static relation from an event, which is particularly true for perfectivization of the so-called positional verbs, cf. "sedět – vysedět" ("sit (+imperfective aspect) – sit on/hatch (incubate an egg)" (+perfective aspect, +prefix), but also other verbs, cf. "vlastnit – vyvlastnit" ("own/possess (+imperfective aspect) – expropriate (+perfective aspect, +prefix) and others.

This can be summed up by saying that the so-called grammatical aspect of verbs does play a certain role in differentiation of static basal meanings with a--dynamical, action-related meanings and that it has relevance, as characterized above, for the system of basal meanings as well as for the devices of sentential

expression, because aspect-based formal differences can express differences between various static relations (rarely) as well as between static relations and actions (much more often).[NOTE14]

c) From the perspective of the general theory of the given model it is necessary to also ask the question of how do aspect pairs of a single lexeme manifest in the sense of onomasiologival structures, i.e. in the structure of verbal lexical realization of basal meanings. In a way of a completely general comment, we believe that given our standpoint it is necessary to consider aspect pairs expressing the same onomasiological structure to be a part of the same lexeme, while aspect pairs expressing different onomasiological structures are to be seen as different lexemes (affixes in this case express a specific lexically relevant meaning) regardless of whether the pair in question is a so-called plain aspect pair, a word-forming pair (a non-proper aspect pair) or even a suppletive pair.[NOTE15]

Looking back at the basic parts of speech, it is necessary to go on to investigate adjectives and adverbs in terms of GSP-constitutiveness.

We see these parts of speech, and especially their mutual relation, the way they are understood in Komárek, Kořenský (1974) and in Teoretické základy (1975), with certain differences related mainly to the concept of relationality of adjectives, which are nevertheless grammatically irrelevant. The primary and secondary functions of adjectives apply in a more prominent rate mainly in the structure of syntagmatic realization of basal meanings, which is why we shall focus solely on such constructive functions of adjectives and their categories as are relevant with respect to constitution of GSP, expressing static basal meanings. As for the As Function, the properties of this type of adjectives are identical to the properties of substantives, since a "syntactical substantive" is involved. Adjectives of the functional type Ac ("Benedict is foolish") form an important constituent of expression of qualifying relations. As for functional properties of their categories, gender and number are given by the so-called agreement, the case form (nominative) is bound by the pattern being a constitutive element. The remaining

functions of adjectives, especially the Aa function ("black bird") and Ac ("sings beautifully") are only rarely bound by specific types of patterns, mostly action-related ones, whereas in case of Aa this actually involves a constitutive presence of syntagmatic realization of a basal meaning, bound by the pattern, that is to say, a minimal complex formula (cf. this term on p. 60). Similarly, the functions Va ("a working man", "the will to work") or Ca ("a place above") can have constitutive character, too.

Regarding circumstantives (adverbs), it is evident with respect to the theory of expression of static relations in Czech sentences that the Cs function represents an "adverbial expression" of participants of static relations, especially equivalent ones ("Doma není v cizině" ("Home is not the same as abroad")), the function Cv plays a role as a qualifier of qualifying relation ("Benedict je k ničemu" ("Benedict is no good")). It is therefore evident, than even a circumstantive can be a constituent of GSPs expressing static meanings.

> Special properties are manifested by comparison as a categorical property of qualitative adjectives and those expressions of the C class the content of which has quantifiable validity. This involves purely basal semantic qualities with morphological means of expression (or lexical means of expression). The so-called positive is a basic type of qualifying meaning; comparative and superlative can be written down as complex formulas formed by two basic qualifying formulas, whereas the relation between them is of the type 'to have a greater degree of the same property'; in case of comparative there is no precondition of the two elements belonging to the same set of elements, it is however not ruled out, either. The so-called superlative has the meaning of 'to have a greater degree of the same property' than one of the elements of the same class of elements, whereas in this case there is a precondition of belonging to the same class of elements. The respective formal devices of morphological and lexical nature are thus means of expressing static relations of arrangement, cf. in 4.2.

In our description of means of expression of sententially realized static basal meanings we shall restrict ourselves to GSPs based on the basic parts of speech.

Regarding pronominal parts of speech, cf. Teoretické základy (1975), these play a functional role mostly in the realm of the pragmatic and text components. We shall not provide a thorough examination of the constitutive properties of numerals, either, cf. ibid. An exception is formed by such cases wherein quantifying or pronominalization are bound by GSP, being a necessary device of expressing the given basal meaning: we shall tackle such cases as necessary. Otherwise, the mentioned parts of speech form from the perspective of GSP devices of variational nature, which are installed in places defined by the basic parts of speech according to the respective rules of variation. (Cf. Daneš (1963) and other works.)

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he general theory of expression requires us to tackle the so-called syntactical relations which are in certain form, along with part-of-speech symbols, a constituent element of GSP. The essence of these relations can be inferred from the tables of parts of speech and their basic character is signalled by the arrangement of symbols in GSP. For the theory of syntactical relations with respect to their semantic and grammatical functions see Komárek, Kořenský (1974).

From a purely theoretical standpoint, the problem of syntactical relations belongs to open questions mainly because the literature dedicated to the problem attempted to solve syntactical relations within the framework of syntax based on traditionally conceived sentence elements which are characterized by heterogeneity of the applied criteria. The relations between sentence elements which are defined according to varying degrees of semantic and grammatical criteria were consequently defined similarly even in the most progressive works (Hausenblas (1958)). The questions of syntactical relations seen from a more broadly conceived perspective with regard to the issues and historical development was investigated by Sovová (1970), whereas she managed to demonstrate that it is possible to methodologically separate the issues of grammar from those related to semantics.

From our standpoint this means to pose the question of relevance of functional elements of the individual types of syntactical relations in sententially realized basal formulas and structures of sentential expression. Within the given model this involves intention (the relation between relators and participants in a realized basal formula) and valency (the relation between VF and symbols of GSP), cf. discussion of relations between verbal and sentential realization of basal formulas. We discussed the concept of semantic relations within the framework of basal relations in the respective section cf. in 2.2, what remains is to ask the question of what the degree is to which dialectical relations between elements and relations transform within the framework of basal sentential realizations, i.e. by one of the elements of a relation acquiring the character of a hierarchical peak (sentential foundation). It is evident that this functional feature applies in layers to the actual semantics of the given element of a basal relation, but does not interfere with the essence of the relationship between members of the said relation. All other relational properties are then tied to expression of sententially realized basal relation, that is to say, to GSP. It was already said that we understand GSP from the sign perspective, that is to say as a complex structure having a grammatical-meaning and expressive nature. With respect to grammatical meaning, GSP-constitutive elements (part-of-speech symbols) have, depending on the meaning expressed, the relation of mutual interdependence, whereas the term valency can only be applied here in the sense of it encapsulating the capability of

VF as an expressed relator to form formulas based on the basal meaning of the array of GSP-constitutive relations, but also the capability of nominal and circumstantial part-of-speech symbols to participate in these relations. The relation of interdependence is to be understood as a form of mutual dialectical dependence of the members of a relation. Left-valency, defined above with respect to its form, can with certain reservations be essentially defined as an expression of the sentential foundation. These basic features of grammatical-meaning relations serve as a foundation for layering of others which form a transition towards the respective relations within the expression structure of GSP. As for left-valency, it involves expressionally manifested agreement between left-valency substantives, that is to say, any Xs (where X = basic part of speech) and VF in categories which are not GSP-constitutive, but are nevertheless in the sense of expression a further signal of left-valency. When it comes to the array of right-valency relations, we should consider cases to be an open question with respect to grammatical meaning, it is nevertheless beyond argument that even in case the constitutive function of case as morphological meaning is irrefutably proved, the term right--valency should not be restricted to certain (so-called object) case meanings, but rather apply to all respective GSP-constitutive part-of-speech symbols of right--valency (as opposed to left-valency), hence also to non-substantive members of the array of valency. Valency is therefore defined by GSP-constitutiveness based on the notion of minimal completeness of sentence. It is also beyond argument that in the sense of expression, it is necessary to speak of determinacy within the structure of right-valency as a property of VF. On the contrary, left-valency, even from the perspective of expression, has the character of interdependence in the sense of formal harmony of the means of expression of grammatical number, gender and person, that is to say, the categorical devices functionally relevant within the pragmatic and text components.

Discussion of syntactical relations constituting the core of sentential structure of the Czech language in the sense of sentential realization and sentential expression of basal meanings can be concluded by saying that it involves three levels of relations, two of which belong under meaning and one under expression. These are relations of interdependence within the framework of the realized basal relation, relations of interdependence within GSP seen as a complex structure of morphological-syntactical meanings, and relations of interdependence and determinacy within GSP as a structure of expression.

To conclude the chapter, it is necessary to pay attention to the notion of minimal completeness of sentence.

Theories of minimal completeness have been part of linguistics since time immemorial. Classical linguistics, wherein the theory of sentence was based on subject-predicate structuring[NOTE16] based minimal sentence on the construction Snom VF, regardless of valency and intention related properties of the verb. It was nevertheless clear that: (1) There exist such sentences which are not based on such subject-predicate structure, but rather on e.g. mere VF, cf. "Svítá" ("The dawn is breaking"). (2) There exist such subject-predicate constructions which in terms of meaning lack further complementation, such as incomplete sentences, cf. "Král spočívá", "Benedikt má" ("The King is reclining", "Benedict has"). This led to theories of expanded predicate (most frequently involving the so-called object complements), but also, and more importantly for further development, to the theories of verbal intention and valency, cf. Tesnière (1934, 1953, 1959), Pauliny (1943), even though these were originally strongly dependent on the object theories of expanded predicate. Further development however (for an overview cf. Daneš, Hlavsa, Kořenský (1973a)) showed that there exist such syntactical constructions based on VF which, if they are to be considered sentences if the given language, need to have a minimal structure which can generally be written down as Snom VF Compl, whereas Compl is not even remotely expressed solely by such elements as the traditional theory sees as having the character of object being under rection (governance) of the verb.

In our understanding, minimal complete sentence structure is identical with GSP consisting of constitutive part-of-speech symbols with a relevant, i.e. GSP--constitutive morphological information. We therefore see GSP as a syntactical and morphological construction which as a means of expressing of sententially realized basal meaning is a minimal complete Czech sentence, the fact which is manifested in that the potential elimination of any of the symbols results in the remaining construction losing the character of a Czech sentence. The elimination

criteria, cf. Daneš, Hlavsa, Kořenský (1973b), can reliably be applied o obligatory members of the pattern, whereas with potential members, i.e. those that are often absent from actual texts, these criteria mostly fail. There exist other methods of objectivization , e.g. the question method, cf. Daneš (1971a) and Panevová (1974, 1975, 1980); generally speaking however it holds that the criterion for minimal completeness of sentence is the language awareness of a native speaker.

The present work calls for giving attention to minimal sentence completeness not only because it is a substantial element of the relations determining the GSP system, but also because our description will tackle only those realized basal (basic and complex) static relations which are expressed as complete minimal sentences. Let us draw on the following examples:

(1) *"Slepý král spočíval na lůžku s brokátovými přikrývkami."* (*"The blind king was reclining on a bed with brocade blankets."*)

(2) *"Slepý král ležel na lůžku s brokátovými přikrývkami."* (*"The blind king was lying on a bed with brocade blankets."*)

Regardless of the notion of minimal sentence completeness it would seem possible to expect that these involve expression of the same sententialy, syntagmatically and lexically realized basal formula. If we however apply the elimination rule with respect to minimal sentence completeness, we end up with:

(1') *"Král spočíval na lůžku."* (*"The king was reclining on a bed."*)

(2') *"Král ležel."* (*"The king was lying (down)"*).

(1') and (2') are in this form minimally complete, which leads us to conclude that they are not derived from the same basal relation; in (1') the verb "spočívat" ("to recline") requires obligatory complementation, which suggests a local relation, whereas (2') is minimally complete without a complement, which suggests

in this case a sententially realized and expressed basal meaning of position. For solution of the problems following from the above cf. p. 91.

Chapter 4 will thus deal with sentences of the type (1') and (2') as sententially realized basal relations with the possibility of minimally complete sentential expression, but not (1) and (2) which represent complex basal relations, sententially and syntagmatically realized and expressed, whereas the elements of the complex have a possibility of independent minimally complete sentential expression, cf. "Lůžko je pokryto přikrývkami, Přikrývky jsou brokátové". ("The bed is covered with blankets, The blankets are made of brocade"). In the further discussion we shall in case of (1') and (2') speak of minimal formulas (which can essentially be basic or complex), and in case of (1) and (2) of non-minimal complex formulas. This can also be illustrated on the sentences:

(3) *"Benedikt má klíče ve dveřích."* (*"Benedict has got his keys in the door."*)
$$(xPy) + (yLz)[NOTE17]$$
$$(xPy) + (yLz)$$

(4) *"Benediktovy klíče jsou ve dveřích."* (*"Benedict's keys are in the door."*)
$$(xPy) + (yLz)$$

This involves a double sentential realization of the same complex basal static relation; the question is whether the relation in question is minimal or non-minimal. The criterion here will be whether the two elements of the complex are relations with independent minimally complete sentential expression, or else whether at leasy one of the elements lacks the said property. It is naturally not important whether the complex is based on a conjunction of formulas or on the "value acquisition" principle. Given how the relation of possession ("Benedict has keys") as well as the local relation ("The keys are in the door") have independent minimally complete sentential expressions, the formula involved is a complex non-minimal formula, whereas we shall in our further discussion consider only the respective minimal formulas. These minimal formulas are precisely what we would arrive at by applying the (3) and (4) reductions.

The note on the minimal sentence completeness can be with respect to our goals concluded in the following manner:

1. It is an open problem the solution of which, despite all efforts to objectivize the criteria, is still dominated by the criterion of language awareness of native speakers.

2. Minimal sentence completeness is in our case represented by the GSP structure, it is however given by the functional cooperation between sententially realized basal meaning and the GSP structure under conditions of determination-based relation between verbal realization and sentential realization and expression of basal meanings.

3. The principle of minimal sentence completeness is the criterion of choice of all those static relations of the semantic basis which will be tackled by analyses and descriptions of Chapter 4. We shall deal solely with minimal basal meanings and their expression.

The discussion contained in this chapter needs to be summed up in the following manner:

Structures of sentential expression as structures of morphological-syntactical expression of sententially realized basal static meanings are identical with the GSP system. Grammatical sentence patterns as minimally complete sentential expression structures of Czech will be written down as sequences of part-of-speech symbols with GSP-constitutive function. Indices of theses symbols represent the GSP-constitutive categorical information. GSPs are written down solely as sequences of basic parts of speech in their primary and secondary GSP-constitutive functions. The grammatical (in terms of both content and expression) element of the respective syntactical relations with respect to GSP-constitutiveness is represented by the terms left- and right-valency and signalled by arrangement of the symbols.

In the theory of sentential expression, we do not make use of the notion of elements of sentence. The grammatical side of the traditional elements of sentence, provided it is relevant for sentential expression of basal relations, is fully represented by the GSP structure. The semantic element of elements of sentence along with the semantic side of their mutual relations is represented in our model by semantics of participants and relators of basal relations written down as sententially realized basal formulas. It would be possible in this context to speak of "semantic elements of sentence", what we have in mind however, as will after all become clear later, is an open set of semantic entities which has functional properties different than those of semantics of the traditional elements of sentence. As for semantics and grammar of sentential structures, we strive, unlike the traditional theories of elements of sentence, to achieve a sufficiently functional differentiation of semantic and grammatical elements while at the same time bearing in mind their functional cooperation.

3.2 THE DIALECTIC OF RELATIONS BETWEEN BASAL SEMANTICS AND GRAMMAR (AS A THEORY OF EXPRESSION)

In 3.1 we discussed the devices of sentential expression of basal meanings in the sense of the classic stratification theory which counts on ascription correspondence relations between sentential (in our case, sententially realized) basal semantics and grammatical (part-of-speech related, morphological) devices. In 2.2.1 and 2.3 there were already opportunities to demonstrate that functional properties of grammatical categories and certain parts of speech (pronouns, prepositions) are such that they complicate the traditional stratification-based notion of the plane of morphological meanings, as it is evident that it is "immanent" in this manner only for reasons related to expression but not functional content. This functional "range" of grammatical categories was solved by making the notion of syntactical bond more complex; we found out there were open questions related to the tentative sign or non-sign nature of GSP; all of these problems suggest that it is not only in the models of the content → expression (semantics → grammar → expression) on general and in the grammar constructed from the semantic basis in particular but rather with regard to the needs of contemporary linguistics as such that the following question needs to be asked:

Is the stratification-based notion which presupposes relatively simple relations of correspondence between (generally speaking) content and expression and thus between semantics and grammar, fully adequate with respect to properties of natural languages, in particular Slavic languages, but also several others?

We shall tackle this problem in a more general manner in 3.2 and 3.3. Let us start from certain notions of the language sign.

The fact that Marxist-leaning literature commonly makes use of the term language sign does not mean that there is a single notion behind the term. [NOTE18] We favour the ontological-gnoseological understanding of sign as a relation between the formal (acoustic, graphic) component and the corresponding phenomenon[NOTE19] (a thing, a fact). This relation is mediated by a complex of language meanings. The relation between a phenomenon (a thing, a fact) and language meanings is then a relation of motivation, causality, with varying

degrees of closeness of these ties in lexical meanings and global sentential meanings on one hand and grammatical meanings on the other hand. The relation between the form of a sign, which is essentially arbitrary, and its meaning, is a relation of dialectical causality.

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Theoretical relations between verbal realization and sentential realization and expression justify the material-based method of our research which aimed primarily at the GSP-constitutive properties of the most frequent Czech verbs marked by a broad scale of basal meanings expressed.

From the perspective of the theory of expression, it is important to also evaluate the constitutive properties of the so-called morphological categories of VF. In reference to 2.3 we merely remark that the category of person is not GSP-constitutive since it is pragmatically bound within the text component, the category of number is with regard to GSP syntactically free. Only rarely, cf. VF 3sg Sgen ("Ubývá vody") ("Water is running out") are expression formants of these categories bound by the pattern, i.e. they constitute it, the bond however affects the form (expression) rather than meaning. Due to their semantic properties, the categories of person and number are bound within the text component. The category of time is a functional value of a pragmatic nature, irrelevant from the standpoint of the GSP theory. The same holds for the so-called grammatical mood of verbs, which is likewise relevant within the text component.

A serious problem from the perspective of the semantic component is posed by the aspect and gender in verbs.

Let us first focus on questions related to the problem of gender. With respect to the selected type of grammar we tend to opt for those concepts which explain the relation between active and passive verbs in the sense of the so-called diathesis (or voice), cf. Grepl's concept in Teoretické základy (1975), that is to say, de-agenting of active constructions. We believe that de-agenting[NOTE11] is essentially

related to the structures of sentential realization and is tied to the act of sentential hierarchization of basal relations, i.e. definition of the sentential foundation of the basal relation in question, cf. 2.1.[NOTE12]

For the theory of static meanings however, it is essential to distinguish between de-agenting as an operation on a sententially realized basal formula, whereas the same basal meaning is preserved, and, consequently, so is its event character, from the basal relation of qualification by result of an action ("Kabát je ušitý") ("The coat is finished"), which is usually explained as an operation of resultivization applied to the result of the operation of de-agenting, cf. Teoretické základy (1975). There is usually a difference in grammatical aspect (prefixed perfective aspect verb in relation of qualification by result of action, primary imperfective aspect verb in a de-agented action relation) Cf. "Kabát je šit krejčím" – "Kabát je ušitý" ("The coat is being finished by the tailor" - "The coat is finished"). This does not however hold without exceptions, at least if we, like Teoretické základy (1975) consider sentences such as "Žák je pochválen" ("The student is praised") to be de-agentively realized events rather than qualifications by resulting action, unlike "Žák je chválen" (The student is being praised"). We however believe that this does not rule out the possibility of seeing the boundary between de-agented action and qualification by result of action precisely in the different expression by means of opposite aspects.

The need of handling the questions of dynamics of the relation between content and form of signs has a serious linguistic context: linguistics of the period of "classical European structuralisms" actually only worked outside of the framework of phonology with two types of language meanings – namely with lexical and grammatical (morphological, syntactical) meanings. The essence of the relations between these types of meanings was given only cursory attention at best: they were most often referred to as relations of abstraction, generalization, but the historical, developmental mechanism behind these relations was not elaborated on. The linguistic theories of the period of generative and transformational grammars with their evident dependence on the physicalist inspirations could not objectively bring about new solutions. The theories of the "second phase" of the said period focused on reaction to the formal orientation of the "first phase" to deepen

the theory of language meanings, precisely in order to deepen the theories of meanings more complex than lexical meanings, i.e. meanings of sentences and text units. On the contrary, there was basically no deepening of the knowledge from the preceding periods of linguistics regarding grammatical meanings. Based on the needs of formalization and graphical description of language phenomena, description of relations between form and content remained on the level of very simple, usually gradually mediated relations of correspondence. The question of relations other than these (including the question of ration between the principles of historical development of relations between form and content and present functions of signs) essentially remains unasked.

Due to the high degree of generalness of the terms form and content and with respect to the dialectic of form and content we consider it necessary to note that we shall understand form[NOTE20] in the sense of the notion of external form 1, i.e. as acoustic and graphic means of expression, while the content side of sign relations is represented by functional complexes of grammatical, lexical, word-forming, sentential and text meanings in direct or mediated reference to the phenomena of the world. It is precisely with these more complex sign relations wherein grammatical meanings have their place along with lexical, sentential and word-forming meanings, that it is possible to speak of form 2 as organization of means of expression in their union with very general (grammatical) meanings; after all, it would be possible to use the term form 3 in connection to structuring of sub-systems of the individual types of language meanings.

In Marxist dialectic, very generally formulated laws and categories (in our context, mainly categories of form and content and the law of unity and contradiction of opposites and the law of the negation of the negation) have complex genesis, and not only in terms of their development within Marx's work (cf. e. g. Zelený (1968)). Doubtlessly, these very generally postulated dialectical devices are in terms of their form and content modified and specified within the framework of investigation of various phenomena of reality. This is the sense in which our attempt at employing them in linguistic analysis is to be understood as well.

The relations between units of form and content of signs in general are, especially in the broader context of historical development of language, a dynamic

factor. This fact is naturally manifested in the actual process of functioning of language, to various degree with the individual types of signs and individual elements of the sign relation and its general structure. From this standpoint what matters is mostly that the relation between form 1 (graphic, acoustic) and language meaning[NOTE21] is a relatively stable relation, especially when it comes to very general meanings such as grammatical meanings, and it thus represents the stable element within the functional and developmental mechanism of sign relations. On the contrary, the relation between form and the mediating element of the meaning of sign on one hand to the phenomena of reality (objects) on the other hand is incomparably more dynamic, it represents the variable element in its extreme form. This dynamic relation then, as was already mentioned, determines changes of content in the individual language meanings, especially in lexical meanings and meanings of sentences and their components, and, seen from a broader developmental perspective, also in grammatical meanings. These processes naturally cannot be completely random.[NOTE22]

Before we proceed with our discussion, we need to formulate a characteristic of sign from the additional standpoint of unity and contradiction of opposites. Sign itself is at the same time a unity as well as a contradiction of opposing elements which constitute it. Both components of sign act upon each other, presuppose each other, are in their unity a potential contradiction: all of this holds for the type of sign which we shall refer to as "one-single-meaning", i.e. a sign wherein there is a relation of content and the "corresponding" form within such sign framework in which it holds that each form expresses only one single content, and vice versa. Linguistically put, such system contains only symmetrical signs.

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In order for us to be able to explain these facts more closely, let us start from a simple system of sign relations formed by four symmetrical, one-single-meaning signs, namely: substance, property, action and circumstance. The respective content qualities S, P, A, C thus have corresponding unambiguous and linguistically symmetrical formal devices s, p, a, c. We shall write down these respective symmetrical signs as Ss, Pp, Aa, Cc. Let us further assume that within the said sign system there are simple syntagmatic relations between signs of the type (Ss; Pp), (Ss; Aa), (Ss; Cc), ... These pairs are ordered in the sense that e.g. the syntagmas (Ss; Pp) and (Pp; Ss) are not mutually identical. A syntagma is thus formed by two functional places f1; f2, whereas these functional places are not identical, their order matters. Syntagmas of natural language can be viewed against the background of these relations: thus e.g. the syntagma (Ss, Aa) corresponds to syntagmas formed by a substantive in the function of subject and a finite verb in the function of predicate, while the syntagma (Aa; Ss) corresponds to the syntagmas formed by finite verb in the function of predicate and substantive in the function of object. This terminological system then requires addition of a certain factor to increase its dynamics, represented by a rule which leads to breaking of the unambiguous character of correspondence between content and form of signs. The results of application of such rule is sign asymmetry. E.g. should we apply the rule p → s ('change p to s') to position 2 of the pair Ss; Pp, this will result in the pair Ss; Ps wherein the P element is characterized by a contradiction between content and form (applied to natural language this means that a property is expressed as

a substantive). The result of this is asymmetry within the system, since the same sign system has s as an expression of substance.

This rule, the way it is formulated and usually understood, is a rule of substitution of form to a given functional position (which remains semantically unchanged by the said substitution). The way this is understood in practice is that the function f2 was given by the semantics of P, it functionally remains the same and is merely expressed in a different form. As a rule, it is generally true when it comes to sentence semantics of natural language that any similar sort of interfering with the unity of form and content of signs tends to have complex consequences. This is normally due to the fact that the application of any such rule of formal substitution manifests itself as sign transposition (along with the transposed form, the semantics of the symmetrical, unambiguous sign is transposed as well) while the original semantics of the functional place at the same time remains intact. What ceases to exist (usually, and in various ways) for the given functional position is thus solely the original form. The result is an asymmetrical sign characterized at the same time by unity and contradiction between form and content within a single functional position.[NOTE23] It could be said that the functional position is thus defined by this simultaneous unity and contradiction of form and content. If we go back to the listed example of the Ss; Pp pair which was transformed by application of the p → s rule to the functional position f2 to Ss; Ps, this results after application to natural language in Ss; (P,S)s, hence the functional position f2 is then defined by the semantics of S and the semantics of P in relation to the form s. The relation between S and P cannot be understood as logical conjunction, it is closer to a functional co-existence, which however does not appear to actually exist in natural language and is merely a theoretical state which is superseded in the next step of development by the emergence of a qualitatively different unity of form and content. The structural processes by which language achieves qualitatively new states of unity of form and content are exceedingly varied, and their formal description in particular poses a significant problem.

This continuous breaking and re-establishment of unity of form and content is a basic and very general principal of development and functioning of natural language. The process of breaking and re-establishment of unity of form and

content within the framework of the individual functional positions is realized in relation to the law of negation, the law of unity and contradiction of opposites, the law of dialectic relation between structure and function etc. We believe that in this manner it is possible to interpret semantic and functional properties of syntactical categories of elements of sentence and morphological categories, e.g. secondary parts of speech (cf. the structure of verb categories). Their 'emergence', semantics and functions can be explained by their mediating role in the relations of basic content units and basic units of the expressive structure of sentence. Within the process of these relations it would appear to be possible to uncover even more complex structures of sentence and word-formation semantics. Due to the complexity and abstract nature of these relations, allow us to list a few illustrative examples.

Interpretation of predicative nominal: Let us start from the syntagma Ss; Pp (e.g. "Benjamin is foolish"); the p → s rule results in a transposition of the Ss sign in the functional position f2 which is in the original construction given by the sign Pp. The categorical contradiction between the two forms of expression is solved by abolishment of the form and by emergence of the asymmetrical sign (P,S)s which is characterized by simultaneous unity and contradiction between its form and content. In the sense of the negation of the negation, the onomasiological category of carrier of property emerges; this category differs qualitatively from the previous structure (P, S) in that the P, S pair is more than a pure coexistence (i.e. an unordered pair) but rather an ordered pair S; P, that is to say, 'substance having property'. This is then the interpretation of the construction "Benjamin is a fool". This also supplies the precondition for formulation of the qualifying relation as a sentential meaning (qualifying predicative syntagma). It is a semantic relation involving the constructions "Benjamin is foolish" and "Benjamin is a fool", characterized, when it comes to the functional position f2, by contradiction between form (p – s) and semantics (P – S; P); but also by unity of function based on semantic isomorphism of the two structures. The issue thus involves the relation between function and structure, which we shall nevertheless leave aside, even though it would be possible to use this fact to explain the circumstances of use of construction in texts.

Interpretation of adverbial: Let us start from the syntagma Aa; Cc. As a result of the c → s rule, there is a transposition of the S sign into the position f2, which in the original construction had the sign Cc. This categorical contradiction is solved in a fairly complicated manner which can be roughly interpreted as follows: 1. the original c is abolished, resulting in asymmetrical sign (C,s)s characterized by simultaneous unity and contradiction of form and content, 2. the contradiction is solved most likely based on the principle of the negation of the negation, since in the process of petrification of the morphological form it becomes secondary c but retains a substantive morphological form different from that of the original c; likewise, the element S is negated in this manner - from the functional standpoint, only the semantics of C remains, but from the standpoint of parts of speech this is a substantive circumstance (this is evident mostly in prepositional constructions such as "přišel kvečeru" ("he came towards evening", realized in Czech as a single word 'k+večeru' = 'towards+evening' construction). Existence of the secondary de-substantive transpositional adverb secures functional unity of the sentential semantic relation of circumstantial specification. This interpretation of the well-known fact that circumstantial specification of verbs is expressed by adverbs, adverbial cases of substantives and transpositional de-substantive adverbs answers the question "why is it this way" rather than just "what does it look like from the perspective of diachronic description".

Dotted lines mark the individual levels of generalness postulated in the sense of the semantic basis, edges mark the relations between basal meanings, nodes mark the individual abstractly postulated meanings. Based on the abstract system of basal verbs and other basal relators, only certain nodes are actually realized and expressed in sentences.

Theoretical relations between verbal realization and sentential realization and expression justify the material-based method of our research which aimed primarily at the GSP-constitutive properties of the most frequent Czech verbs marked by a broad scale of basal meanings expressed.

From the perspective of the theory of expression, it is important to also evaluate the constitutive properties of the so-called morphological categories of VF. In reference to 2.3 we merely remark that the category of person is not GSP-constitutive since it is pragmatically bound within the text component, the category of number is with regard to GSP syntactically free. Only rarely, cf. VF 3sg Sgen ("Ubývá vody") ("Water is running out") are expression formants of these categories bound by the pattern, i.e. they constitute it, the bond however affects the form (expression) rather than meaning. Due to their semantic properties, the categories of person and number are bound within the text component. The category of time is a functional value of a pragmatic nature, irrelevant from the standpoint of the GSP theory. The same holds for the so-called grammatical mood of verbs, which is likewise relevant within the text component.

A serious problem from the perspective of the semantic component is posed by the aspect and gender in verbs.

Let us first focus on questions related to the problem of gender. With respect to the selected type of grammar we tend to opt for those concepts which explain the relation between active and passive verbs in the sense of the so-called diathesis (or voice), cf. Grepl's concept in Teoretické základy (1975), that is to say, de-agenting of active constructions. We believe that de-agenting[NOTE11] is essentially related to the structures of sentential realization and is tied to the act of sentential hierarchization of basal relations, i.e. definition of the sentential foundation of the basal relation in question, cf. 2.1.[NOTE12]

For the theory of static meanings however, it is essential to distinguish between de-agenting as an operation on a sententially realized basal formula, whereas the same basal meaning is preserved, and, consequently, so is its event character, from the basal relation of qualification by result of an action ("Kabát je ušitý") ("The coat is finished"), which is usually explained as an operation of resultivization applied to the result of the operation of de-agenting, cf. Teoretické základy (1975). There is usually a difference in grammatical aspect (prefixed perfective aspect verb in relation of qualification by result of action, primary imperfective aspect verb in a de-agented action relation) Cf. "Kabát je šit krejčím" – "Kabát je ušitý" ("The coat is being finished by the tailor" - "The coat is finished"). This does not however hold without exceptions, at least if we, like Teoretické základy (1975) consider sentences such as "Žák je pochválen" ("The student is praised") to be de-agentively realized events rather than qualifications by resulting action,

unlike "Žák je chválen" ("The student is being praised"). We however believe that this does not rule out the possibility of seeing the boundary between de-agented action and qualification by result of action precisely in the different expression by means of opposite aspects.

Interpretation of infinitive: Let us start from verbum finitum, i.e. from Aa; based on the formal rule of substitution a → s which results in the transposition of Ss to Aa, a categorical contradiction arises which is solved by abolishment of the original a; this results in the sign (A,S)s - an action-based substantive (we can assume the arrangement S;A, i.e. substance marked by action). This asymmetrical sign characterized by simultaneous unity and contradiction between form and content has a tendency to symmetry and unity; based most likely on the principle of the negation of negation, d arises, different from VF and with the capability of fulfilling functions typical for s. This infinitive can substituted for substantivum verbale (verbal noun) and for action-based substantives. (Cf. "Chůze je zdravá – Chodit je zdravé." ("Walking is good for your health - To walk is good for your health.") This sign unity which is in a certain sense characterized by unity of content and form assumes, in consequence of a different contradiction between structure (which is in turn given by its substantive and action-based quality) and function (which is solely substantive), further specific function different from the functions of VF (to be an 'internal' substantive action-based part of action), namely the function of infinitive in auxiliary verbs. This is a dialectic, developmental explanation of the well-known fact that actions are expressed by VFs, action-based substantives and infinitives, whereas the infinitive has the aforementioned functions of substitution. What might appear as mutually completely different functions of the infinitive in fact re-establish internal unity of the respective sign in a continuous developmental process of the original sign.

Present active participle: Let us start from the syntagma Ss; Aa, characterized by unity within the framework of its two functional components. ("Otec pracuje", "Father is working"). Based on the formal rule of substitution a → p applied to the functional position f2 (which once again results in transposition of the sign Pp to the position f2 the semantics of which is determined by the sign Aa), a contradiction arises between the forms a → p. Let us again assume that the categorical

contradiction between the forms a and p is solved first by 'destruction' of the form d, that is to say by the asymmetrical sign (A,P)p. This partial contradiction between form and content is then solved by emergence of a specific sign with the meaning of action, which is at the same time an adjective in terms of its form, hence the sign properties of participle can be most likely written down as the arrangement (P;A)p. This unit functions e.g. in the pair "pracující otec" ("working father"). If the asymmetrical contradictory sign (P;A)p further develops in accordance with the rule p → s, to the effect that the contradiction between the transposed substantivity and the form 1 is not 'antagonistic' - the substantive element functionally prevails in the content element while the external form remains in the sense of p (i.e. unchanged). The result is a nominal deverbal adjective the categorical content and function of which are substantive, while its form 1 is adjective. This illustrative example makes it clear that the result of transposition can have the character of content substitution with preservation of the original form and content and abolishment of the 'new' form of the substituted sign.

Transgressive: In our interpretation of transgressive we shall start with the sign (P;A)p, i.e. the present active participle. It is however also possible to apply the rule p → c to this unit, that is to say, transposition of the sign Cc to the structure of the sign (P;A)p. This result in the complex contradictory sign (P;A;C)p;c, the contradictoriness of which is solved by emergence of a function which in terms of content has an action-based circumstantial essence, while it carries, as a result of its relation to action, distinct features of the action-based 'attribute' of action. Formally, it manifests the typical features of p (differentiation of the morphological form depending on the substantive gender) but with a distinct tendency towards properties of form, i.e. towards formal unification. There is therefore a notable tension within form between the negated p and the negating c; this is however once again a dialectical negation, since the 'new' function preserves the 'original' elements of the sign in a new quality.

It is evident that precisely these new functions of the 'desymmetrized' signs serve as a device of renewal of agreement between the sign's form and content, they are nevertheless also the goal, because, in the process of language development,

they satisfy language's increasing demands on expression. The form 3 of these mechanisms are the laws of dialectic.

The listed examples demonstrate the fact that if we start from application of the rule of breaking of the unity (1:1 correspondence) of components of simple symmetrical signs, the process of re-establishment and further breaking of this unity involves 'inference' of the so-called grammatical categories; this is not only an argument in favour of their having an objective character, it also allows us to state directly that the so-called grammatical (part-of-speech, morphological) categories are the form 2 of the mutual relations between basic content and form 3 units; with respect to principles of progress and development it can be said that these categories are the result of solving of the said relations between the units of form and content. For this reason the so-called grammatical (morphological) categories cannot be mechanically excluded from the contemporary exact (generative, stratificational) models.

The examples also who that more complex content units such as meanings of sentences and onomasiological structures of words cannot be inferred and explained solely within the framework of internal context of the content (in this case non-grammatical, semantic) element of language. These more complex content structures are in terms of principles of progress and development formed in the process of relations between content and form 1 elements of language signs. The individual steps of these process can be used to uncover the 'emergence' and function of grammatical devices as well as the aforementioned more complex content units of a purely semantic nature. In other words - the 'planes' of semantics, grammar and form 1 are not mechanically parallel, it is a single functional and systemic mechanism. The emergence of a more complex semantic structure (such as sentence or word-formation based) has not only semantic but also grammatical reasons, and it likewise has not only semantic but rather also grammatical consequences.Dotted lines mark the individual levels of generalness postulated in the sense of the semantic basis, edges mark the relations between basal meanings, nodes mark the individual abstractly postulated meanings. Based on the abstract system of basal verbs and other basal relators, only certain nodes are actually realized and expressed in sentences.

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The examples listed hint at the fact that various simple rules such as the rules of formal substitution hold consistently only in artificial languages which have postulational character; their application to natural languages has complex consequences of transpositional character. From the standpoint of dialectic materialism, it is necessary to similarly evaluate the tentative adequacy of formally logical devices such as logical conjunction, disjunction, alternation, implication etc.

The relations described above as part of interpretation of the chosen examples often apparently correspond with the commonly employed operations of transformational grammars. We nevertheless believe that there is a substantial qualitative difference: the common transformational operation seek to answer the question 'how are/can be certain language constructions linked within the framework of a given linguistic model'. Operations of the type we presented above seek to answer not only the question of 'how' but also the question of 'why can/must there exist this type of constructions in natural language, why are their relations the way they are'.

