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## SPACE GRAMMAR - PRELIMINARIES\*

This paper is meant as a brief review of main assumptions predominating the theories of language stemming from cognitive science. In particular, it is aimed at introducing the linguistic theory that is recognized as SPACE GRAMMAR, which has been conceived of and is being developed by R. W. Langacker.

Since Aristotele the classical theory of categorization has become a goal of many fields of science, such as philosophy, anthropology, psychology and linguistics. It postulates the existence of objective categories that are formed of entities of the world which share fixed objective properties. These objective categories enter into logical relations that are purely objective and independent of any minds as it is assumed that the categories of the mind fit the categories of the world. On this basis theories of language and meaning have been formed according to which meaningfulness of statements depends on whether they can be judged as either true or false, that is to say, whether they can fit the objective world. By the same token, experiential factors such as mental imagery, expectations are ruled out as the source of non-objective considerations.

These principles of categorization, interpreted in terms of Fregean tradition have greatly influenced the development of linguistics with generative theories as its main trend. It has been generally accepted that a category should be defined in relation to the following factors<sup>1</sup>:

- (1) clear boundaries
- (2) shared properties

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\* The article was written in 1987, before the publication of R. W. Langacker's, *Foundations of Cognitive Grammar*, vol. 1, Stanford 1987, Stanford University Press.

<sup>1</sup> Lakoff [1983: 15-16] offers an insightful discussion on the topic.

- (3) uniformity
- (4) inflexibility
- (5) internal definition
- (6) objectivism
- (7) reductionism

All this was brought to doubts by Wittgenstein [1953] and, about twenty years later, Rosch's<sup>2</sup> studies on human categorization. Wittgenstein has challenged the classical theory of categorization discussing the concept GAME. Pointing to the heterogeneity of this category he argued that it is extremely difficult, if not impossible, to find sufficient and necessary conditions for an entity to be classified as a game, ie, to enumerate some features that all the members of the category necessarily share. His solution to the problem is that various kinds of games are classified as belonging to the category on the basis of FAMILY RESEMBLANCE rather than sufficient and necessary conditions. He has also suggested that if categories are dealt with from the viewpoint of their clear cases and correlations among their members, the problems with categorial judgements disappear.

Rosch challenged the classical theory of categorization through experimental tests in the field of psychology. Her studies on subjects' judgements about internal structure of semantic categories such as *furniture* and *vehicle* have shown that "reliable gradients of category membership do exist for semantic categories in the sense that subjects consider it a meaningful task to rate members of such categories according to how they fit the subjects' idea or image of the meaning of the category term" [Rosch 1977: 23]. Besides, she obtained clear evidence that even in case when subjects disagree as to the boundaries of a given category, their judgements as regards best examples of the category turn out to agree.

The results of these tests put into serious doubt the principles of classical categorization and constitute the background for the natural theory of categorization incorporating the notions of PROTOTYPE, BASIC LEVEL and FAMILY RESEMBLANCE. As has been observed "categories tend to become defined in terms of prototypes or prototypical instances that contain the attributes most representative of items inside and least representative of items outside the category" [Rosch 1978: 30]. In other words, the

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<sup>2</sup> Her earlier work was published under the name E. R. Heider.

notion of prototype is not to be understood in terms of a given, specific member of the category which is judged as its *clearest case* or *best example*, hence any questions about whether an item is or is not a prototype are to be ruled out. Indeed, prototypes are defined in relation to *cue validity* of a category in such a way that they tend to maximize cue validity within the category just like the category tends to maximize its cue validity in the environment<sup>3</sup>.

Another important result of Rosch's studies is establishing through a series of experiments a level of inclusiveness in category structure which is defined as BASIC LEVEL. It has been demonstrated [Rosch et al. 1976a] that subjects of the tests, while naming a number of specific objects tend to use category terms which have attributes common to the majority of the category members, such, as *chair*, *car*, despite their knowledge of superordinate category terms *furniture*, *vehicle*, and subordinate ones, for instance *kitchen chair* or a name of a specific model of a car. Thus, in a taxonomy of category structure, there exists the level of abstraction at which basic objects (*chair*, *car*) are categorized. The characteristic feature of basic level categories is that they have the highest cue validity. Besides, the existence of basic level objects is psychologically motivated; they are learned earlier, used more frequently and recognized quicker than superordinate or subordinate category members; they are thus not objective but natural categories.

To sum up, Rosch's experiments indicate that categories are formed not on the principle of clear boundaries and sufficient and necessary conditions. Instead, humans seem to conceive of categories by clusters of attributes characteristic of their most representative members, though it is by all means possible that there is not such a member in a category which has all the attributes. Moreover, it can often be the case that some non-representative members share no common attributes and their membership is based exclusively on FAMILY RESEMBLANCE. All this contradicts classical

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<sup>3</sup> Cue validity is a probabilistic concept according to which the validity of a given cue X as a predicator of a category Y increases relative to the frequency with which cue X is associated with a category Y, and the validity of cue X as a predicator of Y decreases if the frequency of cue X being associated with a category other than Y increases. The summation of cue validities of attributes of a given category forms the cue validity of the entire category. Thus, by the definition, the more differentiated the category, the higher its cue validity.

principles of shared properties. Besides, the existence of the *scale of prototypicality* and *goodness of examples* questions the classical requirement of uniformity within a category. Lastly, as it has already been indicated, the existence of basic level categories as psychologically motivated is, at least, inconsistent with reductionism and objectivism.

Generative linguistics has refused to consider the results of the empirical studies in psychology. There is, however, a number of linguists who are fully aware of inadequacies of formal semantics and seek a theory capable of accounting for many a linguistic phenomena which cannot be handled within classical frameworks. Thus, on the grounds of natural theory of categorization, Lakoff, Fillmore, Langacker and other linguists have undertaken the task of forming a theory of language which in most general terms can be referred to as COGNITIVE GRAMMAR. Lakoff's [1973] analysis of hedges and further studies in the field by Kay [1979] show that objectivist semantics is not capable of accounting for the fact that the truth value of a statement may depend on a kind of hedge attached to the statement.

Further evidence that certain linguistic phenomena can be explained more adequately in terms other than those offered by objectivist semantics comes from Lakoff and Johnson's [1980] studies on metaphorical nature of human languages. Results of their studies led them to observe the following:

The concepts that govern our thought are not just matters of intellect.[...] Our concepts structure what we perceive, how we get around in the world, and how we relate to other people. Our conceptual system thus plays a central role in defining our everyday realities. (*ibidem*, p. 3).

They have shown that "most of our ordinary conceptual system is metaphorical in nature" (*ibidem*, p. 4). In other words, while talking about the world, we use language in relation to our conceptual system, hence employ metaphorical concepts.

The fact that our conceptual system is metaphorical does not eliminate from the scope of considerations concepts that are not metaphorical. For instance, Lakoff and Johnson [1980] discuss the following sentences:

Harry is in the kitchen.

Harry is in the Elks.

Harry is in love.

In the first example the concept *in* is not metaphorical. It emerges from spatial experience. The other two examples are instances with *in* used metaphorically. This, however, does not mean that concepts are either directly emergent or metaphorical. Some concepts "appear to have a directly emergent core that is elaborated metaphorically [L a k o f f and J o h n s o n 1980: 69]. An instance of such a concept is CAUSATION.

