Barbara Stanosz
THE COGNITIVE STATUS OF SEMANTICS

Semantics is the most controversial part of modern linguistics and of the logico-philosophical theory of language. It is generally agreed that it should provide satisfactory explication of the traditional concept of the meaning of linguistic expressions, but the assumptions and methods used in striving for this goal are so diversethat the very existence of the common subject of study seems to be doubtful; the term "meaning" is plainly not understood in the same way by authors of semantic writings. The diversity of efforts to build its theory can be explained by the richness and complexity of problems concerning important functions of language; one can hope that the problems will be systematized step by step, and their mutual connections will become clear. However, so far no proposed version of semantics has been widely accepted even as a component of a future theory of meaning.

Many competing suggestions as to the proper tasks and the most fruitful conceptual apparatus for semantics were discussed over thelast few years. Objections raised against them concern mainly their feasibility and/or explanatory value; some critics question the very possibility of semantics as a scientific theory. Paradoxically, at the same time the term "semantics" became popular in the humanities; it is often used metaphorically in descriptions of the extra-linguistic phenomena of human culture (in contexts like "semantics of circus" etc.).

The purpose of this paper is to show the place of semantics in a formal theory of language and to argue for the feasibility of its tasks. I will consider the most serious objections raised against the two main versions of semantics as part of such a theory: the one developed in thelast ten years in Chomsky's linguistics and the one inspired by logical semantics of formalized languages

of science. Moreover, I will try to show the relations between these two 'schools' which sometimes seem not to understand each other.

By a formal theory of language we mean a theory *in spe* which will explain the phenomenon of human linguistic communication in this sense of the term "to explain" in which it is used in general methodology of empirical sciences (in contrast to its psychological sense "to evoke the feeling of understanding or being familiar with"). We say that a theory explains the observed facts and regularities of a given kind if sentences stating them are logical consequences of this theory (usually taken together with some well-grounded domains of our knowledge). A theory that explains our earlier observations allows us to predict the corresponding future observations and is tested by them. The predictive value of a theory is the main measure of its cognitive value.

In the case of a complex phenomenon such as human linguistic communication, it is very important to delimit clearly the kind of facts and regularities to be explained. A theory of language that would explain this phenomenon to the extent that it would enable us to build machines that fully imitate people in acts of communication belongs to the world of mirages. There are two main kinds of restrictions one should impose on the tasks of the theory that seems feasible with respect to the present state of our knowledge. First, one should ignore the many properties of acts of communication which have their source in human biological nature (such as limitations of memory etc.) Second, one should take acts of communication in isolation from their extra-linguistic context — from all the external circumstances in which they occur. The latter restriction is rather radical since in real acts of communication the interpretation of our linguistic signals usually depends on many elements of the situation in which they are used, on our concurrent gestures and facial expressions, the suppositions concerning common knowledge, etc. Ignoring this fact in a formal theory of language narrows down the scope of its explanatory power but seems to be necessary (Stanosz 1974).

In other words, a formal theory of language describes acts of linguistic communication as a type of cooperation between machines, apart from their physical features and from any extra-linguistic stimuli they could receive or produce. The theory is supposed to reconstruct the rules of acting like machines able to communicate with each other in 'empty external situations' — rules which make it possible to transfer information merely by means of linguistic behaviour. If it carries out this task, it will be treated as a simplified model of the real mechanisms of linguistic communication between people, i.e. as the idealized explanatory description of these acts.

In linguistics a similar program for the theory of language was formulated by Noam Chomsky. His works on general syntax were an important contribution to theexecution of this program. Then some other linguists tried to complete it by providing anappropriate formal semantics.

Chomsky defines language as an infinite set of ordered pairs $<s,I>$, where s is a phonetic representation of a signal and I represents its semantic interpretation. It is in accordance with the intuitive concept of language at least in the supposition that to know a given language is to be able to understand and to produce unlimitedly many signals belonging to this language.[1] The set of rules that generate all pairs $<s,I>$ of a language as used in a given community is called its grammar. To reconstruct the grammar of a particular language is the task of its theoretical description, while to formulate general conditions fulfilled by grammars of all human languages is the task of the general theory of language (Chomsky 1972: 125—126).

The above-mentioned restrictions imposed on these tasks are characterized by Chomsky in terms of the distinction between linguistic competence and linguistic performance. He says that the actual interpretation of a given expression (sentence) as used in a given situation is the result of its linguistic meaning, various extra-linguistic factors, such as the set of beliefs of a speaker and a receiver of this expression, and some of their biological properties. Chomsky defines competence in a given language as the ability of its 'ideal' user to connect linguistic meanings with all the expressions of this language — meanings assigned to them by its internal rules. The grammar of a language is just the reconstruction of the ideal competence in it, abstracted from the observed cases of linguistic performance which constitute the empirical basis of grammatical description of this language (Chomsky 1965: 4, Chomsky 1972: 115—117).