The properties of language as a dynamic sign system, provided their hierarchy is as described above, require that contemporary linguistic models respect the unity of the historical and the functional. The laws which govern functional mechanisms of language are inseparably tied to principles of emergence and development. These principles, given the point of departure represented by the outlined language and thought categories of substance, property, action, circumstance and in the basic scheme of thought contents → language expression → reference of language expression to though contents → language meanings[NOTE24] (this scheme can be characterized as a dialectical feedback system of relations) and given application of the principles and laws of Marxist dialectic to discussion of relations between the content and form element of signs allow for gradual modelling of the individual components of language under the conditions of unity of 'the historical' and 'the functional'[NOTE25]

The previous discussion entails that a model fully adequate to natural language, constructed in the direction (to put it in the most general manner possible) of content → form would have to respect, in the sense of the dialectical context of content and expression as outlined below, the dialectic 'parallel' of emergence and development of the semantic basis, lexical, syntagmatic and sentential realization of relational units of the sad basis with the emergence and development of content and form devices of expression of basal semantics. Such model with its capability of encompassing functional unity and developmental dynamics of language would represent a more adequate type of linguistic model; form the standpoint of the general system theory it would have the character of an open and dynamic system.

The type of model proposed and in a certain manner also applied in this work is therefore a model which we consider to represent a transitional type between the classical stratification models and the assumed model which respects the construction principles as they are in part discussed and illustrated in the present work. Such model would be a 'total' functioning model of not stratification-base but rather 'panel-based' type with a complex functionally dynamic interconnection of its individual parts - or panels.

3.3 FUNCTIONAL INTERPRETATION OF GRAMMATICAL CATEGORIES WITHIN THE FRAMEWORK OF THE THEORY OF SEMANTIC BASIS AND THE QUESTION OF THE SO-CALLED REVERSIBILITY OF THE MODEL

Above, we presented a thorough discussion of the complications related to the functional interpretation, to functional involvement of language devices which are traditionally labelled as grammatical, orthographical categories. Using examples, we investigated their functional (semantic, pragmatic, syntactical) nature (2.2.1 and 2.3), their properties as means of expression (3.1) and the dialectic of relations between semantics and grammar (3.2). In 2.2.1, the necessity of 're-interpretation' of the traditional grammatical categories became clear with respect to their adequate involvement in our type of model.

In 3.3 we shall strive to sum up the more general problems related to this re-interpretation, especially with respect to the so-called reversibility of models of the type content → expression (semantics → grammar → expression, meaning → text).

Models of our type need to, in the broader sense, adjust to the fact that the notions of grammatical and morphological are formulated for different types of grammars, cf. these questions especially in 2.4.

In order for the classical terms of grammatical, morphological categories to be interpreted in models of the given type adequately, we believe it to be necessary to:

1. pay attention to the relations between the ontological-gnoseological principles of the classical, 'foundational' grammar and the same principles of the grammar which 'intends to' make us e of these notions of the classical grammar;

2. proceed in a very concrete manner: to make use of a specific notion of a given classical grammar in a concrete 'target' grammar.

It would appear that the contemporary models, be it those we focus on in the present work, that is to say, the models constructed in the direction of content → expression, but also models of the generative, transformational type in the broader sense, proceed in the given context in three separate manners:

1. They simply do not make any use at all of the 'scientific information' represented by classical grammars (mainly by structural binaristic morphology, but also by 'older' types of grammar:

   a) because the author of the model considers these classical notions to be irrelevant to the goals he is trying to achieve with his model,

   b) because the author considers grammars such as the classical binaristic structural morphology to be either a complete pseudo-problem, or at least a pseudo-problem with respect to the natural language modelled.

2. The author does accept the classical notions, but only in their most simple, 'school' interpretation, the notions are accepted without the necessary critical analysis; in practice, terms foreign to their own models are often formalized, considered to be completely transparent, atomic units. We have to admit that this procedure is acceptable during the initial, 'preliminary' phase of modelling. The inadequacy of such use of classical notions lies in that:

   a) morphology is understood as mere structures of expression, the content element of the classical morphological categories is at the same time completely neglected, it is not included in the other (not related to expression) components of the model (e.g. the syntactic component, the deep structure etc.);

   b) the information represented by classical morphological categories are fully included, but in a completely traditional understanding, inadequate to the newly constructed model. It then often happens that the semantic information appears within the framework of the given model multiple times (e.g. both in the morphological and the syntactical components), but the functional relations of these components are not explained sufficiently well.

3. The author strives to have his model include all of the information necessary for the model in question, such as is 'offered' by the classical literature on grammar. He does not shun inclusion of complex sub-systems, he does not only formalize, but, more importantly, adequately re-interprets the classical notions. It is evident that such conduct is highly demanding with respect to the formal apparatus and fine functional analysis and re-interpretation of the classical theory of grammatical, morphological categories.

As far as the models of the type content → expression are concerned (semantics → grammar → expression), their construction is tied not only to the aforementioned general problems, but rather brings about also certain specific complications in the given area.

The most prominent of these is the question of original (primary) notions in relation to derived notions. Authors of the models usually build upon elementary notions of semantic nature, introduce them axiomatically, whereas the semantics of sentence, the system of lexical device are given by means of specific operations applied to the set of original semantic notions. This in fact means that these components have the character of a set of rules for derivation. Grammar in its narrower sense (in Slavic languages this involves mostly a set of morphological categories) on the other hand, grammar as a system of sign qualities with a high degree of semantic generalness which is most immediately related to the means of expression of the given language, grammar as the 'middle', 'mediating' component of the model, is included in the model in a completely different manner. It is normally not constructed from a set of seminal, semantic elements such as a set of lexical devices or global sentence semantics; what happens is merely that certain elements of grammatical meaning in the traditional sense are 'taxonomically'

described and mapped by means of correspondence onto the semantic (sentential, lexical) elements of the given model.

We need to give some thought to whether the manner of integrating grammar in the narrower sense as described above is fully adequate for models of the type content → expression (semantics → grammar → expression): a seemingly more adequate integration can be realized by a thorough simplification of the morphological field in the sense of content, by reducing it to the structure of expression (cf. the method described under 2.a).

If an author strives to integrate the information from classical theories of morphological categories 'in their full extent', there are bound to be issues in the sense of 2.b. These features are in our opinion manifested by the project Teoretické základy (1975).

The aforementioned 'breach' of the unified principle of constructing whole models from elementary semantic units which, as we stated above, relates precisely to the manner in which the grammatical, morphological element of language devices in its narrower sense is included in the models, and is connected to the problem of reversibility of models, which is a feature that can be considered one of the prominent features of the models of this type.

The reversibility principle lies in that models of the type content → expression (semantics → grammar → expression) allow not only for operation in the direction content → expression, but also for those in the opposite one. It is supposed that validity of the reversibility principle of a model is one of the criteria of a model's exact nature. Especially then, if a model of the given type is to be used for interpretation of texts in natural language, complications arise, provided the model is constructed in a manner that does not satisfy the requirements of the reversibility principle. (It is nevertheless necessary to accentuate that outside of the framework of application of models for interpretation of texts in natural language, the listed problem is characteristic only of highly detailed models. Schematic models as a rule do satisfy the requirements of the reversibility principle; these models are however more likely to have the character of 'methodological schemes' as a preliminary stage of a fully functioning model of the given type.)

It would appear that the models of the type content → expression (semantics → grammar → expression), that is to say, those models which we paid closer attention already in Chapter 1, can be in the present stage of 'development' distinguished based on the manner of solving of the grammatical, morphological problems in the narrower sense, and with respect to the reversibility principle, as belonging to 3 types:

1. The so-called functioning models, among the important constitutive feature of which has to be the reversibility principle. These models function only provided that the grammatical, especially morphological, devices have the character of the middle, 'mediating' component of the model, and are integrated in full agreement with the constitutive principles of the model.

2. The essentially taxonomical models which deal with detailed description of a specific natural language. These are characteristic by a certain rate of heterogeneity of the constructing principles used: the semantic structure of sentence is derived by means of a set of rules from elementary semantic units, in consequence of which the syntactic component is consistently constructed in the direction meaning → text. On the contrary, the morphological component is constructed in the direction expression → content, or else is reduced to the structure of morphological expression; if the component is morphologically tackled 'in both direction', the reversibility principles is not realized consistently, because the principle of functioning in both direction is partly substituted with a taxonomical, descriptive correspondence of elements.

3. Given the present stage of development of models of the type content → expression (semantics → grammar → expression), we do not believe it to be possible to speak of existence of any models consistently functioning based on the reversibility principle. Especially in cased where these models realize a relatively detailed description of a part or the whole of a specific natural language, they tend to lack the character of a truly functioning model.

Notes

1   This Daneš's work deals with systematic introduction of grammatical sentence pattern into theory and description of sentence structures. The term itself in various terminological incarnations is older, cf. Dokulil, Daneš (1958), in a certain sense it already appeared in Mathesius (1947). – From the set of Daneš's terms, the present work makes use solely of the term grammatical sentence patterns, unlike the previous works, cf. Kořenský (1970b; 1971, 1972b). The model used in the present work to describe and analyse static meanings is mainly a continuation of Daneš (1971b) and Dokulil (1962); the actual genesis of the model is given by the works Kořenský (1972a, 1973b, 1974a,b).

2   The notion of onomasiological isomorphism is to be understood in the following manner: the substantive "fool" is the name of the carrier of the property with the structure of substantive basis, property attribute; the adjective "foolish" is an attribute which always requires a syntagmatic ("foolish Benedict") or sentential ("Benedict is foolish") functional relation to the substantive basis. It is thus the sole structuring of meaning to be, in the case of substantive as an 'individual name of the given phenomenon', determined by its onomasiological structure, while with adjective as a 'non-independent name of the same phenomenon' it necessarily requires a syntactical complementation.

3   The notion of asymmetry of semantic function and expression in secondary functions of parts of speech is to be understood in the sense of discussion under 3.1.

4   Cf. the tables of pronominal and quantitative expressions, Teoretické základy (1975).

5   When it comes to grammatical devices traditionally labelled as grammatical (morphological) categories, we subjected their functional properties to a certain analysis conducted on examples (cf. 2.2.1 and 2.3), whereas we found out that they have a widely varying functional character, which can be solved by the proposed manner of distinguishing between various types of syntactical bonds.

6   Cf. Komárek, Kořenský (1974).

7   We consider this question to be open, even though we managed to show that from the purely expression-based standpoint, traditional Czech cases in the sense of complex expression structure of case largely work within the GSP system, cf. Kořenský (1972c). In order for it to be able to be understood as a function of morphological meanings of these cases, it is necessary to confront these findings with the results of analyses of the elementary units of sentential meaning, cf. Daneš, Hlavsa et al. (1981) and Chapter 4 of the present work. The fact that it is precisely substantive case that constitutes the most problematic and at the same time the most central category of substantives is shown by other works, too, cf. Novák (1974a,b) and Uličný (1973).

8   In our understanding, only such sequences of part-of-speech symbols have GSP character as are constructionally based on VF. Sentences in texts can usually based on other sequences of part-of-speech symbols, too, cf. in part 2.4. Daneš (1963) also took into consideration the specific imperative GSP, from our point of view however such structure would be relevant within the textual-pragmatic component. With regard to the assumptions and goals of the present work, especially its Chapter 4, it is necessary to focus on structures which express basal meanings. We dedicate only general theoretical attention to structures that are pragmatically and textually relevant.

9   In our case however, the intentional basis of VF is defined by semantic properties of the relator of the respective basal relation and by the functional cooperation of lexical and sentential realization of the respective basal relation, cf. the discussion that follows below.

10 The problem of definition of left-valency symbols is given more attention below.

11 The notion of de-agenting needs to be understood as a 'label' rather than description, the operation also realizes 'removal' of participants other than the agent.

12 In the recent years, significant attention was given to the questions of the so-called verbal gender understood in the broader context of diathesis, hierarchization and causation, cf. especially Grepl (1973b) and, under influence of Leningrad Anglicists, Štícha (1981).

13 Cf. especially the following more important works: Kopečný (1962), Němec (1958, 1964), Poldauf (1964) and discussions in the 1950s and 1960s, especially in the Slovo a slovesnost journal.

14 From the standpoint of our theory, the character of a simple aspect pair is possessed by such pairs of imperfective and perfective verbs which constitute constructions that express the same event relation with the difference in that while the construction based on the perfective verb expresses the respective meaning involving 'achievement' of the postcedent element of the given formula, while the construction based on the imperfective verb does not express such 'achievement' of the postcedent element, in the sense of attribute 'nothing is being said about ...'

15 Regarding the important relation between perfectivizational prefixation and phasing cf. 4.3 in the context of discussion of the phasing operators. The issue of meaning of usualness see Teoretické základy (1975), will be given attention in the context of verbs "mívat" and "bývat" ("to usually have", "to usually be").

The findings regarding the semantic properties of these verbs have a more general validity. It is evident that these verbs in some manner constitute semantically modified constructions with regard to constructions based on "být" and "mít" ("to be", "to have"). This modification nevertheless does not abolish the basal meaning expressed by the construction based on VF of the verbs "být" and "mít", it merely enriches the meaning in the sense of the so-called quantization and usualness. If semantics of quantization can be defined as a sequence of semantic 'quanta' represented by validity of a certain basal meaning, then usualness most likely has the character of a continualized sequence of the said quanta. This is why it is determined in part by the semantics of the respective basal relation, whether the constructions based on VF of the verbs "bývat", "mívat" express rather quantization or usualness, with those meanings which do not rule out either of these modifying meanings it nevertheless depends on the identification capability of the context.

If we look at this question from the perspective of the verb "bývat" ("to usually be"), it is clear that it will find its use only in expressing those meanings which are not in contradiction of the semantics of quantization and usualness. E.g. with simple qualification relations, where, on the background of basal semantic invariance, expressions containing right-valency and in comparison with right-valency Snom have semantics of a certain non-general, impermanent validity, quantization of frequency of the given property is very well possible ("Benedict bývá hlupák", "Benedict is usually a fool."). It would appear that VF of the verb "bývat" is not entirely ruled out in constructions with right-valency Sinstr, either, which is once again related to a certain restriction of meaning as it was stated in the relevant literature regarding this construction. We thus find out that in constructions based on VF of the verb "být" ("to be") these fine semantic differences are, from the standpoint of global sentence semantics and outside of context, significantly weakened, whereas in constructions with VF of the verb "bývat" ("to usually be") they are in agreement with the semantics introduced by the said verb. When it comes to qualification by material origin ("Židle bývá ze dřeva", "Chairs are usually made out of wood"), what is involved is not quantization but rather evidently usualness; similarly with the relations of arrangement and the most general semi-symmetrical and asymmetrical relations - these usually involve the possibility of semantic modification

in the sense of quantization or usualness. On the other hand, VF of the verb "bývat" is only rarely permissible in relations of kinship, specifically with the most abstract meaning of 'to be related to', where the meaning of usualness us involved ("Náčelník bývá příbuzný s celým kmenem", "The chief is usually related to the whole tribe"). With relations such as e.g. qualification of a missing body part, VF of the verb "bývat" would appear to be ruled out.

The situation is similar for the verb "mívat" ("to usually have"). In constructions with the meaning of simple qualification the verb "mívat" tends to have the function of quantization ("Benedikt mívá tu drzost, že", "Benedict usually has the gall to", similarly to e.g. the relation of abstract ownership ("Benedikt mívá pravdu", "Benedict usually has it right") and at least partially in the relations of sign and attribute ("Červená mívá význam stůj!", "Red light usually has the meaning of stop!"). The same is true of general asymmetrical and semi-symmetrical relations ("A mívá souvislost s B", "A usually has a relation to B"). In a number of other relations the meaning is closer to that of usualness. E.g. With object ownership, VF of the verb "mívat" is possible based on actuality of the relation of ownership ("Benedikt mívá hodně peněz", "Benedict usually has a lot of money"), whereas a shift towards potential usualness of ownership can also take place ("Nejstarší syn mívá největší podíly", "The oldest son usually has the largest share"). With relations such as qualification restricted by the resulting state ("Mívám šaty ušité včas", "I usually have my dress sewn for me on time") or the relation of belonging of an entity based on its material origin ("Mívám šaty ušité z vlněné látky", "I usually have my dress sewn from wool"), usualness is most likely involved. With the first more complex relation we find out that there is another modification, since the circumstantial (temporal) information appears to be necessary to for the relation.

It needs to be noted here that apart from usualness signalled by verb form as shown above, it is necessary to also bear on mind habitual validity of action-related basal meanings which is not tied to a specific form of the given verb and is signalled by context. This involves validity of sentences such as "Benedict učí" ("Benedict teaches" = is a teacher) which has the character of qualification by action.

16   For the questions of relations between logical and linguistic theories of sentence structure cf. Zimek (1963), Horálek (1967).

17   In analysing the mutual relations (1), (2) and (3), (4) we discovered an important fact: it is necessary to define for simple basal relations on one hand and complex basal relations on the other hand individual 'transition' towards realizational and expressive structures. It is therefore necessary to understand the rules of construction of complex relations as a matter of the semantic basis, not as an operation on sententially realized or even expressed relations. This can be illustrated on (3), (4): the specified basal relation xPy, "Benedikt má klíče" ("Benedict has keys") is in Czech realized and expressed as both "Benedikt má klíče"and "Klíče jsou Benediktovy" ("Benedict has keys", "The keys are Benedict's"). In the specified basal relation yLz ("Klíče jsou ve dveřích", "The keys are in the door") the second member forms a pair of mutually inversely realized basal relations only under the assumption that we understand hierarchization within the framework of sentential realization very broadly. (3), (4) do correspond to a single basal formula, but they represent mutually inverse sentential realization, whereas it is always the basic relation which has no element that forms the sentential foundation that has the form of syntagmatic realization. Cf. given the notation on p. 21 $(xPy) + (xPy) + (yLz)$.

18   In our country, this issue was most recently tackled in relation to the views of classics of Marxism-Leninism by J. Petr (1977, 1980). In the Soviet literature of the recent period, cf. mainly Vsesojuznaja naučnaja konferencija po teoretičeskim voprosam jazykoznanija, Moscow 1974 and the anthology Leninizm i teoretičeskije problemy jazykoznanija, Moscow 1970.

The gist is that certain researchers seek to find the essence of the materialistic notion of sign solely in its 'material quality', while others formulate its materiality based on the objective reality. This often leads to confusion of definition of sign from the standpoint of the basic philosophical question which presupposes a dualistic answer (this however involves a basic criterion of evaluation of philosophies and thought systems) with the basic ontological-gnoseological definition of sign, which needs to be formulated based on materialistic monism. It is in this manner, i.e. by failure to respect the materialistic monist character of Marxist philosophy that even Marxist definitions of sign are sometimes infiltrated by reductionism which is otherwise typical of non-Marxist conceptions of sign. The reduction in question is not gnoseological (i.e. a specification or narrowing down of the object with respect to a concrete researcher's goal) but rather ontological.

19   The term phenomenon is understood here in the context of the synonymous sequence listed in the brackets - i.e. in the sense of any given element of the objective reality rather than in the sense of the category of essence and phenomenon.

20   We choose indexation of the word "form" precisely in consequence of its generalness and ambiguity even in the context of our thought; the term form is in Marxist dialectic usually used to refer to functional structuring of fact; in relation to this fact it is therefore possible to speak of grammatical form as an element which allows for functioning of non-grammatical language meanings (index 2), and furthermore it is possible to speak of form as structuring of the individual elements of the content part of language (index 3). It is form 2 which serves as an example of application of the theorem that any quantity which is in a certain relation the content element (e.g. in the sense of sign relation within the framework of morphological category), can in a different context (e.g. in relation between a certain morphological category and a certain participant of sentential meaning) function as the formal element.

21   When we speak of the general scheme of sign, we use the terms content - form. From all of the above it follows that the content element of sign is determined by the relation between the respective phenomenon (fact) of reality and the language meaning mediating the relation between the phenomenon and the respective form.

22   In this discussion, the dialectic of necessity and accidentality remains aside. It is understandable that the respective laws function in the relations between content and form in the conditions determined also by the dialectic of necessity and accidentality.

23   This no longer involves the basic unity and contradiction of the elements of a symmetrical sign, but rather a qualitatively 'new' type of contradiction which follows from the basic one and is based on the fact that the form becomes a means of expression of new content without however ceasing to express within the given sign system its original content, and without its new function making it break away from the original content to which it is dialectically tied.

24   Cf. Dokulil, Daneš (1958) and Komárek, Kořenský (1974).

25   By the term principles of emergence and development we mean the very general principles of emergence, development and functioning of natural language in its relation to the structures of social awareness and in its socio-historical context - thus this does not involve concrete realization of these principles in a single concrete natural language; in this context we would use the term development, diachrony.

4.

Application of the theory of semantic basis in describing the systematics of meanings of Czech sentences

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4.1 ASYMMETRICAL NON-DYNAMIC MEANINGS

The core of asymmetrical meanings is a broad field of qualifications and circumstantial determinations in the most general sense. If we do not restrict ourselves in this context by the limits of minimal sentence completeness, then it holds that it is possible to qualify not only individual entities and classes thereof, but rather also dynamic and non-dynamic (action-based) meanings. Individual entities and classes thereof can be qualified with respect to expression mostly by adjectives (in the conditions of syntagmatic realization and expression this involves constructions such as "velký dům" ("a big house"), in conditions of sentential realization and expression constructions of the type "Dům je velký", ("The house is big")), but also by substantives (in conditions of syntagmatic realization and expression this involves constructions such as "velikost domu", "dům na spadnutí" ("the size of the house", "a house about to collapse"), in the conditions of sentential realization constructions of the type "Dům je na spadnutí", ("The house is about to collapse")). From the perspective of traditional syntax these are the so-called attributes and predicative nominals with certain overlaps in the direction of adverbials (cf. e. g. "Tato kniha se nehodí k ničemu" ("This book is good for nothing").

It is also possible to qualify relations (static and dynamic), either if they are expressed lexically by a substantive (in which case the conditions of expression of the qualification relations are from the standpoint of traditional syntax the same as the conditions listed above) or if they are expressed by VF (in which case however this is from the standpoint of traditional syntax the zone of the so-called adverbial, whether expressed by an actual adverb or by a substantive construction, cf. "Mistr pracuje neodpovědně, Mistr pracuje bez odpovědnosti" ("The master works irresponsibly", "The master works without responsibility")). The field of traditional attributes and adverbials, especially when it comes to qualification of actions, is semantically a whole, as is documented by examples such as "Usilovně

hledáme řešení– (Naše) usilovné hledání řešení" ("We are diligently searching for a solution - (Our) diligent search for a solution"). This is most likely a basal semantic equivalence, the differences lie in realization and expression (syntagmatic - sentential). The field of qualification of actions realized sententially includes in out understanding the traditionally conceived area of adverbials of manner, degree - unless the relations in question are semi-symmetrical and symmetrical.

The field of circumstantial determinations (temporal, local) represents, outside of the framework of minimal sentence completeness, the traditional field of adverbials of place and time; from the standpoint of minimal sentence completeness however, these involve mostly circumstantial determination of individual entities and classes thereof, as well as nominal realizations of static and dynamic relations.

In the general sense the field of qualifications and circumstantial determinations represents a system of semantically differentiated sub-systems of features which can be - similarly to the actual system of basal meanings - differentiated with respect to statics and dynamics.

4.1.1 Qualifications

We shall focus solely on qualifications realized as minimal complete sentences. This character is usually found in qualifications of individual entities and their classes and qualifications of relations realized and expressed in lexical manner. We shall tackle the question of semantic structure of qualification relations from the standpoint of realization and expression of qualified and qualifying entities.

Thus, in the most general sense, relations of qualification consist of two participants, i.e. the qualified entity and the qualifying entity. From the standpoint of lexical and grammatical expression, qualified entities are most often expressed by substantives, beyond the limits of sentential minimalness by some of the possible substitutes, an infinitive construction or a sentence. Cf. "Psát dopis je obtížné, Kdo se bojí, je zbabělec" ("To write a letter is difficult", "He who is afraid is a coward"). Qualifying entities are most often expressed by adjectives ("Benjamin je hloupý", "Benjamin is foolish") or substantives ("Benjamin je hlupák", "Benjamin is a fool"): these cases involve semantically simple qualifying entities which can

be further analysed semantically only in onomasiological manner, i.e. in the sense of lexical realization. There nevertheless exist such relations where the qualifying entity is expressed by a full VF, hence they are GSPs of the type Snom VF Compl. Generally speaking, this involves the field of eliminating the actual action-based quality of full VFs towards usual and habitual semantic validity of action all the way to its understanding as qualification. In the direction from qualifying relations, the issue needs to be viewed with respect to the existence of certain paradigmatic sets, wherein there are available, apart from expressions of the type (Snom) VF to be/to have A/S, also expressions[NOTE1] with the structure (Snom) VF (Compl).

It is precisely the existence of constructions containing A or S derivationally linked to the respective VF that stands as the criterion of the potential possibility to interpret (naturally, based on context) constructions of the type (Snom) VF Compl as constructions having qualifying meaning. (Cf. "píše – je spisovatel, učí – je učitel, kašle – má kašel" ("he writes - he is a writer, he teaches - he is a teacher, he is coughing - he has a cough"). For the field of VF Compl with qualifying meanings it is typical to contain verbs with very general meaning. These involve mostly very generic action verbs such as "dělat, sloužit, působit" ("to do, to serve, to affect") etc. The complement here expresses semantics of the qualifying attribute, cf. "dělá účetního, slouží/pracuje jako účetní, hraje tenis" ("he works as an accountant, he serves as an accountant, he plays tennis"). These are in fact analytical expressions qualifying entities which in the paradigmatical sets (cf. p. 79, section 1) represent precisely the structure (S nom) VF Compl. Apart from this type of set, the expressions of the type "Benedikt pracuje/slouží/působí v Tesle/ na vojně/na univerzitě" ("Benedict works/serves/is active in the Tesla company/ army/college") can also be considered to be qualifications, where the qualifying entity is a local determination with a broadly action-based verb. Apart from these verbs it is also possible to use the verbs the actual semantics of which has the character of usualness (cf. "nosí brýle/klobouk" "wears glasses/a hat"), these thus being qualifications by means of usual action. For all of the mentioned types it holds that the criterion of whether the analytical and synthetic constructions

are equivalent in terms of basal semantics is the fact whether VF in the analytical construction is capable of expressing a minimal sentential meaning. If this is not the case, we speak of a full basal semantic equivalence of analytical and synthetic construction; if this is the case, we do not, because the analytical construction in that event expresses a complex basal meaning.

The position of A in the relation (Snom) VF to be A is often taken by verb with the function Va (cf. "Kabát je ušitý" "The coat is sewn"), which from the standpoint of sentence semantics represents a complex structure. If then we are to consider as qualifications even such expressions where the relator and the qualifying entity are expressed by full VF with constitutive complement or by the relation VF to be + Va, then it is necessary to consider apart from simple qualifications written down as xKy (y will be expressed by either A or S, P will be expressed as VF to be/to have) with the qualification having the structure xP (zRv) where the qualifying entity is a formation with complex sentential semantics, yet in itself minimal.

We shall go on to speak mostly of simple qualifications of the type xKy as such and with respect to their paradigmatic expressive content; relations of the type xK (zRv) will be due to their varying semantic properties characterised as separate types of relations.

As for simple qualifications, it was already said that they involve sentential realization for expression of basal meanings written down as the formula xKy, the means of expression of which are GSPs (Snom) VF to be A; (S nom) VF to be Snom; (Snom) VF to be Sinstr. To list a few examples: "Benjamin je hloupý, Benjamin je hlupák, Benjamin je hlupákem" ("Benjamin in foolish, Benjamin is a fool, Benjamin is a fool(+instrumental case)"). It is necessary to first asses whether the differences in means of expression of grammatical nature could represent in terms of sentential semantics the very important differences, so that we would be forced to consider the said constructions to be expressions of separate basal relations. Let us consider the first two grammatical structures mentioned.

If we carry out onomasiological analysis of the adjective "hloupý" and the substantive "hlupák", we shall find out that the substantive expresses a structure of substances uncovered in terms of word-formation - an attribute, whereas the adjective is a word-formational and part-of-speech expression of the attribute as such; the essence of the attribute however contains presupposition of a carrier of the attribute, hence it is the same semantic structure (substance) - attribute, but with a potential carrier of the said attribute, whereas the construction (Snom) VF to be A is an expression of this potential existence of a carrier of the attribute. This is also why the construction (Snom) Vf to be A is the basic device of sentential expression of meaning of the relation carrier of an attribute - attribute. In place of attribute there can nevertheless also be a word-forming structure expressing the relation carrier of an attribute - attribute, that is to say a substantive with the meaning of carrier of the said attribute. We shall therefore consider these two constructions to be identical in the sense of sentential realization of basal semantics, whereas we are however aware of the existing differences in onomasiological, word-forming and morphological sense.[NOTE2]

The structure (Snom) VF to be Sinstr is usually considered to be a grammatical device expressing relative validity of property semantics. It is necessary to asses the degree to which these differences are relevant with respect to sentential realization of basal semantics.

In literature, qualifications differ in terms of substantial, insubstantial, permanent, temporary, metamorphic or subjectively determined attribute, qualification of broadly circumstantial type etc. This field usually also includes identity, inclusion, conclusion; the latter cases are from our standpoint related to meanings of a different type, see p. 89 on abstract localization and p. 100 on symmetrical and semi-symmetrical relations. The listed meanings which, insofar as they actually have in our understanding qualification character, are, as documented by the relevant literature, partially but definitely not necessarily, under any circumstances and without any dependence on text-forming factors, local differences of the language standard or even individual use, signalled by a contrast between the nominative and instrumental case. There are nevertheless a number of other factors that come into play: such as the sequence of subject and predicate in the

traditional sense (an inverted sequence is preferred to the instrumental case by speakers due to differential reasons), a pronominal subject does under certain circumstances favour the nominative case, lexical bond is applied (it can e.g. be said that "Švejk je hrdina románu" ("Švejk is the hero(+nominative case) of the novel") but apparently only "Švejk je hrdinou a osou románu" ("Švejk is the hero-(+instrumental case) and the axis(+instrumental case) of the novel")). It is apparent that commutation of Snom and Sinstr can but does not necessarily have to induce a change of meaning of relation, the quality involved is nevertheless lexically semantic, because the responsibility for semantic differences is fully borne by lexical semantics of the variable y, whereas the differences are not quite as obligatory as to lead to a change of the qualification relation into a different kind of static basal relation. We therefore consider the aforementioned differences to be lexical specifications of the general basal formula xKy on the respective degree of abstraction.

Let us thus sum up by saying that from the standpoint of basal semantics we shall evaluate qualification relations expressed by constructions (Snom) VF to be A; (Snom) VF to be Snom; (Snom) VF to be Sinstr as equivalent provided the basal meanings involved is identical, whereas we consider the onomasiological, morphological and lexical differences bound to these relations to be related to the theory of expression; these differences are due to the respective theory of parts of speech, cf. 3.1 and the specifically lexical realizations and expressions of basal meanings.

The existence of alternation sets such as "Benjamin je drzý, Benjamin má drzost, Benjamin se vyznačuje drzostí, Benjamin je drzoun" ("Benjamin is impertinent, Benjamin has the impertinence, Benjamin is marked by impertinence, Benjamin is an impertinent+person") forces us to ask the question of wherein lies the difference or identity of these realized and expressed relations.

In relation to the possibility of alternation it is necessary to asses: 1. the importance of grammatical and lexical changes brought about by alternation, 2. paradigmaticity of the alternations.

1. The alternations involved are those of VF of the verbs "být - mít" ("to be - to have") - full verbs and the related expression alternations of A - S - acc - Sinstr;

the first pair of grammatical alternation is undoubtedly a question of expressive structure and morphological semantics, because the verb "být" and the verb "mít" are here both free of lexical meaning which would be capable of modifying the relation in the sense of basal semantics. We already spoke of onomasiological properties of A in confrontation with S above, the case is here determined by valency. The differences are therefore a matter of semantic morphology, and especially of means of expression. As for the third member of the alternation set, the full verb which is also a reflexive verb ("vyznačovat se" ("to distinguish/mark oneself by"), this likewise involves a specific feature of grammatical nature, since VF ref does not have basal semantic relevance here (it does not involve a pair of 'to distinguish someone - to distinguish oneself'), S instr is determined by valency. Hence, the differences involved are differences of expression and semantic morphology, with no relevance to basal semantics.

2. The morphological-syntactical paradigmaticity of the alternation sets is apparently determined by onomasiological properties of the devices of lexical expression of the variable y. These are alternations based on the possibility of deriving of de-adjective names of carrier of a property, names based on a prominent part and names of property and state.[NOTE3] These are in essence three types of alternation sets: primarily the 'complete' alternation sets "Benjamin je drzý, Benjamin má drzost, Benjamin se vyznačuje drzostí, Benjamin je drzoun" ("Benjamin is impertinent, Benjamin has the impertinence, Benjamin is marked by impertinence, Benjamin is an impertinent+person") and partly sets of two types: the set of the kind "Benedikt je ožralý, Benedikt se vyznačuje ožralostí, Benedikt je ožrala" ("Benedict is drunk, Benedict is marked by drunkenness, Benedict is a drunkard")[NOTE4] and set of the kind "Materiál je pevný, Materiál má pevnost, Materiál se vyznačuje pevností" ("The material is firm, The material has firmness, The material is marked by firmness"). The last of the sets mentioned appears to specific for quantified entities having the character of object; these are also often typical by having a 'double-set' with mutual difference in meaning. Cf. "Fotografie je ostrá, Fotografie má ostrost, Fotografie se vyznačuje ostrostí – Nůž je ostrý, Nůž se vyznačuje ostrostí" ("The photography is sharp, The photography

has sharpness (to it), The photography is marked by sharpness - The knife is sharp, The knifes is marked by sharpness").

Even though we did not carry out a sufficiently profound analysis of the conditions of alterations, it can be asserted that within the framework of sentential expression of a single basal formula, grammatical-lexical alternations take place which result in not only semantic-morphological but rather also lexical variations of the basal formula in question. These alternations depend on the onomasiological properties of the classes of words which express the variable y.

We already discussed above de-adjective names of properties and names of carriers of properties in the context of alternations based on VF of the verbs "být, mít, vyznačovat se, vynikat ("to be, to have, to be marked by, to distinguish oneself by"). It is however necessary to also asses other alternation sets which are likewise based on derivational contexts. Let us e.g. consider a set based on an adnominal adjective derivation of the type "Benjamin má iniciativu, Benjamin je iniciativní" ("Benjamin has initiative, Benjamin is (an) enterprising (person)".) While the second member of the alternation set is undoubtedly a qualification relation, the first one could be considered to be a relation of abstract ownership, which is likewise an asymmetrical relation, cf. p. 87.

We believe that the alternation context of the cited type can be the reason for considering a relation expressed by a construction with VF of the verb "to have" as a qualification.

Dotted lines mark the individual levels of generalness postulated in the sense of the semantic basis, edges mark the relations between basal meanings, nodes mark the individual abstractly postulated meanings. Based on the abstract system of basal verbs and other basal relators, only certain nodes are actually realized and expressed in sentences.

Theoretical relations between verbal realization and sentential realization and expression justify the material-based method of our research which aimed primarily at the GSP-constitutive properties of the most frequent Czech verbs marked by a broad scale of basal meanings expressed.

From the perspective of the theory of expression, it is important to also evaluate the constitutive properties of the so-called morphological categories of VF.

In reference to 2.3 we merely remark that the category of person is not GSP-constitutive since it is pragmatically bound within the text component, the category of number is with regard to GSP syntactically free. Only rarely, cf. VF 3sg Sgen ("Ubývá vody") ("Water is running out") are expression formants of these categories bound by the pattern, i.e. they constitute it, the bond however affects the form (expression) rather than meaning. Due to their semantic properties, the categories of person and number are bound within the text component. The category of time is a functional value of a pragmatic nature, irrelevant from the standpoint of the GSP theory. The same holds for the so-called grammatical mood of verbs, which is likewise relevant within the text component.

A serious problem from the perspective of the semantic component is posed by the aspect and gender in verbs.

Let us first focus on questions related to the problem of gender. With respect to the selected type of grammar we tend to opt for those concepts which explain the relation between active and passive verbs in the sense of the so-called diathesis (or voice), cf. Grepl's concept in Teoretické základy (1975), that is to say, de-agenting of active constructions. We believe that de-agenting[NOTE11] is essentially related to the structures of sentential realization and is tied to the act of sentential hierarchization of basal relations, i.e. definition of the sentential foundation of the basal relation in question, cf. 2.1.[NOTE12]

For the theory of static meanings however, it is essential to distinguish between de-agenting as an operation on a sententially realized basal formula, whereas the same basal meaning is preserved, and, consequently, so is its event character, from the basal relation of qualification by result of an action ("Kabát je ušitý") ("The coat is finished"), which is usually explained as an operation of resultivization applied to the result of the operation of de-agenting, cf. Teoretické základy (1975). There is usually a difference in grammatical aspect (prefixed perfective aspect verb in relation of qualification by result of action, primary imperfective aspect verb in a de-agented action relation) Cf. "Kabát je šit krejčím" – "Kabát je ušitý" ("The coat is being finished by the tailor" - "The coat is finished"). This does not however hold without exceptions, at least if we, like Teoretické základy (1975) consider sentences such as "Žák je pochválen" ("The student is praised")

to be de-agentively realized events rather than qualifications by resulting action, unlike "Žák je chválen" (The student is being praised"). We however believe that this does not rule out the possibility of seeing the boundary between de-agented action and qualification by result of action precisely in the different expression by means of opposite aspects.

We consider sets based on the constructions (Snom) VF "to be" A and (Snom) VF "to have" Sacc based on alternation of adjective and de-adjective substantive or substantive and the respective de-substantive adjective to be from the standpoint of basal semantics equivalent in the sense of qualification, whereas we naturally do not deny the lexical, morphological differences and the ensuing differences with regard to actual validity of semantics of the relation, stylistic differences etc. Selection of a member of an alternation set is in text determined by, among other things, the compositional needs of modification. The construction with A is the most suitable for simple statement of a property, even though it is also possible to use "Benjamin je tak drzý, že..." ("Benjamin is so impertinent that...", the construction with VF "to be" Snom likewise allows for further modification but does not require it, cf. "Benjamin je drzoun, který..." ("Benjamin is an impertinent+person who..."). The construction with VF "to have" Sacc is typical of modification, cf. "Benjamin má tu drzost, že…" or "Benjamin má velkou drzost" ("Benjamin has the impertinence to...", "Benjamin has great impertinence").