Contrary to the assumptions of standard theories of meaning which often take causation as undecomposable primitive, Lakoff and Johnson postulate that this concept should be viewed in terms of a cluster of components. Accordingly, they postulate twelve properties which characterize prototypical CAUSATION. The important characteristics of these properties is that when occurring together they form a whole that we experience as more basic than their separate occurrences. This whole, the cluster of components recurring together in prototypical CAUSATION is an EXPERIENTIAL GESTALT OF CAUSATION [Lakoff and Johnson 1980] and relative to such a gestalt different kinds of causation can be judged as more or less prototypical on the basis of family resemblance to the prototype. Summing up, the concept of *causation* is basic to human activities, and physical causation is an instance of directly emergent concept, but it is not an undecomposable semantic primitive. Instead, it should be viewed as a gestalt, a cluster of properties characteristic of physical causation.

Much in the spirit of EXPERIENTIAL GESTALTS is Lakoff's later concept of IDEALIZED COGNITIVE MODEL (ICM)<sup>4</sup>. ICMs are understood as "structures which provide an idealization of our experience, and which we use in categorizing" [Lakoff 1983: 2].

These are not objective models as they are linked to the world through natural categories. At the same time they are not completely subjective models because of the real experiences of human beings which constitute the basis for natural categories. Relative to these ICMs meanings of lexical items are defined. It should be understood, however, that by the fact of being idealized and thus based on oversimplifications, ICMs may not fit the world in a perfect way. For instance, the term *bachelor*<sup>5</sup> is defined to the ICM as

<sup>4</sup> As Lakoff acknowledges his ICM stems from F i l m o r e's [1982] work in the area of lexical semantics developed in the *frame semantics* model.

<sup>5</sup> Other examples can be found in L a k o f f [1983].

*unmarried adult male*. This ICM depends upon an existence of a society with marriage and certain assumptions as regards marriageable age. There may exist, nevertheless unmarried adult males such as priests or men in long-term unmarried couplings, with respect to whom one is not likely to use the term with the certainty one has when applying it to a person who is unequivocally an unmarried adult male. In this may there may occur a lack of fitting between one's ICM and one's knowledge and understanding of the world. BACHELOR defined relative to the ICM may not comply with one's understanding of what priests are apart from being unmarried adult males. This imperfection in fitting between one's ICM and the understanding of the world accounts for degrees of prototypicality and representativeness among members of one category. In this way, in the case of *bachelor*, an unequivocally unmarried adult male will occupy the top position on the scale of *bachelorhood*; the word *priest* deviates from the prototypical *bachelor* because the ICM does fit our understanding of reality in a perfect way. Furthermore, the nature of nonprototypicality of a given item can be established by stating differences between an ICM and the world as we perceive it.

Cognitive linguists do not limit their interests to the portions of grammar traditionally called lexicography and semantics. Attempts are being made to revise the complexity of grammatical relations from the viewpoint of natural categorization. Among the investigators who have undertaken the task is Ronald W. Langacker.

Langacker's SPACE GRAMMAR<sup>6</sup> stems from the following general assumptions. Firstly, he adopts the concept that language is symbolic but his understanding of the term differs from classical views. Thus, as regards lexicon he assumes that polymorphemic units are analyzable. Moreover, within the framework morphological and syntactic structures are also regarded as symbolic and accordingly meaningful. As the stated circumstances suggest, meaning obviously pertains to all aspects of linguistic analysis and for this reason handling it in terms of a separate semantic component independent of an autonomous syntactic one is by no means legitimate. Instead, Langacker aims at treating all the dimensions of meaning organically.

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<sup>6</sup> Langacker does not find it essential to explicate the etymology of the term.

Next, it is assumed that providing there exists *faculte de langage*, it should not be treated independently of general psychological abilities. Langacker postulates that language acquisition and linguistic behaviour are related to psychological phenomena. He suggests that the tendency to view linguistic faculty as a unique phenomenon stems from the fact that linguists have been attempting to account for language in an unnatural way. The aim of space grammar is to present language as a natural system, related to a variety of other cognitive abilities of human beings.

Lastly, the theory is intended to be a natural linguistic description. Naturalness is explicated in relation to such phenomena as *discreteness*, *substance* and *complexity*. Space grammar recognizes the non-discrete character of linguistic phenomena. Simple categorical judgements, based on plus-minus principle, defining a given category in terms of *all or nothing*, are rejected. Next, it is a natural theory of language as it employs the prototype-based model of categorization. It acknowledges the fact a category consists of entities which are more prototypical - central members of the category, and these deviating from the prototype in various degrees. The natural model also rejects another aspect of discreteness, namely a diachotomous organization of linguistic phenomena. Langacker observes that rigid diachotomies such as competence vs performance, grammatical vs ungrammatical or homonymy vs polysemy are not justified by linguistic facts. As an example he discusses traditional distinction between lexical vs grammatical morphemes (context vs function) and succeeds in showing that there are intermediate cases for which traditional definitions of the classes do not hold. Thus, he postulates that linguistic phenomena should be viewed as forming a continuum, grading from one another along various parameters. The space grammar also states inadequacies of componential analysis of linguistic units. Langacker notices that for most linguistic units it is not sufficient to define them as 'unordered bundles of discrete features'. In fact, linguistic units are structural complexes or systems, greater than just the sum of their parts. For instance, the vowel [i] is assumed to have the following definition: [-CONSONANTAL, +VOCALIC, +HIGH, +FRONT, -ROUNDED]. Provided the sound were simply the sum of these features, it should be possible to produce it as a sequence of its components, ie, making one's vocal cords vibrate, raising the tongue, etc. But one cannot articulate the sound in this way. Apart from the enumerated individual features the production of the vowel requires

some specification of how these features are interrelated. Similarly, the bundle of features [MALE, COLLATERAL, ASCENDING, GENERATION] does not exhaust all the information included in the concept UNCLE. Neither does it seem sufficient to acknowledge the fact that the concept makes internal references to at least two individuals: ego and the person referred to plus a linking relative, as well as sibling and offspring relationship. The concept is properly characterized when the entities and relations between them are understood as forming a coherent integrated system which can be viewed wholistically as a kind of GESTALT. Feature analysis of a concept can be adequate only if the content of the features is properly described, ie, as features correspond to inherent properties of a concept, explicated within an integrated system, an appropriate description of these features has to be made in relation to the system. Postulating such a viewpoint on linguistic units, Langacker does not deny descriptive utility or cognitive reality of classificatory features. Indeed, he argues that they represent commonality that speakers perceive among linguistic units, and they form "an additional dimension of linguistic organization superimposed on fundamental systemic conception and coexisting with it in the cognitive representation of linguistic structure" [Langacker 1983: 19-20].