Up until now we were discussing qualification interpretation of those alternation sets of means of expression the qualification interpretation of which was based on the fact that there exists a respective (i.e. tied to the others in terms of word-formation) expressive construction (Snom) VF "to be" A. This thus involved in case of further members of the alternation set de-adjective names or de-substantive adjectives in the position of entities qualifying the expression. The qualification interpretation of the expressions (Snom) VF "to have" Sacc, much like the qualification interpretation of the respective expressions based on VF of a full verb was thus based on membership of the given paradigmatic set and word-forming derivational set. It is nevertheless understandable that there is also qualification interpretation of such expressions (Snom) VF "to be" Snom/instr which lack the equivalence backing in the respective construction containing

right-valency A, because the S in question is not derived or at least not de-adjective, or the A in question is not derivationally based on S. In order to be able to reliably (and not only negatively) separate qualification basal relations from the other asymmetrical basal relations, it is necessary to tackle in terms of onomasiological categories the substantives expressing the qualifying entity.

We shall be concerned mostly with distinguishing between simple qualification and abstract localization, but also between non-basal meanings expressing ostensive expressions with the structure PRON VF "to be" Snom, or PRON (Snom) VF "to be" Snom, cf. "To je kůň, Toto zvíře je kůň" ("This is a horse, This animal is a horse"). We do not deal with these relations here due to our complex understanding of basal semantics.

Based on the onomasiological types of Czech substantives (cf. note 3) it is possible to define a class of substantives which express the variable y of the formula xKy essentially in the following manner:

1. The names of agents will find most use; due to the de-verbal and de-substantive origin of these names, the construction (Snom) VF "to be" A and constructions based on verbs of the type "vyznačovat se, vynikat" ("to distinguish oneself by, to be marked by") are naturally missing. On the contrary, with agent names a qualification-based view on construction of the type (Snom) VF is not ruled out when it comes to usual validity of action, which is in a way a sign of an alternation set, cf. "Benjamin soudí, Benjamin je soudce" ("Benjamin judges, Benjamin is a judge").

2. With the exception of names of means and results of action the rest of the substantive types do find their use, albeit only partially and in accordance with certain rules. If the given substantives (including names of carriers of properties) refer to persons, they usually fit the qualification relation, whereas in the case of de-adjective origin they co-create the aforementioned alternation sets of the type "Benjamin je bázlivý, Benjamin je bázlivec, Benjamin se vyznačuje bázlivostí" ("Benjamin is timid", "Benjamin is a timid+person/coward",

"Benjamin is marked by timidity"). When it comes to names of objects, animals, products of nature and abstractions, these find their use much more often in relations such as abstract localization or in ostensive expressions. This is precisely the reason why the field of expression of qualifying entities practically lacks names of means and results of actions. Naturally, names of animals, products of nature and abstraction can find their use as a means of expression of a qualifying entity in the case when they are used by speakers as names of persons. It is therefore clear that our understanding of qualifying relations presupposes in the position x (the qualifying entity) mostly names of persons, whereas the other names are more often classified in the sense of abstract localization or referred to by ostensive expressions.

Of course, this cannot be understood in the sense that names of persons are ruled out from both of the latter relations. It would also appear that names other than names of persons tend to be more often qualified by relations wherein the qualifying entity has the form A, while with persons A and S are in balance. An important criterion of differentiation between qualification, abstract localization and ostensive expressions is also the fact that with qualification its use lies in commutation of Snom and Sinstr under the conditions stated by the literature and characterized above, whereas with ostensive expressions Sinstr appears to be out of the question. (It is not possible to commute "To je kráva, To je krávou" ("This is a cow", "This is being a cow(+instrumental case)".) If however the pronoun in the position Snom appears in a phrase with the quantifying entity expressed as Sinstr, this involves pronominalization of Snom which has a textually referential function, and is thus not an ostensive expression (cf. "A co Benedikt? – Ten je učitelem" ("And what about Benedict" "That one is a teacher(+instrumental case)"). Similarly with abstract localization the contemporary Czech tends to avoid Sinstr (cf. the bookish or even archaic character of "Pes je savcem, Fermium je transuranem" (The dog is a mammal(+instrumental case), Fermium is a transuranium element(+instrumental case)".)

The definition of a simple qualifying relation by means of onomasiological types expressing the qualifying and qualified entities and discussions of

alternation sets of grammatical structures expressing in various ways a single sententially realized basal relation illustrate the theoretical discussions regarding the essential relation between lexical realization and the structures of sentential realization and expression. It was said in 3.1 that those VFs which are not in themselves lexical realizations of a certain basal relation cannot represent the decisive element of sentential realization and expression; this decisive function is in such case taken by non-verbal lexical realization and expression of basal meanings which represent the participants of sentential realization of the basal relation in question. Onomasiological properties of words expressing the participants of sententially realized static basal relations can then define and differentiate between sententially realized basal static relations. This documents the close functional relation between lexical and sentential realization which has the character of determination in cases when it involves semantically isomorphous verbal and sentential realization as well as the cases of non-isomorphous lexical nominal and sentential realization; the latter case involves a relation between basal meanings which are mutually different, but also a relation of determination. It is only under these conditions that it can hold that alternation sets of constructions express the same sententially realized basal meaning with differences in expression and morphology, but with identity of onomasiological properties of elements of the relation which are expressed in differ manner with regard to parts of speech and word-formation.

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In relation to the notion of qualification relations it is necessary to give some attention to meanings of sentences of the type "Benedict má jednu ruku, Benedict nemá ruku, Benedict nemá žlučník" ("Benedict has one arm, Benedict does not have an arm, Benedict does not have a gall bladder"). These involve the so-called 'inalienable possession', but to us these relations appear to be closer to qualification relations with specific properties. As for non-paired parts of body and organism in general, they are usually found in negated form ("Benedikt nemá žlučník, Benedikt je bez žlučníku" ("Benedict does not have a gall bladder, Benedict

is without a gall bladder"), or in positive form bound by context, e.g. following a question: "Benedict nemá žlučník?" ("(Is it true that) Benedict does not have a gall bladder?") "Benedikt má žlučník" ("Benedict has a gall bladder"). Similarly for negative statements: "Benedict (prý) nemá žlučník" ("Benedict (allegedly" does not have a gall bladder.") "Benedikt má žlučník" (Benedict has a gall bladder"). In case of paired parts of body and organs it is necessary to point out the equivalence of positive and negative expressions, cf. "Benedikt nemá ruku, Benedikt má jednu ruku" ("Benedict does not have an arm", "Benedict has one arm"). With paired body parts, the language offers adjectives such as "jednooký, jednoruký" ("one-eyed", "one-armed") for expression of the qualification meaning. These adjectives along with the aforementioned nominal constructions form alternation sets such as "Benedikt má jednu ruku, Benedikt nemá ruku, Benedikt je jednoruký" ("Benedict has one arm", "Benedict does not have an arm", "Benedict is one-armed"). It is interesting to note that this can involve sentential semantic intensional equivalence (where the lexical and grammatical variability of the given meaning is naturally respected) but not extensional equivalence, because from this standpoint the expressions "Benedikt má jednu ruku, Benedikt je jednoruký" ("Benedict has one arm, Benedict is one-armed") relate to the remaining arm, whereas the expression "Bendikt nemá ruku" ("Benedict does not have an arm") relates to the missing arm. This is nevertheless a very simplified understanding of reference as reference of language expressions to isolated objects rather than to states of the world understood relationally. If reference identity understood in this manner was to be considered a precondition of semantic equivalence, the listed expressions could not be seen as equivalent.

Similar sets are composed of adjectives "bezruký, bezuchý, beznohý" ("armless, earless, legless") along with expressions such as "Benedikt nemá ruce, uši, nohy" ("Benedict does not have arms, legs, ears"). These sets also include substantives such as "bezručka, bezouška" ("armless(+'person'), earless(+'person')") – by now as a rule only as proper names.

Dotted lines mark the individual levels of generalness postulated in the sense of the semantic basis, edges mark the relations between basal meanings, nodes mark the individual abstractly postulated meanings. Based on the abstract

system of basal verbs and other basal relators, only certain nodes are actually realized and expressed in sentences.

Theoretical relations between verbal realization and sentential realization and expression justify the material-based method of our research which aimed primarily at the GSP-constitutive properties of the most frequent Czech verbs marked by a broad scale of basal meanings expressed.

From the perspective of the theory of expression, it is important to also evaluate the constitutive properties of the so-called morphological categories of VF. In reference to 2.3 we merely remark that the category of person is not GSP-constitutive since it is pragmatically bound within the text component, the category of number is with regard to GSP syntactically free. Only rarely, cf. VF 3sg Sgen ("Ubývá vody") ("Water is running out") are expression formants of these categories bound by the pattern, i.e. they constitute it, the bond however affects the form (expression) rather than meaning. Due to their semantic properties, the categories of person and number are bound within the text component. The category of time is a functional value of a pragmatic nature, irrelevant from the standpoint of the GSP theory. The same holds for the so-called grammatical mood of verbs, which is likewise relevant within the text component.

A serious problem from the perspective of the semantic component is posed by the aspect and gender in verbs.

Let us first focus on questions related to the problem of gender. With respect to the selected type of grammar we tend to opt for those concepts which explain the relation between active and passive verbs in the sense of the so-called diathesis (or voice), cf. Grepl's concept in Teoretické základy (1975), that is to say, de-agenting of active constructions. We believe that de-agenting[NOTE11] is essentially related to the structures of sentential realization and is tied to the act of sentential hierarchization of basal relations, i.e. definition of the sentential foundation of the basal relation in question, cf. 2.1.[NOTE12]

For the theory of static meanings however, it is essential to distinguish between de-agenting as an operation on a sententially realized basal formula, whereas the same basal meaning is preserved, and, consequently, so is its event character, from the basal relation of qualification by result of an action ("Kabát

je ušitý") ("The coat is finished"), which is usually explained as an operation of resultivization applied to the result of the operation of de-agenting, cf. Teoretické základy (1975). There is usually a difference in grammatical aspect (prefixed perfective aspect verb in relation of qualification by result of action, primary imperfective aspect verb in a de-agented action relation) Cf. "Kabát je šit krejčím" – "Kabát je ušitý" ("The coat is being finished by the tailor" - "The coat is finished"). This does not however hold without exceptions, at least if we, like Teoretické základy (1975) consider sentences such as "Žák je pochválen" ("The student is praised") to be de-agentively realized events rather than qualifications by resulting action, unlike "Žák je chválen" (The student is being praised"). We however believe that this does not rule out the possibility of seeing the boundary between de-agented action and qualification by result of action precisely in the different expression by means of opposite aspects.

The sentential meanings which include unpaired body parts and organs have no support in the relation (Snom) VF A, we nevertheless consider them to constitute qualifications, too, even though they are in certain sense close to relations of belonging, from which they however differ in their asymmetry.

Czech also has qualification relations of the type "Benedikt je ramenatý, ušatý, nohatý" ("Benedict is broad-shouldered, big-eared, long-legged"); these are remarkable in that they can be mapped as equivalent onto the relations "Benedikt má široká ramena, velké uši, dlouhé nohy" ("Benedict has broad shoulders, big ears, long legs"). Here it appears, as the expressions with VF "to have" Sacc suggest, that the relations in questions do not involve simple qualification but rather qualification relations which are to be written down by means of the complex formula $xK (zKr)$. The assumption of sentential semantic equivalence between the expressions "Benedikt je ušatý" ("Benedict is big-eared") and "Benedikt má velké uši" ("Benedict has big ears") is tied to several problems and questions. Firstly, we believe that the possibility of explaining these relations as equivalent justifies the fact that we do not introduce 'inalienable possessions' of bodily organs as a completely separate asymmetrical relations, because in practically all of the aforementioned examples the positive form of belonging of a bodily organ cannot be present without qualification of the organ in questions; it can only be found

under the contextual conditions we specified above when discussing similar contexts. In itself, a relation of the type "Benedikt je ušatý" ("Benedict is big-eared") would from the perspective of sentential realization allow for notation by the simple formula xKy; if we however assume equivalence, we must also admit that the qualifying entity of the relation zKr is in case of the construction (Snom) VF "to have" {Sacc A} realized and expressed syntagmatically, and in case of the construction (Snom) VF "to be" A lexically. This is yet another example of the close functional bond between lexical and sentential realization of basal meanings, that is to say, between semantic structures of word and sentence. In case of a different understanding of the relations between syntax and word-formation it needs to be said that the expressions "Benedikt je nosatý" ("Benedict is big-nosed") and "Benedikt má velký nos" ("Benedict has a big nose") are completely different sentential meanings, this would however in our opinion be at odds with their semantic functional nature. It is possible to provide further examples: even expressions such as "Benedikt má skobu, Benedikt má orlí nos" ("Benedict has a hook (nose), Benedict has an aquiline nose") can be considered to be basally equivalent (if we allow for the differences represented by semantic morphology, lexicon and stylistic choice). If we are to accept the interpretation of these and similar groups of expressions by means of complex basal formula, it is necessary to aks the question whether these involve complex minimal formulas or not. We believe that due to the lack of independence (conditional independence) of the positive expressions of relation between body/organism and body parts/organs of the type "Benedikt má ramena" ("Benedict has arms") the specified formulas of the type $xK (zKr)$ need to be considered to be complexly minimal.

We shall focus on further examples of expressions which - as will be shown – have quantification character or are otherwise close to qualification meanings, but in any case involve more complex meaning relations.

These include e.g. meanings of expression such as "Benedikt je hoden tvé lásky" ("Benedict is worthy of your love"). "Benjamin je dalek zločinu" ("Benjamin is far-removed from crime"), "Sidonius je pamětliv našich rad" (Sidonius is heedful of our advice"). Syntactically put, these involve phraseologized condensates which hide complex, generalizing qualifications by an action-related

property. It can be assumed that these expressions are in relation of thematic and content-based expression of information with relations expressed as "Benedikt je hoden, abys ho milovala" ("Benedict is worthy of your loving him"), "Benjamin je dalek toho, aby spáchal zločin" ("Benjamin is far removed from committing a crime"), "Sidonius vždy pamatuje na naše rady" ("Sidonius is always heedful of our advice"). Since "Benedikt je hoden, Benedikt je dalek, Sidonius je pamětliv" ("Benedict is worthy (of)", "Benedict is far-removed (from)", "Sidonius is heedful (of)" are not semantically and grammatically complete expressions, we consider it to be necessary to write down these relations as xK (sRz) where sRz is any basal relations, usually action-related. These are therefore complex minimal formulas.

An interesting type of more complex qualification meaning is qualification by means of material origin such as "Židle je ze dřeva" ("The chair is made of wood"); the qualification character here proves the possibility of equivalent interpretation with regard to expressions of the type (Snom) VF "to be" A such as "Židle je dřevená" ("The chair is wooden"). It would nevertheless appear that the grammatical structure (Snom) VF "to be" praepSgen only corresponds to meaning 'the chair is made out of wood' which would imply that the qualification involved is action-based, resultative qualification by material origin. A speaker will probably use the expressions "Socha je z pískovce, Socha je pískovcová" ("The statue is made of sandstone", "The statue is (of) sandstone") but not "Skála je z pískovce" ("The rock is made of sandstone"); whereas "Skála je pískovcová" ("The rock is (of) sandstone") appears to be possible.[NOTE5] It therefore appears that the grammatical structure (Snom) VF praepSgen is in our context used to express an action-related resultative qualification by material origin the semantics of which has to be written down in the form of a complex formula, whereas the formula in question is not a minimal formula, because its components (qualification formula, event formula) are all formulas with separate sentential realizations.

Another type of relation with the character of qualification and more complex semantic structure is represented by meanings of constructions such as "Rána je nožem" ("The wound is by knife"). It is evident that the qualification involved is not a simple qualification. The meaning is 'the wound was caused by a knife' - hence, the qualification is resultative and circumstantial (instrumental),

characterized by - among other things - the lack of equivalent grammatical expression (Snom) VF "to be" A. Much like with the previous example, this involves a complex formula rather than a minimal one, since the participating semantic relations (qualification, event-based resultative relation) are relations with separate sentential realizations.

Another type of a more complex relation with the character of qualification is the so-called relation of the resulting state which has been given considerable attention in the literature.[NOTE6] From our standpoint this qualification by action-related characteristics needs to be written down as a complex formula of the type xK (zA [(yE) τ (yE')]), whereas all the participating formulas are capable of independent sentential realization, which means the formula is not minimal. It needs to be stressed that the meaning of the expression "Mám kabát ušitý" (I have the coat sewn") is not equivalent with regard to the previous relation, it involves a separate complex basal formula. The formula xK{ [(yE) τ (yE')]} is here related to a certain entity which carries the semantic accent, and with respect to which the event-based resultative qualification by the resulting state is therefore observed. This relation has outside of the context the non-specified semantics of 'to be in relation to', whereas the context can identify the respective entity as the agent of the resultative action, the recipient of the said action etc. Cf. Zimek (1968), Kořenský (1971).

Relations to be interpreted as more complex qualification relations include e.g. the expression "Ulice je džungle" ("The street is a jungle"); it cannot be interpreted as an equivalence, because the relation in question is clearly not symmetrical. If interpretation in the sense of relation of confrontation were possible ("Ulice je jako džungle", "The street is like a jungle"), the relation would be semi-symmetrical. The possibility of commutation of Snom/Sinstr ("Ulice je džungle", "Ulice je džunglí") ("The street is a jungle", The street is a jungle(+instrumental case)") signals a simple qualification relation. If however the validity of relation is restricted in terms of regard, the only option available is Sinstr, cf. "Ulice je chodci džunglí" (The street is a jungle(+instrumental case) to a pedestrian.[NOTE7] This however holds only for the mentioned recipient-qualification relation, because the expression {(Snom) VF "to be" Snom/instr}[NOTE8] praepS acc, cf. "Ulice je pro

chodce džungle/džunglí" (The street is a jungle(+nominative/instrumental case) to pedestrians" allows for both of the commutable forms. Complex basal formulas of the type xR (zPy) is not minimal, because both of the participating formulas (qualification and 'to be related to') have independent sentential realizations.

We conclude by saying that there exists an open set of sentential meanings with the character of qualification. Their complexity (complex character of the formulas) is determined by the position of the qualifying entity being most often occupied by action-based semantic relations, expressed by simple VF with the possibility of a complement (in case of usual and habitual validity of action - cf. "Benedikt učí, Benjamin už píše, Benjamin umí psát" "Benedict teaches, Benedict already writes, Benedict knows how to write") or various action-based resultative meanings (see the examples listed above).

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Qualification relations need to be assessed also from the standpoint of inversion. The basic scheme of inverse realization and expression by qualification has essentially the character of paraphrase with an inverse arrangement. The grammatical structure involved is Snom VF "to be" Sinstr Sgen where Snom = name of property, Sinstr = substantive PROPERTY, Sgen = carrier of property This is thus a paraphrase, whereas the carrier of property is expressed by means of the genitive case of the property in question. It appears that this grammatical structure can be considered an inverse device to all the types of simple qualification relations, cf. "Benjamin je hloupý, Hloupost je Benjaminovou vlastností; Benjamin je hlupák, Hlupáctví je Benjaminovou vlastností" ("Benjamin is foolish, Foolishness is Benjamin's property, Benjamin is a fool, (the quality of) Being a fool is Benjamin's property". In such case, the name of property derived from the name of the carrier of the property occupies the space of Snom. The aforementioned inverse structure also fulfils the requirement of relations with VF "to have", cf. "Materiál má pevnost, Pevnost je vlastností materiálu" ("The material has firmness, Firmness is a property of the material"). The inverse realizational and expressive structure is suitable especially in all places where a more complex modification

of the property meaning takes place. Cf. "Drzost je Benjaminovou vlastností, která…" ("Impertinence is Benjamin's property which...") or "Pevnost je důležitou vlastnosti tohoto materiálu, která…" ("Firmness is an important property of this material, which...") Likewise, it is easily possible to modify a qualified entity, cf. "Pevnost je důležitou vlastností materiálu, který…" ("Firmness is an important property of the material which...") The possibility of modifying a qualifying entity is after all there even for the basic simple qualification relations wherein the qualifying entity is expressed as the name of a property or the name of a carrier of the property (cf. "Materiál má pevnost, která… Materiál se vyznačuje pevností, která…" ("The material has a firmness which..." "The material is marked by a firmness which...")). With these expressive structure it is however more difficult to modify the qualified entity, in comparison to the inverse expressive structure.

With semantic relations of the type "Benedikt nemá ruku" ("Benedict does not have a hand") it is also possible to expect an inverse realization and expression[NOTE9], cf. "Benediktovi schází ruka" ("Benedict is missing a hand"), possibly even "Benedikt má jen jednu ruku – Benediktovi zbývá jen jedna ruka" ("Benedict only has one hand - Benedict only has one hand left"). It appears that these construction too find their place mostly as part of complex sentence structures (cf. "Benediktovi zbývá jen jediná ruka na to, aby…" "Benedict has only one hand left to..."), whereas the context of the whole sentence or even broader context will often reveal a completely different meaning, e.g. the hand in question may be wounded etc. VF of the verbs "scházet, zbývat" ("to miss, to remain/be left") have not only the respective inverse meaning with respect to the basic devices expressing the given type of qualification relation, but rather function primarily as an inverse device of expression of relations of object possession and abstract possession after negation.

As for more complex meanings with the character of qualification, for resultative qualifications by material origin it is possible to consider the paraphrase Snom VF "to be" Sinstr praepPRONgen SENT to be an inverse means of expression, where Snom = the qualifying entity (material), S instr = MATERIAL, SENT = 'out of which is made' + the qualifying entity.

The structures of these types since they are based mostly on the obligatory presence of lexical devices such as substantives of material or property are not paradigmatic inverse devices in the true sense of the word and have the character of paraphrases with inverse arrangement. The inverse devices of resultatively circumstantial (instrumental) qualifications can be understood in a similar manner, cf. "Rána je nožem, Nůž je instrumentem, kterým byla způsobena rána" ("The wound is by knife, Knife is the instrument by which the wound was caused"). These inverse devices reveal the semantics of the respective relations, the basic means of expression of which are complexly homonymous.[NOTE10]

4.1.2 Object possession[NOTE11]

The basic lexical device of expression of the relator of the relation of object possession is to be seen in the semantically specific verb "vlastnit" ("to possess/own") and the verb "mít" ("to have") which of course is not a device specific to this meaning, since it is used as the basic or inverse means of expression across the whole field of static meanings. In expression of sententially realized basal meanings of object possession, VFs are used as inverse devices of verbs "patřit, příslušet, náležet, připadat" (roughly: "to belong to, to rightfully belong to, to be rightful property of, to be assigned to") which are to be considered to be the basic device of expression of the semi-symmetrical relation of belonging, but also, as is evident, a device of expression of the meaning of concrete and abstract localization. If we disregard the basic criterion of logical formal properties, we find that object possession is one of the outer limits of the type of bond which can be referred to as belonging, whereas object possession is asymmetrical and belonging as a whole semi-symmetrical; in the direction from object possession, favourable cases of semi-symmetry become more frequent up until the other extreme point of the axis where it is possible to speak of togetherness. With regard to the basic arrangement of Chapter 4 we naturally discuss object possession as part of asymmetrical relations.

Since it is evident that object possession is not always signalled by the specific lexical device of relator expression, it is necessary to define it with regard to the semantic characteristics of the participants of the relation. The basic features involved are:

1. y = object, class of objects – the object possessed
2. x = person, class of persons (human society) - the possessor
3. object possession is an asymmetrical relation

The basic grammatical structure which expresses object possession is (Snom) VF Sacc. (Cf. "Benedikt vlastní dům, Benedikt má dům" "Benedict owns a house, Benedict has a house"). VF of the verb "vlastnit" ("to own/possess") is found much more rarely in texts, it is a predominantly logically bound terminological device; it can however be considered to be a criterion of possessive interpretation of the construction with VF of the verb "mít" ("to have"). As for VFs of the verbs "patřit, náležet, příslušet, připadat" it was already said that these are inverse devices, which nevertheless need to be tackled from the standpoint of whether they are in the sense of our understanding of inversion fully equivalent to their respective expressions with the verbs "mít" or "vlastnit". The listed inverse VFs are found in the construction (Snom) VF Sdat where Snom = the object possessed, Sdat = the possessor. It appears that only VF of the verb "patřit" ("to belong") (cf. "Benedikt vlastní dům, Benedikt má dům – Dům patří Benediktovi" "Benedict owns a house, Benedict has a house" - "The house belongs to Benedict"); VF of the verb "náležet" (roughly: "to rightfully belong to") can be found in the sense of a legal claim to object possession, cf. "Dům náleží Benediktovi, ale Benedikt ho nemá, neboť…" ("The house rightfully belongs to Benedict, yet Benedict does not have it, because...") VF of the verb "příslušet" has mainly this meaning, cf. "Dům přísluší zákonnému dědici" ("The house rightfully belongs to the legitimate heir"). VF of the verb "připadat" (roughly: "to be assigned to (as property)") then appears to have an action-based meaning in the sense of the emerging relation of object possession. In this context it is possible to speak of the basal relation of potential object possession; with respect to this meaning the construction (Snom) VF Sdat where VF = "přísluší, náleží" would be the basic construction and expressions such as "Benedikt má nárok na dům" ("Benedict has a (rightful) claim on

the house") would be inverse means of expression wherein the relator is expressed by the whole phrase "mít nárok" ("to have a (rightful) claim (on)") which is semantically in the sense of inversion equivalent to the meaning of 'to rightfully belong to' or 'to be rightfully assigned to'. (Cf. "Dům přísluší Benediktovi, Dům náleží Benediktovi, Benedikt má nárok na dům"; roughly: "The house rightfully belongs to Benedict", "The house is rightfully assigned to Benedict", "Benedict has a rightful claim on the house".)

In relation to object ownership it is necessary to asses the functions of VFs of verbs such as "postrádat, pohřešovat, chybět, nedostávat se" etc. In our context the question is whether the constructions based on VFs of the verbs "postrádat" or "pohřešovat" are semantically equivalent to the constructions of object ownership with negated relators. Cf. "Benedikt nemá dům, Benedikt nevlastní dům – Benedikt postrádá, pohřešuje dům". It is evident that the meaning of the listed VFs is not exhausted by semantics in the sense of 'not to have' because "postrádá" has the meaning of 'does not have but longs for' and "pohřešuje" has the meaning 'has lost and seeks to find'.[NOTE12] The actual VF of the verb "pozbýt" has to be considered to be action-based, whereas VFs of the verbs "postrádat, pohřešovat" are likewise closer to having an action-based character.

VF of the verb "chybět" is in the sense of inversion semantically essentially equivalent to the verb "postrádat", cf. "Benjamin postrádá dům – Benjaminovi chybí dům"; on the other hand, VF of the verb "nedostávat se" is inversely joined rather with VF of the verb "nemít", with the important semantic difference in the form of quantizing signalled by the predominance of the genitive case expressing the object possessed. It is not possible to speak of full equivalence in case of the inverse pair "Benjamin nemá peněz – Benjaminovi se nedostává peněz", either; this makes it clear that the carrier of the quantitative feature is not only the genitive form but rather mostly the lexical semantics of the verb "nedostávat se".

A conclusion can be drawn to the effect that in places where in the inverse relation of the relation based in its expression on full verbs, or in such places where

at least one of the participating VFs is a full verb, full equivalence of the respective sententially realized basal meanings is usually not guaranteed, due to the set of specific semantic features of the individual verbs. Some of these features are so important that the semantics of the relation in question shifts even in the sense of basal semantics. Moreover, the semantics of the said expressions is also modified by the character of the participants. E.g. the verb "chybět" in the phrase "Benjaminovi chybí dům" undoubtedly has the meaning 'he does not have and desires one', but a phrase such as "Benjaminovi chybí knoflík" involves full semantic equivalence in the sense of inversion with respect to "Benjamin nemá knoflík". It is therefore necessary to once again note in this context that sentential meanings and equivalences of sentential meanings of inverse constructions are understood in an abstract sense, and thus assumes modifications of meanings bound to grammatical and lexical meanings of the means of expression.

Dotted lines mark the individual levels of generalness postulated in the sense of the semantic basis, edges mark the relations between basal meanings, nodes mark the individual abstractly postulated meanings. Based on the abstract system of basal verbs and other basal relators, only certain nodes are actually realized and expressed in sentences.

Theoretical relations between verbal realization and sentential realization and expression justify the material-based method of our research which aimed primarily at the GSP-constitutive properties of the most frequent Czech verbs marked by a broad scale of basal meanings expressed.

From the perspective of the theory of expression, it is important to also evaluate the constitutive properties of the so-called morphological categories of VF. In reference to 2.3 we merely remark that the category of person is not GSP-constitutive since it is pragmatically bound within the text component, the category of number is with regard to GSP syntactically free. Only rarely, cf. VF 3sg Sgen ("Ubývá vody") ("Water is running out") are expression formants of these categories bound by the pattern, i.e. they constitute it, the bond however affects the form (expression) rather than meaning. Due to their semantic properties, the categories of person and number are bound within the text component. The category of time is a functional value of a pragmatic nature, irrelevant from the standpoint

of the GSP theory. The same holds for the so-called grammatical mood of verbs, which is likewise relevant within the text component.

A serious problem from the perspective of the semantic component is posed by the aspect and gender in verbs.

Let us first focus on questions related to the problem of gender. With respect to the selected type of grammar we tend to opt for those concepts which explain the relation between active and passive verbs in the sense of the so-called diathesis (or voice), cf. Grepl's concept in Teoretické základy (1975), that is to say, de-agenting of active constructions. We believe that de-agenting[NOTE11] is essentially related to the structures of sentential realization and is tied to the act of sentential hierarchization of basal relations, i.e. definition of the sentential foundation of the basal relation in question, cf. 2.1.[NOTE12]

For the theory of static meanings however, it is essential to distinguish between de-agenting as an operation on a sententially realized basal formula, whereas the same basal meaning is preserved, and, consequently, so is its event character, from the basal relation of qualification by result of an action ("Kabát je ušitý") ("The coat is finished"), which is usually explained as an operation of resultivization applied to the result of the operation of de-agenting, cf. Teoretické základy (1975). There is usually a difference in grammatical aspect (prefixed perfective aspect verb in relation of qualification by result of action, primary imperfective aspect verb in a de-agented action relation) Cf. "Kabát je šit krejčím" – "Kabát je ušitý" ("The coat is being finished by the tailor" - "The coat is finished"). This does not however hold without exceptions, at least if we, like Teoretické základy (1975) consider sentences such as "Žák je pochválen" ("The student is praised") to be de-agentively realized events rather than qualifications by resulting action, unlike "Žák je chválen" (The student is being praised"). We however believe that this does not rule out the possibility of seeing the boundary between de-agented action and qualification by result of action precisely in the different expression by means of opposite aspects.

We can state that: In sentential expression of object possession, a set of VFs of full verbs are used, that is to say, such verbs as represent lexical realizations of the basal relation the sentential expression of which is based on these verbs. These

VFs of full verbs are expressions of the relators of sententially expressed basal meanings and formally fulfil the requirements placed on inverse relations; since however the individual, formally inverse VF pairs represent lexical realizations and expressions of varying, albeit close basal meanings, even sentential expression of the given basal meanings does not constitute an inversion in our strict sense.

4.1.3 The question of abstract 'possession'

This terms needs to be understood as referring to such basal meanings as correspond to the formula xPy where:

1. the variable y = the abstraction 'possessed'
2. the variable x = person /class of persons (human society)
3. the relation of abstract possession is asymmetrical

The definition shows that what we have in mind is the type of belonging in the broad sense of the world where the significant semantic non-homogeneity of the members of the relation results in an asymmetry which brings these meanings with respect to expression of the relator (the verb "mít") closer to object possession as a typical asymmetrical sort of belonging. This involves meanings of expressions such as "Benedikt má pravdu".

It is necessary to separately evaluate in what relation to this meaning are expressions such as "Benjamin má povinnost, Benedikt má právo, Benedikt má nárok" etc. It is evident that the substantives "právo, nárok, povinnost" are potential complements, which can usually be complemented based on context. Examples such as "Benedikt má právo (na odměnu za práci), Benedikt má právo (na práci v našem podniku), Benedikt má právo (pracovat v našem podniku)" show that the respective substantives need to be considered with respect to the meaning of belonging to be part of the relator, whereas the character of a participant is represented in the expressions by the substantives "odměna, práce" etc. The grammatical construction involved is thus (Snom) {VF "to have" Sacc} praepScas, that is to say, constructions completely identical to the ones expressing the typical relations of belonging (cf. "Matka má právo na dítě"), yet they differ from the said

semi-symmetrical relations by their asymmetry (cf. "Dítě má právo na matku" but *"Odměna za práci má právo na Benedikta"). The heretofore found facts would imply that the relation involved is a type of asymmetrical belonging in the broad sense of the word.

The interpretation of the meanings of these constructions in the sense of asymmetrical belonging needs to be further evaluated with respect to existence of constructions such as ">Benjamin má právo pracovat v našem podniku, Benjamin má právo být odměněn za práci" etc.< If we were to interpret these sentences as semantically equivalent to the construction (Snom) {VF "to be" S acc} praepScas, it would mean to admit that the assumed abstraction is expressed alternatively as praepScas ("Benjamin má právo na odměnu") as well INF ("Benjamin má právo být odměněn, Benjamin má právo pracovat"). This interpretation is acceptable from the standpoint of the general GSP theory, because alternation of S - INF in both right- and left-valency positions is frequent even in expression of action-based meanings. It nevertheless needs to be taken into consideration that apart from phrases "mít právo, mít nárok" + praepSacc, there are also phrases such as "mít povinnost", where only connection to INF is allowed. There is then yet another specific feature: the expression "Benjamin má povinnost pracovat" must also be evaluated with regard to its relation to the expression "Benjamin má pracovní povinnost" where the necessary complement has the form of agreeing adjective. It would appear necessary to respect these specific features of expression in phrases of the type "X má povinnost..." (i.e. the fact that the constitutive potential complement is solely INF and that there is evident sententially semantic equivalence with the construction wherein the infinitive component is expressed as a derivationally related agreeing adjective) and to admit that there is an evident tendency towards complexly qualifying meaning in the sense of the formula xK (Vrz) where vRz is most often a meaning corresponding to action-based basal relations in syntagmatic expressions. Apart from sentences such as "Benjamin má nárok na odměnu/být odměněn, Benjamin má právo na práci/pracovat, Benjamin je povinen pracovat" there are in Czech also sentences like "Benjamin je oprávněn pracovat, Benjamin je povinen pracovat" which in the grammatical sense need to be written down as (Snom) VF "to be" Vpart INF; this involves,

among others, the example of paradigmatic relations between constructions based on the alternation VF "to be" - VF "to have". At the present moment we shall however focus on the question whether a native speaker finds it acceptable to still interpret these expressions as asymmetrical relations of belonging. It would appear that in this place the very grammatical construction suggests the interpretation in the sense of the more complex qualification. The expressions considered have the following relations:

"Benjamin má"			"Benjamin má"
"nárok na odměnu"			"nárok být odměněn"
"Benjamin má"	"Benjamin má"		"Benjamin je"
"právo na práci"	"právo pracovat"		"oprávněn pracovat"
"Benjamin má"	*"Benjamin je"*		*"Benjamin má"*
"povinnost"	*"povinen"*		*"pracovní"*
"pracovat"	*"pracovat"*		*"povinnost"*

Despite the specific properties of the individual sequences, on thing is shared: going in the direction from left to right, the character of asymmetrical belonging in the broader sense of the word wanes while the character of the more complex qualification simultaneously waxes. The sentential meaning involved is thus most likely a transitional type from the field of unfavourable cases of semi-symmetrical belonging in the broader sense and qualification by a more complex qualifying entity.

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If we were to consider the question of respective inverse relations and constructions, it would appear that for the relations we decided to consider as abstract possession ("Benedikt má pravdu") as well as for the relations where we opted for a different interpretation, the constructions of the type "Pravda je na Benediktově

straně" appear possible. As for the substantive ""právo", the following is of interest: the expression "Právo pracovat v našem podniku je na Benediktově straně" which could be considered to be inverse to the expression "Benedikt má právo pracovat v našem podniku" is not very frequent. The expression "Právo je na Benediktově straně" itself has the meaning of 'law is on Benedict's side' and is thus not inverse to the expression "Benedikt má právo" + INF/praepScas. Apparently then, inverse constructions of the type "Pravda je na Benediktově straně" likely correspond better only to constructions (Snom) VF "to have" Sacc and much less to constructions (Snom) {VF "to have" Sacc} Compl, which could be considered another differentiating feature between the relations of abstract possession and relations interpreted based on qualification. With inverse constructions, what is involved from the semantic standpoint is however a local semantic formation which on one hand strengthens the interpretation of these relations in the sense of abstract possession, bot on the other hand, from the perspective of our understanding of inversion, this more likely involves a paraphrase fulfilling the formal requirements of inversion but not its semantic preconditions.

4.1.4 Circumstantial determination

This involves meanings which generally correspond to the asymmetrical formula xCy where x is most often expressed as substantive, y as substantive (prepositional genitive, accusative, dative case). It is also possible to circumstantially determine basal relational meanings which are sententially and syntagmatically expressed (cf. "V Praze byla zahájena výstavba metra, Rozhovory na úrovni šéfů vlád se konají ve čtvrtek"). These cases however no longer involve minimal complex basal formulas.

As will become clear later, they do have circumstantial determination when it comes to expression of the relator, not merely devices they share in common (with a certain internal differentiation) but rather shared also with the relation of object possession (which is likewise asymmetrical) and belonging (which is semi-symmetrical).

The essence of the domain of circumstantial determination lies in the simple relations of localizing and temporal determination. The respective formulas xLy and xTy correspond to all meanings wherein a certain entity is characterized in the sense of 'to be/be located somewhere', 'to be temporally specified'. The respective GSP is the construction (Snom) VF ADV/praepScas, where the VF element is represented by the verb "to be". When it comes to localization, the same function is held by VFs of the so-called full verbs "vyskytovat se, nacházet se".

4.1.4.1 CONCRETE AND ABSTRACT LOCALIZATION AND BELONGING

In this place, we shall focus on local determination as a type of asymmetrical relation. It needs to be accentuated that we shall tackle symmetrical and semi-symmetrical relations of co-occurrence later which are in a certain sense close to local determination (cf. the relational meaning of 'to be beside', cf. with the expression of the VF relator of the verb "sousedit").

It is necessary to assume that it is precisely among the relations with the meaning of concrete localization that meanings are found which do not rule out a semi-symmetrical interpretation. (This is not true of abstract localization, nor of those concrete localization which distinctly have the meaning of containment. For more on this, see below in the discussion of the issues related to inversion.) This in fact involves a shared localization in a certain place, the language nevertheless handles this in the sense of 'a is beside b' whereas b cannot by locally determined in any other way than the symmetrical 'b is beside a'. To given an example: "Byt je u stanice tramvaje"; it is perfectly possible to form the symmetrical "Stanice tramvaje je u (toho) bytu". What is clearly necessary however is a referential, possessive etc. operator to go with the substantive "byt", which implies that symmetrical relations of co-occurrence are in these cases more of a tendency than a completely regular type of relation; in any case, it would nevertheless be possible to speak of semi-symmetry. It is nevertheless necessary to expect that semi-symmetrical or symmetrical relations of co-occurrence will often form the antecedent element of the event of change of localization.

We shall distinguish between concrete localization[NOTE13] ("Šaty jsou ve skříni"), concrete belonging ("Šaty patří/přísluší/náleží do skříně"), abstract localization ("Pes je savec"). The last of the mentioned basal relations requires special theoretical attention.[NOTE14]

It is generally true that any semantic basal relation can be expressed as a depiction of two sets; by the term abstract localization we understand such relation xCy where x = a non-empty set X (x1, x2, ... xn) for n>=1, y = a non-empty set Y (y1, y2, ... yn) for n>=1; it holds that the set X is a subset of the set Y, whereas belonging of the elements of the set X in the set Y is given by fulfilment of an essential defining feature based on which the set X is defined. It thus has the character of basal relation of abstract localization e.g. "Benjamin je člověk" or "Pes je savec" but not "Benjamin je hlupák" or "Pes je chlupáč". It appears that an important feature of abstract localization is the fact that y (the localizing entity) cannot be expressed by adverbial or locally referential devices, unless of course the device in question is of a situationally referential nature. E.g. a student standing in front of the periodic table answers "Hydrogen belongs over here/over there" etc. In this case there is a transformation of abstract localization to concrete localization, which typically involves similar pragmatic realizations.[NOTE15]

4.1.4.2 PART - WHOLE

This is the type of relation the relator of which is likewise expressed by VF of the verbs "být, nacházet se") (cf. "Voda je v mléce, Voda se nachází v mléce"). Similarly to abstract localization, this semantic relation needs to specified: it involves such relation xCy where x = a non-empty set X (x1, x2, ... xn) for n>=1, y = a non-empty set Y (y1, y2, ... yn) for n>=1; the elements of the set X are in relation to elements of the set Y in the sense of the function f = 'to be a consistent part of'.

The specific device of expression of the relator of this relation is to be seen in the expression "skládat se z" and the construction (Snom) VF ref praepSgen; the inverse device of expression of this relation is then VF of the verbs "tvořit, činit, představovat" which lexically realize and express primary action-based meanings, although the meaning expressed in this case is static. The listed VFs are

found mostly in those place where the whole has a mechanical character, but not exclusively, cf. "Většinu kupujících tvoří/činí/představují ženy."

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Even though we stated in the beginning that the lexical devices expressing the relations of concrete localization, abstract localization and abstract and concrete belonging and the relation part - whole are not distinctly differentiated, the said types of relations can be from this standpoint characterized in the sense of the information 'the verb most often expresses' and 'the verb never expresses'. Localization and the relation part-whole are both based on VF of the verb "být", the verb "nacházet se" expresses concrete localization, the relation part-whole but usually does not express abstract localization. It would appear that expressions such as "Fluór se nachází ve skupině halogenů" can only be used in the situations where the speaker thinks of a certain depiction of the abstract localization, e.g. in the sense of the periodic table. VFs of the verbs "patřit, náležet, příslušet" most often express abstract localization and concrete and abstract belonging. They do not express the relation part - whole. VFs of the verbs "vyskytovat se, nacházet se" are specific: they serve mostly to express concrete localizations with the meaning of 'to be usually located/found (at)', the characteristic involved is that of a place where something is found, the more general validity of local determination. This is why in certain sentences based on VF of the verb "vyskytovat se" it is possible to find the meaning of specified existence, cf. "Vyskytují se živočichové, kteří…" wherein the localizing entity is general.[NOTE16]

These verbs often express occurrence of specimen of a certain type within a class of individual entities, cf. "Vyskytli/našli se mezi nimi i zrádci" which is in fact one of the forms of expression of the existential quantifier in Czech.

The characteristic feature of the meaning 'to be located/usually found (at)' and 'within the class X there are x such that' is that apart from the verb "vyskytovat se" not only the verb "nacházet se" but also the verb "objevit/objevovat se" find their use. Both of the last two verbs mentioned share a certain common feature: the verb "nacházet se" is inverse with regard to "nacházet" and expresses

hierarchization in the sense of 'activation' of the 'found' object, the verb "objevit/-ovat" is used to express the meaning of an event-based relation characterized by 'activity' of the perceived object.

The meaning 'to be located/found (at)' is usually also related to other full verbs, cf. e.g. the verb "růst" ("Jahody rostou na slunných stráních") where the actual action-related semantics of the verb is completely suppressed in favour of semantics of occurrence. Similarly, when it comes to concrete localization of persons, the verbs used include "žít, bydlet, pracovat" ("Benedikt bydlí v Praze, Benjamin pracuje v ČKD"). These however involve minimal sentence meanings only in case that the respective constructions with VF without localizer cannot be considered to be minimally sententially complete, which is in practice completely true probably only of the verb "bydlet".

4.1.4.3 THE QUESTION OF BASAL MEANINGS OF POSITION
In relation to concrete localization it is necessary to pay attention to the problem of sentential realization of meanings related to position. The include the functions of VFs of the verbs "vězet, spočívat, sedět, viset, stát" etc.; generally speaking the question is whether it a specific basal relation of position is to be assumed with respect to these verbs or whether they are variations of the means of expression of the L symbol in the relation xLy (concrete localization). The first criterion is the minimal criterion of sentential completeness of constructions based on VFs of these verbs. It is evident that the constructions "Klíč vězí" and "Král spočívá" from the standpoint of sentence completeness are not complete, which leads us to conclude that VFs of the verbs "vězet, tkvět, spočívat" are lexical variations on expression of the L symbol/ The situation changes when it comes to the remaining verbs; it is clear that their complement is potential. Potentiality allows for a complement (a semantically localizing entity) to be complemented as a certain lexical unit (e.g known from the context) or as a general element, that is to say, a class of objects with a certain semantic property without the possibility of lexical specification. Is it possible to apply the test by question: If a sentence can be used as an answer to the question "where is x located?", then it is a lexical expressive variation of L, whereas if it can be used as an answer to the question "what position is x in?" we can conclude that it involves a specific relation of position.

So far we have been paying attention to the functioning of VFs of such verbs as "sedět, ležet, stát, spočívat, tkvět, trčet,…" in localizing determinations. Based on potentiality of complementation by a localizing entity we concluded that it is also possible that these involves lexical variants of expression of the relator L, whereas their mutual differences are due to lexical semantics of the element in position of the locally and positionally determined entity. This more or less means that:

1. With persons the verbs involved are "sedět, stát, ležet, spočívat", with the choice being subject to the specifics of the given person's position;

2. the same is true of animals ("Kočka sedí na okně, Pes stojí před boudou"), the verbs of the type "spočívat, dlít" etc. are nevertheless messing, since they only relate to persons.

For animals whose physiology only allows for a single position only the respective verb is used in accordance with the rule which is a sort of an anthropomorphic application of the rule of ratio between the longer and shorter axes of the human body. To stand is normally 'to be in a position where one's longer body axis is perpendicular to the ground', to lie means 'to be in a position where the shorter body axis is perpendicular to the ground', to sit means a combination of both of these principles. The fact of whether a living organism does or does not have legs is also used as a criterion, especially in places where there the difference between the longer and shorter body axis is not sufficiently distinct. The subordination of this second rule to the geometrical rule is documented by the fact that one does not say e.g. "Na pláži stojí želva" etc., insects are normally referred to as sitting etc.

3. The geometrical rule also determines the use of verbs of position with objects. Especially with man-made artefacts this rule is significantly modified by the rule regarding the basic, default position which corresponds to the character

of the object (the verb "stát" is used) and the secondary, improper position ("ležet"). In terms of metaphoric meaning, the verb "sedět" is used, ("Na hlavě mu seděl klobouk" - but a completely different case is "Ten klobouk ti sedí" = 'the hat looks good on you'). This is why "skříň, židle, příborník stojí" etc. It appears that in places where the ration between the longer and shorter axes of an object is very distinct, the geometric rule takes precedence over the rule of usualness, appropriateness - unusualness, inappropriateness. There are many cases wherein the two rules are in agreement ("Váza stojí na stole") and some where they are not ("Talíř leží na stole").

4. With abstractions, apart from the verb "spočívat" as the means of expression of the relator of verb which does not apply to persons, animals and objects (e.g. "tkvět").

5. The role of lexical realization and means of expression of the localizing relator is also taken up by verbs such as "čnít, tyčit se", even verbs primarily expressing action-related meanings such as "plazit se, pnout se" etc. These verbs have then the meaning of 'to stand', 'to lie' where the accent is on the respective type of position amplified by the verb with action-based meaning, which is understandable especially with expressions of localization of plants, where they are used to accentuate the growth origin of the position in question, or with localization of rivers etc. (cf. "Řeka tvoří oblouk"). It is characteristic that the localizing entity often has a dynamic, directional character, even though the localized entity may be of a non-dynamic nature. It is in fact a dynamic stylization of the form of static position, cf. "Pavlán běží kolem taneční síně, Pole se táhnou k lesu, Cesta vede do údolí".

The question of whether positional basal meanings are to be taken into consideration or not has to be judged also from the standpoint of action relations with the general meaning of change of position. These event-based relations presuppose in their respective elements static basal relations of position. The meanings of change of position are used mostly in case of living organisms, even with those

for which language has more than just one position. Generally speaking it is however necessary to distinguish between positions with external as opposed to internal causation, hence 'to change one's own position' and 'to change the position of someone/something'; whereas with living creatures both types of causation are used, with objects only external causation comes into play (with the natural exception of those cases wherein the speaker treats inanimate objects as living creatures).

4.1.4.4 TEMPORAL DETERMINATION

It was said above that temporal determination, that is to say, the meanings written down as the formula xTy involves all temporal determination of entities, i.e. not only substances but also action-based entities understood as substances. From the standpoint of expressive grammatical construction this does not differ from localizing determinations, the GSP involves is (Snom) VF ADV/praepScas. Affiliation with xTy is given by semantics of the variable y, a temporally determining entity. ("Schůze je ve čtvrtek/zítra/za hodinu"; meanings such as "Parléř patří do gotiky" etc. can also be understood as xTy.)

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Theoretical relations between verbal realization and sentential realization and expression justify the material-based method of our research which aimed primarily at the GSP-constitutive properties of the most frequent Czech verbs marked by a broad scale of basal meanings expressed.

From the perspective of the theory of expression, it is important to also evaluate the constitutive properties of the so-called morphological categories of VF. In reference to 2.3 we merely remark that the category of person is not GSP-constitutive since it is pragmatically bound within the text component, the category of number is with regard to GSP syntactically free. Only rarely, cf. VF 3sg Sgen ("Ubývá vody") ("Water is running out") are expression formants of these

categories bound by the pattern, i.e. they constitute it, the bond however affects the form (expression) rather than meaning. Due to their semantic properties, the categories of person and number are bound within the text component. The category of time is a functional value of a pragmatic nature, irrelevant from the standpoint of the GSP theory. The same holds for the so-called grammatical mood of verbs, which is likewise relevant within the text component.

A serious problem from the perspective of the semantic component is posed by the aspect and gender in verbs.

Let us first focus on questions related to the problem of gender. With respect to the selected type of grammar we tend to opt for those concepts which explain the relation between active and passive verbs in the sense of the so-called diathesis (or voice), cf. Grepl's concept in Teoretické základy (1975), that is to say, de-agenting of active constructions. We believe that de-agenting[NOTE11] is essentially related to the structures of sentential realization and is tied to the act of sentential hierarchization of basal relations, i.e. definition of the sentential foundation of the basal relation in question, cf. 2.1.[NOTE12]

For the theory of static meanings however, it is essential to distinguish between de-agenting as an operation on a sententially realized basal formula, whereas the same basal meaning is preserved, and, consequently, so is its event character, from the basal relation of qualification by result of an action ("Kabát je ušitý") ("The coat is finished"), which is usually explained as an operation of resultivization applied to the result of the operation of de-agenting, cf. Teoretické základy (1975). There is usually a difference in grammatical aspect (prefixed perfective aspect verb in relation of qualification by result of action, primary imperfective aspect verb in a de-agented action relation) Cf. "Kabát je šit krejčím" – "Kabát je ušitý" ("The coat is being finished by the tailor" - "The coat is finished"). This does not however hold without exceptions, at least if we, like Teoretické základy (1975) consider sentences such as "Žák je pochválen" ("The student is praised") to be de-agentively realized events rather than qualifications by resulting action, unlike "Žák je chválen" (The student is being praised"). We however believe that this does not rule out the possibility of seeing the boundary between de-agented

action and qualification by result of action precisely in the different expression by means of opposite aspects.

The basic means of expressing the T relator is VF of the verb "být" ("to be"). Since it is possible to temporally determine - and this is the most frequent case - substantially understood actions, VF of the verbs "probíhat, konat se, odehrávat se, uskutečnit se" etc. can also be used as the means of expressing the relator, whereas these involve complex minimal semantic relations of temporal determination solely if the action-based relation in question, sententially expressed and realized, necessarily requires a temporally determining entity.

4.1.4.5 THE PROBLEM OF INVERSION OF MEANINGS OF LOCAL AND TEMPORAL DETERMINATION

As the next step, circumstantial determination needs to be assessed from the perspective of inversion. It holds for both concrete and abstract localization that they are inverse means of expressing the relator of VFs of the verbs "obsahovat" (typical mostly for concrete localization, but also commonly found in abstract localization) and "zahrnovat" (specific for abstract localization). This statement can be used to conclude the question of inverse devices of abstract localization which was defined above. Apart from VF of the specific verb "skládat se", VFs of the verbs "obsahovat" and partially also "zahrnovat" are used.

Analysis of inverse devices of realization and expression of concrete localization presupposes analysis of the semantic types of localizing entities depending on the lexical semantics of prepositions. We shall outline this issue by listing examples of the most basic types of local prepositions. Let us take these pairs of expressions: "Šaty jsou ve skříni – Skříň obsahuje šaty, Chalupa je v lese – Les je kolem chalupy, Kniha je na stole – Ø Hvězda je na nebi – Ø." It would appear that in our sense the local meaning of 'to be in' is inverse, in the sense of 'inside' as well as 'in between' and 'in the middle'; the meaning 'to be on' is essentially non-inverse. On the contrary, the meaning 'by (= beside)' has a very strange character: cases such as "Chalupa je u lesa – Les je u chalupy, Židle je u stolu – Stůl je u židle" do not involve inversion in our sense of the word, because there is semi--symmetry, whereas the 'inappropriateness' of the second members of the pairs is

due to the more important, significant, bigger of the two entities taking the position of the localizing entity in the original pairs. From the standpoint of semantic accent, both versions are thus possible, the specific quality of the expression being in that it serves, apart from expressing the asymmetrical relation of concrete localization, to also express the semi-symmetrical relation of co-occurrence between (in the aforementioned manner) semantically heterogeneous participants; these participants nevertheless no longer have the character of localized and localizing entities. As was already said, it is necessary to expect symmetrical relations of co-occurrence, too.

The meaning of vertical[NOTE17] space arrangement could be, in relation to the discussion in Chapter 2, understood in two ways; primarily by assuming a semantic basal formula symmetrical with the meaning in question, i.e. analogically to relations with the meaning 'be located beside' with there being no specific device of expression of this relation, or, as a result of non-existence of the said device, to only assume the existence of a non-symmetrical and inverse relation. We believe the second approach to be more correct from the linguistic perspective, sine with respect to the formulation of the semantic relation it is necessary to consider the existence of lexically grammatical devices of expression to be essential. It appears that the relation of vertical local arrangement has, when it comes to inversion, similar properties in terms of formal properties as those of semi-symmetrical relations of horizontal arrangement with the meaning 'by = beside'. In certain case (cf. "Kniha je pod stolem – Stůl je nad knihou") the second member of the pair is 'less appropriate' for the same reasons cited with the relator 'to be located beside'. On the contrary, such vertical local arrangements as "Hrad je nad Prahou – Praha je pod Hradem" or "Hradec Králové je nad Pardubicemi (na mapě) – Pardubice jsou pod Hradcem Králové" are fully inverse.

We thus find out that with the exception of the symmetrical 'to be beside' and semi-symmetrical 'to be by' the remaining prepositional concrete localizations are asymmetrical, whereas the inverse character of these asymmetrical relations depends on the specifics of the prepositional localizer. An important finding lies in the fact that prepositions of local meaning are used as a means of expression

even with abstract localization ("Peníze patří k existenčním prostředkům, Peníze patří do existenčních prostředků"). They nevertheless have a completely different function than relations of concrete localizations; they have a bond nature and do not represent differences in terms of basal semantics.

As for temporal determination, it appears to involve a non-inverse relation, which is an important distinguishing feature in the class of circumstantial determinations.

4.1.5 Linear arrangement

Specification of a concrete localization in the sense of vertical and non-vertical arrangement is a transition towards linearly oriented arrangement. It needs to be stressed that the notion of arrangement used here is a linguistic, semantic term rather than that of mathematical ordered arrangement, since in the mathematical sense all sets of relational basal entities with which we work are defined as ordered. The relation of linear arrangement can be considered to be a specific case of localization. It nevertheless involves a local relation with the character of co-occurrence, since none of the members of the respective relation has the character of a localizing entity, because the entities are semantically equivalent (cf. the discussion of the relations of co-occurrence of the type "Byt je u stanice tramvaje"); the character of linear arrangement nevertheless does not allow semi-symmetrical explanation, unlike with relations of concrete co-occurrence. Linear arrangement is an asymmetrical and transitive relation.

The relation of linear arrangement has as its device of expressing the relator expressions such as "být před, být za" which however serve mostly ro express concrete localization. Similarly as with concrete localizations of entities of linear character (cf. "Silnice běží do kopce"), here also the verbs used are mostly action verbs, such as "předcházet, následovat, přicházet po" etc. The relations is inverse, depending on existence of inversely joined lexical devices such as the pairs "být před - být za, předcházet – následovat, předcházet – přicházet po".[NOTE18]

4.1.6 Quantitative arrangement and quantitative characteristics

Basal meanings of quantitative arrangement have the character of relation of arrangement, too. Their inverse character is once again dependent on existence of pairs of expression of the type "a is bigger than b - b is smaller than a". From this standpoint e.g. only "převyšovat – být nižší než" forms a pair; the respective device expressed as VF of a full verb is missing. It appears that the precondition of existence of pairs of mutually inverse means of expression is fulfilled mostly for adjectives which are apparently primary in these relations; these include the pairs "menší – větší, kratší – delší, vyšší – nižší" etc. A precondition of inversion is semantic homogeneity of the entities compared, i.e. their belonging to a set of elements wherein it is true that apart from the feature of quantitative comparability at least one common essential feature is defined for each element of the set.

If the entities involved are not semantically homogeneous in the aforementioned sense, the relation has the character of quantitative characteristic. An important type of quantitative characteristic is represented by meanings of the type 'number of book copies printed is one hundred thousand', 'B. is worth ten other boys' etc. It is characteristic of this sententially realized basal meanings that, apart from primary action verbs, it only rarely makes use of VF of the verb "být" ("to be").

The quantitative characteristic often has the nature of a limit that either has not been reached or has been exceeded ("Náklady knih převyšují sto tisíc, Náklady knih nedosahují ani sto tisíc" etc.). Quantizing below or over limit is expressed by a specific verb. The relations of quantitative characteristic are not only consistently asymmetrical but - unless they build on other meaning relations - they also tend not to be inverse.

An example of another type of this relation is provided by price information ("Kabát stojí 1000 Kčs"). In this case, there are other means of expression available, cf. "Kabát má cenu…, Kabát přijde na… ": Czech also has for this meaning a device of inverse expression - "Cena kabátu je…" A similar semantic character is manifested by the non-inverse expressions of value quantizing, cf. "Kabát má hodnotu 1000 Kčs, Tato vila má hodnotu zlata". In these cases it is naturally also possible to use VFs of the verbs "převyšovat, překračovat, nedosahovat" much like with the other quantitative characteristics.

An interesting type of quantitative and limitative relation is represented by meanings such as 'to reach a high age'. It appears that it involves action-based meanings, since the linear character of the limited entity here does not have the nature of 'shape' of the characterized entity (as with e.g. meanings of the type 'the road runs uphill'), there is a distinct element of ongoing action. This sort of semantic validity can be identified by context in other relations, too (cf. "Třebaže výrobní náklady trvale narůstají, nedosahují ani sto tisíc").

It is necessary to mention the content-based quantitative characteristics of the type "Vagón pojme sto cestujících". They in fact represent a certain kind of potential 'active' limitative localizations. Inverse devices of realization and expression are usually available, too (cf. "Do vagónu se vejde sto cestujících"). This includes semantic characteristics of containers and packaging ("Džbán má obsah jednoho litru, Džbán pojme jeden litr, Džbán je na jeden litr"). Even the verb "vejít se" can be used as an inverse device of expression, cf. "Do džbánu se vejde jeden litr"). These content-based quantitative meanings are distinctly differentiated in terms of their means of expressions from localizations with the same lexical expression of participants (cf. "Ve džbáně je jeden litr") which involve localization of a semantically concrete quantized liquid, the expression of which is potential based on context. On the contrary, liquids (and other types of matter in general) in the sense of quantitative content-based limitative characteristics represent a participant with a general expression. The relations of quantitative characteristics are in their semantic nature close to qualification relations.

The meanings expressed based on VF of the verb "stačit" are to be considered a separate type of quantitative relation. This involves expression of quantitative disproportions between widely varied, often heterogeneous entities, by non-dynamic ("Plat stačí jen na jídlo, Matka na dítě nestačí") as well as dynamic ("Výroba nestačí poptávce, Benedikt nestačí Benjaminovi v chůzi") means. It is characteristic that expression of disproportion is more frequent than proportional equivalence. An analysis would nevertheless likely prove that the relations involved are mostly complex and non-minimal.

Close to quantification expression in terms of their semantic nature are also other quantification meanings, e.g. the distributive relation, which is however semi-symmetrical in nature.

4.1.7 Signification and indication

An important and interesting type of asymmetrical basal relations is represented by meanings with sentential expressions based on Vfs of the full verbs "znamenat" and "označovat", as well as the phrase "mít význam".

This involves primarily the relation with the meaning 'signifier - signified'. The devices of expressing the relator include the verb "znamenat" (">>Stop<< znamená >>stůj<<!"), as well as the verb "označovat" ("Šipka vlevo označuje zatáčku vlevo") and the phrase "mít význam" (">>Stop<< má význam >>stůj!<<"). The verb "označovat" finds its use in natural language probably only in cases where a symbol is involved; a similar tendency is displayed by the phrase "mít význam", the verb "znamenat" on the other hand is in no way bound within the framework of the said type of relations (cf. "Láska znamená naději",[NOTE19] *"Láska má význam naděje"). The structure of expression is (Snom) VF Sacc, as well as (Snom) {VF "to have" Sacc }Sgen. The provided examples nevertheless show that in the respective participant positions it is often possible to find lexical unit of a non-inflected, meta-language nature. This type of basal relations presupposes a signifier with sign character.

The second type of basal meaning of this domain is the relation 'indicator - entity signalled by the indicator'. In this context we have in mind meanings of sentences such as "Nepřijel, to znamená, že je nemocen" or the meaning of the phraseologized phrase "To neznamená nic dobrého." The meaning involved is in fact relational, with the entity in the position of indicator bringing up broadly understood association of the entity in the position signalled by the indicator. This often involves semantically hidden causal relations, frequently in arrangements that run in the counter-direction of the causal nexus. (Cf. "Nepřijel, to znamená, že je nemocen" – in fact actually 'he did not arrive, because he is ill'.) The context involved can nevertheless vary widely; "Prší, to znamená, že se oteplí; Setmělo se, to znamená, že bude pršet" (non-causal, purely indicative context), as opposed to:

"Je nedostatek surovin, to znamená, že jejich ceny budou stoupat" (relation in the direction of the causal nexus) etc.

The relation 'indicator - entity signalled by the indicator' does not makes use of the phrase "mít význam" and VF of the verb "označovat" as means of expression. It is also necessary to expect that due to the hidden polysemy of the relation 'indicator - entity signalled by the indicator' the relation will often already be semi-symmetrical.

It is also necessary to consider the third type of basal meanings within this domain, namely the this time unequivocally semi-symmetrical relation in the sense 'A is in relation to B with respect to the feature of being important for/to'. Actual texts will naturally contain a number of sentences which allow for the interpretation in the sense of indication. E.g. the expression "Dobývání vesmíru znamená technický pokrok" can be in a certain context interpreted as 'space exploration is an indicator of technical advancement', while in different contexts it might mean 'space exploration is equivalent to technical advancement', 'space exploration is a part of technical advancement' etc. The related expression "Dobývání vesmíru má význam pro technický pokrok" is already an example of the said type of meaning 'A is in relation to B with respect to the feature of being important for/to'. We discuss this type of semi-symmetrical relations in more detail on p. 102, here we shall merely state that this relation is usually expressed based on VF of the verb "znamenat" and the phrase "mít význam pro", whereas VFs of the verb "označovat" are naturally not used. The perspective-related feature of 'to be important for/to' means 'to have value, impact, importance', the presence of the phrase "mít význam pro" usually signals, apart from qualitative and value perspectives, a quantitative perspective.

This relation is at the same time a typical example of transition from semi-symmetrical relations of the type 'A is in relation to B with respect to the feature of C (to have some quality)' to qualifications. Let us consider the juxtaposition of these Czech sentences: "Benediktova práce má pro nás význam, Benediktova práce je pro nás významná, Benediktova práce má význam, Benediktova práce je významná". It is apparent that the increasing potentiality and generalness of the perspective participant in the unfavourable cases of this semi-symmetrical

relation results in the emergence of an asymmetrical quantification relation; it is then possible to understand seemingly simple qualifications against the background of this semi-symmetrical relation, e.g. "(Tato) kniha je významná" as a relation xK (zRv) where the meaning involved is 'to have a property determined by impact, value, importance with respect to something'. This is because the qualification is by entity which itself has the character of a relation. It is precisely this type of complex minimal qualifications which points at the complex relation between sentential, syntagmatic and word-forming expression of basal relations.

Notes

1   Terminological and methodological note. The discussion is based on highly general basal meanings and investigate devices which express such meanings, with respect to classification and specification of basal meanings. Basal meanings, basal relations and basal formulas are thus all written down (the actual synonymy of these terms in practice is discussed in note 2 below) as well as expressive constructions referred to as GSP, sentence, or expression. These terms are in the conditions of the respective discussions practically synonymous, because due to the fact that the work investigates only sententially minimal complete basal meanings, the term sentence always refers to a minimal sentence, or GSP (naturally, this normally involves a lexically realized GSP), with the term expression having the same meaning; these terms are used in relation to example sentences (starting with a capital letter in our notation) or sentences which are subject to analysis (likewise written down with a capitalized starting letter). The term construction is mostly used in relation to symbolically noted grammatical construction having the character of GSP. This variability when it comes to terminology is thus used mostly to make the discussion less rigid in terms of formulation. The same goal is pursued by certain terminological simplifications in the discussion of the relation between participants of basal relations and the respective lexical means of expressions such as: "variable x of the formula xRy acquires the value/is expressed by substantives/the substantive..." The meaning involved is always "participant... of the sententially realized basal relations noted as the basal formula xRy is expressed...".

2   In this place, we use the terms carrier of an attribute, attribute according to Dokulil (1962), these terms nevertheless do not form a part of the set of participants.

3   Cf. Tvoření slov II (1967).

4   The fact that different means of expression represent different semantic differences of non--basal nature, cf. above.

5   As shown by the discussion of the International Committee for Study of Grammatical Structure of Slavic Languages in Kunčice, 1976, the participants of which included N. Ju. Švedavová, M. Ivié, Z. Topolinská, S. Karolak, S. lvančev an others, there are in this respect significant differences between Slavic languages when it comes to use of the construction Snom VF A.

6   Cf. Hausenblas (1963).

7   Cf. the analyses of these meanings in Šmilauer (1947).

8   The {} brackets are used in GSP, or in constructions that further modify GSP, in order to mark the structuring of a construction. They can e.g. mark an analytical device of expressing the relator, or, as in this case, mark the limits of GSP.

9   We formulate the matter here so as to have one of the mutually inverse relations be basic and the other derived from the first one. From the theoretical standpoint as well as from the standpoint of the theory of realization of basal relations, the relations involved are completely equal, from the standpoint of the theory of expression it is nevertheless possible to assume that in order to be basic a relation needs to contain as the sentential foundation a 'left-intentional' participant of a non-symmetrical relation, i.e. in case of qualification relation the qualified entity.

10   It is evident that our understanding of qualification is broader than is common in the literature, which is related to our narrower understanding of belonging in a class (class membership) and class inclusion. Apart from the usual conditions, i.e. the requirement for the so-called classification (cf. Zimek (1963)) to be based on one term being broader in content than the other one, we also state the requirement of inclusion being based on an fundamental classifying feature. With the usual understanding of classification, given a certain vagueness of the general condition in question, the decisive factor is then that in case of classification the classifying entity is a substantive and in case of classification an adjective. Given this linguistic yet narrowly grammatical criterion, the character of classification is ascribed even to relations wherein it is due to their complex semantic heterogeneity rather difficult to verify the respective narrower and broader scopes of the participating phenomena.

11   The literature usually works with the broad sense of possessiveness, wherein the background of the full verb "to have" (object possession) is used as the point of departure for investigation of its further, 'weakened full meaning' and auxiliary functions. There is on the other hand no lack of works which consider "to have" to be mostly an auxiliary verb and its possessive meaning to be a sort of lexicalization of this auxiliary function. Cf. the succinct overview in Zimek (1963), Poldauf (1958). Possessiveness was essentially always understood as a broad range of meanings expressed by the construction with VF of the verb "to have", often with the tendency to somehow generally encompass these meanings in a common semantic feature, cf. e. g. Bally (1944) and others. To us, VF of the verb "to be" represents a highly poly-functional device of expression of relations of belonging in the broad sense of the word, whereas object possession is merely one type, and an asymmetrical type at that, of this relation.

12   Our interpretation of meanings of these verbs naturally does not aim to cover all lexical meanings, but rather only the syntactically relevant component, tied to the meaning of object possession. E.g. the verb "pohřešovat" in relation to persons has an unambiguously action-based meaning in the sense of 'to seek to find someone who is missing, in hiding' etc.

13   Our concrete localization essentially corresponds to Zimek's (1963) 'positional to be'; Zimek uses a finer differentiation mostly in the sense of tracking the consequences of the fact that the localized entity is a person. This has its justification especially in capturing of the transition from concrete localizations as static relations to localizations of actions, wherein Zimek's investigation is largely a continuation of Dokulil (1949).

14   The literature, cf. especially Zimek (1963), in continuation of the impulses from logicians, works with the term 'classification' which is based on two criteria: a) the classifier is a substantive, the qualifier is an adjective (this criterion is normally not explicitly stated, but is undoubtedly fundamental), b) the classifier is broader in terms of content than the entity classified; the meaning assumed is usually that of class membership and class inclusion. It cold roughly be said that class membership which is semantically based, while respecting b),

on a wide variety of other signs, without taking into consideration the fact that the classifier is expressed by a substantive, is understood by us as qualification and the character of classification (in our terminology abstract, unlike in Zimek (1963), which is due to the respective criteria listed in the text). We choose the term abstract localization, because it is evident that classification in language did actually develop on the background of concrete localization.

15   Given our understanding of abstract localization, there is another fundamental feature here. An abstractly localizing entity is not expressed as Sinstr, but rather only as Snom; in this respect our abstract localization is narrower than Zimek's class inclusion, because meanings of expressions such as "Topol je okrasou našich cest" have the character of qualification.

16   Cf. in this context Zimek's /1963/ 'to be of occurrence'.

17   We nevertheless intentionally do not contrast vertical and horizontal arrangements, because it is evident that while verticality is signalled by the respective semantics of prepositions, horizontality does not have a similar definition within language.

18   If we understand 'to be in front of/behind' in a non-linear manner, it represents a specific type of local arrangement in the sense of 'front-rear'. It is characteristic that asymmetrical local relations are distinctly specified, while semi-symmetrical relations are not; it is their semantic vagueness which constitutes the pre-condition of the tendency towards symmetry. The discussion of the function of prepositions is listed here only with respect to the problem of inversion, it is clear that a more detailed thorough analysis of concrete localization would require a continuation of the contemporary analyses of the meanings of prepositions, cf. Komárek's discussion in Vědecká synchronní… (1974) or Konečná (1974).

19   As will become apparent later, the verb "znamenat" corresponds to the relation of signification, as well as the relation of indication, while the verb "označovat" and the phrase "mít význam" are only found in the relation of signification.

4.2 SYMMETRICAL AND SEMI-SYMMETRICAL NON-DYNAMIC MEANINGS

This semantically very rich and complex domain of basal meanings needs to be classified in the direction from the highest degree of abstraction; this highest degree of abstraction is the meaning 'to be in a mutual relation', which is a symmetrical relation. The closest lower degrees is represented by the meaning 'to be in relation to', which is a non-symmetrical relation.[NOTE1] The question of formal properties of relations is tied to abstract hierarchy of relations in the sense that the degree of semantic specification is essentially directly proportional to the degree of non-symmetry. The term semantic specification has in this context the following meaning:

It is basal semantic specification given by lexical realization of basal meanings in the positions of the relator or variables, which means a higher degree of semantic concretization of the basal relation in question.

Also within context with the hierarchy of generalness and specification are in a certain way the relations between basal relations which given a certain rate of semantic kinship differ in the number of variables and usually also by the degree of complexity; their relation needs to be understood as e.g. a two-member relation which is 'entered' by another member of the relation. We list these relations between relations which differ in the number of variables and the degree of complexity with respect to the hierarchy of generalness of symmetrical relations, because they are relations which are in terms of description of systematics of basal meanings close to the relations between relations given by the hierarchy of generalness based on the principle of lexical basal specification, but also because these 'types of kinship' of relations quite often create a certain sort of combinations and thus participate together on the structuring of basal meanings.

In this context, we shall speak of non-specified symmetrical and non-symmetrical relations (these involve relations with very general meanings, usually with two members) and of lexically specified basal relations; the term basal relations specified based on perspective will be used to refer to non-basic relations (which satisfy the principle of minimal sentence completeness) which can be from the standpoint of the given hierarchies of generalness understood as more

general relations, usually with two members, 'complemented' (while respecting the principle of degrees of complexity) by the relation which limits the general relation based on perspective.

An example of lexical basal specification can be found in the various abstract degrees of the relation of kinship (cf. below), an example of specification by perspective in the meanings of the type 'the key matches the lock' (cf. below).

The symmetrical relation 'to be in a mutual relation' is the foundation of the theory of symmetrical and semi-symmetrical relations in the purely basal semantic sense; from the standpoint of sentential realization and expression, it is however considered to be derived, realized and expressed by specific distinctive devices. It is not difficult to explain why, from the perspective of realization and expression, the constructionally basic relation is non-symmetrical. The very essence of sentential realization, that is to say, basal semantic hierarchization[-NOTE2], dualization into the entity which forms the focus of attention and the entity outside the said focus, is asymmetrical. This is related to the fact that even with symmetrical or semi-symmetrical relations there is a tendency towards 'agentive' validity also for VFs of non-action verbs, which is manifested in the fact that precisely with the relation 'to be in a relation to' the verbs involved are reflexive (cf. "týkat se, vztahovat se"). Semantically speaking, the meaning involved is in fact 'to relate oneself to something'. In the background of this essentially asymmetrical general structure of sentential realization of basal relations, there therefore has to be a symmetrical relation positively signalled by specific means of expression. This is why the general symmetrical relator has the form 'x and y are in a (mutual) relation', whereas the seme 'mutual' is for certain construction potential and in a certain sense redundant, because the conjunction x and y in the left-valency position is in this case a clear signal of symmetry.

Unspecified semi-symmetrical relations are expressed by means of the constructions (Snom) VFred Sgen/praepSdat ("Porada se týká plánování, Materiál se vztahuje ke sjezdu"), (Snom) VF praepSinstr ("Nezaměstnanost souvisí s hospodářskou krizí"); these patterns are based on VFs of 'full' verbs. Also used are patterns with verbally nominal relators - generally (Snom) {VF praepScas} praepScas ("Nezaměstnanost je v souvislosti s krizí"). These involve constructions of the type "X is in relation to Y", i.e. based on VF of the verb "to be", but also constructions "X has a relation to Y", i.e. based on VF of the verb "to have". Alternation sets of these means of expression such as "X is related to Y, X is in a relation to Y, X has a relation to Y" are also valid for the verb "vztahovat se" ("X se vztahuje k Y, X je ve vztahu k Y, X má vztah k Y"). The verb "týkat se" does not create a similar alternation set: the set "X se stýká s Y, X je ve styku s Y, X má styk s Y" is specific, because unlike the previous constructions expressing xRy (where R is a semi-symmetrical relation and x,y are expressed mostly as abstract substantive entities) it represents certain specifications of expressing the given basal meaning. "X se stýká s Y, X je ve styku s Y" and "X má styk s Y" correspond more closely and more realistically to object entities. (Cf. "Tlačný kolík je ve styku/stýká se se spirálou, Benedikt je ve styku/stýká se s Benjaminem".) It is necessary to find out whether VFs of the verbs "vztahovat se, týkat se" and "souviset" correspond to symmetrical relations. It is evident that Czech has "X a Y(vzájemně) souvisí" but not "X a Y se (vzájemně) vztahují". It is even clear that given the assumption of absence of the potential adverb "vzájemně" the relation appears to be an incomplete semi-symmetrical relation with conjugated supplementation for x ("X a Y se vztahují k..."). Similarly, VF of the verb "týkat se" does not correspond to a symmetrical relation. This must lead us to the conclusion that the listed reflexive verbs do not correspond to symmetrical relations; hardly a surprising conclusion since it was already said that the very reflexiveness in verbs has, much like semantic accent, an asymmetrical nature. The alternation set of the meaning 'to be connected/related to' is complete, because apart from the listed "X a Y souvisejí" it is also possible to use "X a Y mají souvislost" as well as "X a Y je v souvislosti".

A fundamental common feature of semi-symmetrical and symmetrical relations unspecified with respect to perspective is the fact that expressions of the type "mít souvislost, být v souvislosti" require right-valency complementation by the respective means of expression of the y variable of the xRy formula; this means that the expressions listed represent lexical and grammatical expression of the relators of the respective formulas.