Space grammar is meant to be substantive. Language is a complex system and some abstraction is inevitably employed in theories characterizing it. Investigators however, have to be very careful to avoid regarding abstract entities as empirically established facts. Langacker [1983] argues that the existence of deep structural abstract level of linguistic organization, which is established only to be changed into something else, is dubious. Deep structures are posited with no support from linguistic data, they are artifactual constructs. Space grammar rejects any a priori assumptions and concentrates on what is observable, analysing language as it appears to be verifying preconceived ideas. To sum up, a substantive theory of language has to be formulated with certain precision and detail and its claims must correspond to real facts.

Finally, Langacker also argues that drawing generalizations is sanctioned to the extent it does not blind linguists to less obvious aspects of their subject matters. For instance, the fact that grammatical morphemes are less evidently meaningful than lexical ones has led transformational linguists to regarding the



former as semantically empty, and accordingly, putting their possible impact on semantics of sentences outside the scope of considerations.

Another example of unjustified simplification is the rule/list fallacy. On the basis of this assumption particular statements (lists) are ruled out from grammar if it is possible to draw generalizations (rules) which subsume them. As Langacker postulates, there is no proof that these are necessarily exclusive elements in a speaker's knowledge of his language. A natural linguistic description will consider certain limits to neatness and simplicity because going beyond them may result in inaccuracy in accounting for the complexity of linguistic phenomena.

Langacker's own methodological principles are presented in relation to the following notions: *factuality*, *economy*, *explicitness*, *generality* and *predictiveness*.

*Factuality* relates to the accuracy with which a theory account for real linguistic data. Space grammar consists in the fact that while aiming at offering a unifying description of language it does not neglect unclear cases such as *conventional expressions*, *idioms* and figurative language in general. This approach is connected with the assumption that syntactic processes serve *imagic* functions, ie, grammar is capable of structuring a scene from various angles making some elements of the scene more salient than others.

Reconsidering the extent to which the notion of *economy* is relevant to a theory, Langacker objects to concentrating on positing rules at the expense of accuracy of linguistic description. Therefore space grammar assumes coexistence of lists representing particular statements and rules explicating possible generalizations.

As regards *explicitness*, the linguist observes that there is no necessary correlation between the depth of insight with which a theory handles data and the degree of formalization of the model. In fact, he suggests, in some cases quite the opposite may be true. Imposing a rigid formal apparatus can be misleading and counter-productive, especially at a preliminary stage of investigations. Nevertheless, it is expected of the theory of language to be stated with some precision. Space grammar is capable of precise formulation, but no rigid formal model will be imposed.

Langacker also rejects the claim that language is a system of *general* grammatical rules. Accordingly, space grammar is not conceived of as a generalizations - based theory. General rules are viewed as schematic characterizations of particular statements. In

other words, specific statements are fully anticipated whereas fully general rules are regarded as special cases on a scale of generality. As for language universals, Langacker stresses the diversity of grammatical organizations among languages. Space grammar makes it its central claim that semantic structure is language specific. People may experience the same kind of thing and employ different images while conceptualizing it. Therefore, the descriptive tools employed for characterizing one language need not be applicable for analyzing another language structure.

The final issue discussed in relation to methodology is *predictiveness*. In view of Rosch's results, there seems to be no use to demand absolute predictability of rules. Simultaneously, incorporating the notion of prototype into the theory results in providing means for postulating *levels of predicatability* in relation to degrees of prototypicality. As an example Langacker discusses the English passive. There is evidence that full applicability of the rule is limited to action verbs forming the core of prototypicality of the category. Thus, space grammar will predict that the passives may tend to be ill-formed in the cases of verbs deviating substantially from the prototype, though it will not predict in any absolute terms which forms can and which cannot undergo passivization. Space grammar questions the absolute predictability because language undergoes continuous changes which cannot be predicted in any detailed way; it is a mistake to assume that full predictability is a characteristic feature of this natural system, Langacker in his conception of restrictiveness as a dimension of predictive power of a framework does not postulate demarcation lines separating in a strict manner what is possible from what is not possible in language. His framework does not posit prohibitions limiting, for instance, the amount of nasal consonants to four. Instead this cognitive model will identify a few nasal consonants as prototypical and account for others as deviating from the prototype, without imposing arbitrary limits as regards their number. In this situation clearly impossible systems are not precluded by arbitrary statements but by the high degree of deviation from the prototype and other experiential factors. Restrictiveness, thus, pertains to space grammar in the sense that the model excluded any arbitrary devices.

The next step in the presentation of space grammar will be an introduction of the concepts it employs. Grammar is conceived of as a representation of "a speaker's grasp of established linguistic convention" [Langacker 1983: 75] which has the form of

"structural inventory of conventional linguistic units". UNITS are in a sense basic for cognition. These are structures that are learned and made use of without *constructive effort*. A unit is handled and perceived by speakers as a whole, without paying attention to its internal structure. Precisely, a segment is not assigned a unit status arbitrarily. For instance, a native speaker of English, when attempting to articulate the French [u] is bound to be fully aware of its internal structure. In the course of practice, through a multitude of repetitions, he may achieve a kind of perfection in articulating the vowel, and, consequently, this articulation will not require constructive effort on his part. In this manner the vowel may finally gain a *phonological unit* status for him. In an analogous way, an established concept is a *semantic unit* and a symbolic relationship between a phonological unit and a semantic unit may attain the status of a *symbolic unit*. Morpheme is defined as the simplest kind of symbolic unit. Here a semantic unit and a phonological one participate as wholes in forming a symbolic unit. Simple symbolic units can combine to build complex symbolic units some of which may again be mastered as fixed constructs.

*Constructive effort* pertains to linguistic activities when novel expressions are formed. The relation that holds between phonological and semantic units is represented within symbolic units, ie, the function of a symbolic unit is to provide means - a linguistic form - to express ideas; whenever an idea corresponds to a semantic structure of symbolic unit the phonological counterpart is simultaneously evoked as the other participant in the symbolic relationship. The situation is different in the case of novel expressions. Forming a complex symbolic structure capable of expressing a complex concept is "a problem solving activity". A speaker has to make choices among symbolic units at his disposal and combine them appropriately. Hence such an activity requires constructive effort and incorporates linguistic creativity.

As it has been already signalled, the unit status is not assigned arbitrarily to a structure. Mastering a unit, whether simple or complex, is a matter of degree, and is related to experiential factors. The frequency of usage obviously influences the degree of entrenchment in the cognitive structure so that a novel expressions if used adequately often may attain in due time the status of a unit for a given speaker. Relative to this, space grammar does not postulate any strict diachotomy between units and structures with nonunit status. Instead it offers the suggestion

that the better entrenchment of a structure the greater its centrality and linguistic significance.

A cognitive structure with a unit status becomes a linguistic unit, ie, enters the domain of linguistic interest, under certain circumstances to be explicated in the definition of a *linguistic unit*. On the one hand, such a definition may state that a semantic unit or a phonological one is considered linguistic on the condition that it participates in a symbolic relationship. On the other hand, there are reasons for which this simplistic definition cannot be accepted as valid. There are gestures symbolic in character which do not classify as elements of grammar. Hence it may seem plausible for the definition to make references to phonological aspect of linguistic units. However, postulating a kind of phonological structure as a *signifiant* does not solve the problem as it excludes the sign language from linguistic considerations and provokes further criterial restrictions. Again, the solution is found within the prototype model, namely, it is assumed that "Prototypical linguistic symbols have for their *signifiant* a segmentally organized sound sequence produced by the human vocal apparatus" [Langacker 1983: 81]. According to the definition units which are maximally deviant from the prototype can be excluded from linguistic considerations, whereas systems such as the sign language can be regarded as less prototypical but nevertheless linguistic in nature.