In the domain of non-symmetrical relation unspecified by perspective, of particular interest are relations based in their expression on the verb "záležet".

What we have in mind are expressions such as "nedorozumění záleží v omylu"; they express a general relation of two entities behind which certain semantic specifics of the relation are 'hidden', e.g. causality etc. These meanings make use of VFs of position verbs such as "tkvět, spočívat". Actual text often contain sentences of the type "Věc záleží v tom, že…" These are typical devices of text construction, wherein the noun "věc" represents a complex of phenomena, which is the subject of discussion. VF of the verb "záležet" can be found in expressions of the relation person - object/person/class of persons/class of objects, cf. "Benediktovi záleží na tom, aby…" This is once again general introduction of two elements into a relation - in this case a person with a complex of phenomena of varying nature in the sense of the person's interest/involvement. Likewise, constructions with VFs of the verbs "jednat se o, běžet o, jít o" are expressions of general introduction into a relation.

With the exception of constructions such as "Nedorozumění záleží/spočívá/tkví v/na omylu" these nevertheless understandably do not involve minimal static relations but rather certain text-forming phrasemes which, in terms of semantics, very generally define the relation specified within the text, the meanings involved are often action-based.

Dotted lines mark the individual levels of generalness postulated in the sense of the semantic basis, edges mark the relations between basal meanings, nodes mark the individual abstractly postulated meanings. Based on the abstract system of basal verbs and other basal relators, only certain nodes are actually realized and expressed in sentences.

Theoretical relations between verbal realization and sentential realization and expression justify the material-based method of our research which aimed primarily at the GSP-constitutive properties of the most frequent Czech verbs marked by a broad scale of basal meanings expressed.

From the perspective of the theory of expression, it is important to also evaluate the constitutive properties of the so-called morphological categories of VF. In reference to 2.3 we merely remark that the category of person is not GSP-constitutive since it is pragmatically bound within the text component, the category of number is with regard to GSP syntactically free. Only rarely, cf. VF 3sg Sgen

("Ubývá vody") ("Water is running out") are expression formants of these categories bound by the pattern, i.e. they constitute it, the bond however affects the form (expression) rather than meaning. Due to their semantic properties, the categories of person and number are bound within the text component. The category of time is a functional value of a pragmatic nature, irrelevant from the standpoint of the GSP theory. The same holds for the so-called grammatical mood of verbs, which is likewise relevant within the text component.

A serious problem from the perspective of the semantic component is posed by the aspect and gender in verbs.

Let us first focus on questions related to the problem of gender. With respect to the selected type of grammar we tend to opt for those concepts which explain the relation between active and passive verbs in the sense of the so-called diathesis (or voice), cf. Grepl's concept in Teoretické základy (1975), that is to say, de-agenting of active constructions. We believe that de-agenting[NOTE11] is essentially related to the structures of sentential realization and is tied to the act of sentential hierarchization of basal relations, i.e. definition of the sentential foundation of the basal relation in question, cf. 2.1.[NOTE12]

For the theory of static meanings however, it is essential to distinguish between de-agenting as an operation on a sententially realized basal formula, whereas the same basal meaning is preserved, and, consequently, so is its event character, from the basal relation of qualification by result of an action ("Kabát je ušitý") ("The coat is finished"), which is usually explained as an operation of resultivization applied to the result of the operation of de-agenting, cf. Teoretické základy (1975). There is usually a difference in grammatical aspect (prefixed perfective aspect verb in relation of qualification by result of action, primary imperfective aspect verb in a de-agented action relation) Cf. "Kabát je šit krejčím" – "Kabát je ušitý" ("The coat is being finished by the tailor" - "The coat is finished"). This does not however hold without exceptions, at least if we, like Teoretické základy (1975) consider sentences such as "Žák je pochválen" ("The student is praised") to be de-agentively realized events rather than qualifications by resulting action, unlike "Žák je chválen" (The student is being praised). We however believe that this does not rule out the possibility of seeing the boundary between de-agented

action and qualification by result of action precisely in the different expression by means of opposite aspects.

In Czech sentences it is necessary to expect, apart from these abstract symmetrical and semi-symmetrical relations, an open set of mostly semi-symmetrical relations of the type 'to be in relation to' which are nevertheless distinctly specified in some sense. Generally speaking, the meanings involved are 'x is in relation to y with respect to z' and 'x in relation to y has the property z'. We are naturally interested only in the meanings which satisfy the minimal complex formula. We do not intend to distinguish between the listed meta-language transcriptions as separate types of the specified meanings. Essentially, element 'z' of a basal relation is a perspective-based entity with a restrictive, specifying character with respect to validity of the relation between x and y; the entity can be either substantive or qualifying. Mutual differentiation would however be dependent mostly on the selected meta-language intepretation of z. We could just as well say that the relation of kinship means that 'x is in relation to y in the sense of the property to be akin to' or that 'x is in relation to y with respect to the feature of kinship'. Similarly, the semantics of the sentence "Klíč je vhodný/hodí se k zámku" can be interpreted not only as 'x is in relation to y in the sense of the property of being suitable for something' but undoubtedly also 'x is in relation to y with respect to the feature of suitability'.

Apart from this perspective-based, restrictive specification, we shall, as was already mentioned, speak of lexically basal specifications (cf. the specific meanings of the relation of kinship discussed below) which are based on differences in lexical realization of relators and variables.

An important problem lies in that evidence of the listed types of basal relation with regard to the fact that the devices of lexical realization and expression of the relator and perspective-related specifier which determine the realization and sentential expression represent in a certain sense specific basal relations which mutually differ not only in their semantics but also in their formal properties. Let us therefore introduce the general scheme of an array of symmetrical and semi-symmetrical relation by providing a more detailed discussion with focus on the most interesting and typical relations. The systematics of symmetrical and non-symmetrical basal non-dynamic relations can generally be formulated based on the following criteria:

a) the axis defined in the sense of symmetry - asymmetry with a 'transitional area' of semi-symmetry

b) the axis defined in the sense of semantic homogeneity - heterogeneity of participants of basal relations; this semantic contrast is based on identity/non-identity of such semantic features as person, animal, object, abstraction, degree of functional importance, ..., whereas each of these semantic features can further be understood in the sense of element - class of elements.

c) the axis defined in the sense of a type of bond wherein the outermost points are the meaning 'to be in a relation' and the meaning 'to be equivalent'.

Among the aforementioned criteria are the following relations:

1. There is a direct proportion between the 'rate' of symmetry and the 'rate' of homogeneity of a basal relation; distinctly homogeneous relations are symmetrical, distinctly heterogeneous relations are asymmetrical.

2. The rate of homogeneity manifests convergence towards the 'rate' of equivalence, a higher 'rate' of semantic heterogeneity converges toward a higher 'rate' of semantic 'sovereignty' of members of the relation.

Due to the stated openness, the complex relations of transitionality and the overall complexity of the set of these relations, we shall illustrate the issue by providing a few typical examples.

Let us take the meaning 'to match/be suited to' in expression such as "Klíč je vhodný k zámku, Klíč se hodí k zámku". It is evident that the respective meanings fit the complex minimal formula of the type (xRy) Z z and that we need to assume expressive constructions of the type (Snom) VF "to be" A praepSdat

and (Snom) VF ref praepSdat, because the expressions "Klíč je vhodný, Klíč se hodí" are semantically and grammatically incomplete. The apparent completeness of the construction is due to the fact that the symbol Sdat is highly potential, or general. With respect to semantics, we shall understand these expressions in the sense 'the key is with respect to the lock in a relation regarding the qualification feature of matching/suitability'. (In a certain lexical realization and expression there can apparently be referential identity with the expression "Klíč patří k zámku" (the meaning of belonging), this however is not universally true; such referential identity definitely does not hold between semi-symmetrical relations specified by perspective and symmetrical relations of belonging (together) at all times. In any case, there is no semantic equivalence; both of these meanings relate to a pair of functionally linked objects, the relation of matching/suitability is however a relation of selection of the respective element from a class of keys; in the second case, the sense of belonging together is based on a functional link between the objects. The meaning 'to be match/be suited to' is therefore a semi-symmetrical relation, because expressions such as "Zámek je vhodný ke klíči" are or are not valid based on the lexical realization of the participants.) The position of the participant x in the formula (xRy) Z is most often occupied by substances expressed by syntactical substantives, substantively understood actions, but also action-related expressions based on VF, cf. "Přišel, kdy se mu to hodilo". The listed example requires a more detailed elucidation, since it apparently does not match the respective sentential meaning. This is however the meaning 'it is in relation to he with regard to the qualification feature of suitability', whereas the pronoun "it" refers to the action of 'to come'.[NOTE3] A frequent feature of these construction is a referential (deictic, enumerative, possessive) expression located next to the lexical element in the position of the variable x. The participant in the position y is usually distinctly semantically defined: it is most often a beneficiary, a non-personal recipient of perspective or purpose ("To se mi hodí, Klíč se hodí k zámku, Klobouk se hodí na všechny hlavy"), a localizer is not ruled out, either ("Ten obraz se sem nehodí"). The semantic relations involved are thus object - object, object - person, person - object, action - object, action - person. Special attention needs to be given to the relation person - person: there exists a symmetrical version of the

relation person - person ("Benedikt a Leokádie se k sobě hodí"); we can assume that this symmetrical relation also fits the meaning object - object. Apart from this symmetrical relation, there also exists a semi-symmetrical relation with the same participants ("Leokádie se hodí k Benediktovi").

In further discussion, we need to tackle the question of lexical realization of the relator. So far, we have been providing examples of realization and expression by means of VFref ("hodí se"). There nevertheless exists a whole range of devices ("hodit se, být vhodný, být příhodný, vyhovovat, vyhověl, být po chuti, být na místě, přijít/přicházet vhod") which need to be evaluated with respect to functional synonymy. There is a relatively full synonymy between the expressions "hodit se, být vhodný, být příhodný, vyhovovat". The expressions "být po chuti, být na místě, přijít vhod", or "přijít k chuti" are bound by semantics of the participant in the position y (beneficiary, localizing entity). The symmetrical meaning 'person - person' or 'object - object' and the semi-symmetrical meaning 'person - person' are naturally completely outside of the synonymic set.

We shall distinguish between the following basic relations:

1. person - person, object - object (symmetrical), lexical expression of the relator "hodí se k sobě, jsou si po chuti",

2. person - person (semi-symmetrical), lexical expression of the relator "hodí se k, vyhovuje, je po chuti"; y = beneficiary, recipient

3. object/action/non-action relation - person (non-symmetrical), lexical expression of the relator "hodit se, být vhodný, být příhodný, vyhovovat, být po chuti, přijít vhod"; y = beneficiary, recipient

4. object/action - object (semi-symmetrical), full synonymy of the means of expression; y = perspective or purpose based, recipient, localizing entity

5. person - object (semi-symmetrical), lexical expression of the relator solely by VF of the verb "hodit se", partly "vyhovovat".

It is evident that within the framework of semi-symmetry of the investigated relation, favourable and unfavourable cases of semi-symmetry represent the ratio between semantics of the lexical units realizing x and y in the formula (xRy) Z z.

This involves a certain semantic homogeneity of the elements of the relation, which tends towards symmetry, whereas distinct heterogeneity tends towards non-symmetry. It appears that the semantic combination of type 3. is in practice asymmetrical: cf. examples such as "Tyto boty Benediktovi vyhovují, Cesta do Prahy se Benediktovi hodí, Chata u vody Benediktovi vyhovuje". On the other hand, it is quite possible 2. "Benedikt je Benjaminovi po chuti – Benjamin je Benediktovi po chuti", 4. "Klíče se hodí k zámku, Zámek se hodí ke klíčům", 5. "Benedikt se hodí k soustruhu, Soustruh se hodí k Benediktovi". [NOTE4]

The above are the main features of this complicated relation. It would be possible to take the problem of lexical synonymy of means of expression and discuss it in even more detail, with further differentiation, apart from that, there exist e.g. expressions such as "Popis se na něho hodí" which could be by mistake filed under 3., even though they stand completely outside the synonymous class of expressions. What we however need to respect in this case and surely in a number of other cases as well is the fact that there is no beneficiary involved, but rather a personal recipient with the specific feature of a certain identity between the said recipient and the substance in the position of x. What we are most likely dealing with here is synonymy with the expression "Popis mu odpovídá", that is to say, with equivalence.

We shall show the complexity of the relations of these meanings, corresponding to complex but minimal formulas, to meanings which do not correspond to minimal formulas, because they lexically and grammatically in their expression correspond to the substituted GSP, using the following example: Unlike with the meanings of the type 'to match/be suited to' it is evident that the expression "Benedikt je pyšný" is a minimal complete sentential meaning corresponding in its expression to GSP of the type (Snom) VF "to be" A. The expression "Benedikt

je ve vztahu se svou ženou" appears to lack grammatical and semantic independence, the reason for this is however in that the lexically grammatical means of expression of the relator is redundant here, since the phrase "jeho žena" itself is already a signal of the meaning 'to be in a relationship', in the sense of the relation of family kinship in its syntagmatic realization and expression. We could use these findings to make the premature conclusion that the meaning involved is not 'x in relation to y has the property z' as a minimally complete meaning. The evident synonymy with the expression "Pyšní se svou ženou" however shows that this is precisely the meaning involved; this implies that the phrase "je pyšný" as a grammatical and lexical device is homonymous in the sense that it is grammatically and semantically minimally complete with respect to the simple relation of qualification, but not with respect to the relation 'x in relation to y has the property z'. The second case mentioned involves synonymy with the phrase "pyšní se...", while the first one does not.

4.2.1 Affiliation and togetherness

Among basic types of semi-symmetrical and symmetrical relations is the relation which we generally refer to as the relation of affiliation and togetherness. This relation is lexically specified; this is in terms of lexical and grammatical means of expression marked by the fact that, unlike with specifications with the perspective-based character where the feature of perspective is expressed as nominal (substantive/adjective) complement of the copular relator, the specification is given by the lexical semantics of the relator full verb VF itself. The expression of the meaning involved is thus based on a group of verbs, namely VFs of the verbs "patřit, připadat, příslušet, náležet". All of the listed verbs also express asymmetrical relations. It was already said that if we disregard the formal properties, then e.g. object possession is one of the outer limits of the type of mutual bond which can be referred to as affiliation in the broader sense, namely its asymmetrical pole. In the direction from object possession, favourable cases of semi-symmetry grow more frequent all the way to the opposite pole of the imaginary axis where we can speak of togetherness. The imaginary axis, the outer limits of which include e.g. object possession, abstract localization etc. as asymmetrical relation and

togetherness as symmetrical relation, is a set of points representing the semi-symmetrical relations of affiliation with varying degrees of this formal property. The individual types of these relations however cannot be reliably defined based on the verbs whose VFs serve to express the relations of affiliation. It is necessary to consider general semantic characteristics of the entities in the positions of the participants x,y of the formula xPy where P is the general symbol of the relation of affiliation. These characteristics include e.g. the semantic features person, animal, object, abstraction, each of them in the sense element, class of elements. We already characterized object possession and abstract localization in the respective sections above. Formal properties of the individual relation relate to the degree of homogeneity of their participants. It is necessary to observe homogeneity from the standpoint of the features person, animal, object, abstraction (in this case we consider e.g. the relation person - person to be homogeneous, and person - object as heterogeneous) as well as homogeneity in the sense element - class (we consider e.g. the relation class of elements - class of elements to be homogeneous, the relation element - class of elements to be heterogeneous). Both types of homogeneity in practice naturally combine. The differentiation element - class needs to be understood no in the mathematical but rather linguistic sense, specifically in the sense of grammatical and, most often, lexical sets and elements; cf. e. g. the pairs man - people, (party) member - party, wolf - Canidae etc. If we understand the properties of entities in the positions x,y, defined in this manner, in the relation P as an axis with the outer poles homogeneity - heterogeneity with a continuous scale of transition, we shall find that the axis symmetry, semi-symmetry, asymmetry and the axis homogeneity, heterogeneity are with respect to each other oriented in the following manner:

homogeneity	—	heterogeneity
symmetry	semi-symmetry	asymmetry

We shall further investigate come of the relational combination of the aforementioned semantic features in the positions of participants, observe the formal properties of these relations and the manner in which VFs of the verbs "patřit,

připadat, příslušet, náležet" participate in the expression of these relational combination. We shall also focus on the question of inversion and semantic specifics of verbs within the framework of generally understood relation of affiliation. We shall naturally pay attention only to semi-symmetrical and symmetrical relations, that is to say, affiliation in the narrower sense, and to togetherness. (Distinctly heterogeneous relations, e.g. animal - class of animals or object - person have the character of abstract localization, belonging or object possession, often in the sense of potential possession; they make use of practically all of the aforementioned verbs, cf. "Velryba patří/přísluší/náleží k savcům, Kniha patří/přísluší/náleží Benediktovi". Found only rarely are the verbs "připadat, přicházet", and apparently only in case of certain metaphoric descriptions of abstract localization, cf. "A proto vlk připadá do třídy šelem psovitých".) From the standpoint of grammatical expression of the relation of affiliation and togetherness, two GSPs are used: (Snom) VF Sdat and (Snom) VF praepSdat. The aforementioned verbs differ in this respect. If we consider VFs of the verbs "patřit, připadat, příslušet, náležet", we shall find out the interesting fact that they have varying degrees of dative case prepositional and simple dative case valency in certain dependence on their intentional potential, which in our case is roughly characterized by the aforementioned semantic features.

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this does not rule out the possibility of seeing the boundary between de-agented action and qualification by result of action precisely in the different expression by means of opposite aspects.

Thus VF of the verb "patřit" has fundamentally both types of valency without any dependence on the listed intentional conditions. Cf. "Dítě patří matce, Děti patří matkám, Dítě patří k matce, Děti patří k matkám, Komunista patří straně, Komunista patři ke straně, Člověk patří budoucnosti, člověk patří k budoucnosti" etc. We must nevertheless pose the question of meaning difference represented by prepositional and non-prepositional dative valency. Intuitively, it would seem that the construction with non-prepositional dative expresses some sort of closer affiliation. The matter needs to be evaluated from the standpoint of symmetry. We shall find distinct differences based on intentional properties of relations. When it comes to fully homogeneous relations of the type 'child belongs to the mother' 'mother belongs to the child' 'child belongs with the mother' 'mother belongs with the child' it would seem that the relations involved are all asymmetrical, even though the construction with prepositional valency is more persuasive in this respect. This confirms the intuitive impression that in the case of non-prepositional valency, semi-symmetrical affiliation is more distinctly present, whereas in the case of prepositional valency, symmetrical togetherness is involved. On the other hand, in case of relations with varying degrees of heterogeneity we find that the valency difference Sdat - praepSdat strongly signals differences in formal properties. E.g. the phrases "Člen patří straně" and "Člen patří ke straně" are asymmetrical, whereas the phrases "Člověk patří budoucnosti, Budoucnost patří člověku, Člověk patří k budoucnosti, Budoucnost patří k člověku" are symmetrical. It nevertheless cannot be overlooked that even the substantive "člověk" in this case has the validity of abstraction, and thus the relation involved is the homogeneous relation abstraction - abstraction. Hence, even for VF of the verb "patřit", the aforementioned link between homogeneity - heterogeneity and formal properties of the relation is confirmed.

VF of the verb "připadat" has to a certain extent both types of valency, it is nevertheless used based on the intentional conditions. Cf. "Dítě připadá matce", given certain context possibly even "Dítě připadá k matce", but not "Člen připadá

straně, Člen připadá ke straně, Člověk připadá budoucnosti, Člověk připadá k budoucnosti". Context often reveals the fact that VF of the verb "připadat" has the meaning of emerging affiliation and, naturally, given the respective intentional conditions, even of emerging or potential possession. Cf. "Po rozvodu připadá dítě matce, Na základě rozhodnutí soudu připadá dům synovi" etc. It is therefore quite apparent that VF of the verb "připadat" is the relator of the meaning of affiliation in the narrower sense only marginally. It does not work as the relator of the meaning of togetherness at all, because the meanings of expressions such as "Dítě připadá matce" are asymmetrical relations. With a different valency structure, it is the relator of the meaning of the relation of distribution (cf. 4.2.1.1).

VF of the verb "příslušet" has both types of valency, it is however used based on the intentional potential. Much like with VF of the verb "patřit", it find its use in homogeneous relations expressed by expressions of the type "Dítě přísluší matce/k matce" as well as in certain heterogeneous relations, "Komunista přísluší ke straně". Unlike with VF of the verb "patřit", the relation involved is not that of togetherness, because these relations are semi-symmetrical at best. VF of the verb "náležet" is used essentially without respect to intentional differences in the sense homogeneity - heterogeneity of the participants, but almost exclusively in connection with non-prepositional dative case valency. Only certain cases allow for the possibility of prepositional valency, cf. "Člen náleží straně, Člen náleží ke straně". As for the question of symmetry, it appears that in homogeneous relations such as the meanings of the constructions "Dítě náleží matce, Matka náleží dítěti" or "Člověk náleží budoucnosti, Budoucnost náleží člověku" it is possible to speak of the relation of togetherness.

Despite the differences discovered, we can assert that the typical means of expression of the relations of togetherness and affiliation in the narrower sense are VFs of the verbs "patřit, náležet, příslušet" in their non-action sense. The criterion used in semi-symmetry and symmetry, in other respects the valency features are often very close or even identical with the thoroughly asymmetrical relations of object possession, concrete localization and abstract localization as discussed above. The semantic features object, animal, person, abstraction with the differentiation element - class of elements which we used to more closely define the

participants of the relations of affiliation and togetherness are naturally not the only relevant features which in the sense of homogeneity - heterogeneity affect the properties of the said relations; especially with the relations of the type object - object, but also elsewhere, the features of varying degree of functional importance, size etc. of the participant are used. This is why e.g. phrases such as "Matice patří ke šroubu" have the semantics of a symmetrical relation, whereas with a phrase such as "Volant patří k autu, Kotva patří k lodi" semi-symmetry might be involved, precisely based on the mutual ratio of importance of the two participants. Another finding is the fact that with these relations object - object, but also with other complexly heterogeneous relations (cf. "Pes patří k domu"), non-propositional dative case valency is ruled out. This allows us to conclude that non-propositional dative case valency is, as was after all already said above, a signal of a very close, 'inalienable' affiliation or togetherness. The distinct tendency towards asymmetry in relations such as the meaning of the aforementioned phrase "Člen přísluší/náleží straně" or "Člen přísluší/náleží ke straně" forces us to ask the question of whether asymmetric belonging in a class might in fact be involved. Nevertheless, the certain unusualness of the sentence "Člen patří do strany" outside of context (the preposition "do" is a typical means of expressing the meaning of belonging in a class) suggests that the relation involves is affiliation after all, albeit with the utmost degree of semi-symmetry.

The question needs to be asked of whether VF of the verb "to have" can work as the means of expression of the inverse relation of affiliation or togetherness. It is evident that it mostly cannot, because e.g. the expression "Matka má dítě" has the meaning of the asymmetrical relation of kinship, while the phrase "Budoucnost má člověka" is meaningless. It is moreover quite clear that the meaning of expressions such as "Člověk má budoucnost" poses a certain problem: it appears to be affiliation, but it is thoroughly asymmetrical, which leads us to conclude that as a result of its certain phraseological nature (more often in expressions of the type "Benedikt má budoucnost", i.e. 'he is going to achieve something, he is going to make something of himself') the meaning is closer to qualification. Similarly the phrase "Strana má členy" cannot be considered semantically inverse with respect to "Člen patří/náleží/přísluší straně/ke straně". It is evident that in case of the

meaning of the phrase "Strana má členy", abstract possession is involved (cf. 4.1), if we were to understand the phrase "Člen přísluší/náleží straně" as a relation of abstract localization, it would then perhaps be possible to understand the phrase "Strana má (zahrnuje) členy" as the inverse phrase.

It is nevertheless possible to find such configuration of an expressed relation of affiliation as does allow for VF of the verb "to have" as the means of inversion. This involves e.g. the relations abstraction - person (wherein the person is understood largely in an abstract manner), cf. "Moc patří císaři – Císař má moc". It however appears that even in these favourable cases there is a certain semantic shift, in the sense of change of potential affiliation to 'held' affiliation. It is nevertheless also possible to admit that the phrase "Císař má moc" involves the meaning of abstract possession, or that in some contexts this is actually qualification, semantically identical with the expression "Císař je mocný". This case confirms that 'highly' semi-symmetrical relations of affiliation in the narrower sense easily 'slide', based on context, into asymmetrical relations of affiliation in the broader sense. Thus, a relation of affiliation in the narrower sense is in a way transformed into a different relation, e.g. of possession, cf. the previous example or "Peníze přísluší státu – Stát má peníze".

We can therefore state that highly homonymous verbs which doubtlessly include "patřit, náležet, příslušet, připadat" are usually with respect to the individual sentential meanings distinctly differentiated by various inverse properties of the relations expressed. E.g. the primary means of expression of the relation of object possession is to be seen in VF of the verb "mít" ("to have"), whereas inverse to it in the said sense are VFs of the verbs "patřit, náležet". Abstract localization based in its expression on VFs of the verbs "patřit, příslušet, náležet" has its inverse means of expression in VFs of the verbs "obsahovat, zahrnovat". Affiliation in the narrower sense and togetherness have apart from their specific formal properties (semi-symmetry, symmetry) also the characteristic, albeit negative feature with respect to inversion; as we found out, in this sense VFs of the verbs "patřit, připadat, příslušet, náležet" lack their respective inverse VFs.[NOTE5]

4.2.1.1 THE QUESTION OF THE RELATION OF DISTRIBUTION

Related to the relation of affiliation is the relation of distribution. The meaning involved is 'to Q (x) is distributed Q1 (y)', where x, y are entities with the character of participants, Q, Q1 are constitutive quantification or quantum expressions. It then holds that Q = Q1 as well as Q ≠ Q1; the positions Q and Q1 are occupied by language devices with the meaning of determination, quantification and quantizing. A typical device of expressing the relation of distribution is VFs of the verbs "přicházet" and "připadat", the means of expression of affiliation are nevertheless used, too, cf. (1) "Na každého žáka přichází jedna učebnice", (2) "Na každého žáka připadá jedna učebnice", (3) "Každému žáku přísluší jedna učebnice", (4) "Každému žáku náleží jedna učebnice", (5) "Každému žáku patří jedna učebnice". It is interesting to note the situation following elimination of Q and Q1 from these expressions; we get: (1) "Na žáka přichází učebnice", (2) "Na žáka připadá učebnice", (3) "Žáku přísluší učebnice", (4) "Žáku náleží učebnice", (5) "Žáku patří učebnice". The first two sentences retain the meaning of the relation of distribution, it is however evident that Q and Q1 are in these cases potential. (3) has the meaning of the relation of affiliation, (4) and (5) have, outside context, the meaning of affiliation or object possession. In cases (3), (4), (5) the relation of distribution always forms an extension of the respective relation of affiliation. As for (4), (5), these could also involve distributive extension of the relation of object possession. It is evident that, essentially without dependence on the semantic specification of the participants, the most often used will be VFs of the verbs "přicházet" and "připadat". With the others this will be up to the actual suitability of the lexical semantics of VF expressing the relator of the respective relation of affiliation. Thus it is e.g. possible to use "Na pět občanů připadá jeden policista" but most likely not "Pěti občanům přísluší/náleží jeden policista". There is a similar situation with regard to formal properties of relations of distribution. Generally speaking, the relation of distribution is symmetrical, cf. "Na každých pět občanů připadá jeden policista – Na každého policistu připadá pět občanů". This nevertheless holds only for VFs which specifically express the relation of distribution. Those VFs which express the relation of distribution based on a different meaning of affiliation respect the conditions governing the respective formal properties of

the 'fundamental' relations. It is evident that the relation of distribution has the character of extension in the sense that it presupposes fulfilment of some of the relations of affiliation in the broader sense, mostly however of affiliation in the narrower sense, even though the potentialities Q and Q1 in the relations expressed by VFs of the verbs "přicházet, připadat" prove that the relation of distribution has specific means of expressing the relator, too. From the standpoint of our conception of basal semantics we nevertheless consider the relation of distribution to be a functional part of the text component due to its 'extension' character and due to its properties of a quantification operator with respect to the notions of intension and extension.[NOTE6]

4.2.2 Kinship

The meaning of kinship has very interesting properties, typical of semi-symmetrical relations specified by perspective and lexical devices. In the general sense it is undoubtedly true that the relation of kinship has the character of the relation 'x in relation to y has feature z', it is also generally true that the relation is semi-symmetrical. Since however the relations of kinship form a distinctly defined, structured and hierarchized system of meanings, it is possible to use this example to observe the relations between the degree of generalness of meaning and the logical formal properties. Kinship is in its most general sense of 'to have a kinship relation to' a symmetrical relation. If we remain in the domain of the most basic relations of kinship, we need to distinguish from the standpoint of formal properties the following types: 1. asymmetrical relations without dependence on the degree of generalness (parenthood, grandparenthood, being an uncle), 2. being a sibling is symmetrical in the highest degree of generalness; brotherhood, sisterhood, being a cousin as a more specific degree of sibling relation is semi-symmetrical with a mutually inverse relation, 3. the relation of marriage is in its most general sense (but without a specific lexical means of expression) symmetrical, lexically specified meanings of marriage are asymmetrical with a mutually inverse relation. The individual asymmetrical meanings of kinship (including the unfavourable cases of semi-symmetrical relations) are inverse based on existence of pairs of lexical devices of the type father, mother - son, daughter. The structure of kinship

has prominent presence of constructions based on the verbs "to have" and "to be" in mutual relations. We shall give more attention to the individual types of the relation of kinship below, with respect to the formal properties and means of expression.

Starting with the relation of parenthood and grandparenthood; it is evident that these relations are asymmetrical, cf. "Benedikt je otcem Benjamina/Leokádie, Klaudie je babičkou Benjamina/Leokádie". Apart from the grammatical structure (Snom) {VF "to be" Sinstr} Sgen, the construction (Snom) {VF "to be" Snom} Sgen, cf. "Benedikt je otec Benjamina; Anastázie je matka Benjamina" etc. Expressing the relator in the form {VF "to be" Snom} nevertheless displays a distinct tendency towards undesirable homonymy, cf. the sentence "Anastázie je matka Benjamina" can have the meaning 'a woman with the proper Anastasia is the mother (superior of a convict)named Benjamina'; it is evident that expressing the relator in the form {VF "to be" Sinstr} is primary, even thought the instrumental case does not have the function of relativization here as would normally be expected with the so-called copular instrumental. This meaning of kinship can however be expressed by other syntactical devices, namely the construction (Snom) {VF "to be" Sinstr} Apos/instr cf. "Benedikt je otcem Benjaminovým" and (Snom) {VF "to be" Snom} Apos/nom ("Benedikt je otec Benjaminův"). Given a certain understanding of the GSP theory it would be possible to object that the meanings involved are completely different, as signalled by the fact that the GSP involved is (Snom) VF "to be" Sinst, whereas the symbol Sinst has the rule of derivation S←A applied to it, that is to say, the qualification "Benedikt je otcem" under the conditions of facultative modification. From the standpoint it is nevertheless evident that the phrase "Benedikt je otcem"[NOTE7] means qualification with the meaning 'has children'; the modification listed would then, preserving the meaning of the relation in the sense 'has children', mean a mere semantic-derivational specification of the given relation of qualification. Even the traditional grammar however speaks in case of the phrase "otec Benjamina" of the so-called possessive genitive and routinely states its transformational association with the construction containing a possessive adjective ("Benjaminův otec"). From the standpoint of sentential realization of basal meanings, expressions such

as "Benedikt je otcem Benjamina, Benedikt je otcem Benjaminovým, Benedikt je otec Benjaminův" are undoubtedly semantically equivalent. For our theory, we thus need to assume specific GSP of the type (Snom) {VF "to be" Sinstr} Apos/instr which is a member of the alternation set (Snom {VF "to be" Sinstr} Sgen; (Snom) {VF "to be" Sinstr} Apos/instr ("Benedikt je otcem Benjamina – Benedikt je Benjaminovým otcem") and S(nom) {BF "to be" Snom} Sgen; (Snom) {VF "to be" Snom} A pos/nom.[NOTE8]

We nevertheless believe that the two alternation pairs listed form a single alternation set, because the difference between Snom and Sinstr does not represent a difference in the sense of sentential realization of basal meanings.

Czech has an inverse device for this type of meaning of kinship, which is, while retaining the same grammatical construction, based on existence of lexical pairs father - son, mother - daughter, grandfather - grandson, grandmother – granddaughter.

Realization of this type of meaning of kinship is nevertheless not limited to grammatical constructions based on VF of "to be". Constructions based on VF of "to be" have the form (Snom) {VF "to have" Sacc} Sacc, cf. "Benedikt má syna Benjamina." Within these constructions, the relator is expressed is {VF "to have" Sacc}, whereas, if we are to preserve the same semantic accent of the relation (in our case, the arrangement in the direction of the genetic sequence), the position Sacc has to be occupied by the element which was in the construction based on VF of the "to be" a part of the inverse construction (in our case, of the semantic accent in the arrangement in the counter-direction of the genetic sequence). Cf. "Benedikt je otcem Benjamina, Benedikt má syna Benjamina – Benjamin je synem Benedikta, Benjamin má otce Benedikta".

The relation of being a sibling is in its most abstract sense of 'is a sibling of' symmetrical and transitive. From the standpoint of means of expression, there is apart from the aforementioned phrase available also the construction "X má sourozence Y". It is nevertheless necessary to note that the said relation has in this somewhat abstract form more of a construct character, so that the sentences "Benjamin má sourozence Benedikta, Benjamin je sourozencem Benedikta" and even more so "Benjamin má sourozence Leokádii" sound artificial.[NOTE9] What

usually takes precedence is the lexically specified semi-symmetrical relation of being a sibling. Furthermore, sentences such as "Benjamin má sourozence" have in context the meaning of 'to not be an only child', that is to say, they are qualification relations.

We consider meaning relations based with respect to expression on the lexical devices "bratr, sestra, bratranec, sestřenice" to be lexically specified relations of being a sibling. These lexically specified relations of being a sibling are with respect to formal properties of the relationship divided into two sub-groups; given the conditions of gender homogeneity, i.e. if the variables x,y of the relation xGY wherein the symbol G is the relator of kinship in the sense of the respective specification, acquire values of lexical units of the same gender in the semantic sense, the relation is symmetrical and transitive. Cf. "Benjamin je bratr/bratrem Benedikta – Benedikt je bratr/bratrem Benjamina". If the relation involves lexical units which are from the semantic standpoint heterogeneous in terms of gender, the relation is asymmetrical and inverse, cf. "Benedikt je bratr Leokádie – Leokádie je sestra Benedikta". Relations homogeneous in terms of gender have the following valid alternation sets:

(Snom) {VF "to be" Snom} Sgen – *"Benjamin je bratr Benedikta"*	(Snom) {VF "to be" Snom} Apos/nom *"Benjamin je bratr Benediktův"*
(Snom) {VF "to be" Sinstr} Sgen – *"Benjamin je bratrem Benedikta"*	(Snom) {VF "to be" Sinstr} Apos/nom *"Benjamin je bratrem Benediktovým"*
(Snom) {VF "to be" Snom} Sgen – *"Benjamin je bratr Benedikta"*	(Snom) {VF "to have" Sacc} Sacc *"Benjamin má bratra Benedikta"*

In the sense of sentential realization of basal semantics, the pairs listed are mutually equivalent and form alternation sets. The first two alternation pairs are also valid for the lexically specified relation of being a sibling with variables occupied by values heterogenous in terms of gender; the third pair is not valid in this sense. If we assume that the semantic accent in the direction man - woman is to

be preserved, there has to be a change of lexical expression of the relator, cf. "Benjamin je bratr Leokádie – Benjamin má sestru Leokádii". The respective inverse relations to both of these relations, i.e. those that are based on the reverse semantic accent (woman - man) then too presuppose a different lexical expression of the relator, cf.

"Benjamin je bratr Leokádie – Leokádie je sestra Benjamina"
"Benjamin má sestru Leokádii – Leokádie má bratra Benjamina"

It is evident that in non-homogeneous relations, the following rules hold for lexical expression of the relator:

1. for VF of "to be" the requirement of gender homogeneity of the lexical element in the position of sentence foundation (Snom) and lexical expression of the relator holds,

2. for VF of "to have" the requirement of gender homogeneity of the lexical element outside of the sentence foundation (Sacc) and lexical expression of the relator holds.

The relation of marriage has its specific properties. If we were to take the abstract meaning of 'to be in the relationship of marriage' as our point of departure, the relation would be symmetrical, it is nevertheless quite clear that this is more likely a meta-language construct. Actual existence in language, i.e. in its common realizations and expressions is manifested only by lexically specified relations 'X is the husband of Y' and 'Y is the wife of X' which are in and of themselves asymmetrical and mutually inverse. The substantives "manžel, manželka" are not the only means of expression of the substantive element of the relator; the same position can be taken by the substantives "muž, žena". (Much like with the previous examples, we need to point out that given certain context, it is possible to encounter sentences such as "Benedikt je muž, Leokádie je žena" etc. which of

course have the validity of qualification relations.) In case of the relation of marriage, the alternation pairs are valid, too:

(Snom) {VF "to be" Snom} Sgen – (Snom) {VF "to be" Snom} Apos/nom
"Benjamin je muž Leokádie" *"Benjamin je muž Leokádiin"*

(Snom) {VF "to be" Sinstr} Sgen – (Snom) {VF "to be" Sinstr} Apos/instr
"Benjamin je mužem Leokádie" *"Benjamin je mužem Leokádiiným"*

For pairs of constructions based on the alternation of VF "to be" - VF "to have" the conditions are the same as the conditions for the relation of being a sibling with heterogeneous gender.

A specfic expressive construction of the relation of marriage is to be seen in (Snom) {VF "mít" "za" Sacc}Sacc ("Benjamin má za ženu Leokádii"). The expression of the relator {VF "mít" "za" Sacc} is to be considered a signal of non-blood kinship; in this sense it can also be applied to relations of (normally) blood kinship, e.g. in case of step siblings ("Benjamin má za bratra Benedikta"), or with the relation of being an uncle where blood kinship is not a precondition ("Benedikt má za strýce Benjamina").

The relation of kinship which as a whole we consider to be semi-symmetrical is characteristic by the fact that it is within its framework possible to precisely define the preconditions of symmetry and asymmetry of partial, lexically specified meanings of kinship. We merely outlined these conditions above, much as we only formulated the respective alternation set in a very general manner. It is evident that constructions based on VF of "to have", if they express the relations of parenthood and grandparenthood with a semantic accent in the counter-direction of the genetic arrangement, are subject to certain restrictions. A certain unusualness of certain phrases (cf. "Eva má otce Benedikta") is probably related to the potential unireferentiality of the relation of parenthood and bireferentiality of the relation of grandparenthood. On the other hand, sentences such as "Leokádie má strýce Benedikta" are more usual, which is probably due to the polyreferentiality of this relation.

Apart from the aforementioned qualification relations of the type 'Benedict is a father', 'Benjamin has siblings' it is necessary to also expect meanings of affiliation of the type 'Benedict has a father' where the context usually identifies properties similar to those of the so-called inalienable possession of body parts. Sentences usually have this meaning in the negative sense ("Benedikt nemá otce"), or in dialogues, following a question. From this standpoint it can therefore be concluded that they involve qualification with the character of affiliation based on relations of kinship.

4.2.3 The question of identity and equivalence

These relations pose a certain problem from the perspective of natural language as they are mainly a meta-language device. Equivalence is usually defined within the logic of relationships as a type of relation which is reflexive, symmetrical and transitive, whereas identity is a trivial case of equivalence. Identity is usually understood extensionally as a relation of two expressions to the same object. If we take as our point of departure the Leibnizian definition of identity (x is identical to y if and only if it is possible to state of x the same as of y, and vice versa)[NOTE10], then we shall encounter identity in natural language only in restricted, trivial cases such as Prague - the capital of the Czech Republic, Charles IV - Father of the Nation etc. Even cases of thus type are however, linguistically speaking and with respect to the aforementioned definition - completely indisputable identities. Let us take as example the pair of names Napoleon Bonaparte - the Little Corporal. They constitute an identity only given the assumption that we understand this pair in the sense of 'there is a single man who has two names, namely Napoleon Bonaparte and the Little Corporal, and thus all statements that can be made of Napoleon Bonaparte can also be made of the Little Corporal'. If we however consider the historical, temporal, value- and evaluation-based and the general circumstantial determination of this proposition of natural language, we shall find that identity can hardly be seen as a type of semantic relation of natural language in the same sense as circumstantial determination, qualification, object possession etc. It is a device of the language of science which has to be signalled by presence of expressions such as "být identický, být totožný" with the condition that the

presence of such expressions depends on the aforementioned definition for the given case. From the standpoint of semantics of natural language it holds that it is possible to say of Napoleon Bonaparte all propositions conceivable of the historical person in question (positive, negative, empirical) whereas it is probably only possible to say a subset (such as negative and empirical) of these propositions of the Little Corporal. Similarly, the sets of propositions of Charles IV (as the Holy Roman Emperor), of Charles I (as the King of Bohemia) and of the Father of Nation (as an evaluating name given to the said king) will thus be in the relation of intersections.

It is nevertheless possible to propose a seemingly 'less demanding' extensional definition for natural language (identity is a relation of two expressions to the same object). Identity must in this case be supported by physical property of the object, the object can be defined ostensively, or the 'world' of extensions can be used as the postulated universe; however, in case of 'objects' which represent an abstraction which is difficult to verify empirically, the ostensive conception of identity fails, it is then only possible to use the extensionally postulative conception or to once again work with identity in the Leibnizian sense.

In relation to impulses from, primarily, logicians, identity and equivalence are sometimes brought up in linguistic works concerning the copula. In Czech literature, the notion of identity is tackled already as soon as e.g. by Poldauf (1958). Zimek (1963), who represents a critical follow-up on Poldauf's classification of copular meanings, formulates his conception of identity with respect to findings of Jespersen (1924) and Benveniste (1960). In Zimek's understanding, the character of identity is manifested by sentences of the type "Řím je hlavní město Itálie, Shakespeare je autor Hamleta" - the identity is extensionally determined.

In more recent linguistic literature, one author who deals with questions of identity to a significant degree is Arutyunova (1976). She investigates mostly the problems of the Leibnitzian concept of identity and points out Frege's contribution due to his discovery of the existence of names which cannot be mutually substituted within one true proposition, leading him to differentiate between Sinn and Bedeutung. She further notes that it was under these conditions that

respective limitations of the ability of identical names (words) to be mutually substituted were sought, cf. Quine (1961).

In accordance with Chapter 2 we naturally do not focus on the problem of the process of identification and its criteria, but rather on sentences with the meaning of identity, in the sense of semantic basis as a system of intensional meanings under the assumption of asymmetry of expression and intension on one hand, and intension and extension on the other hand. The meanings we are interested in are sententially minimally complete meanings. We seek to find out whether it is possible to define the relation of identity intensionally, or whether it is limited to extensional definition, as it is usually considered in logical and linguistic literature. The so-called normative identity, cf. Arutyunova (1976, p.302) is identity based on evident potential singularity of the denotatum, the so-called denotative identity is of a purely extensional character. Both of these are from our standpoint relevant in the text component. The relations are moreover complex and non-minimal, cf. "Petrova žena je učitelka mého syna", in these cases identity is quite clearly a matter of syntax of expressed and pragmatized minimal basal relations. 'Explicative sentences' such as sentences concerning lexical synonymy of expressions, of which Arutyunova states that they are expressed by means of VF of the verb "znamenat" ("Blbost znamená hovadina") are too non-minimal: the meaning here is 'nonsense means the same thing as rubbish'; these are meta-language sentence wherein intensional identity can assumed, whereas extensional identity (especially given its broader understanding) is ruled out.

Arutyunova gives more detailed attention only to "propositions constructing the identity of an object with itself", that is to say, extensional identity, although it theoretically also assumes identity of names with respect to the signified and identity in the signified. She nevertheless believes that "sentences representing semantic identity of expressions" are a matter of meta-language rather than natural language. Arutyunova's semantics is an agreement with logical literature which it is based on, and dualistic in the sense that it assumes referential as well as non-referential expressions (words), whereas these expressions retain their constant properties, i.e. intensionality, extensionality, even in relations which they enter. There is then a difference in whether the meanings in relations refer to signifieds

as abstract notions or to denotata as real 'material' objects. The semantics involved is thus not of the intensional type. Arutyunova takes as her point of departure Revzin's (1976) classification of copular relations. There is a difference between the so-called constant, actual identity ("Descartes je Cartesius" and "Jitřenka je Večernice" or "Tento mladý kornet je Durovová") and transient (dependent) identity ("Chléb je svoboda, svoboda je chléb"); these types of identity differ from the constant and transient classification (inclusion).

As for constant identities, both members of the relation are considered by Arutyunova to be referential, whereas this is not the case with transient identities. From our point of view, the examples of constant identity involve in the first two cases the trivial relation between two intensions and evidently a single extension, while the third case involves a non-minimal complex relation of conditions of extensional identity. Arutyunova lists the criteria for sentences with the meaning of identity: 1. use of determinators with both names, 2. specific features of pronominalization, 3. possibility of use of both nominal expressions to identify the object in the text that follows, 4. the meaning of negation, 5. the possibility of "swapping the terms". From our standpoint, the criteria are obviously all text-based, of an extensional nature, with the sole exception of 5. That one is a criterion which most likely involves symmetry (this is however not stated clearly); Arutyunova nevertheless believes that this criterion is only applicable on the sense of logic but not in syntactical or communicative sense. This is a justified standpoint, provided that the 'logical' structure of meanings (which we would refer to as the structuring of basal meaning) is completely merged with the syntactical structure of the given meaning (which we would refer to as sentential realization and expression) and the functional sentence perspective - which we consider to be one of the component of text structuring. The criteria listed by Arutyunova serves mostly to distinguish between sentences with the meaning of identity and sentences with the meaning of classification.

It is obvious that sentences with the meaning of identity are theoretically based on the scheme:

1. expression – (intension)

2. expression – (intension)

extension,

whereas the question tackled is in the spirit of interpretation of the Leibnitzian definition the question of the conditions under which names constitute clearly denotatively identical expressions of the same properties. From our point of view this nevertheless involves intensions as basal sentences and extension as a 'state' of the objective reality for which there is naturally no requirement to be an individualized physical object. It can thus be an 'abstract object' such as a social, physical, chemical or biological law, etc. This type of identity would nevertheless have to be investigated within the theory of the text component. From the semantic standpoint, apart from the trivial reflexive identity of the intension in question (basal meaning) with itself, the relation involved is only that of identity between e.g lexical realization of the given basal formula and the sentential/syntagmatic realization of the same formula, that is to say, sentences with the meaning of periphrastic explication of lexical meaning. Also involved is nevertheless the scheme:

1. expression

2. expression

intension

these are sentence with synonymy of lexical, sentential expressions of the same situation. Hence, it is obvious that the relations involved are in fact indeed meta-language relations.

The previous discussion of the name pairs "Napoleon Bonaparte, the Little Corporal and Charles IV, the Father of the Nation made it clear that given our understanding there is no identity involved, even though linguistic literature traditionally tends to consider these relations to represent the fundamental type of identity.

In natural language, we encounter mostly the type of symmetrical relation between two expressions which is not based on a referentially individual single object, nor on the requirent of a single and only set of propositions containing the expression in question, but rather only the relation based on a certain intersection of all conceivable propositions about the two expressions, i.e. on existence of features common to the two meanings as expressed by the respective expressions. In our understanding of intensional basal semantics, there has to be at least a single element of intersection of semantic features with the character of basal meanings in the position of the intersection of propositions. We shall refer to the relation understood in this manner as equivalence; we shall find that this type has a number of means of expression in Czech, which form a part of natural language. This conception of equivalence in the sense 'x and y are equivalent with respect to feature z' nevertheless means that we assume only the specified equivalences for Czech. The notion of 'absolute' equivalence can from our perspective be seen as more of a construct, a product of the language of science, expressed by devices of natural language.

Let us consider common expressions of the type "Tyto dvě židle jsou stejné". There is naturally no singularity of the denotatum involved, nor is there any single and only set of conceivable propositions based on realized and expressed basal meanings (e.g already the local, possession and other determinations differ), but rather a sameness in the sense of certain features (size, shape, material, colour,...). The relator 'to be the same as' is marked by its feature z being potential, i.e. it may or may not be lexically expressed, it appears to often simply be missing in natural language, or else its specification is not necessary, or its expression is potential. If the feature z is actually present, the respective relator can have the form "je stejný vzhledem k/se zřetelem k/co do"; in such case, z is expressed by a substantive, or has the form of "je stejně" + A. It is evident that equivalence is a meaning based on complex formulas. This can be show on e.g. the meaning 'to have the same size as'. This basically means that two entities are being qualified as 'having a certain size', whereas these properties they have are mutually identical. Expression of the relator can take a number of forms; let us consider the sentences: "Benedikt a Leokádie jsou stejně velcí, Benedikt je (stejně) velký jako Leokádie, Benedikt je co do velikosti jako Leokádie" etc. The first of these sentences contains conjunction of participants, which was already pointed out above as a formal signal

of symmetry. In the remaining cases, the expressed relator takes the form of "je stejně" + A "jako", "je co do" +Sgen "jako". Naturally, an identical feature, which provides the condition of our understanding of equivalence, can be represented by a wide variety of semantic entities which take in their expression the form of adjectives, substantives, but also of syntagmatic or sentential expression. Cf. "Benjamin je stejně hloupý jako Leokádie, Pokud jde o hloupost, je Benjamin stejný jako Leokádie, Co se týká hlouposti, je Benjamin stejný jako Leokádie, Co do chuti pracovat je Benjamin stejný jako Leokádie" etc. In this context it is quite clear that sentences such as "Benjamin je stejný jako Leokádie" cannot be considered to represent realization and expression of absolute equivalence; the context always reveals the respective feature z which is in terms of language expression naturally often expressed in a very complex manner, often by a full text section.

There is nevertheless a serious problem related to formal properties of relations such as the meaning of the sentence "enjamin je stejný jako Leokádie". In this form, the presence of the seme 'the same' guarantees symmetry, and thus interpretation of the relation as an equivalence, because we understand it in the sense 'there is a feature z, albeit it is not expressed'; otherwise these sentences need to be interpreted much in the same way as sentences of the type "Benjamin je jako Leokádie" (cf. more on this in 4.2.3.2).

4.2.3.1 CONGRUENCE, SIMILARITY, EQUALITY

Up until the present point we have been discussing examples where given all the complex variants of relators and lexically grammatical expression of features, one thing remained in common: the relation of equivalence was in its expression based on the connection of the means of expression of the seme 'the same' and the means of expression of the feature z, albeit the seme 'the same' may be potential under the given conditions (e.g in case that z = 'big' and the relator is expressed as VF "to be" ADV A).

Let us now turn to relational expressions such as "je shodný, je podobný" etc. It appears that it would be incorrect to understand these expressions as if instead of the expression "stejný" in the relator "je stejný" + z there was the expression "shodný" or "podobný" without the need for the perspective-based feature z. This

would lead us to the conclusion that the relations in question are different from equivalence, e.g. the relation of congruence, similarity etc.

Let is consider the sentences "Tyto dva trojúhelníky jsou shodné". The notion of congruence has its precise definition in geometry, where 'to be congruent' means to 'to be same in terms of congruence with respect to feature z'. The feature z is represented here by the respective identities of elements of geometrical shapes. This means that lexical semantics of the adjective "shodný" in this case contains the combination of the seme 'the same' + 'z'. Similarly, it would be naturally be possible from the linguistic perspective to interpret other terms, such as "rovnoběžný, stejnolehlý" etc.

Let us however consider a different example, this time from the domain of linguistics: "Podmět a adjektivní přívlastek se shodují"[NOTE11] (agreement in terms of gender, number and case). It is obvious that the difference from the previous example lies solely in that the respective feature needs to be explicitly specified with respect to the linguistic notion of congruence being 'congruent + a list of categories'. Due to the fact that the linguistic notion of congruence usually has apart from the semantics of equivalence with respect to a given feature also the semes of dependence and control, it is necessary to assess whether sentences such as "Adjektivum se shoduje se substantivem (v…)" represent expressions of equivalence; it is evident that they do not, because the relation involved is not symmetrical; the sentence "Substantivum se shoduje s adjektivem v…" would from the linguistic point of view be seen as incorrect, even though it is from the standpoint of a different understanding of congruence indeed a symmetrical relation. We thus discover an important fact: relators expressed by the phrase "je" +A or VFref, where A is derived from VFref and where the basal meaning expressed by A or VFref contains the semes 'the same' + 'z', constitute relations of equivalence only provided that they do not at the same time contain further semes which are in contradiction of the symmetry of the relation in question.

The questions related to the relation of similarity in natural languages have had a number of works dedicated to them. In our country, O. Zich (1974) defined similarity in the following manner: "objects which are similar have at least certain features in common. In the extreme case they have exactly one common feature".

It is quite clear that similarity belongs in the broader domain of relations, which we defined as equivalence. Similarly to C. Fillmore (1971), Zich investigated the conditions of symmetry in the relation of similarity. He states that not only the semantics of constructions containing the verbs "připomínat, upomínat na", but also the semantics of constructions based on the verb "podobat se" under certain conditions fails to fulfil the requirements of symmetry. He then goes on to discuss non-symmetrical relations of similarity, presenting a proof of the fact that concatenation of non-symmetrical similarity with its converse relation results in a new relation which is symmetrical, reflexive and transitive. The said logical operation assumes the introduction of a so-called paradigm, i.e. a certain semantic character of the second variable of two-member relations of the type xPv. Zich assumes two types of the relation of similarity in natural language (symmetrical and non-symmetrical), he however does not rule out the possibility of discovery of specifications of the relation of similarity different from the ones he discusses.

We shall proceed to focus on the semantic conditions of symmetry of the relation of similarity, which means paying attention to the mutual ratio of the semantic features of both members of the relation with respect to various formal properties of the said relation.

Let us take as our point of departure semantically simple cases of similarity of persons based on the expression "je podobný", e.g. "Benedikt je podobný Leokádii". In this case, the relation appears to be indisputably symmetrical and possible to interpret as 'to be the same with respect to the feature of similarity', whereas in this context the feature 'similarity' has the meaning 'congruence of physiognomic features'. This is equivalence, the way we understand the term. It is however interesting that in case of the sentence "Benedikt je podobný matce" we intuitively tend to reject the symmetrical "Matka je podobná Benediktovi". The reason is evident. The meaning 'to be similar to' in relations between genetically related persons manifests a tendency towards symmetry 'in the direction' of the genetic sequence. This is nevertheless indeed only a tendency, since this unacceptability of symmetrical understanding of the relation depends on context. After all, sentences such as "Otec a syn jsou si podobni, Otec se synem jsou si podobni" show that the relation is symmetrical, with the same participants.

The relation of equality is from the linguistic standpoint found only in places equality in the mathematical sense is involved, but also in sentences such as "Občané jsou si rovni" etc. It is characteristic of this symmetrical relation that the feature z is rarely explicitly expressed by lexical devices. The actual meaning involved is nevertheless that of 'the citizens are equal before the law/with respect to their rights'. This means the relation is once again a type of equivalence, quantitative or otherwise. Much like with the expressions of congruence, apart from the construction Snom VF "to be" Anom Sdat ("X je rovno Y") there is also the construction Snom VFred Sdat ("X se rovná Y") as well as the form of the conjunction Snom + Snom VFref ("X a Y se rovnají") and Snom + Snom VF "to be" ref Anom ("X a Y jsou si rovny").

It is generally true of the listed relations that in place of participants of the given relation there can be found a lexically and semantically superior, inclusive device, cf. "Sourozenci jsou si podobní, Občané jsou si rovni". These case usually involve relations with n members (for n = 2) which could in terms of formal semantics be understood as a class of symmetrical and transitive relations. The validity in question is also often closer to being habitual.

4.2.3.2 DISTINGUISHING BETWEEN NON-SYMMETRICAL SIMILARITY AND CONFRONTATION

Let us take as another example the similarity between objects in the sentences "Tento mrak se podobá koni, Tato louže se podobá srdci". The substantives "kůň" and "srdce" function in constructions with the validity of Zich's paradigm. It is therefore quite clear that the relations are asymmetrical and can be considered to represent correct sentences only given the assumption that the substantive in the position Snom is connected to a referential operator, whereas the substantive in the position Sdat does not allow for presence of such referential operator. (Cf. "Louže se podobá tomuto srdci, Mrak se podobá tomuto koni"; these sentences need to be understood as poetic expressions which are not permissible in 'normal' language, much like "Srdce se podobá této louži a Kůň se podobá tomuto mraku" are not permissible.) It is evident that the phrase "je podobný" is basally polysemic. As for expression of relations of semantically homogeneous participants, the

relation is symmetrical and thus constitutes one of the possible specifications of equivalence. A typical example is that of the geometrical notion of similarity, cf. "Tyto dva trojúhelníky jsou navzájem podobné". In cases where the expression "je podobný" expresses a relation of non-homogeneous participants, the relation involved is the specific relation of similarity, which is asymmetrical and closely related to qualifications. The transition involved is continuous: we saw the example of the sentence "Benedikt je podobný matce" where the non-homogeneity of its participants was due solely to the seme 'similarity in the direction of genetic sequence'. It can even be assumed that with other types of meaning analyses, such as in logic, this relation would be considered symmetrical, because from the factual standpoint there is no doubt that the agreement of physiognomic features is fulfilled for both persons involved, and it is after all possible to imagine such contexts wherein the sentence "Matka je podobná Benediktovi" would be completely appropriate. On the other hand, sentences such as "Tento mrak se podobá koni" belong quite clearly to the asymmetrical relation of qualification by similarity.

We need to add that grammatical expressions of similarity make use of GSP (Snom) {VF "to be" A} Sdat ("Benedikt je podobný Leokádii"), as well as GSP (Snom) VFref Sdat ("Benedikt se podobá Leokádii"), Snom + Snom Vf "to be" ref ("Benedikt a Leokádie si jsou podobni"); and Snom + Snom VF ref "sobě" - with fixed word order - ("Benedikt a Leokádie se sobě podobají"), because the word order "Benedikt a Leokádie se podobají sobě" is closer to a conjunctive variant of the reflexive expression "Benedikt se podobá sobě". As for the terminologically bound geometric meaning of similarity, it appears that its signals need to be seen in the specific grammatical form; Snom + Snom VF "to be" A or PRON Q Snom pl VF "to be" A ("Trojúhelník T a trojúhelník T' jsou podobné, Oba tyto trojúhelníky jsou podobné"). Qualification by similarity, which is asymmetrical, is formally signalled in places which do not involve relations of proper names by means of the construction PRON Snom {VF "to be" A} Sdat PRON Snom VFref Sdat ("Tato louže je podobná srdci, Tato louže se podobá srdci").

In 4.2.3 we discussed the expression "je stejný jako" as an expression of the relator of the meaning of equivalence. We noted that the expression "je jako", i.e.

e.g. as it is found in sentences of the type "Benedikt je jako Benjamin, Benedikt je jako dědeček, Dědeček je jako malé dítě, Benedikt je jako blázen, Benedikt je jako prase" needs to be discussed separately. We found out earlier that the identical semantic feature z is in actual language often potential. With respect to the aforementioned examples the question must be asked of whether the absence of the adjective "stejný" might simply mean its potentiality within the relation of equivalence, or else whether its absence signals that the relation involved is of a different type. It is evident that the first and the second example represent symmetrical relations and that they can be considered to be relations of equivalence wherein the potential or general feature is subject to elision, and the adjective in the expression "je stejný jako" is itself potential. The remaining examples nevertheless show a growing heterogeneity of participants, manifested in their lack of symmetry. If we were to execute the respective inversion of position ("Malé dítě je jako dědeček, Blázen je jako Benedikt, Prase je jako Benedikt"), we would end up with more or less nonsensical expressions. These sentences can nevertheless assume yet another form: "Každé malé dítě je jako dědeček, Každý blázen je jako Benedikt, Každé prase je jako Benedikt". The referential operators complemented reveal the functional differences between participants. Right-valency participants in the original sentences have the character of attributes, which is in the second group signalled by general quantifiers.[NOTE12] In the original sentences, left-valency participants have the character of carriers of attributes.

The examples listed appear to prove that we need to assume the existence of the non-symmetrical relation of confrontation with the meaning 'to be like', wherein one of the participants is the carrier of the confrontation and the other participant represents the confrontational attribute. The construction used to express the relation is (Snom) VF "být" "jako" Snom.

Notes

1   Non-symmetrical relation in the sense of semi-symmetrical or asymmetrical relation.

2   We use different terms due to the significant variance in terminology related to this phenomenon of natural language. Our terminology involves the asymmetrical foundation of realization of basal relations, determined by definition of the foundation of realization, cf. 2.1.

3   Unlike in other parts of the present work, the examples we use here contain text-referential expressions referring to the respective semantic entities. What was said in Chapter 2 nevertheless still holds.

4   It can be assumed that logicians would often understand the meaning of expressions such as "Klíč je vhodný" in a non-relational manner, i.e. as a property. They would not consider the fact of sentential minimal incompleteness. This could lead to the linguistic conclusion that obligatory complements of the type "Klíč je vhodný k zámku" could be seen as perspective--based constitutive restrictions. Our discussions nevertheless clearly imply that if we desire to understand the given type of meanings on a certain level of generalness (i.e. not as a result of semantic interpretation of context-bound syntactical expressions) and with regard to verbal expression of the relator ("hodit se"), then the relation involved is generally a semi-symmetrical relation between two substantive entities with regard to the feature of 'suitability'.

5   The discussion of the inverse function of VF of the verb "mít" ("to have") in expressing of the relation of affiliation in the broad sense implies the ration between our relations of affiliation and togetherness and the traditional meaning of possession. Possession in the traditional sense includes asymmetrical and semi-symmetrical possessions, the relators of which are expressed as VF of the verb "mít". Even relations of kinship expressed based on VF of the verb "mít" would naturally be interpreted from the standpoint of possession.

6   The means of expression of the relation of distribution includes VF of the verb "být"; this is a typical 'post-verbal' function of this verb, cf. "Na každého žáka je jedna učebnice". What we discuss here is the question of the relation of distribution as a basal relation, specifically a static basal relation. If we come to the conclusion that, despite the specific means of expression, it belongs under the text component, this is all the more true for the meaning of distribution in the broader sense, that is to say, in the sense of "distributive assignment of sets", cf. Hlavsa (1975), i.e. the operation of distribution applied to pragmatized basal relations. This operation can be applied to various static and action-based relations, cf. "Každá židle je na nějakém místě, Některé děvče chodí se dvěma chlapci" etc. It is possible to distributize not only constitutive participants of sententially minimal relations in their mutual relationships, but also the mutual relation of non-constitutive and constitutive participants, cf. "Každý muž jí nosí květiny – Každý den jí přinesl Benedikt květiny".

7   Logicians in particular would not only on this sense but also within the framework of semantics of kinship in general speak simply of properties of the type 'to be the father of'. The relational character of this 'property' is beyond dispute. Interpretation contradictions of this kind stem from the stated capability of language to express 'the same meaning' as a property and a relation; the formal result of this fact is usually in the contemporary semantics the interpretation of all meanings as 1-member predicates in relations.

8   In relation to the tendency to interpret the meaning 'to be the father of' (and meanings of kinship in general) as properties it would be possible to interpret especially those constructions wherein the participant which does not form the sentence foundation is expressed by Apos/instr as qualification by a composite qualifier, whereas nominal expressions of the same meaning ("Benedikt je otcem Benjamina") would be tend to be interpreted relationally; traditional syntax would understand both of these constructions as based on modification of copular predicative nominal. Our approach to interpretation of these meanings takes as its basic criterion the notion of minimal sentence completeness which implies that, allowing for the respective exceptions, see 4.2.2, both constructions involve constitutive members of the relation. It is clear that the meaning of fatherhood is from the standpoint of lexical realization relational, which affects its relational interpretation also from the perspective of sentential realization. As for the expression of participants of sentential realizati-

on which do not represent the foundation of sentence, the relation between the non-participative substantive and the non-foundational participant involves syntagmatic expression.

9   This context shows that the substantive "sourozenec" is not 'unmarked' but rather tied to the male gender.

10   The Leibnitzian concept of identity is nevertheless subject to various interpretations. It is usually applied in relation to the possibility of substitution of words (names) in the same expression (sentences) in investigations of truth values of substituted expressions (sentences), which is in fact investigation of extensionally understood lexical synonymy of words. What we are interested in is on the other hand the structure of sentences with the meaning of identity as sentences of natural language understood in the sense of sentential realization of basal meanings.

11   The feature 'z' represented here by a list of categories is potential in its expression.

12   This will require attention with respect to the relation between basal semantics and extensionally understood operators of quantification, because with the so-called indicators, non--referentiality is usually assumed and they are considered to be non-quantifiable. Apart from the interpretation provided below, it is also possible to give the interpretation which assumes that "Benedikt je jako malé dítě" is an asymmetrical relation of confrontation close to quantification, whereas "Každé malé dítě je jako Benedikt" is an equivalence, the members of which are a class= of individuals and an individual as a member of a single-element class with the possibility of mutual disjunction of classes in the extensional sense, but equivalent with respect to the potential feature 'z'.

4.3 SELECTED MEANING OF A SPECIAL TYPE (SEMANTIC MODIFIERS)

We use the term 'framing'[NOTE1] modifiers to meanings with the formal character of single-member or two-member formulas, the variables of which acquires the values of static or action-based formula, or, in some cases, even the values of non-relational entity. From the standpoint of verb typology (see p. 51) it can be said that the verbs involved are of the type 1, but without the transition between 1a and 1b, and they are thus verbs with a certain empty 'framing' transcendence. Given our understanding of sentence semantics, which consistently distinguishes between basal meanings and meaning values with a pragmatic nature (cf. 2.3), and given our focus on static meanings, it is necessary to give attention especially to the meanings of existence, negation, phasing and delineation and volitive modality. It is at the same time important to state that the respective variable acquire values of nearly all action-based and static relations, whereas the variables of static and action formulas do not acquire the values of the actual formulas with the semantics of 'framework' modifiers, schematically speaking (if E = the symbol of existence, F = the symbol of phasing and delineation, M = the symbol of volitive modality and Neg = symbol of negation) then E (xRy), F (Ry), M (xRy) Neg (xRy) are all valid, where xRy is any dynamic, action-based or non-dynamic, static relations, but xR (E), xR (F), xR (M), xR (Neg) are not. Naturally, relations of the type xR [E (xRy)], i.e. such cases where the variable of any formula acquires the values of the formula E (yRy) or of another formula of this type, are valid. We shall illustrate the aforementioned formulas by providing examples: the expressions "Existuje souvislost mezi příslušnými veličinami, Benjamin začal psát knihu, Benjamin musí psát knihu, Benjamin nepíše knihu" do have the character of correct Czech sentences, but e.g. the expression "Benjamin píše začít" does not; on the other hand, the expression "Benjamin píše, že máme začít pracovat" is a correct Czech sentence.

We understand the listed meanings as basal semantic operators of purely intensional character. This means that the understanding (in the sense of content and scope of the given concept) of the individual operators will not always match the similar traditional linguistic categories which do not distinguish between

intensional and extensional semantics or pragmatic factors in our sense, nor will they match the respective terms of logic, provided these have an extensional--truth value character.

We shall first characterize the individual modifiers with respect to their semantic and the means of expression, and then we shall proceed to their mutual relations and functional arrangement.

The meaning of existence needs to be in our case understood as Ex or E (xRy) where xRy is any non-dynamic, static or dynamic, action-based meaning. From the semantic standpoint, this involves investigation of relations which share as their common feature the fact that they involve expression of absolute existence of a certain entity, or existence of an entity in a relation. With respect to sentential expression of these meanings, the basic rule of connection between the lexical devices is expression of the meaning of existence and the left-valency symbol of GSP in the form Snom.

The meaning of phasing has the general form F (xRy) where xRy is any static or action-based basal meaning, or meaning with an existential modifier; the basic fundamental property of the modifier of phasing is the fact that process and static relation are by addition of the modifier of phasing transformed into a so-called phasing event. From the standpoint of expression it holds that lexical devices of expression of the phasing modifier connect to the left-valency symbol of GSP in the form Snom (cf. "Benjamin začal bít Benedikta, Benedikt začal být bit Benjaminem, Skříň začala obsahovat knihy, Knihy začaly být ve skříni, Peníze začaly patřit k existenčním prostředkům, Existenční prostředky začaly zahrnovat peníze").

The modifier of volitive modality has the general form z M (xRy) where xRy is any static or action-based meaning, or a meaning with an existential or phasing modifier. From the standpoint of expression it holds that lexical devices of expression of the volitive modality connect to the left-valency symbol of GSP in the form Snom (cf. "Benedikt musí bít Benjamina, Benjamin musí být bit Benediktem, Peníze musely patřit k existenčním prostředkům, Existenční prostředky musely zahrnovat peníze"). We shall discuss the semantic conditions of the relation between the participant z (originator of the volitive effect) and the variables

x, y, ... (participants of the respective basal relation) as part of our more detailed discussion of volitive modality.

The modifier of negation has in the sense of sententially realized basal meanings the form Neg (xRy), where xRy is any action or non-action relation, or a relation with a modifier of existence, phasing or volitive modality. From the standpoint of expression it holds that the negative particle "ne-" connects to the lexical devices of expression of the relator which has the form VF. We shall focus solely on the relations wherein the connection of the negative particle to VF expressing the respective relator signals negative meaning of the relation as a whole. In case of pairs such as e.g. the sentences "Benjamin je veselý a Benjamin není veselý" pairs of basal intensional meanings with congruent formal properties are involved. We are thus absolutely not interested in the sense 'it is not true that...' understood in the extensional sense; these are not semantic problems of the type 'if it is true that Benjamin is merry, then it cannot at the same time be true that Benjamin is not merry'. If the notion of truth in the sense of intensional I-truthfulness (analyticity) is involved, then it naturally holds that all sentences which represent application of the respective rules of sentential syntagmatic and lexical realization and expression of basal meanings are from the standpoint of our theory correct and true in the given sense.

We now need to tackle the question of mutual arrangement of the investigated modifiers in the basal semantic sense as well as in the sense of sentential expression.

The functional arrangement of the modifiers M, F, E is obvious already from the aforementioned basic definition. Symbolically noted, the arrangement is as follows: xM{F [E (xRy)]} where xRy is any action-based or static meaning. What is essential is that this arrangement is not valid only in the sense of basal semantics but also in the sense of sequence in the chain of lexical and grammatical devices of sentential expression in 'neutral context'. (Cf. "Vesmír může začít být".) The bond between the means of expression and the left-valency symbol Snom stated above is a formal matter of sentential expression of the respective meanings. It is thus not in correspondence with it semantically 'framework' position. Nevertheless - with respect to the fact that left-valency Snom expresses in the majority of all

grammatical constructions the foundation of the sentence, the carrier of the semantic accent, the element with respect to which the whole relation is perceived - it can be said that the bond between basal semantics and the position within the structure of expression is secured.

The modifier of negation has a special position; unlike with existence, phasing and modality, it is free in the basal semantic sense. Let us consider these expressed basal meanings: "Vesmír nemusí začít být, Vesmír musí nezačít být, Vesmír musí začít nebýt". Therefore, If all the investigated modifiers are applied at the same time, the placement Neg xM [F (Ez)], xM [Neg F (Ez)], xM [F (Neg Ez)] is possible. Movability of the Neg modifier is of a semantic nature, i.e. it changes the meaning of these complex basal relations as a whole, based on its relation to the lexical and syntagmatic realization of basal formulas. It is evident that the placement of the negative particle corresponds to the position of negation in the semantic sense, even though more detailed analyses reveal complex semantic problems (cf. "nemusí začít" allows the interpretations 'can begin', 'does not have to begin, because (he/she/it) already started' i.e. 'continues' etc., while "musí nezačít" is equivalent to 'must not begin') etc. We shall nevertheless not analyse these problems further.[NOTE2]

The characteristics of the modifier make it evident that the modifier of modality has the character of a two-member formula, while the modifiers of existence and negation have the character of a single-member formula. An important finding is the fact that the modifier of phasing has a dynamic nature.

The system of 'framework' modifiers could however be understood more broadly, as a complexly heterogeneous whole. In such case it is possible to divide them - and very roughly at that - into three basic domains: the first domain consists of meanings which are in their character close to logical operators; the 'framework' modifier in these case 'operates' on the 'framed' meaning as a whole, without essentially modifying the meaning in question. This involves mostly the meanings of existence, the meaning of a non-dynamic meaning remaining valid (cf. "Zachovaly se historické památky") and especially the meanings of 'categorical' verbs with the feature of 'existence of action' such as "dít se, uskutečnit se, uskutečňovat se, naplnit se, naplňovat se"; also included are the meanings of

duration etc. Cf. "Děje se bezpráví, Uskutečňuje se dávná tužba lidu, Naplňuje se čas odvety" etc. with an obvious overlap towards the second and third group.

We could say that this first group of modifiers has the character of meanings that are semantically independent of the modified meaning, while semantics of the modified meaning is similarly independent. Especially with respect to this group of meanings the term 'framework' meaning appears to be exceedingly appropriate.

The second group is formed by dependent modifiers, in the sense that their own semantics is modified by semantics of the modified meanings and in turn itself modifies the said semantics. This character is possessed mostly by the meanings of phasing, delineation, which semantically transform the quality of the modified meaning. The respective lexical devices are differentiated based on whether they modify only non-dynamic meanings, non-action processes and substantively realized action processes or events, or whether they also modify verbally realized actions; in that case, they have the character of two-member formulas. Finally, there are also lexical devices expressing phasing, which modify exclusively actions, cf. "Jal se vyjednávat, Zanechal kouření" etc.

The third group of modifying meanings can then be formed by meanings which are action-based in their essence. These are formally two-member formulas wherein the left-intentional participant is usually the originator of the modifying meaning and the right-intentional participant is the modified meaning. These include the whole domain of sentiendi (perceptive) and dicendi (quotative) meanings as well as the related domain of volitively modal meanings in the broader sense. Also included is the domain of meanings of 'active protection', cf. the meaning functions of verbs such as "bránit, hájit, strážit, zabezpečit, zachránit" etc. The group further includes the meaning of prevention of negation, cf. "zachovat jednotu/klid". It also comprises the meanings of active negation, cf. "bránit čemu, zadržet co" etc.

The aforementioned classification is based mostly on the criteria: non-signalization of action character - action character and mutual dependence - independence of the modifying and modified meaning. From another point of view it can be said that semantic modifiers in the broader sense can be divided into the

following groups: a) the meanings of positing of existence of phenomena (individuals, dynamic and non-dynamic relations), positing of remaining in effect, b) phasing and delineating of validity of meanings, c) intellectual and volitive activities with close ties to d) activities related to negation and remaining in existence.

The broader understanding of the system of semantic modifiers brings about a number of issues, especially:

1. It is hardly possible to define the borderline between the a, c, d types of meanings of the third group and 'non-modifying' meanings.

2. It has not been verified whether all semantic modifiers in the broader sense reliably fulfil the precondition (iif C is the general symbol of modifying meaning and xRy is any 'non-modifying' relation) of C (xRy) being valid and xR (C) being invalid.

3. Introduction of semantic modifiers in the broader sense nevertheless shows that the structuring of the semantic basis is based, apart from the principles discussed above, also on the principle of 'framework', 'orbital' functional arrangement of the individual types of basal meanings. In this sense, the 'non--framework', 'non-modifying' meanings are too hierarchized with respect to each other, and semantic modifiers in the broader sense have (if we use the symbol C to refer to them), if we use the notation of arrangement of modifiers in the narrower sense, the position xM {F/E [C(xRy)]}. If then the valency and intention based understanding of semantics assumed that (seen from a 'Bohrian' angle) an individual relational (with respect to realization and expression verbal) meaning is the core and substantive elements are elements of the 'orbit', then the existence of modifiers call for a different depiction: 'the core' consists of the 'non-framework' meanings (dynamic and non-dynamic) with obligatory immediate intention towards non-relational, substantive objects, meanings with intention towards substantive and relational objects (manifested in realization and expression by the possibility of the so-called sentential operation of embedding into the position of the substantive participant) form

the inner region of the 'orbit', meanings with obligatory intention towards relational objects form the outer region of the 'orbit'. The outer region of the 'orbit' thus consists precisely of modifiers in the narrower sense.

Given even this very preliminary assessment of the problem, it is evident that 'framework character', modifying character of meanings represent one of the important structuring principles, which co-establishes the functional properties of basal meanings.