Linguistic units are conventional in nature in the sense that they are not only shared but also recognized as shared. Moreover, linguistic units are conventional to various degrees. There are two faces of linguistic conventionality. First, it should not be expected of any two speakers of a language to master and control exactly the same set of linguistic expressions. Consequently, the amount of units shared by all the members of a community corresponds to a relatively small portion of a speaker's linguistic abilities. The second dimension of conventionality is the speakers' conception of the sociolinguistic status of linguistic units. Space grammar cannot offer any precise answer of how so understood conventionality is to be incorporated into a trully satisfactory linguistic description, though, as Langacker suggests, the solution may be provided within an extension of some fundamental concepts and devices. Of particular interest can be the space grammar approach to semantic structures. A semantic unit is viewed as designating a substructure in "a coherent con-

ceptual complex or knowledge structure of some kind" [Langacker 1983: 83]. The relation between a designating substructure and such a coherent conceptual complex - *functional assembly* - is essential for the designatum is identified only relative to its position within the functional assembly.

We have discussed briefly the notions of a linguistic unit and conventionality of linguistic units. Now we shall explicate the statement that grammar is an inventory of conventional linguistic units. The framework withdraws from viewing grammar as a generative mechanism enumerating all and only well-formed sentences. Neither does it posit the process metaphor, ie, no devices of the form of operations with well-formed sentences as their outputs are postulated. These views on grammar are grounded in a specific conception of what determines the well-formedness and the relation between language structure and language use. The main concern of space grammar is to describe language as interacting with human cognitive abilities, consequently, it does not assume grammar to be constructive for it is the speaker who is responsible for the formation of novel expressions.

There are two facets to the formation of novel expressions. Namely, such an expression may result from putting linguistic convention into use, or its formation can require a creative process. The former instantiates convention, the latter is called usage. More precisely, we talk about usage when a speaker, considering all the aspects valid for communication "perceives the need to find linguistic expressions for a conceptualization" [Langacker 1983: 85]. The problem of finding the required expression is referred to as the *coding problem*, the solution to that problem is defined as *target structure*. Grammar does not offer the solution but it provides the speaker with symbolic resources he can employ while forming the target structure.

Langacker distinguishes between two types of symbolic resources. The first one includes specific symbolic unit (morphemes, lexical items etc.). The second type consists of established general patterns for combining specific symbolic units into complex ones. These general patterns are schematic symbolic units or *schemata*. Conventional linguistic units sanction the usage embodied by a target structure to the extent the latter accords with the conventional units included in the grammar. Hence, again, sanction is a matter of degree.

The simplest case of relation between a conventional unit and a target structure is the situation when it is possible for the speaker to solve his coding problem simply by selecting an appropriate conventional structure from the inventory of conventional symbolic units. In other words, this is the relation of identity, once the identity is perceived the coding problem is solved. Nevertheless, speakers seldom, if ever, find symbolic units capable of furnishing all the details of conceptualizations they code, simply because linguistic expressions generally underspecify corresponding generalizations. For instance, if the linguistic unit *triangle* is applied to a specific triangle, a picture in a book, it does not explicate such details of the conceptualization as size, colour of lines, etc., that is to say, there always remain some aspects of conceptualization that are not fully specified. Thus, the function of a conventional linguistic unit is to sanction the target structure as well-formed extrapolation from linguistic convention and to provide resources for assembling the novel expression.

Between the sanctioning structure and the target one the *relation of schematicity* holds. This relation reflects natural categorization corresponding to the relation between superordinate and subordinate structures. In the case of *triangle* the symbolic unit [[TRIANGLE]/[triangle]] functions as the schema for various kinds of triangles which elaborate the schema. Moreover, the example under discussion instantiates full sanction of a target structure - the case when the speaker can easily find a conventional symbolic unit providing resources for assimilating his conceptualization. However, as it is a natural feature of language use to deviate from conventionality, sanction is a matter of degree. When, due to certain discrepancy between specifications of the sanctioning structure and those of the target one the former can be accepted as schematic for the latter only with some strain, the sanction is partial. Partial sanction is accounted for in terms of prototype theory. For instance, if a speaker is shown a conical piece of wood with the tip made of pencil lead designed to serve the purpose of writing with it, he is likely to call it a *pencil*, more precisely, to make a categorizing judgement resulting in defining the object as perhaps less prototypical but still a member of the category. The important dimension of linguistic sanction pertains to language change. Usages and categorizing judgements sanctioning them may in due course become conventionalized

despite the extent of deviation at the initial stage. Such conventionalized expressions -usages may spread and the assimilated by entire communities. The mechanism is quite general and by no means restricted to semantic extensions of single morphemes. Indeed, L a n g a c k e r [1983: 92] assumes the following:

All of linguistic structure consists of either conventionalized usages or generalizations (schemas) that speakers manage to extract from such usages.

The relation of schematicity constitutes one aspect of inventory character of grammar. As indicated earlier, it holds between a schema and its elaborations. Categorical units related by this relation form schematic network which define *schematic plane*. Structures within this plane perform three functions:

- a) categorization of linguistic units;
- b) reflecting generalizations in form of schemas;
- c) categorization of novel expressions with non-unit status.

Another aspect of inventory - structured character of grammar is reflected in the *relation of symbolization*. Space grammar assumes three kinds of structure: semantic, phonological and symbolic. The symbolic structure is bipolar. It consists of a phonological pole and a semantic pole defined in phonological and semantic spaces, respectively. Semantic structure of a symbolic unit is a location in the semantic space, similarly, phonological structure of such a unit can be characterized as a location in human range of phonic potential forming the phonological space. In this manner, the bipolar *symbolic space* consists in coordinating the two spaces. Symbolization is a type of linking correspondence which relates a structure belonging to the semantic space with the one located in the phonological space. The notational devices are the following: square brackets indicate unit status, capital letters are used to denote semantic units, eg. TRIANGLE; small letters indicate phonological unit status, eg. triangle; the symbolic unit coordinating the two ones has the form [[TRIANGLE]/[triangle]].

Simple symbolic units can combine to form complex composite structures, that is to say they enter the third type of relation called *integration*. Integration obtains within the syntagmatic plane - the part of schematic plane in which two or more symbolic units combine. For instance, the combination of the symbolic unit [[DOG]/[dog]] and the one reflecting plurality [[PL]/[z]] results in a composite complex structure [[DOG]/[dog]] - [PL]/[z]] (the

dash between the two symbolic units indicates the syntagmatic relation). Syntagmatic combinations are not mere sums of their components. They are linguistic expressions originating in target structures conceived in specific contexts. Hence, their properties cannot be fully predicted from the specifications of their components. Besides, on entering a syntagmatic relation one of the components may have to adjust its specifications remarkably. Such an extension can result in creating a new lexical entity or another version of the word. For example, when a speaker learns the meaning of *run* in a situation when the verb defines a kind of human movement, he will have to adjust some specifications of *run* while applying it to movements of four-legged animals. In such cases the type of integration called *accomodation* takes place, whereas the correspondence between the initial (sanctioning) structure - the schema - and the novel (target) expression - the schema's elaboration - is defined as *coding*.