4.3.1 Notes on the semantic problems of existential sentences'

From a very general standpoint of understanding of basal semantics it is true that each dynamic and non-dynamic meaning is the object of a language expression, having an existence in space and time. Given this perspective, the very expression of relations between objects involves the pronouncement of their existence in space and time.[NOTE3] To discuss the problem of the modifier of existence from our standpoint however means to pay attention to only those semantic and grammatical devices as are available to speakers of language in case that his communicative intention is to put stress precisely on the existence of the given object or its relation. This is the most frequent type of existential meaning, which can be noted by means of the formula E (xRy) where xRy is any action-based or static formula, simple or complex. It usually involves syntagmatic, but most often nominal lexical realizations of basal meanings, static or action-based, which are usually further qualified, circumstantially determined, put into relations. (cf. "Existují takové souvztažnosti entit, které… Existují takové relace mezi jednotkami, které…, Existují relace mezi jednotkami ovlivňující…, V přírodě existují vztahy sil, které…") Naturally, formulas of the type E (xRy) where the variable x is occupied by a substantive entity which does not allow for an action-based relational interpretation, are quite common. Less often encountered in texts are existential meanings of the type Ex which we can refer to as absolute existence; these include expressions such as "Příroda existuje, Bůh jest", these entities however, unless

they involve metaphysical notions typical of 'absolute' non-relational thinking, tend to be e.g. circumstantially etc. determined, often by context.

We consider it useful to give some attention to certain types of Czech sentences which in their way oscillate between the possibility of being interpreted as common qualifying and circumstantial determinations, or as qualified and circumstantially determined existential meanings.

Let us consider Czech sentences such as "Jsou lidé hloupí, Jsou lidé, kteří…"[-NOTE4] We believe that the word order with prenominal position of VF "být" is in this case not a result of contextual structure, but rather that it is necessary with respect to isolated sentences of this type to allow for the possibility of the meaning E (xKy) for x = "lidé", y = "kteří"...; this would result in the necessity of considering the word order in question to be fixed in the sense of specific GSP VF "být" Snom A/SENT. The sentences "Lidé jsou hloupí, Lidé jsou takoví, že…" would then have a completely different interpretation (of simple qualification); naturally, the construction in the arrangement VF "to be" Snom A/SENT can be within texts homonymous, i.e. apart from the specific meaning E (xKy) it can also simply express xKy as a result of context structuring. (Cf. in dialogue: "Lidé nejsou hloupí!" "To není pravda, jsou lidé hloupí".)

Another interesting problem is that of interpretation of sentences of the type "V časopise je diskuse, v lukách je povodeň.[NOTE5] It is of course possible to defend the position that these involve simple xLy where L = the relator of local determination, but a question survey[NOTE6] may reveal that the meaning here is 'there is a flood, namely in the meadows', that is to say, the formula is E (xLy). If a native speaker considers it meaningful to ask in identification of the given semantic relation a pair of question the first of which is an existential question and the second of which asks about a circumstantial attribute, it is not possible to rule out the existentially-circumstantial interpretation. Even in such case, we would consider the prenominal position of VF "být" (x = the carrier of localization) to be the fundamental, bound expressive signal of the semantic relation in question. Much like with the previous case, the given word order can naturally within the framework of context structure be the non-basic sequence of the simple xLy. Cf. "Ve Slově a slovesnosti je diskuse o…", (i.e. 1. "je", 2. "ve Slově a slovesnosti"); as

opposed to "Kde je ta diskuse? Ve Slově a slovesnosti je ta diskuse". In relation to examples such as "V časopise je diskuse, V lukách je povodeň, V pátek je beseda", we encounter another important function of the verb "být". The function in question is its 'verb-replacement' function, pointed out already by Kopečný (1958). Since our examples involve by and large substantively realized and expressed processual entities ("diskuse, povodeň, beseda"), the verb "být" stands in place of such verbs as "probíhá", "koná se"[NOTE7] etc. It is possible that the verb-replacement function of the verb "být" is connected here with its existential meaning in the sense that in those cases where the communicative intention aims towards existence of an entity more than towards its action-based nature, VF of the verb "být" is used.

In the given context, it is also necessary to focus on meanings of sentences of the type "Je středa, Je šest hodin, Je duben"[NOTE8] etc. These sentences formally differ from the similar sentences of the type "Jsou Vánoce, Je beseda" by the fact that VF of the verb "být" does not have the verb-replacement function here. We consider them to be referentially temporal expressions. We believe that the meanings involved are actually of the kind 'it is Wednesday today!', 'it is six o'clock now', 'it is April now' wherein the referential modifiers point towards the moment of utterance (or, naturally, beyond the moment of utterance, in the respective direction). These referential modifiers can be omitted, provided that the prenominal position of VF "být" is fixed. If this is not the case, the referential modifier cannot be omitted outside of context, or else the sentence acquires a completely different, albeit purely construct-type, absolute existential meaning (cf. "Středa je, Šest hodin je, Duben je"). Naturally, the word order "Středa je dnes" is bound to context. With the proper context, even sentences like "Středa je" can have referentially temporal meaning (e.g. in dialogue during an argument of whether it is or is not Wednesday).

It is not clear how to interpret sentences like "Za několik okamžiků bude šest hodin, Co nevidět bude duben" where the point of reference being temporally determined is not identical with the moment of utterance, and is specified. After all, a similar specification is possible even in cases where the referential temporally determined point is identical with the moment of utterance ("V této chvíli je šest

hodin"). Functionally speaking, this involves nothing else than lexical variations of the referential modifiers "teď, právě, nyní,..." in case of identity of the temporally determined point with the moment of utterance, as well as the complex issue of variability of lexical expression of a set of temporally determined points non-identical with the moment of utterance. The difference is nevertheless fundamental; if in case of identity with the moment of utterance there is actually merely lexical, stylistic variation of the modifiers "právě, nyní, teď, dnes,…", in case of non-identity, there is basic expression of one point out of the set of temporally determined points which are not identical with the moment of utterance. This basic determination is sometimes quite precise ("Před šesti minutami bylo šest hodin"), sometimes nearly metaphoric ("Co nevidět bude léto"), but always more specific than the referential information of the grammatical categories of past and future tense which only provide data concerning the non-identity of the determined point with the moment of utterance.

Let us conclude by saying that temporal data of the type "Je středa, Je šest hodin, Je podzim" has in its referentially unspecified form at least to a certain extent, apart from its temporally referential, that is to say, pragmatic and textual character, also a certain feature of existential semantics, which is signalled by the bound prenominal position of VF "být". Cf. the sentence "Hodin je šest", unacceptable outside of a highly specified context. Meanings of this type can naturally also be understood against the background of temporal determinations, where in the formula xTy x = name of the time unit ("středa, duben, léto") and y = referentially temporal information.

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Another type of sentence meanings is the domain of the so-called states and moods of nature.[NOTE9] What we have in mind are meanings of sentences like "Je temno, Je zima" etc. It seems that the most appropriate explanation is based on the sense of having an unstructured nature, whereas VF of the verb "být" does not have existential meaning here, but rather the meaning of reference with regard to the carrier of the mood, which due to its complexity is not named explicitly.

This however begs the important question of what the relation is between these meanings and the meanings of sentences like "Je temné nebe, Je studené počasí". There is no doubt that these constructions represent contextually dependent word order of simple qualification relations with the basic word order "Nebe je temné, Počasí je studené". This approach is supported by the fact that names such as "počasí, nebe" etc. cannot be considered to be language expressions of the complex and unexpressed carrier of the state from the sentences "Je temno, Je zima", because they are always narrower in terms of scope. It nevertheless intuitively appears that the order "Je temné nebe, Je studené počasí" or even "Je studená voda" are somehow still basic, at least for the so-called neutral context. We can therefore admit that if VF of the verb "být" has in the sentences "Je temno, Je zima" existential meaning in the sense of givenness and referential function, then in the sentences "Je temné nebe, Je studené počasí" only the existential meaning in the function of givenness is involved;[NOTE10] sentences such as "Nebe je temné" are then merely simple qualification relations. (Formula xKy.) The meaning noted by the formula E (xSy) - i.e. the meaning of an existential state - assumes binding of the respective word order in the sense of specific GSP of VF "být" Anom S nom; this order is naturally homonymous, because - as was already mentioned - it also expresses the contextually bound relation of the formula xKy.[NOTE11]

Interpretation of expressions of the type "Je šest hodin, Je zima, Je temno" traditionally brings about problems with the following basic features: the tendency to interpret them in a copular manner is in fact the desire to avoid any sort of interpretation tied to the existential meaning. There is however a fundamental methodological contradiction: the notion of copula is rooted in the expressive properties of languages, but these cases lack in the structure of their expression the second member of the relation which the copula serves to interconnect. From the semantic standpoint, we tried to show that the presence of VF of the verb "být" is in the basal semantic sense tied to certain features of existentionality, and in the pragmatic and textual sense with certain features of referentiality. The theoretical foundations discussed in 1.2 allow us to state that all of these cases involve minimal states, i.e. semantically unstructured elements, whereas the presence of the

positionally bound VF of the verb "být" represents the aforementioned existential and referential aspects.

The common property of all the listed existential, givenness-based and existentially referential relations is the fact that all of them, with the sole exception of the so-called absolute existences, can in place of VF of the verb "být" also have VF of the verb "mít". Cf. "Máme takové relace mezi jednotkami, které…, Máme vánoce, Máme zaseto, V pátek máme besedu, V lukách máme povodeň, Máme středu, Máme šest hodin, Máme chladno" etc. It is understandable that VF of the verb "mít" is in this context not a device synonymous with VF of the verb "být"; its presence in the individual expressive constructions signals a different semantic feature. The relations involved are specific basal relations which need to be distinguished from those based on VF of the verb "být". A common meaning-related feature of the constructions with VF of the verb "mít" is in certain context undoubtedly a certain relating of the content of the utterance to the speaker (or participants of the act of communication). From this standpoint, it would be possible to leave these construction aside when it comes to the present work, and refer them to text theory. It is only this semantic function that VF of the verb "mít" has in all of the sentences listed above: "Máme takové relace mezi jednotkami, které… Máme vánoce, Máme středu". The remaining cases nevertheless involve not only relating of the content of the utterance to the speaker, but also introduction of a new participant into the basal relation. This participant is usually only specified by context. Cf. the sentence "Máme zaseto" can mean '(the corn) is sown and someone has sown it' or 'we have sown (the corn) and it is sown'. The relation involved may be that of object possession of the resulting state (the possessor may then be either the agent of the resulting state, or someone else). It can nevertheless also involve relating of the resulting state to its agent without the meaning of object possession. Similarly, "V pátek mám besedu" means 'there is a debate on Friday and one of the participants (organizers) of the said debate is saying this, that is to say someone who is in some way related to the debate in question'. In the same way, "V lukách máme povodeň" can have, apart from a generally stated relating of the content to the speaker, also have the meaning 'there is a flood in

our meadows', which once again complicates the originally simpler formula by introducing a relation of possession or affiliation.

Also very interesting is the meaning expressed by sentences of the type "Máme zimu". They can of course involve a mere relating of the content of utterance to the speaker. If we analyse the phrase "V pokoji je chladno", the most adequate interpretation appears to be that of the relation of circumstantially limited existential givenness. This is noted by the formula $[E\ (S)]\ Lz$. Nevertheless, if we analyse the sentence "Mám v pokoji chladno", we shall find that it involves object possession or affiliation of the room wherein there is the givenness of a certain state. The grammatical structure makes this into a seemingly rather absurd form of "vlastním chladno a to chladno je v pokoji"; we believe that writing down this meaning by means of the formula $\{[E\ (S)]\ Lz\}$ explains this apparent absurdity of the grammatical expression. This type of meanings suggests that the criterion of differentiation of all of the aforementioned basal meanings based in their expression on VF of the verb "mít", which are in this manner 'entered' only by the general meaning of relating of the content of the utterance to the speaker, from those whose formal notation needs to introduce a specific participant, can be the singular form of VF of the verb "mít". In places where we expect only the general meaning of relating in case of sg., relations will emerge which will find uses only in very specific contexts, cf. "Mám vánoce, Mám středu". With the remaining relations, this form requires definition of a specific, usually context-specified, participant. This means that pl. is a signal of the general relating, the option of sg. is on the other hand a signal of the necessity of introduction of the respective participant into the formula. Naturally, the relations which allow for VFsg Los also allow for all the other forms of VF (including VFpl Los), whereas the respective participant does not change semantically, but rather only referentially. Cf. "Máme besedu, Mám besedu, Mají besedu, Má besedu", where the semantics of the active/passive participant of the temporally determined debate is referentially differentiated.

The listed alternation of constructions based on VF of the verbs "být" and "mít" are this not an example of a mere change of GSP where the basal meanings is preserved, i.e. an alternation in sentential expression, they represent a change

of basal semantic quality, unless they involve the aforementioned notion of 'presence' of the speaker, which has a pragmatic and referential nature.

In 4.3 we focused on certain constructions which are in certain ways related to expression of existence in Czech sentences. We arrived at the following conclusions:

1. Apart from the basic lexical devices of expressing existence and prevalence in Czech sentences, there are also devices which serve to express the specific meanings of existence in obligatory connection with static or dynamic relations, and also in connection with pragmatic and referential functions.

2. These meaning functions are held by the verb "být" in connection with pre--subject position in GSP.

3. Pre-subject position in GSP can signal not only the so-called prevalence meanings of the verb "být" ("Jsou studenti, kteří nesportují"), but also obligatory expression of local presence ("Jsou zde strže, rokle a skály, V časopise je diskuse"), the meaning of givenness ("Je šest hodin, Je zima"). With the last type of meanings mentioned we encounter another function of VF of the verb "být". It is a referential function of the pre-subject position, because it refers to a point at/prior to/past the moment of utterance ("Je šest hodin") or to a carrier of the state, which due to its 'all-encompassing' nature is not explicitly expressed by lexical devices ("Je zima").

4. The listed types of constructions represent a transitional range between the basic types of existential sentences and the sentences which express various relations between objects, without the existence of these object and the relation between them being explicitly expressed by language devices. We thus understand this domain of existential sentences in a narrower manner than is usually found in linguistic literature.

4.3.2 A note on definition of validity of basal meaning

a) Under the term of definition of validity of basal meaning we understand the use of certain semantic devices (modifiers) which signal the basic phases of validity of basal meanings, that is to say, the beginning (or inchoative) phase and the end (or termination, conclusion) phase, or the 'duration of validity' (continuation) in the conditions of sentential realization of the phase modifier. We use the term of validity of meaning instead of the seemingly more appropriate duration of (verbal) action, because it is possible to make phase definitions of not only action-based but also non-action-based, non-dynamic meanings.

b) Definition of validity of 'verbal' meaning is usually investigated in the broader context of the theory of 'grammatical moods of verbal action' (which includes the theory verbal aspect) as well as in the context of theory of 'multi-word names' of the type verb - noun.

The first theoretical domain involves investigation of verbs the lexical semantics of which comprises the respective feature of meaning, or where this meanings is expressed by presence of a prefixal form ("doběhl, donesl, rozběhl se"). The second theoretical domain investigates verbs which in obligatory bond with nouns express, in the author's opinion, (usually along with other substantial semantic features) the modifier of the beginning or end phase ("zavést demokracii, zahájit období, provést plán, vytvořit dílo" etc.).

c) In 4.3.2 we shall tackle solely the modifier of the beginning and end phase, provided that it is expressed:

1. by a finite verb the lexical meaning of which is identical with the meaning of the respective modifier, or the lexical meaning of which is dominated by the semantic feature of the respective modifier. The basal meaning which is phased by the respective modifier is then expressed by an infinitive or

a substantive derivationally joined with the verb, or by an action-based substantive without a word-forming relation to the verb;

2. the modifier of phasing is expressed by a prefix joined to the basic verb which expresses the phased meanings, under the same conditions as in the case of lexical expression, i.e. the meaning of the prefix is identical with the meaning of the given phasal modifier, or the meaning of the modifier is the dominant component of meaning of the prefix[NOTE12] ("Benedikt začal tančit, roztančil se – Benedikt přestal tančit, dotančil").

d) Under the conditions listed in c) it holds that:

1. modifiers of initial and terminal phasing are joined with processual, mutationally processual (event-based) and non-dynamic (static) meanings[NOTE13];

2. modifiers of initial and terminal phasing 'transform' the meaning of process and non-dynamic meaning into meaning of mutational process (event) in the sense that the very act of phasing assumes the character of an event; we can speak of a 'phasing event'.

e) We shall pay attention from the standpoint of phrasing to the basic types of meanings distinguished in d).

1. Phasing of a (non-mutational, simple) process:

We defined process as a semantic quality which has duration in the sense of the temporal coordinate, but is nevertheless defined as a change of quality in the most general sense. Process understood in this manner is 'transformed' by a phasal modifier into a form with the character of a mutational process (event), because, apart from the component of duration, there is also the component of beginning/end of duration.

The fact that the phasal modifier transforms the process into an event nevertheless cannot be understood in the way that the whole meaning written down as e.g. 'Benedict is not dancing is transformed into Benedict is dancing'[NOTE14] is expressed in language. The initial process, 'Benedict is not dancing' is not expressed in language, the expression comprises only the point of beginning of the phased process. In case of the end modifier ('Benedict is dancing is transformed into Benedict is not dancing') the 'terminal process' is not expressed in language ('Benedict is not dancing'), the expression comprises only the end point of the phased process.

We shall graphically depict the fact in the following manner:
"začít tančit, roztančit se"
'Benedict is not dancing' is changed into 'Benedict is dancing'

"přestat tančit, dotančit"
<u>'Benedict is dancing' is changed into 'Benedikt is not dancing'</u>

2. Phasing of a mutational process (event)

An event was defined as the duration of transformation of quality in the most general sense, that is to say, quality A changed over time into quality B.[NOTE15] The phasing modifier operates in the sense of beginning/end on the event as a whole. The phasing modifier represent the beginning/end of duration of the qualitative change.

Depicted graphically:
"hasnout"
'(fire) is burning' is changed into '(fire) is not burning'
"začít hasnout"
B '(fire) is burning' is changed into '(fire) is not burning'
"přestávat hasnout"
'(fire) is burning' is changed into '(fire) is not burning' E

B = phasing modifier of beginning

E = phasing modifier of end

The description and graphical depiction make it clear that even in case of event--based character of the phased process the two types of actions preserve their semantic difference with respect to phasing.

There is another fundamental difference between processes and events from the standpoint of their capability of being phased. Let us demonstrate the issue using the following example: let us consider the pair of verbs (in this case expressing a non-action event) "zhasnout - hasnout". This is an event-based meaning which can be written down as '(fire) is burning is changed/changes into (fire) is not burning'. The difference between the two verbs lies solely in the signalling/not signalling of reaching of the 'result' state of the event in question.

The meaning as written down is in fact the meaning of an event of the phased process expressed by the verb "plát", in the sense of the phasing modifier of end:

"hasnout" – (of fire) 'to be (in the state of) going out'

"zhasnout" – (of fire) 'to go out'

The non-prefixed verb can only be phased lexically ("začít/přestat hasnout"). It is possible to write down "hasnout" as to 'to be going out', while the 'available' prefixal devices "z-" and "do-" have in connection with the verb "hasnout" the aforementioned meaning of 'to go out'. With the non-action event of 'to be (in the state of) going out' we thus find non-identity of meanings of the prefixal devices and the devices of lexical expression of the phasing modifier; the meanings involved are in fact opposites.

On the other hand, in the case of phasing of the process 'to burn' the meaning of the phrase "přestat plát" and of "doplát" are from the perspective of semantics of phasing identical.

If this has general validity, it can be considered an important criterion of differentiation between event-based and processual verbs in disputed cases.

3. Phasing of non-dynamic, non-action (static) meanings

Non-dynamic meaning was in our context interpreted above as having a validity without duration and change of quality. It nevertheless naturally does have a dimension which can be referred to as duration of validity. This dimension can be represented by a scale ranging from punctual all the way to 'unlimited' validity. These two outer limit points, i.e. non-dynamic meanings with momentary validity - if they appear at all - and 'atemporal' validity are difficult to phase (cf. e.g. "Pes začal být šelma"). Due to the cited fact, that is to say, absence of the feature of continuity, it is in case of static meanings necessary to use the more general term of defining of validity; the term of phasing is then to be used solely with respect to mutational and non-mutational processes.

4.3.3 Notes on the properties of volitive modality

The issues of volitive modality in Czech have had a number of important recent works dedicated to them.[NOTE16] The aim of the following pages is in no case to evaluate the results of these works, or to deal with their possible problems, but rather and solely a brief characteristic of the relation between static relations, processes and events on one hand and modifiers of volitive modality on the other hand.[NOTE17] The common feature of these modifiers which will be differentially characterized below, is the fact that the relations of meaning written down by means of the respective static, processual or event-based formulas are entered into by a participant which can be referred to as the carrier of volitive modality; volitive modality can generally be characterized as a type of mental meaning in

the sense of a volitive intention 'framing' the semantic validity of the respective basal relation.

The basic criterion from our standpoint is the question of whether the carrier of the respective volitive intention is or is not expressed in the given minimal sentence by grammatical-lexical devices. In this sense we speak of internally and externally expressed volitive intention. In case of internally expressed volitive intention the carrier of volitive modality is expressed in the sentence by Snom; the modality involved is tied to VF of the verb "chtít" ("Benedikt chce psát knihu, Benedikt chce, aby Benjamin napsal knihu"). On the other hand, in case of externally expressed volitive intention the carrier of volitive modality if found outside of the lexical grammatical expression in the minimally complete sentential construction and has in this sense features of 'presupposition'. The modality involved is expressed by VFs of the verbs "muset, mít (povinnost), smět, moci" and other synonymous devices such as "lze, je možno, je na Benediktovi, aby…" which have their specific properties. Another criterion of syntactical relevance of volitive modality lies in the specific semantics of the carrier of the respective volitive intention, his relation to the participants of the 'framed' relation, the related means of expression, the semantic limitations of which individual relations can be combined with which individual modifiers.

We shall start from volitive modality with internally expressed carrier of modal intention. The semantics involved is expressed by constructions with VF of the verb "chtít". The carrier is characterized by the semantic feature of being a person, the speaker can in actual utterance use a substantive which does not in its lexical semantics involve the respective feature ("Naše kočka chce být stále u někoho na klíně, Půda chce být řádně hnojena" etc.) in this semantically functional position. Such original actualizations acquired in certain cases the character of an idiom, cf. the phrase "To chce klid" wherein the pronominal device refers to any situation having the semantics of a process, event or static relation. This involves a fundamental semantic shift from volitive modality as volitive intention to the meanings such as 'to demand', 'to require unconditionally'. It would appear that this semantic character is usually manifested by substantives based on the semantic feature 'object', i.e. VF of the verb "chtít" does not have a volitively modal

meaning in these cases. This is why it is possible in these case to consider e.g. VFs of the verbs "chtít, vyžadovat, potřebovat" to be synonymous, cf. "Půda chce/ potřebuje/vyžaduje být dobře ošetřena" in the sense of the meaning 'to need' as discussed below. On the other hand, in substantives with the semantic feature 'animal' and with objects having the basal semantics of human collectivities, the feature of volitive modality in constructions with VF of the verb "chtít" is more or less evident ("Naše kočka chce, aby ji někdo hladil, Závody chtě ji pravidelný přísun surovin"). In these case, much like with persons, the differentiation between the meaning of VF of the verb "chtít" (internally expressed modal intention) and "potřebovat" (closer to a property which forms a precondition of internal volitive intention, cf. the expressions "mít potřebu, být potřebný") and "vyžadovat" (with apparently the feature of internal volitive modality + the 'dicendi' feature) is evident. In expressions such as "Chce se mi spát" it is on the other hand basic semantics of internal carrier expressed in a 'de-carrier' fashion that is involved, much as in constructions of the type "Benediktovi je zima".

It can therefore be said in order to sum the issue up that internally expressed modal intention is tied to carriers semantically based on the feature 'person', 'human collectivity' or on the feature 'animal'. In case of a different substitution, the semantic shift as briefly characterized above takes place. This fact functions as the restricting rule with regard to combinational possibilities of the modifier of internally expressed volitive modality with the individual semantic relations, unless the rule that the carrier of internally expresses volitive modality is potentially referentially non-identical with any of the participants of the 'framed' relation is adhered to consistently. In case of non-identity, the modifier involved is a 'framing' modifier in the full sense of the word and it appears to be possible to combine it with all of the relations we seek to distinguish. In this respect apparently only the restrictions tied to the properties of the expressed reality apply, that is to say, restrictions of a referential nature. On the other hand, in case that the carrier of internally expressed volitive modality is with regard to the potential reference identical with one of the participants of the semantic relations, it holds that this participant is based on the feature 'person', otherwise the aforementioned shift takes place (cf. "Benedikt chce napsat knihu – Kniha chce být napsána").

The second phrase has the meaning 'it is necessary for the book to be written/it must be written', that is to say, the verb "chtít" is used in the meaning of externally expressed volitive modality.

The differences based in potential referential identity/non/identity with one of the participants of the 'framed' basal relation are tied to fundamental syntactical properties of the constructions which express said meanings. Let us consider the sentence "Benedikt chce, aby Benjamin napsal Sidoniovi dopis"; this is a sentence containing a carrier of internally expressed volitive modality. It is quite clear that the respective grammatical device of expression here is the construction (Snom) VF mod/inter SENT, "aby". The construction (Snom) VF mod/inter INF cannot be applied in this case.

Let us investigate the cases of potential referential identity between the carrier of internally expressed volitive modality and the individual participants of the respective event-based relation. Let us take as the point of departure the identity carrier - beneficiary; cf. "Benedikt chce, aby mu Benjamin napsal dopis". The construction (Snom) VF mod/inter INF…: ("Benedikt chce napsat dopis") appears to be possible yet homonymous here; in the form "Benedikt chce od Benjamina napsat dopis" is unambiguous but clearly for the meaning 'to do the activity of a scribe' rather than for the meaning 'to be the author of a letter to'. In case of the identity carrier - agent ("Benedikt chce napsat Sidoniovi dopis") the only device of expression is the construction (Snom) VF mod/inter INF…, while the construction with SENT is ruled out. Much like in case of identity of the carrier of internally expressed volitive modality with the carrier of the process, only the construction with INF is possible ("Benedikt chce skákat"), in case of identity of the carrier of internally expressed volitive modality and the carrier of property both constructions are possible ("Benedikt chce, aby byl silný, Benedikt chce být silný"). The same holds for the relation of kinship, cf. "Sidonius chce, aby byl manželem Jaroslavy, Sidonius chce být manželem Jaroslavy".

In the most general sense it thus holds that relations involving identity between the carrier of internally expressed volitive modality and any of the participant of the 'framed' relation are expressed either by both constructions, or solely by the construction with INF; constructions without the said identity are expressed solely with SENT.

The 'framed' meaning can be in case of internally expressed volitive modality realized and expressed nominally, cf. "Benedikt chce lásku/peníze/naději". This however involves either lexical nominal realization or systemic ellipsis of sententially realized and expressed basal relation 'Benedict wants to be loved/wants to be given/receive/acquire money/have hope'. It is nevertheless typical that ellipsis is only possible in places where it is semantically permissible with respect to text reasons. This makes it evident that the ellipsis involved is in fact a property of the text component.

The basic feature of external (externally expressed) volitive modality is the fact that the carrier of modality is in the given sentence always found outside of the grammatical and lexical expression of the minimal sententially complete construction. This is why in the sense of minimal sentence completeness this actually involves external carrier (and thus external volitive modality) even with respect to realization. If we however cross the boundaries of minimal sentence completeness, even external modality is usually, with respect to its carrier, expressed, because the carrier is often implied by the broader context, cf. "Benedikt musí chodit včas do školy, ředitel mu to nařídil" etc. Another fundamental semantic feature of external volitive modality is the fact that the carrier of modality does not have to be based on the semantic feature of 'being a person' or on the feature 'being animate' which however usually cannot be decided precisely due to the carrier's external nature. Broader context than reveals that the function of carrier can be taken up by entities with a wide variety of semantics of physical properties, body states, moral categories etc. In these cases it is nevertheless hard to speak of volitive modality in the true sense of the word, because the relations usually have causal character. Cf. "Benedikt musí být příkladem, neboť mu to ukládá členství ve straně, Benjamin musí držet dietu, neboť má žaludeční vředy, Benedikt smí jíst tučnější maso, protože se jeho zdravotní stav zlepšil" etc. It is also evident that in places where the external carrier implied by the context has the character of body states, properties or mental dispositions of the participant 'affected' by external volitive modality, a certain context internalization takes place, which however

has a purely semantic rather than grammatical nature. This internalization is a variation of the relation of potential referential identity between the carrier of internally expressed volitive modality and the participant of the modified semantic relation. Cf. the sentences "Benedikt chce poctivě pracovat, neboť je čestný člověk, Benedikt musí poctivě pracovat, neboť je čestný člověk" (i.e. 'Benedict's honour forces Benedict to…'). From the standpoint of our type of analysis it is nevertheless to once again point out that investigation of semantic properties of lexical elements which are in the function of the externally expressed carrier goes well beyond the limits of our analysis, as it belongs to the domain of text analysis. From the standpoint of investigation of semantic and grammatical foundation of minimally sententially complete structures it holds that the carrier of externally volitive modality is outside of realizational and expressive structures specified, but within the framework of the said structure it is not only unspecified, but also semantically vague.

As for the structures of grammatical expression of external volitive modality, their basic device is the construction (Snom) VF mod/exter INF (Compl), cf. "Benedikt může/smí/má/musí pracovat". Specific lexical devices such as the phrase "je na Benediktovi, aby…, je možno pracovat, lze pracovat" etc. represent naturally also the specific devices of grammatical expression.[NOTE18]

We shall not discuss the semantic differences represented by the verbs "moci, mít (povinnost),muset, smět"[NOTE19] and the respective synonymous devices, because they represent differences with respect to the degree of external volitive impact or or external causality, while from our perspective they involve specific differences with respect to lexical realization of the relator of volitive modality. As for the expressions "je možno" and "lze", we can see their functional specificity in a certain 'de-recipientization' manifested in the generalness of the participant impacted by external volitive modality.[NOTE20]

On the other hand, internally expressed volitive modality based on a sole lexical device, i.e. VF of the verb "chtít" is in dependence on the relations between the carrier and the participants of the 'framed' relation internally differentiated, whereas these differences have in consequence of the specific properties of the grammatical expression syntactical relevance. With external volitive modality it is on the other hand possible to speak of syntactical relevance only when it comes to the contrast between determinacy/generalness of the participant 'impacted' by the external modality, which is represented by specificity of the expressions "je možno/nutno, lze" and the de-agentive,

4.3.4 A note on the specific meanings of volitive modality and the modifier of 'remaining valid'

Volitive intentions of specific character are expressed by constructions based on VF of the verbs "potřebovat, dovolit, nechat". The verb "potřebovat" in terms of semantics of the constructions it establishes clings to internal volitive modality, because it in a number of contexts includes the semantic feature 'to want', in many other cases being completely equivalent to the said meaning, especially in places where there is potential referential identity between the carrier of this volitive intention and the agent of the 'framed' relation. Despite this, 'to need' is not identical with 'to want', because 'to want' is in these cases the consequent of 'to need' which nevertheless does not necessarily need to be present, cf. "Benedikt naléhavě potřebuje mluvit s ředitelem, ale nechce to udělat". It also appears that the meaning of 'to need' is shifted by negation. In its positive validity it seems to involve internal urgency from the perspective of the grammatically expressed carrier of this modality, but in its negative validity the meaning of evaluation of this internal urgency from the perspective of the speaker usually dominates, cf. "Benedikt chce zvýšení platu, ale nepotřebuje ho". The last example shows that despite the antecedent character of 'to need' with respect 'to want', the actual sentential meanings are essentially independent. The verb "potřebovat" established the grammatical construction (Snom) VF Sacc ("Benedikt potřebuje peníze"), (Snom) VF Sacc Compl ("Benedikt potřebuje zvýšení dávek sociálního zabezpečení"), (Snom) VF SENT ("Benedikt potřebuje, aby mu zvýšili dávky sociálního zabezpečení"), (Snom) VF INF Compl ("Benedikt potřebuje zvýšit dávky sociálního zabezpečení"). The 'framed' relation might involve not only an event, but also a process ("Benedikt potřebuje, aby slunce svítilo") or a static relation ("Benedikt potřebuje mít víc odvahy"). The carrier of this volitive intention can from the perspective of potential referential identity identical with any participant of the

'framed relation', whereas in terms of the formal aspect similar conditions of use of grammatical constructions apply as with VF of the verb "chtít"; in terms of semantics it is questionable whether some of the relations of potentially referential identity fundamentally modify the meaning expressed by VF of the verb "potřebovat" or not. The need involved is nevertheless always the need of the substance at the centre of attention, which is valid in the pure form precisely in the case of the identity carrier = agent. If the identity involved is however e.g. carrier = recipient of an 'unfavourable' activity ("Benedikt potřebuje výprask"), there is a certain shift, because similarly to the case of negative validity of this meaning, this involves external (i.e. represented by the speaker) evaluation of the need in question. This is after all also obvious with the meaning of 'to want', the validity of which, provided the respective conditions are fulfilled, becomes practically identical to the recipient-based meaning of 'to need', cf. "Benedikt chce výprask".

The aforementioned meaning is close to the meaning in expressions based on VFs of the verbs "žádat, vyžadovat" which is however apparently connected to dicendial semantics.

VF of the verb "dovolit" also allows for expression of sentential meanings which have properties close to internal volitional intention. These involve grammatically expressed carrier of volitive intention, but with specific features: firstly, in case of 'to allow' the carrier is never potentially referentially identical with the agent participant of the 'framed' relation; secondly, the meaning of the modifier 'to allow' is semantically identical with the meaning 'to be allowed to' - it can be said that it is the meaning 'to be allowed to' internalized with respect to expression. 'Frame' relations can include not only events, but also processes. The meaning expresses by VF of the verb "dovolit si", unlike with the verb "dovolit", is based on potential referential identity of the carrier and the participant of the 'framed' relation, most often the agent of action-based events. It appears that there is a shift here compared to the meaning 'to allow': "dovolit" presupposes 'should not have', whereas the carrier who 'forbids' the volitive intentions is external with respect to the carrier of the intention expressed by the verb "dovolit si". The verb 'dovolit si' has from the formal standpoint the character of the so-called reflexive verb, the reflexive particle "si" is in this place the means of expression

of the relation between the carrier of volitive modality and the participant of the 'framed' relation.

As for VF of the verb "nechat", it appears that semantic relations based on it represent a relatively wide range of volitive intentions and other meanings, based on semantics of the 'framed' relation. It seems that in relation to events this essentially involves semantics from the perspective of expression of internalized external volitive modality of the type 'can, is allowed to', cf. "Benedikt nechal Petra psát úlohu". This probably involves synonymy with expressions such as 'to allow', 'to permit'. Similar semantics can be found in bonds between VF of the verb "nechat" and action processes, cf. "Benedikt nechal Evu skákat přes švihadlo". However, even in bonds with actions, a different semantics of this verb applies, namely e.g. the semantics with respect to expression of internalize external volitive modality in the sense 'must, has (the duty) to'.[NOTE21]

In connection to non-action, state processes ("Benedikt nechal lampu svítit") and especially in connection with static relations ("Benedikt nechal knihu na stole"), a different modifier applies, namely the modifier with the meaning of the relation remaining valid. Constructions based on VF of the verb "nechat" in such cases express that the validity of the relation is not abolished. From the standpoint of the theory of volitive intentions this can also be formulated as the modifier of volition for the relation to remain valid. This meaning will likely finds it use in event-based relation, that is to say, sometimes even in place where we assumed the meaning of internalized external modality in the sense of 'to be allowed to, to be permitted to'; this is evident e.g. in the sentence "Nechal spadnout vázu", where the meaning involved can be 'the vase was falling and he just looked on, allowing it to happen', the meaning being at the borderline between volitive modality and the modifier of acting in order to keep the relation valid. In some cases, the meaning involved can nevertheless also be 'he is to blame for...'. Similarly, certain contexts identify in relations based on VF of the verb "nechat" the meaning 'to forget something somewhere'. A prominent semantic feature of these relations is the fact that the carrier of meaning of the modifier, which is internal with respect to expression, is fundamentally non-identical with any of the participant of the 'framed' relation. The verb "nechat" in this case differs from otherwise partially

synonymous verbs "dovolit, připustit" which do not rule out functional identity of the carrier and participants of the recipient type, cf. "Dovolil/připustil, aby ho okradli". In this case, the reflexive form "nechat se" is used as well as the verb "dát se", cf. "Nechal se/dal se okrást." VF of the verb "nechat si/dát si" establishes relations which are in the syntactical sense essentially synonymous with relations based on the verb "nechat se", cf. "Benedikt se nechal/dal zfackovat – Benedikt si nechal/dal nafackovat". Here likewise the reflexive "se" expresses potential referential identity of the recipient participant with the carrier of meaning of the given modifier. A specific meaning is expressed by constructions based on VF of the verb "nechat si/dát si" having the active semantics of initiation, cf. "Benedikt si nechal/dal ušít šaty". In case of sentences of the type "Nechal si byt v Praze" the modifier involved is that of remaining of a static relation of object possession in validity. Sentences of the type "Prut se dá ohnout, Město se dá přehlédnout" etc. then involve the meaning 'it is possible'.

The verbs "držet, udržet, držet se" which are among the most frequent verbs in Czech display a rather significant rate of semantic poly-functionality and do not take the central role in the system of static relations of Czech. The verb "držet" expresses the relator of the following static relations: 1. Contact affiliation ("Benedikt drží v ruce knihu"), in this case it is also possible to use the verb "mít". 2. In asymmetrical affiliation of the type "Drží psa/šoféra" where it is also possible to use an expression with the verb "mít", however, there is another feature present apart from affiliation, namely that of 'remaining of the relation of affiliation in validity'. This remaining of relation in validity often has the character of 'withstanding the negation' of validity of the 'framed' relation, cf. "Látka drží barvu", often with features of activity. Apart from asymmetrical affiliations with the feature of remaining of the 'framed' relation in validity, there are also semi-symmetrical relations of togetherness ("Benedikt drží s Leokádií"). The verb "držet" can also express object possession, cf. "Sedláci drželi louky". The verb "držet se" expresses even more distinctly the feature of remaining of the 'framed' relation in validity: remaining in existence ("Benedikt se stále drží, Některé zvyky se drží"), remaining in a location ("V koberci se drží prach"), remaining in general affiliation ("Benedikt se drží přátel"), remaining in contact affiliation ("Benedikt se drží zábradlí, Turisté se drží značek").

A typical means of lexical expression of the 'framing' meaning of a relation remaining in validity is the verb "zůstat". The 'framed' meaning naturally consists mostly of static relations (local determination, qualification), but also nominally realized actions. Also present is the possibility of expressing the meaning of resisting the negation, cf. "Vojáci zůstali naživu". This meaning is also expressed by other verbs, but mostly only in connection with certain relations. Thus VF of the verb "vydržet" has this meaning e.g. in connection with existence, cf. "Jablka vydržela do jara." VF of the verb "zbýt" expresses this meaning in a similar manner, cf. "Zbyly nám koláče". This can however also involve withstanding of negation of the relation of affiliation, cf. "Zbyly mu peníze". Similarly, VF of the verb "zachovat se" can have this meaning, naturally, apart from its other meanings, cf. "Hrad se zachoval (v plné kráse)".

It is nevertheless necessary to distinguish the meanings of 'relation remaining in validity' and 'resisting negation' from the meanings wherein an individual or a class of individuals suffers some sort of explicitly expressed external action, withstanding it, usually in active manner. Cf. "Benedikt vydržel/snášel mučení, Materiál vydrží/snáší/odolává vysoké teploty/vysokým teplotám." With 'framing' meanings of 'relation remaining in validity' and 'resisting negation' it needs to be assumed that the respective 'external' force is not explicitly named, or else that the remaining in validity is not tied to effect of any 'external' force at all. It is understandable that in those cases where the 'framed' relation consists of an action, the 'framing' meaning has to have the character of activity, too. Transitionality of meanings in this domain is tied to the already stated poly-functionality of realizational and expressive verbal devices. As an example, we can refer to the functions of VF of the verb "nechat, zanechat". The meaning can be close to the meanings of 'resisting negation', cf. "Benedikt zanechal velké jmění", it can have the character of phasing, cf. "Benjamin zanechal kouření", the verb "nechat" can take an action-based meaning, too ("Benedikt Leokádii nechal") etc.

Notes

1   As will become evident later, we use the terms modification, modifier as the most general terms. The term 'framing' is put between quotation marks due to its certain degree of figurativeness; it can be considered entirely appropriate only with respect to certain meanings of a special type.

2   The issue of negation will not be investigated in the present work in detail. As for properties of the relation of mutually semantically bound modifiers, cf. e. g. Grepl (1973a), Benešová (1973) who tackle the relation between negation and volitive modality. Similarly, it would be necessary to investigate the relation between negation and phasing and existence.

3   The essence of existence is one of the fundamental philosophical problems. In the more recent linguistic literature, it is tackled by Arutyunova (1976). She follows the development of Russell's, Frege's, Meinong's, Strawson's and other views concerning the truth-value and denotative determination of the meanings of existence, showing how the awareness of existence of intensional objects was gradually formed. From our standpoint it needs to be pointed out that linguistic literature does not usually distinctly distinguish between the question of existence of intensional and extensional objects as the question of logical and philosophical ontology and gnoseology and the question of semantic and expressive devices of "positing objects as existing". Arutyunova also shows the continuous transition from existential sentences to "predicative" sentences, i.e. sentences which involve qualification, circumstantial determination of an entity. She interestingly observes the "behaviour" of existential sentences in texts, the transformational capabilities of the functional sentence perspective; her findings are nevertheless dependent on a broad understanding of existential sentences (which in a certain sense includes even possessive meanings, qualifications etc.) which is due to the fact that Russian is an "esse-language", i.e. the domain of possession in the broad sense in Russian relies very heavily on the verb "to be". Similarly, Zimek (1963) considers the verbs "žít, trvat" to be existential. From our standpoint, these involve elementary processual meaning ("žít") and lexical device of expression of process duration ("trvat"), naturally only with respect to one of the meanings of the verb in question.

4   Cf. Zimek's (1963) "být" of occurrence.

5   Zimek (1963) considers local determination as such to be a kind of locally restricted existence. Arutyunova (1976) has a similarly broad understanding.

6   Cf. also Arutjunovová (1976), p. 214.

7   Cf. Zimek's (1963) "být" with the meaning of continuation.

8   In Zimek /1963/ this involves copular "být", cf. p. 65.

9   These involve the so-called subject-less sentences with copula, cf. Zimek (1963) and the included bibliography. We are naturally not interested in a similarly detailed analysis; for the reasons of differentiation we nevertheless note: The set of 'modal states', despite its simple expression, represents very complicated non-minimal complex relations: "Je čas obědvat" = 'we must eat lunch, because it is time designated for eating lunch'. The carrier of external volitive modality here is thus a certain moment in time and the position of VF of the verb "být" is appropriate, because the semantics involved is temporal and related to givenness. Similarly, meanings of 'intellectual evaluation' such as "Je zajímavé, jak se změnil" represent the non-minimal complex qualified event 'x has changed, which is interesting', which nevertheless confirms the 'copular' character of the verb "být", since it is here found in a qualification relation. For meanings of sentences such as "Je vidět Sněžku", cf. Daneš, Hlavsa et al. (1981). For volitive modal meanings of sentences such as "Jest nám zemříti" cf. 4.3.3. Sentences such as "Není co jíst, Není koho tam poslat" etc. are likewise expressions of com-

plex basal meanings; cf. 'Neg (Ex) → Neg (the event of 'to send someone somewhere')', which is in agreement with Mrázek's (1958) historical explanation. It would be very hard to deny the existential semantics here. As for the theory of the so-called state meanings, cf. Zimek (1963), Mrázek (1957), it is evident that we considered separately "designation of temporal divisions", "designation of states of nature"; the rather heterogeneous "situations of perception", unless they involve the meaning of perception with a vague participant ("Byl hluk" = 'loud noise could be heard') they can once again involve expression of existence of nominally realized and expressed processual entities. Complex and non-minimal relations represent the meaning of sentences such as "Je škoda o tom mluvit". This is in fact (x speaks of y) Kz, where x = the agent of the speech act is generally understood and z = general negative qualification with a certain affinity to the modal operator, cf. "Raději o tom nemluvit, Je lépe o tom nemluvit" etc.

10   Zimek (1963) interprets sentences like "Je vlahý večer" as subject-less sentences with copula - we however, due to our purely semantic angle, consider even state-based sentences of this type to contain an existential factor which can hardly be denied.

11   Special attention needs to given to sentences of the type "Je po bouři". "Je bouře" undoubtedly has the semantics of existence (occurrence) of a process, "Je po bouři" has actually semantics of delineation, much like "Je před bouří"; they involve delineation of a process by means of a preceding/following state, that is to say, not by the respective phasing operator which signals the beginning/end of the given process.

12   Generally speaking, this involves presence of semantic features connected to the meaning of the so-called verbal aspect and a number of other semantic features given by the lexical semantics of the verb, which contains the seme of the respective modifier within the semantics of the foundation or the afixal component, i.e. features from the domain of grammatical mood in the broadest sense. Due to space restrictions, we leave these issues aside - we merely note for sake of illustration: e.g. in phrases such as "zavést demokracii" the seme of the phase of beginning is present, because between the phrases "zavést demokracii" and "zavádět demokracii" there is difference only in the 'course' of the phase of beginning: in the first case, the course is 'finished', whereas in the second case, it is 'unfinished' - the contrast is a simple contrast of grammatical aspect with constant presence of the modifier of beginning. Phrases such as "vytvořit dílo" and "vytvářet dílo" in our opinion lack dominant presence of the seme of the phase of ending, because the event involved is an 'event of realization of a value which did not previously exist', hence the features of beginning, course and end of the mutational process are present only due to the fact that the process is mutational. The appearance that in case of verb with perfective aspect there is a presence of the seme of 'termination' is thus motivated by the semantics of signalling of 'completion' of the mutational process, which is however a feature of the semantics of grammatical aspect in its basic sense. Similar situation is that of the semantics of the verb "donést" etc.

13   Cf. this basic typology of verbal meanings in F. Daneš's works cited above; in the sense used here, cf. Chapter 2.1 of the present work.

14   In this section we already use meta-language paraphrases instead of symbolic notation which is more precise, but also less revealing. This needs to be borne in mind with regard to the fact that certain categorical and aspect forms of the verbs are used; the notation is to be understood only in the sense of description of the semantics of delineation of validity of verbal meanings, the other respective categories are therefore 'gnoseologically neutralized'. Aspect semantics is taken into consideration only in those portions of the text where it is relevant for the discussion.

15   With Daneš this mostly involves difference in quality given by a positive quality and its

(intensional) negation. Cf. e. g. 'fire is burning' is changed into 'fire is not burning'. A change of quality may of course also involve a change of location or property, i.e. a change of any semantic feature.

[16]   Cf. mainly the sections focusing on volitive modality in the anthology Otázky slovanské syntaxe III, Brno 1973, especially the contributions of M. Grepl, R. Grzegorczykowa, B. Koenitz, E. Benešová, Z. Masařík and other works, especially by E. Benešová, P. Sgall and J. Panevová.

[17]   Cf. already Kořenský (1973b).

[18]   They were given plenty of attention not only in literature, cf. note 16, but also in works discussing the copula, cf. Zimek (1963).

[19]   Cf. for Czech primarily Grepl (1973a) and Benešová (1973).

[20]   The issue of volitive modality of 'de-agentive' (de-carrier, de-recipient, ...) constructions, cf. Grepl (1973a).

[21]   In these phrases it is possible to use VF of the verb "dát", the meanings involved are however bookish or even archaic, cf. "Benedikt dal Leokádii skákat přes švihadlo", where the modality is involved is however that of coercion. The meanings 'to require effort' with non-personal carrier of modality need to be considered as phrasemes, cf. "To dá mnoho práce."

5.

Application of the theory of semantic basis in analysing poetic texts

5. Application of the theory of semantic basis in analysing poetic texts

The goal of this part is:

a) To point out the relations of mutual structuring motivation between the content of poetic text in verses, the structure of the lexical and grammatical expression of the said content and the actual structure of text in verses.

b) These relations will be investigated based on the original text of Pasternak's poem February[NOTE1] and the text of Czech translation of the said poem; the goal is to show certain interesting properties of these relations with respect to the actual act of creation of poetic text in verses.

c) The analysis presented is linguistic, and therefore no attempt to contribute to the literary theory of Pasternak's poetic works or to the theory of translation of poetic works in the general sense.

 Content analysis of the poetic text in verse will be based on the meta-language apparatus presented in Chapters 2 and 3 in general and in Chapter 4 applied to the example of systemic analysis of certain meanings of Czech sentences. The semantic terms understood in this manner will be used as an apparatus for text interpretation, whereas we shall - where necessary - turn our attention to the relations between the means of expression used (by the poet and translator) and the devices that potentially could have been used with respect the the given content, examining the motivation behind the choices made from the standpoint of inter-structural relations with the text.

We shall use the term verse structure to refer to the rhythmical, rhyme arrangement and phonemic structure of Pasternak's poem February; we shall tackle it as part of this linguistic discussion primarily with respect to its active

motivational relations to the content structure of the poem and the structure of its lexical and grammatical expression.

We shall use the term motivational relations to refer to the relations of mutual determination of content structure, of the structure of lexical and grammatical expression and the structure of the verse.

Theoretically, these structures can be assumed to be motivationally equal, even though we cannot forget the fact that the very essence of these structures, their functional character, contain a motivational 'inequality'. The structure of content and structure of expression are given by the system of language devices the existence of which is in our understanding the precondition of any text seen as a result of verbal communication (cf. 2.4), the versologic structure is form this standpoint and with respect to the structure of content and expression a 'facultative' structure. It is however the very essence of this type of text we shall focus on; from this standpoint its position within the structure of motivational relations is a very prominent one.

The aforementioned inter-structural context is usually investigated as the relation between versologic structure (phonological network, ...)[NOTE2] on one hand and grammatical structure on the other hand. From another standpoint - beyond the framework of linguistic or literary structural thematic analysis - content analyses of texts are carried out, mostly however with only passing regard to the formal properties of verse structure, and definitely without a more special regard for the inter-structure context.

In the first type of approach the term grammatical structure essentially involves (lexical) semantics, too, the content of a poetic work is thus approach solely via the grammatical-lexical form of the said content.

Our approach is in a way positioned across the aforementioned two approaches (which we naturally only characterized very schematically) to poetic texts; while we shall understand formal structure of verse in exactly the same way as structural analyses of poetic texts do, in place of grammatical structure used by structural analyses along with formal structure of verse, we shall have content structure understood in the manner defined above, a form of content in the linguistic sense. This understanding allows to expand the framework of the said form,

based on the character of the analysed text, towards content-based criteria of the socially psychological context of poetic creation.[NOTE3]. The structure of lexical and grammatical realization thus has the character of the form of expression of the said content (it is essentially identical in terms of scope with the grammatical structure as used by structural analyses). It on the other hand differs from the content-based (socially psychological) analyses of poetic texts in its regard for the close systemic and system-motivational relations of content and lexical-grammatical and versologic structure.

The provided characteristic of the terms formal structure of verse and lexical grammatical structure is sufficient with respect to our goals, it will therefore be necessary in the context of analysis of the poetic text to dedicate more attention to content structure which is understood in a less usual manner. First of all, content-related terms and structures need to be written down in a certain manner. We shall write down content values in a non-symbolic way, making use of the gnoseological meta-language of Czech (rendered as English in the present translation). This approach can be reliably applied to analysis of the Russian original. This poses a problem with respect to the text of the Czech translation, since we shall confront the content structure written down in Czech as meta-language with the devices of lexical and grammatical expression of this content. Theoretically, a situation may come about when a Czech word as a content meta-symbol is expressed 'by itself' as a means of expression (the problem is naturally eliminated in the English translation). Whether or not this actually comes to happen however has naturally no theoretical value.

It is possible to confront motivation relations between structures of the original and structures of a translation only if we assume - on the respective degree of abstraction and generalness - an invariant structure shared by the original and the translation. This assumption then involves the belief that such content-wise invariant relations between natural languages exist at all. Without going into too much detail with respect to this problem (where the detail in question relates to the very nature of the content invariant - and especially the fact whether it is to be understood as an invariant, a general language universal or a generally mental quality, without the assumption of necessary formation by structuring devices of

natural languages), we assert that the assumption of existence of such invariant is a precondition of the possibility of translation as such.

A general feature of the content structure of poems is presence of 'categorical' meanings, i.e. object-based and action-based meaning with very broad, and to a certain extent vague scope of referential potentials and an internally fuzzy array of meanings. This involves certain properties from the perspective of confrontation of two natural languages which takes place during translation. The assumed universal categorical meanings has 'fuzzy' structure and the referential potentials in various languages are not even remotely close to clear factual and qualitative correspondences. These fuzzy contents fail to 'respect' the differences between the basic types of content units such as process, non-dynamical relation, object etc. This is the nature of certain core content qualities of the first stanza of Pasternak's poem.

The core content of the first and second stanzas is the presence of lexically unexpressed volitional modality 'one would want to/feels like', signalled in terms of expression by the presence of infinitive verbs. Another 'categorical' piece of core content is the content quality 'to acquire for the purpose of use'. This semantic core is motivated in terms of content by 'it is the duration of period of the second month of the year'. For the content quality 'to acquire for the purpose of use a liquid intended for... graphic signs' is conjugated the meaning 'process of psychophysical reaction as a result of a certain mental state'. From the unit 'liquid intended for...', motivation proceeds towards the content unit 'to cover a suitable area with graphic signs' - and from there 'back' to 'time period... of the second month of the year'; the circumstantial determination of this process, i.e. the meaning 'sobbing' is motivated by the content unit 'a process of... psychophysical reaction...'

The core of the content-based motivation relations of the first stanzas is thus found in the first two verses. We could say that in the first couplet the dominating factor is content motivation. The second couplet on the other hand is however not independent in terms of content motivation: the basic constructive content motive is the fact that the content of the second couplet is a complex of circumstantial determination of the content of first couplet. This motive is nevertheless

secondary, with respect to motivation by structure of the verse, or more precisely by the structure of rhyme. Rhyme (as an element of verse structure) motivates by means of verb and adverbial verb. Motivation by verse structure always has immediate motivation ties to the structure of lexical and grammatical expression. This motivational relation itself however offers broad possibilities; words that rhyme (or have assonance) are plentiful in Russian; the 'limiting selective' factor on the set of possibilities is (naturally, apart from the rhyming scheme) thus again the content-based relation: this is quite evident in the first stanza - the selection of substantive from a set of words equivalent in terms of rhyme and rhythm is clearly motivated by the first content motive of stanza, i.e. 'the period of the second month of the year'.[NOTE4] The content-based selective feature on the rhyme and rhythmic relation of words on the other hand is not quite as transparent and self-evident; the content motivation is more categorical, closer to an outline. The 'sobbing' selects 'burns' - the motivation of 'flame' is thus the content of 'sobs'. It is clear that motivation here can be seen in two sense: the contrast between 'fire' - 'tears', but also as the non-contrasting motivation given by presence of the sema 'bursts', 'fits' of weeping and its relation to the verb, i.e. 'flame' - 'burst'. Apart from these basic motivational relations, it is possible to find secondary relations: the content of 'sobbing' motivates the content 'roaring' and the basic motive 'the period of the second month of the year' is in terms of content integrated within the 'period of the first season of the year' which is in this motivational context qualified by the content 'to have black colour'. In this manner a set of content-based contrasts is 'created' for the poem, which is characteristic especially for the second couplet of the first stanza. The third verse has the content contrast of 'roaring' - 'slush', while the fourth verse contains an even more pronounced content contrast of 'to have black colour' - 'to burn'. (Cf. table No. 1.)

We shall provide the description of motivational relations between the respective structures of the Czech translation of the first stanza of Pasternak's poem February only in the differential manner, i.e. we shall only focus on those motivational relations between the structures of translation which are in some ways different from the motivaitonal relations between the structures of the original text.

The original and the translation agree in terms of I. and II. time frame ('the first of the four seasons of the year', 'the period of the second month of the year'). They also agree in terms of presence of the content core, i.e. of the free 'one would want to/feels like'. When it comes to motivational structure of the first couplet - we can say that is fully identical with that of the original. From the content-based motivational standpoint there can hardly be considered to be a very pronounced difference between 'a liquid intended/suitable for... graphic signs' (original) and 'a container intended for...liquid...graphic signs' (translation). This difference is moreover justified by the necessity of syllabotonic identity - it makes up for the 'loss' of one of the original's syllables. Content identity is also retained between the rhyming words of the second verse of the original and the translation.

The translator preserves the basic motivational relation between the first and the second couplet - that is to say, rhyme and rhythm-based motivation of the final words of the first and the third verse. Whereas in the original this element of the motivational structure is joined by content-based motivation ('the period of the second month of the year') → 'slush'), within the structure of the translation this motivational context relates solely to formal structure of the verses. The word "plakát" ('poster') thus introduces a content-wise completely 'random' content quality; it is then inevitable that this content elements is semantically linked to the content structure of the second couplet by means of qualification by simile ("zčernalým jak plakát", "blackened like a poster"). This is because qualification by means of a simile as a semantic device allows for ready return to the content structure of the original. This return is nevertheless not entirely direct. We shall therefore follow the differences between the motivational structure of the original and the translation, starting from the content agreements.

The content agreements between the original and translation which are fully evident are those based on the contents expressed in the translation by the words and phrases "psí čas", "plápolá" a "zčernalý" ("bad weather", "flames/blazes (verb, 3rd person sg.)", "blackened"). Given the distinctly categorical, contour[NOTE5] semantics of the noun it is possible to consider the content of the Czech phrase "psí čas" ("bad/raw weather" to be equivalent. The Czech verb "plápolá" ("flames") likewise represent content equivalence with respect to the Russian verb

in terms of content analysis 9but not in terms of lexical analysis). The adjective "zčernalý" ("blackened") however represents a shift in content with respect to the Russian original, which has 'to have black colour', whereas the translation has 'to have black colour as a result of the process of transformation of colour x to black colour'.

Isolated confrontation of the individual components of content however does not uncover properties of the content structure as a whole. It is important to understand the context wherein the content components are integrated. There are significant differences in terms of verse structure: whereas the original has it in the fourth verse, in the translation the adjective "zčernalý" is found in the third verse. The substantive is the rhyming word of the third verse, whereas in the translation the phrase "psí čas" is found at the beginning of the fourth verse, (Let us note that the aforementioned I. time frame 'the first of the four seasons of the year' is in the original part of the fourth verse, and in the translation part of the third verse.) Let us ask the question of what was the reason behind the third and fourth verse 'changing places' (as seen, naturally, from the standpoint of content analysis). It is evident that the reason once again lies in the motivational relations between structures. The rhyme word of the third verse of the translation ("plakát", "poster") was, as we already pointed out, most optimally included in the verses by means of qualification by confrontation ("zčernalý jak plakát", "blackened like a poster"); the qualifier "blackened" being essentially equivalent content-wise with the qualifier used in the original allowed the translator to 'quickly' return to content equivalence between the original and the translation. The fact that the equivalence was merely hinted at can be once again explained by the motivational effect of the verse structure. The translation's verse[NOTE6] displays the translator's apparent tendency towards structural agreement with the original. The content shift of "černý - zčernalý" ("black - blackened") is motivationally explained in this manner. Qualification by confrontation ("zčernalý jak plakát") qualifies the content quality 'the first of the four seasons of the year'. This content quality is in terms of lexical and grammatical expression fully equivalent, hence the qualification relation 'the first of the four seasons of the year' - 'having/having acquired black colour'. The whole complex with the aforementioned difference

represents a high degree of equivalence. Its presence in the third verse wherein it is bound by the rhyme word "plakát" is thus the reason why the content 'black/ blackened like' is found in the tird rather than the fourth verse. This alone already implies that the content complex 'slush', which has a content-equivalent form in the translation, is found in the fourth verse. With respect to content, the rhyme word of the fourth verse is completely redundant. Its presence is due to reasons of rhyme and rhythm. There is thus an essential difference when it comes to function of rhyme words of the third and and the fourth verse in terms of motivational inter-structural relations: while the rhyme word of the third verse in fact directly and indirectly motivates all content-based and verse differences of the second and third couplets, the rhyme word of the fourth verse is in terms of content completely redundant and otherwise completely passive with regard to motivation. (Cf. table No. 2.)

Let us sum up by saying that the description of the relevant structures - not to mention verse structure where this is naturally doubly true - content structure and structures of grammatical and lexical expression of content, was from the linguistic standpoint only rough and incomplete; only the features necessary for pointing out motivational context were listed. The description primarily aimed to show that it is not possible to see in the structure of the original or that of the translation simple, one-directional motivational relations, that the relations are in fact complicated, multi-directional, but on the other hand fully decipherable and possible to model by means of an apparatus which is in its essence of a linguistic nature. Any further discussion would be a sign of layman's presumption. We shall nevertheless dare to assert that from our perspective the translation appears to very 'true' to the original. The words 'enforced' by rhyming needs are integrated very delicately - in the first case, the noun "plakát" ("poster") led to a change of simple qualification in the original to qualification by confrontation in the translation ("blackened like a poster") which allows for its content-wise motivational isolation and return to the content structure of the original. Even more distinctly isolated is the rhymed phrase "v ulicích" ("in the streets"), semantically a circumstantial determination which is content-wise completely free. Also worth

of attention is a content feature characteristic of the original, namely content contrasts. This contrastiveness is somewhat weakened in the translation.

Notes

[1]   Cf. Boris Pasternak, Stichotvorenija i poemy. Moscow – Leningrad 1965, p. 65; Boris Pasternak, Světlohra. Prague 1979, p.9 (transl. Luděk Kubišta).
      Únor. Vzít kalamář a plakat!
      Psát o únoru ve vzlycích,
      když jarem, zčernalým jak plakát,
      psí čas plápolá v ulicích.

      Drožku si vzít. Za malou sumu
      přenést se v jitřním zvonění
      tam, kde v lijáku, v jeho šumu
      rozmáchlý smutek oněmí.

      Kde jako ohořelé hrušky
      padá na tisíc havranů
      do každé kaluže a stružky,
      s melancholií po ránu.

      Vítr ji v očích nezkonejší,
      rozrytý křikem v ulicích.
      Tak plynou verše ve vzlycích –
      tím přesnější, čím náhodnější.

[2]   Cf. the works dealing with similar questions in relation to Pasternak's poetic works, more recently e.g. Pomorska (1975).
[3]   What we have in mind in this context are analyses which examine poetic works in broad social and historical context and with respect to lives of authors. There are (or can be) a number of transitional types of content-based analyses between the aforementioned type and the type of analysis applied in part 5. We can assume the existence of analyses made from the standpoint of social communication with varying degrees of limiting of the broad social context at the price of making the analytical apparatus somewhat more precise. Even such analyses would however have the character of analysing the work in a social art-historic context as well as a strongly systemic character. Our analysis 'narrows down' the content element of text so much that the contents are no longer understood in social, cultural and ideological sense, but rather as linguistic semantic devices which are a form (in the philosophical sense) and precondition of expression and interpretation of the broader and broadest content-based context. It is precisely in this sense that our analysis has a linguistic character. It is nevertheless clear that linguistic results may be used in other analyses and that this linguistic approach to content can be expanded in the direction towards social and psychological content analyses.
[4]   In this place we encounter certain semantic limits of our understanding of content analysis.

Empirically, factually, it is not possible to assert that the implication February (as a season) → 'rain and snow mixed' and the resulting slush is true. It is clear that this content-based, motivational relation is of an actual nature, i.e. it was probably actually true at the time when the poet wrote his verses. This circumstance shows how it is possible and necessary to proceed from a 'purely content-based' linguistic analysis towards analyses of a more general, complex nature.

[5] The content-based and referential properties of the substantive illustrate well the type of categorical, fuzzy contents which we mentioned above in a more general manner. The word refers not only to 'a state of the ground at the time of rain and snow mixed, thawing due to increased temperature' but also 'rain and snow mixed' and the general type of this kind weather. To use our semantic terminology, the word refers to not only the state of the ground, but also the process resulting in the said state and the type of the said process as a type of weather. In Pasternak's poem the phrase clearly indicates that he opts for a', in terms of the lexical norm, marginal 'colloquial' component of a contour meaning, a 'state of weather with focus on the processual reason'. This is then undoubtedly in terms of the semantic scheme 'matched' in the translation by the phrase "psí čas plápolá" ("the bad weather flames"). As a side note, allow us to say that it is precisely the manner in which lexical and especially morphological properties of language restrict or 'support' in the individual languages the 'emergence' and functioning of contour content values of the said type which then affects mainly the circumstances of their confrontational content-based interpretation, which in turn has a profound impact on the issues of translation.

[6] What is the matter here is preservation of type of structure of syllabotonic verse, naturally with the shifts due to the different prosodic properties of the two languages involved.

Schemas

1. DERIVATION TREE

$$
\begin{array}{c}
\text{Move} \\
| \\
\text{Merge}
\end{array}
$$

Move
|
Merge
├── e :: T$^+$ top$^+$ C$^-$
└── Move
    |
    Merge
    ├── e :: V$^+$ nom$^+$ T$^-$
    └── Merge
        ├── Merge
        │   ├── the :: N$^+$ D$^-$ nom$^-$
        │   └── girl :: N$^-$
        └── Merge
            ├── likes :: D$^+$ D$^+$ V$^-$
            └── John :: D$^-$ top$^-$
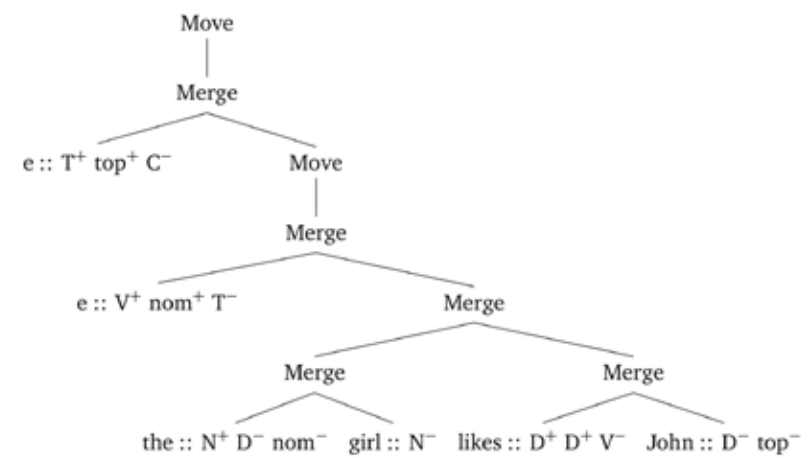
2. INTENSIONAL FUNCTIONS

INTENSIONAL FUNCTIONS

Schema 4

T   W(I)

Implicit

Explicit

Zero

● Determinate

◐ Indeterminate

○ Gap
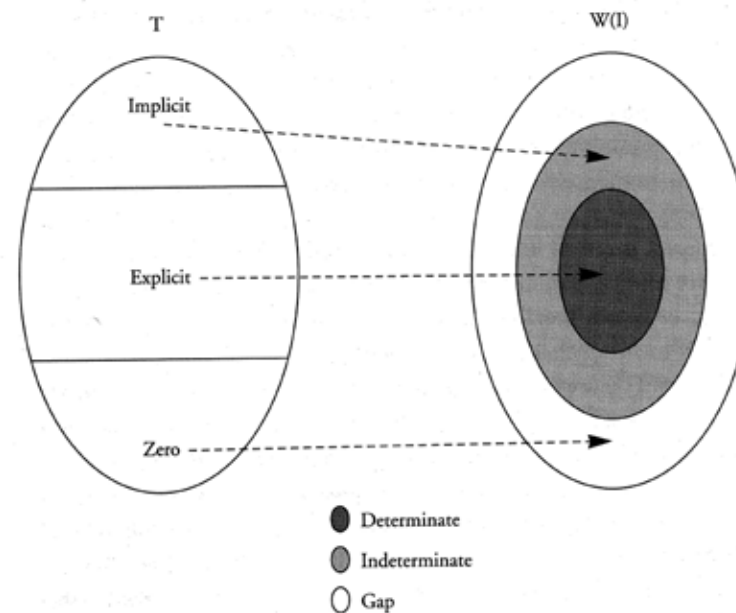
3. TOOLS AND SYMBOLS OF LANGUAGE

4. MORPHTYP

```
                    MORPHEMES (OF ENGLISH)

            BOUND                           FREE

       AFFIX        ROOT
                    -fer
                    -late
                    amok?
                                   OPEN-CLASS        CLOSED-CLASS
                                   Nouns             Conjunctions
                                   Verbs             Prepositions
                                   Adjectives        Determiners


  INFLECTIONAL   DERIVATIONAL
  -er            un-
  -s             -ness
  -ed            -ify
```
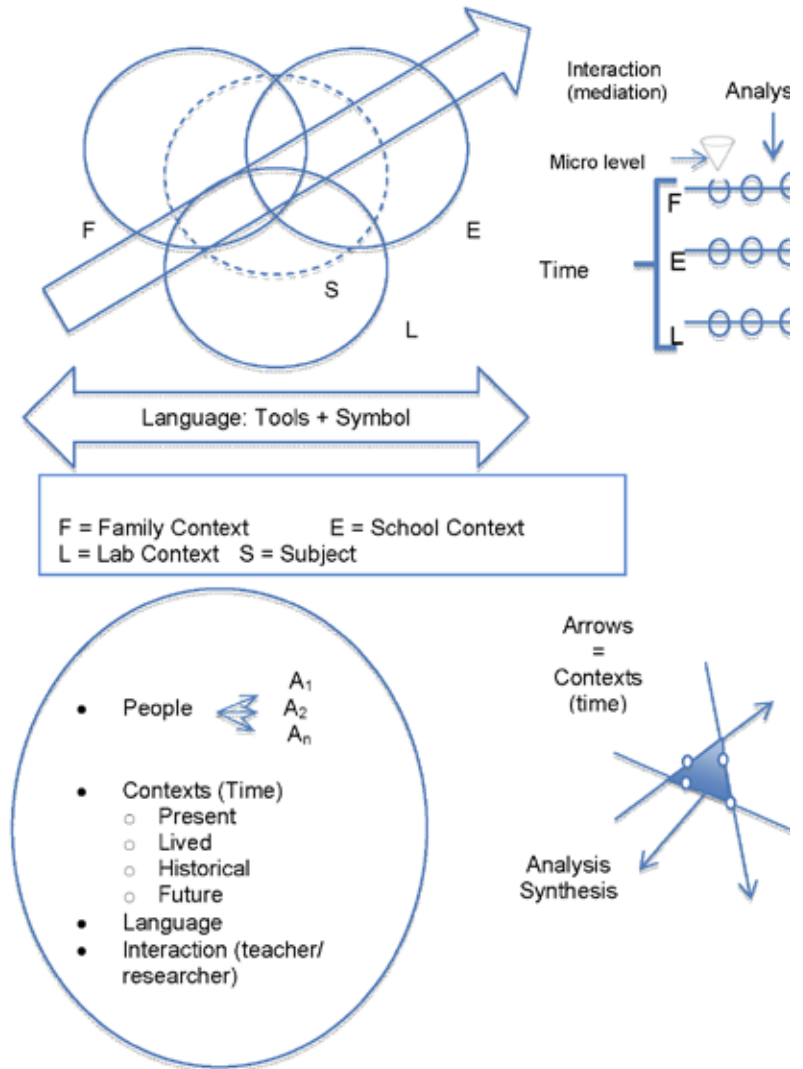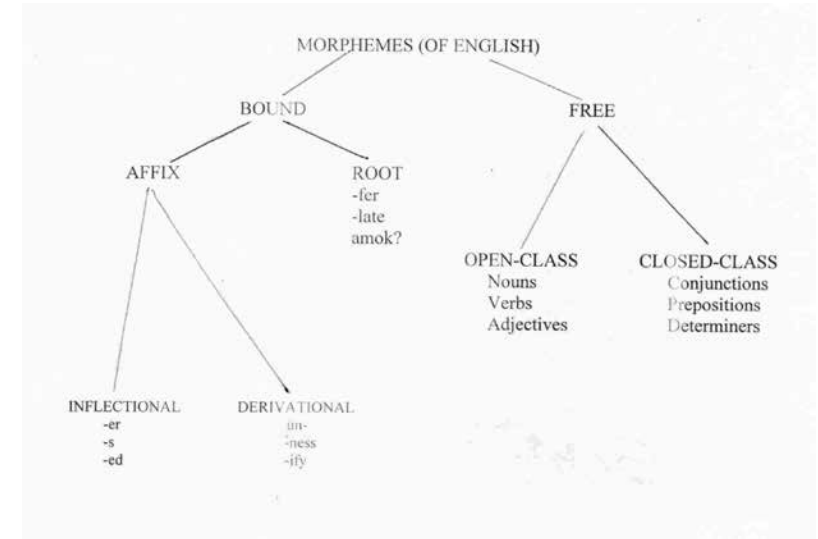
5. GENERAL MODEL
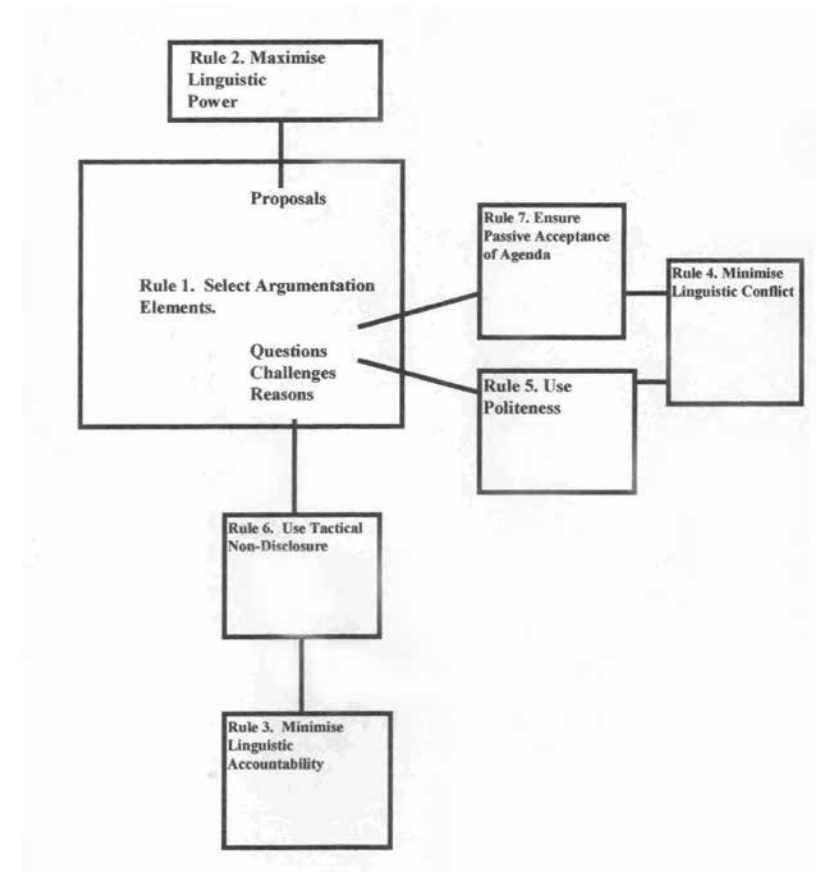
6. LEXICAL SAMPLES

OU	PDV	(code)	states	lexical examples
	g fin.	0248	gˀ g̊ g	log, fig
33 tʃ	tʃ	0250	tʃ ţʃ tˢʃ tˢ ʃ	church, French
34 dʒ	dʒ	0252	dʒ ḍʒ dᶻʒ	jury
35 f	f	0254	f f' ʍf v ɸ	fetch, half
36 v	v	0256	v f w	very, drove
37 θ	θ	0258	θ θ̣ ᵗθ tˢ ð̃ n̥	thing, Arthur
38 ð	ð	0260	ð θ ᵈð v n̥ ʒ̃	them, with
39 s	s	0262	s sˢ ç z	soup, business
40 z	z	0264	z s	rose, hose
41 ʃ	ʃ	0266	ʃ(ʃ̣) ˢʃ(ʂ)	ship, rush
42 ʒ	ʒ	0268	ʒ ʃ³ dʒ	garage, pleasure
43 h	h	0270	h ɦ hᶠ ∅	happy
44 m	m	0272	m m̃ ŋ	hammer, Mary
45 n	n	0274	n nː ñ m n̩ ŋ y	nice, rain
46 ŋ (free) ŋ		0276	ŋ ɰ ŋ̃ n ng ŋk k	sing, singer, something
47 l /(V) ṿ̩ .		0278	l ḷ ḻ ɬ ʟ ɦ ø	like, filling
/( )Co_V..		0280	l ḷ ḻ ḷ ʟ 2	cloud, acclimatise
/V_{ɛ}		0282	ʟ ɦ ɫ ø l	old, cold
/( )_#		0284	ɫ ʟ l ɦ ø	bottle

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