Within space grammar framework grammatical structure is also posited as symbolic. Firstly, grammatical morphemes are regarded as meaningful entities. Secondly, grammatical classes such as nouns, verbs, etc., are also meaningful. They are represented in terms of schematic units. For instance, the grammatical class noun is defined as [[THING]/[x]] where [x] stands for a schematic phonological unit and [THING] for a semantic unit. Relative to such a schematic symbolic unit a specific form may be categorized as a noun, eg., [[THING]/[tree]] - [[TREE]/[tree]]. Thirdly, grammatical constructions are also symbolic. The syntactic structure *tall boy* is formed of symbolic units [[TALL]/[tall]] and [[BOY]/[boy]]. These symbolic components are integrated at both semantic and phonological poles. Semantic integration of TALL and BOY remains in a symbolic relation with phonological interpretation of tall and boy and the linear ordering of the phonological structures symbolizes the fact that TALL specifies BOY rather than some other noun.

In the part of the review to follow we shall concentrate on the organization of semantic structure as posited within Langacker's theory. We shall start with recalling that a linguistic expression does not describe a situation of a real world. In fact it describes the situation as conceived by the speaker. Due to the speaker's ability to structure a scene into various images, it is possible to obtain a number of expressions referring to one single scene. The differences among ways of describing the same situation



can be analyzed with reference to certain parameters. The term FOCAL ADJUSTMENT is used with reference to the variations along these parameters. Hence, the focal adjustments of *selection* determine the choice as regards the elements of the scene to be considered. Next, the scene can be described from various positions - here the focal adjustments of *perspective* come into play making some elements of the situation more prominent than others. Lastly, the scene can be presented with different degrees of specificity as the focal adjustments of *abstraction* pertain to the images used to structure the scene.

The focal adjustments of selection comprise three aspects: the domain, the scale and the scope. Semantic units - predicates - are characterized relative to certain contexts, i.e., *cognitive domains*. For instance, parts of human body are being defined relative to a person's knowledge of the anatomy of human body. According to that knowledge the context for the concept *finger* is *hand*, and thus the latter constitutes the *domain* for the former. In the expression *the big blue plastic cup* [Langacker 1983; II: 23] the designated object *cup* is characterized relative to such domains as: function, size, colour, etc., in other words, *cup* "interacts with a variety of cognitive domains". [Langacker 1983, II: 24]. Apart from differing in domains the predications may differ in *scale* within one domain. The concept *close* relates to the spatial domain, it permits, however, considerable differences in the focal adjustment as regards the scale, which is exemplified by (1) and (2) below: [Langacker's 4a and 4c].

- (1) Those two galaxies are very close to one another.
- (2) The runner is staying close to the first base.

The third element of the focal adjustment of selection is the scope of predication. The predicate *uncle* is characterized within an abstract domain formed of a network of kinship relations. It is, however, only a certain portion of the network that is necessary for defining the concept. This subpart of the domain which is relevant to the predication constitutes the scope of predication.

The second parameter determining the way in which a linguistic expression describes a scene, the focal adjustment of *perspective*, relates to such notions as figure/ground alignment, viewpoint and subjectivity. Langacker assumes that the FIGURE/GROUND alignment is a basic element in human perception. A person, while viewing a scene, perceives a certain substructure as *standing out* from the back-

ground. This outstanding substructure is referred to as **FIGURE**, the remaining part constitutes the **GROUND** for the figure. Obviously, the figure/ground organization is imposed on the scene by the perceiver, and it is possible for different substructures to function as figures. Nevertheless, Langacker postulates that these parts of the ground which are relatively compact and clearly contrast with the remaining are most likely to be selected for figures. For instance, a white dot on a black surface will normally be perceived as a figure. The **VIEWPOINT** pertaining to perspective is specified by two notions, namely, the *vantage point* and the *orientation*. The vantage point is understood as the position from which a person views the scene. Orientation from a given vantage point relates to figure/ground alignment. Thus, if there are two persons watching a house with a kite above it from exactly the same position they are likely to assume the same vantage point. However, if one of the persons stands on his head he may describe the scene relative to a different orientation with respect to the actual relative position of the elements of the scene, ie, the house above the kite, regardless of the canonical orientation structuring the scene relative to the surface of the earth. The third element of perspective is *subjectivity*. It refers to the relationship between the speech act participant and the organization of the scene. The subjective relationship takes place if the participant performs a central role in such an organization. The relationship is said to be objective if the role of the speech act participant is not indicated by the expression. In the majority of cases linguistic expressions contain both subjective and objective components. Langacker stresses the importance of recognizing the subjective elements in those linguistic expressions which seem to be objective. A speech act situation, the setting in which a symbolic expression is formulated and interpreted, constitutes a part of the participant's conceptualization related to a given usage event. Subjective components of such an event can be indicated by various means which, in turn, may become conventionalized and hence gain the status of conventional linguistic units. Nevertheless, the subjective character is not necessarily overt. In fact, it is possible that the subjectivity is not indicated by means of a concrete phonological realization. For instance, in the case of such verbs as *go* and *come* which denote objective motions, the subjective element can be traced only in relation to the directions of the motions the verbs designate as the directions are definable with respect to certain reference

point which can be prototypically equated with the speaker. (The subjective nature of apparently objective linguistic units constitutes the primary element in understanding epistemic predicates, which will be discussed later in the body of the paper).

The third type of focal adjustment is *abstraction*. The sense in which the term is employed in space grammar is the relation between the schema and its instantiations. It is characteristic of linguistic expressions that they are not fully specific. Obviously, a schema comprising the properties of a domain and its instantiations is necessarily the least specific entity. Moreover, the specificity of the schema's elaborations is also a matter of degree, hence, there exists a hierarchy of schematicity formed of the basis of a degree of specificity. Accordingly, the shift in focal adjustment from a higher to a lower level of specificity, ie, from a lower to a higher level of schematicity, results in neglecting of minor, more specific features so that only the gross ones are notified. For instance, *tool*, *hammer*, and *claw hammer* form a hierarchy of schematicity; *tool* is schematic, non - restrictive as regards shape though it implies a kind of shape: *hammer* is an elaboration of *tool*, it is specified in relation to shape but at the same time schematic for *claw hammer*; the latter is an instantiation of *hammer* in elaborating the shape in a fairly precise manner. In other words, the schema *tool* is non-restrictive in the domain *shape* though it implies this parameter; the instantiations provide specifications within this domain. Describing a scene the speaker commits himself to some level of schematicity, ie, he perceives and structures it with some degree of *abstraction*. Hence, the focal adjustment of abstraction pertains to describing a situation to the extent that the speaker departs from specifying its elements in a fully precise way by employing linguistic expressions with a higher level of schematicity.

Now we shall return to the notion of *domain*. Initially, Langacker introduces this differentiation into basic and abstract domains. Domains are cognitive entities and relate to cognitive abilities of human beings such as, for instance, the ability to conceive of spatial relations, to distinguish colours through visual system and variety of auditory signals through our hearing apparatus, the ability to feel various sensations by means of touching. Relative to the range of these cognitive abilities, Langacker postulates "primitive representation fields" functioning as contexts for semantic units which he calls basic domains. These

are space, time, scale of temperature, scale of pitch, pressure and pain, to enumerate just a few. Basic domains occupy the lowest position in the hierarchy of complexity and they should be understood in terms of an area of conceptual potential. Particular concepts are characterized as locations or configurations in domains. For instance, space allows for a variety of shape specifications, a specific colour is a location in the colour domain.

There are, however, concepts that cannot be precisely characterized relative to basic domains. In the example with *finger*, the concept *hand* functions as a component of conceptualization and provides the necessary context, ie, constitutes the domain of *finger*. *Hand* hardly qualifies as a basic domain thereby the semantic unit [FINGER] is not directly defined in a basic domain. It is, however, possible to characterize *hand* relative to *arm*, *arm* relative to *body* and *body* relative to three dimensional space which is a primitive representational field - a basic domain. *Finger*, thus, relates to a basic domain through a number of abstract domains, ie, *hand*, *arm*, *body*. Langacker argues that all human conceptualization stems from basic domains in a direct or indirect way. In the latter case we face a hierarchy of conceptual complexity. A concept characterized relative to a basic domain may provide potential for further specifications, ie, may become a domain of a higher-order concept which, in turn, may function as a domain for concepts of still higher complexity. The concepts definable in terms of one domain and functioning as components in conceptualizing other concepts are abstract domains.

The important facet of semantic predicates is that they often relate to more than one domain and the range of domains the predicate refers to forms its matrix. *Taste* can be used as an example. The sensation produced by tasting can be characterized relative to temperature, texture, colour, smell, ie, to a matrix of domains. There is another possibility of viewing the situation, namely, the parameters employed in providing a characteristics of *taste* can be understood as various dimensions of a multi-dimensional domain. The notion of imensionality appears to be a convenient means coming into play when a domain does not provide a sufficiently coherent context for a linguistic expression. For instance, the emotive domain functions as the context for characterizing both positive emotions - joy, love, happiness, and the negative ones - sadness, hate, fear, etc., hence, Langacker suggests that it could be convenient to posit the positive and negative

dimensions within this domain. Similarly, dimensions of "active" and "quiescent" emotions, cross-cutting the positive - negative scale can be further postulated. The coordination of dimensions to form a domain corresponds to the coordination of domains to form a complex matrix. It consists in the capacity of an entity to belong simultaneously to a number of dimensions or domains - as in the case of *taste*. In this circumstances the distinction between dimensions and domains should be understood as a means posited with some degree of arbitrariness in order to enable a more precise characterization of an entity by providing a more coherent context (dimension) if the entity is a location or configuration in a domain with low degree of consistency.

The elements of cognitive functioning discussed so far are mirrored in the semantic structure. The value of a semantic predication resides in a *profile base* relation. The *base* of the predication relates to a domain with respect to which the entity is characterized to the extent that it is the *portion* of the domain that is directly relevant for the predication. In other words, the base constitutes the scope of predication. By *profile* this substructure of the base is understood that is given greater *prominence* and *salience* in the predication, that is to say this is the element of the base the predication designates. Designation as the relation between the profile and its base is inherent to semantic structure. The description of the concept *uncle* will serve as an example. The domain of the concept is a kinship network. Clearly, such a network is bounded at one of its ends - the landmark *ego*. Hence, it forms the domain which is bounded at one of its ends. The characterization of the predicate [UNCLE] does not require such a broad context, thus, its base - the scope of predication, comprises only the relevant part of the domain. Within the base the predicate designates a nod which participates in a specific relationship with the landmark. This designated nod is the profile of the predication [UNCLE] whose semantic value resides in the relation between the profile and the landmark within the base. It can be added that the same base provides the context for other predicates. If the roles of the landmark and the profile are reversed the predicates [NIECE] and [NEPHEW] are designated.

These facts depend on the speaker's ability to profile different aspects of the conceptualized situation functioning as the base. The process of painting constitutes the base for a semantic structure of a number of expressions. The predicate

[PAINTER] is a result of profiling the participant of the process, in the case of [PAINTED] the final stage of the process is profiled. According to the existence of the possibility for different predicates to be profiled within one base three types of semantic predicates are posited with respect to the nature of their profile, namely, THINGS, STATIVE RELATIONS and PROCESSES.

As has been previously indicated traditional grammatical categories are assumed to be semantically definable. The assumption stems from the suggestion that all members of a category are instantiations of one schema. In the case of the category noun the schema [THING] is elaborated by specific members of the category. In most general terms, things are defined as "bounded regions in some domain". Nevertheless, only prototypical things comply with the strict sense of the definition. The notion of *bounded region* should be understood as referring to "a set of mutually interconnected entities" rather than a kind of physical bounding such as for example, shape. Physical bounding in spatial domains is regarded as the most prototypical case of the concept, abstract enough to comprise the phenomenon of bounding as it pertains to the full range of abstract domains. Abstract domains incorporate basic domains hence bounding in the former implies bounding in the latter. Moreover, nominal concepts are often characterized relative to a number of domains whose import on defining the predicate may vary in the sense that the concept may require bounding in one of them, not necessarily the direct contexts of the predicates. Langacker's example is the process designed by [PAINT]. This process constitutes a direct abstract domain for the nominal predicate [PAINTER]. The profile of [PAINTER] is not a bounded region in the process designated by [PAINT]. Instead, it is suggested that the process itself requires for its characterization the conception of a prototypical person capable of performing the specific action, hence, the nominal concept [PAINTER], though defined in relation to the process is profiled as a bounded region in a more basic domain incorporated in the process. In other words, the predicate inherits bounding from an incorporated domain.

In the case of mass nouns the situation is different. The basic domain for these nouns is a three dimensional space. Nominal predicates profile mutually interconnected entities in such a way that the properties of the entities which distinguish the mass from the other substance are in focus. Such effective

homogeneity establishes the mass as a region in the basic domain. Bounding is possible if the mass noun is simultaneously characterized relative to other parameters, for instance, its location in an abstract quality domain. In other words, mass nouns can be defined as regions in the three-dimensional space which are not bounded in this basic domain: any necessary bounding stems from some abstract domain participating in characterizing these nominal predicates.

The assumption that nouns are regions, ie, sets of mutually interconnected entities, influences the space grammar concept of stative relations. A nominal predicate profiles a set as a unitary entity because of the minimal distance among elements within the set and also because it does not focus on interconnections among these elements. A relational predicate, by contrast, profiles these interconnections as well as individual elements participating in the relation. There can be observed asymmetry between two entities profiled together with the relation connecting them. One of them functions as a figure in the predication and is called **TRAJECTOR** (tr). Other prominent entities constituting points of reference for locating the trajector are **LANDMARKS** (lm). In *There is a mailbox across the street*, *across* situates the mailbox (tr) opposite landmark(s), which, unless indicated otherwise, can be equated with the speaker. *Street* also functions as a landmark, participating in locating the trajector. Examples of stative relations are: adjectives, adverbs, prepositions.

Processes constitute another type of relation. They are designated by semantic poles of verbs. A process differs from a stative relation in the presence of a positive temporal profile. The semantic value of a stative predicate resides in profiling the relation which holds between a trajector and landmark(s), thus, stative relations are atemporal. By contrast, a process profiles such a relation throughout a continuous series of point in time in which the conceived situation evolves. Such a span of time is the *temporal profile* of the process. The fact that a relationship is conceptualized as an evolution through time implies a kind of change resulting from such an evolution. For example, in the case of the verb *enter* the trajector of the predication changes, through a sequence of intermediate distinct relations, its position with respect to its landmark from an *out* relation to the *in* relation. There is, however, a certain amount of processes which do not imply a change. This is the case when a predication designates a

sequence of states - relations located along temporal dimension but the states are not specified as distinct, thus, no change is implied. The former type of process is called perfective, whereas the latter one is an imperfective process.

It is important to stress that notifying the distinction does not result in positing any kind of division into perfective and imperfective processes. Space grammar acknowledges the fact that many verbs can designate both types. Moreover, it offers an interesting account of imperfectivization of perfective processes. Imperfective predications designate a sequence of relations distributed along a span of time and the relations are not conceptualized as distinct. This does not mean that they are necessarily identical. Indeed, the relations are conceptualized as not distinct on the basis of their effective homogeneity, rather than strict actual identity. Thus, *Muncie is fighting his way to the end of the zone* [Langacker 1983 II: 170] provides an example of the case when the imperfective predication *is fighting* imposes imperfectivizing profile on a sequence of inherently perfective relations focusing on these phases of the dynamic processes which are constant. As a result, the perfective activity designated by *fight* functions as a base of the predication which profiles only these portions of the base which are conceptualized as constant relations.

The imperfectivization of a perfective activity instantiates the process of integration which takes place when two structures enter a syntagmatic relation. A value of a semantic unit consists in the profile/base relation. When two predicates combine syntagmatically a certain substructure of the composite whole is selected as the profile of this composite structure. For example, the concept *pins* is analyzable into two constituents: [PIN] and [PL]. The predicate [PIN] profiles a single, discrete object. [PL] is schematic. It profiles a mass object which consists of indefinite number of replications of a schematic, discrete object. The syntagmatic combination of the two predicates results in specifying the schematic object [PL] as a *pin*, whereas the composite structure retains the profile of [PL], which is indicated by means of darker lines in the Figure 1 [Langacker 1982: 50].

Noticeably, there is an asymmetry between [PIN] and [PL] as the latter becomes the profile determinant for the syntagmatic combination [[PIN]/[pin]]-[[PL]/[z]], ie, the composite structure inherits the profile of [[PL]/[z]] so that the complex symbolic unit [[PIN]/[pin]]-[[PL]/[z]] has the profile of a mass object. Simultaneously,



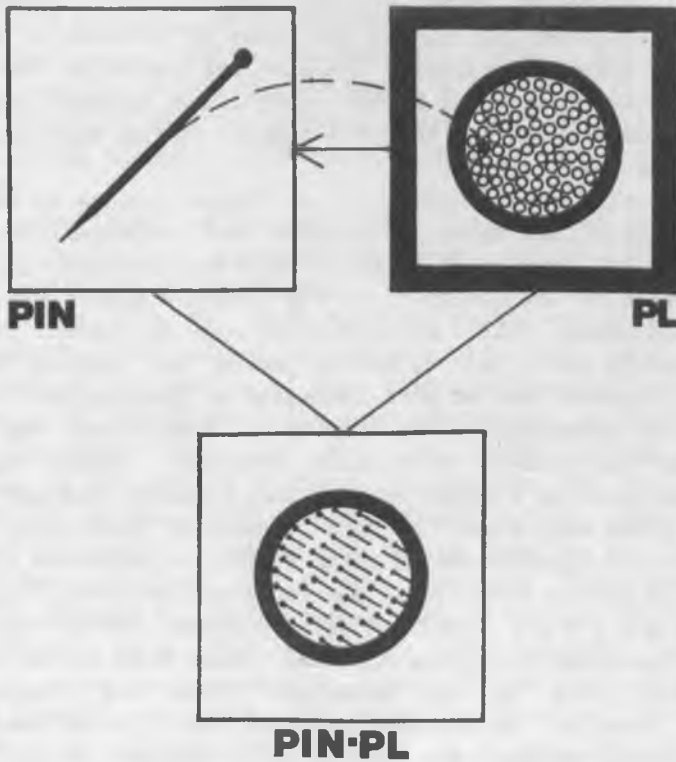


Fig. 1

the schematic mass object  $[[PL]/[z]]$  is specified by a discrete object  $[[PIN]/[pin]]$  due to the fact that within the internal structure of the semantic unit  $[PL]$  there is a substructure which corresponds to the single object designated by the semantic unit  $PIN$ . On these grounds Langacker postulates two types of structure, namely, autonomous and dependent, defining them as follows:

One structure is said to be dependent on another to the extent it presupposes it as part of its own internal structure. More precisely, one structure  $D$ , is said to be dependent on another structure  $A$  to the extent that a substructure (of type  $A$ ) figures saliently in the internal composition of  $D$ , and is put in correspondence with  $A$ . [Langacker 1982: 51]

Thus, in  $[[PIN]/[pin]]-[[PL]/[z]]$   $[[PIN]/[pin]]$  is an autonomous structure and  $[[PL]/[z]]$  is the dependent one. The part of the dependent predicate which is schematic for the autonomous structure is called an *elaboration site* (e-site). The e-site

and the A-structure stand in the relation of schematicity, which is indicated in Fig. 1 by means of an arrow of schematicity. Such a schematic relation between the e-site in the D structure and the A structure as a whole constitutes grammatical valence. In other words, we can say that the concept PL has the valence and PIN satisfies this valence.

The overall organization of a finite clause is analyzable in terms of relations among autonomous and dependent predicates. The propositional nature of semantic structure reflects three superimposed levels of organization. On the lowest - micro level the incremental structure called a *predicational strip* is formed. The predicational strips are of an objective scene as falling into the epistemic neighbourhood of both landmarks or they detach the situation from the immediacy of the speaker by describing the scene as past rather than present (distal) or potential rather than real modals. Each head of a macro unit is individually defined in the epistemic plane regardless of the hierarchy pertaining to the organization of specific macro units within an objective plane. For instance, in *The boy on that horse near the runners was eating a very big apple* [Langacker 1979a: 28] RUNNERS, HORSE and BOY are specified individually in the epistemic plane despite the fact that RUNNERS and HORSE in the objective plane are downgraded as parts of modifier to the predicate BOY which is the head of the highest-ranking nominal. The epistemically defined A-unit is the head of a *very big apple* and, as it is not a part of a modifier to any other autonomous structure, the macro unit comprising this head is the other highest-ranking nominal of our sentence. In the use of verbal elements, only one verbal is defined epistemically and hence can function as a verbal head of a macro unit which inherits the profile of this head. Thus, on the intermediate level of organization, the predicational strips of our sentence are structured into three highest-ranking macro units: two of them are autonomous and are related to an overall subject (the boy on that horse near the runners) and object (a very big apple): one of them is dependent and this is the verbal macro unit DIST(BE (EATING)).

The autonomous and dependent macro units are basic elements for the third level of organization, ie, macro structure. In our sentence the heads of three most inclusive formed when to an autonomous structure dependent ones are successively added, which results in creating larger autonomous structures. For instance in *The*

*boy was eating a very big apple* [Langacker 1979a: 28] the A-unit BOY is elaborated by D-predicate DIST(BE(ING(EAT( - ) ( - )))) to form a predicational strip DIST(BE(ING(EAT(BOY)( - )))); this predicational strip overlaps with DIST(BE(ING(EAT( - )(APPLE)))), which in turn overlaps with VERY(BIG(APPLE)). Thus, the micro structure can be viewed as an assembly of predicational strips [Langacker 1979a: 28].

On a higher level of organization, the intermediate level, the overlapping strips are organized into *heads*, which are A-predicates, and their modifiers - D-predicates. A head and its modifier constitute a macro unit. The head/modifier relationship is understood as analogous to profile/base alignment; ie, the head of a macro unit determines the profile of this unit for external relationships; accordingly, in VERY(BIG(APPLE)) what the nominal as a whole designates is the concept *apple* and this is the head of the autonomous macro unit. In the case of verbals, the head is the D unit which determines the verbal profile of the whole verbal. The important feature of the head of a macro unit is its function as a point connecting numerous strings which otherwise are disconnected. The macro units imposed on predicational strips reflect interdependencies of elements of an objective scene. For example, within the nominal *The boy on that horse near the runners* the autonomous units BOY, HORSE and RUNNERS are heads. It should be observed, however, that their status is not identical. RUNNERS is a local head whose function is to provide a point of reference for the A-predicate HORSE which constitutes the head of the higher order macro unit *that horse near the runners*. HORSE, however, is also a local head as it is downgraded by being a part of the modifier of BOY in *The boy on that horse near the runners*. In this situation, according to the head/modifier organization, BOY attains the status of the head of an overall nominal macro unit.

A head and its modifier are not the only elements of a macro unit. Additionally, a macro unit comprises epistemic predicates. As Langacker puts it [1979a: 39]:

A sentence describes an "objective situation" of some kind and further indicates the epistemic status of that situation from the viewpoint of the speaker and the context of the speech act.

This means that the relations within a sentence pertain to two separate planes, the *objective plane* and the *epistemic plane*. This objective plane contains objects of an objective scene and rela-

tions among them. The epistemic plane comprises epistemic predicates such as for example demonstratives and articles for nominals and DISTAL (past tense) and/or modals for verbals. These epistemic predicates are defined relative to their location in the *epistemic space*. Epistemic space is an abstract domain. The functional assembly constituting this domain is a coherent knowledge system of cognizing individuals enabling them to identify particular elements of an objective scene. In other words, epistemic space is conceived of as an abstract space in which the speaker and the hearer (the cognizing individuals) function as landmarks.

Epistemic predicates can characterize particular elements macro units establish the profile of the overall structure. Due to the positive valence potential of the verbal head, the two highest-ranking nominals are related to form a finite clause as their heads satisfy the valence of EAT - the predicate providing the base for the aspectual predicate *be eating*. Moreover, the head of the dependent macro unit (*be eating*) and the head of the autonomous macro unit (the boy) function as hubs this macro structure, they connect all the predicational strips of the finite clause - the syntagmatic relation in which only one verbal head is epistemically defined.

Closing up the presentation of main concepts offered by space grammar I would like to express my hopes that the paper will help the framework to become more popular among the scholars whose interests concentrate on language studies. Indeed, I do believe it capable of accounting for many a linguistic phenomenon, though I am aware that for characterizing some of them a more advanced stage of the theory can be necessary. This, however, cannot be anything but an advantage to those who are never completely satisfied, who perceive the need to search for the better.

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Kamila Turewicz

#### GRAMATYKA PRZESTRZENNA - PRELIMINARIA

Artykuł otwiera krótkie streszczenie badań z zakresu psychologii przeprowadzonych przez Eleanor Rosch, w wyniku których określone zostały pojęcia: kategorii naturalnej, prototypu, poziomu podstawowego, etc. Zdefiniowanie tych pojęć stworzyło podstawy dla szeregu koncepcji językoznawczych, wśród nich teorii IDEALNEGO MODELU KOGNITYWNEGO (ang. ICM) Georga Lakoffa i GRAMATYKI PRZESTRZENNEJ (space grammar) Ronalda Langackera.

Gramatyka przestrzenna odrzuca koncepcję autonomiczności składni, semantyki i fonologii, przyjmując, że znaczenie jest właściwością wszystkich aspektów języka. W założeniach tej teorii odchodzi się również od pojęcia struktur głębokiej i powierzchniowej, co prowadzi do odrzucenia podstaw gramatyki transformacyjno-generatywnej. Zgodnie z powyższymi założeniami Langacker uważa, że struktura semantyczna jest cechą specyficzną dla danego języka.

Pojęcie podstawowe aparatu opisowego tego modelu to j e d n o s t k a s y m b o l i c z n a (symbolic unit), której wartość wynika z połączenia b i e g u n a s e m a n t y c z n e g o i b i e g u n a f o n o l o g i c z -

n e g o (semantic pole i phonological pole). Status jednostki osiąga takie wyrażenie, którego użycie nie wymaga wysiłku twórczego (creative effort). Przykładem jednostki symbolicznej jest morfem, jest nim także typ połączenia syntagmatycznego. Takie konwencjonalne wzorce połączeń syntagmatycznych nazywane s c h e m a t y c z n y m i j e d n o s t k a m i s y m b o l i c z n y m i (schematic symbolic units), funkcjonują jako wzorce gramatyczne - sankcjonują nowe struktury tworzone przez mówcę w trakcie posługiwania się językiem. Znaczenie danego wyrażenia jest odzwierciedleniem sposobu konceptualizacji elementów świata zewnętrznego. Wartość bieguna semantycznego wyznaczona jest relacją p r o f i l - p o d s t a w a. "Podstawa" to część wiedzy ogólnej (cognitive domain), która jest istotna dla charakterystyki danego pojęcia. "Profil" to dokładne m i e j s c e (location) lub konfiguracja (configuration) w podstawie (base), którą dana jednostka wywołuje - czyni najbardziej wyrazistą.

Langacker posługuje się dwoma kategoriami: r z e c, z y (thing) i r e l a c j i (relation). W kategorii relacji mieszczą się przymiotniki, przysłówki, przyimki i czasowniki, które różnią się od pozostałych relacji tym, że przypisana jest im w a r t o ś ć c z a s u (temporal profile). Koncepcja relacji wprowadza pojęcia t r a j e k t o r a (trajector) i p u n k t ó w o d n i e s i e n i a (landmarks).

Analiza zdania *The boy on that horse near the runners was eating a very big apple* ilustruje zastosowanie aparatu gramatyki przestrzennej do opisu języka.