Theoretical reconstruction of grammar internalized by theusers of a given language is called its "generative grammar", to stress the explicit, formal character of such a description (as different than traditional grammars which are notoriously fragmentary, appealing to our intuition). The generative grammar has to contain three components: syntactic, semantic, and phonological. The first is supposed to define an infinite set of pairs $<D,S>$, where D is the deep structure and S isthe corresponding superficial structure of sentences of a given language. The deep structure of every sentence is

---

[1] Chomsky does not agree with the view that by using a language we reproduce finitely many signals according to some customary patterns of communication. He argues that producing and understanding new sentences is the most essential feature of human language; cf. Chomsky 1965: ch. 1.

represented by its underlying phrase marker, the superficial structure — by its superficial phrase marker. The underlying phrase marker contains syntactical information needed for semantic interpretation of a given sentence; the superficial phrase marker contains information needed for its phonetic interpretation. The task of the semantic component of a grammar is to assign semantic interpretation to the deep structure of every sentence; the task of the phonological component is to assign phonetic interpretation to the superficial structure of every sentence.

Providing the general definitions of terms "deep structure", "semantic interpretation", "superficial structure", and "phonetic interpretation" is the task of general theory of language or universal grammar. The last two terms are easier to define, since phonology is much more advanced than semantics, which abounds in unclear and often mutually inconsistent intuitions concerning the concept of meaning — the methods and the explanatory scope of its theory; furthermore, arguments have been raised against the very possibility of defining this concept in a legitimate way, based on empirical evidence.

Following Chomsky's general ideas, several linguists attempted to develop the scheme of the structure of the semantic component of generative grammars and to formulate the rules which lead to the semantic interpretations of sentences. There are some differences between these attempts but their conceptual apparatus and methodology are almost the same.[2] The semantic component of a grammar is supposed to contain a dictionary, i.e. the list of meanings of the morphemes of a given language, and the so-called rules of projection, which lead from the information on the deep structure of a given sentence and the meanings of morphemes occurring in it to the semantic interpretation of this sentence. The meanings of morphemes are sets of so-called semantic markers, which are the primitive symbols belonging to the theoretical vocabulary of semantics.[3] The list of meanings of morphemes occurring in a sentence and the information on the relations holding between the morphemes — the syntactic atoms of the sentence — allow us, by consecutive application of the rules of projection to its more and more complex parts, to assign the meaning to the sentence as a whole. Therefore,

---

[2] Its first version was presented by Katz and Fodor (1963). Its new, extended version is expounded in Katz 1972.

[3] Semantic markers are represented by some English words put into parentheses, e.g. (Male), (Physical Object), but these words are to be treated just as 'suggestive labels' of the common meaning components of some class of morphemes. Such meaning components are assigned to morphemes on the basis of various properties of expressions containing these morphemes (e.g. on the basis of the inferential connections between sentences that contain them). See Katz 1972: 38—42.

the meaning of a sentence is represented by its semantically interpreted hidden phrase marker. The semantic interpretation of a sentence is the totality of properties and relations which are ascribed to this sentence by its semantically interpreted hidden phrase marker and by the definitions of the appropriate semantic concepts. The list of these concepts is not closed; it can be extended. At the present stage of the theory it contains several concepts referring to such semantic properties and relations as: synonymy, entailment, univocality, ambiguity, semantic deviance, redundancy, analyticity, syntheticity, antonymity, self-contradiction, and some others.

The acceptability of this theory[4] (let us call it Katz's semantics) as a part of the formal theory of language depends on at least three factors. Firstly, it depends on the assessment of the technical aspects of such a structure of the semantic component of the theory, as well as the adequacy of the proposed definitions of semantic terms; secondly, on the scope of linguistic phenomena one wants described and explained in semantics; and thirdly, on the methodological and philosophical requirements one imposes on the conceptual apparatus of the theory of language.

The semantics in question was criticized with regard to all of these three points. Many objections were raised against the proposed structure of semantics and its constituents (especially against the concept of asemantic marker). The possibility of defining the concept of entailment in terms of vocabulary and rules of projection was questioned. The proposed definition of the concept of analyticity was shown to be inadequate (some philosophers doubt if the concept may be given any adequate definition).[5]

One can agree that the technical defects or gaps in Katz's semantics are inessential or can be eliminated without any loss to its formal character, provided that it gives a correct theoretical description of some important mechanisms of the linguistic competence of the native speakers of a language. In other words — provided that by using Katz's semantic component of the theory of language, one can 'automatically' predict some important properties and relations holding between expressions of a given language and manifesting themselves in the real acts of linguistic communication.

As for the scope of phenomena to be described and explained by Katz's semantics, one can find different declarations made by its authors and supporters. In their early works the task of semantics was characterized in

---

[4] The above description of the structure of the semantic component of generative grammar is, of course, simplified; it ignores some details which are inessential from the methodological point of view.

[5] Katz (1972) replies to various objections raised against this theory.

negative terms: "Linguistic description minus grammar equals semantics" (the term "grammar" is used here in its narrow sense, meaning syntax and phonology) (Katz and Fodor 1963: 172). Thus, semantics should continue the explanatory description of the phenomenon of linguistic communication — the one given by syntax and phonology — up to the point where the formal theory of this phenomenon ceases to be possible, i.e. to the line of demarcation between linguistic competence and linguistic performance. Examples of problems left by grammar to semantics include: differences of meanings between sentences that have the same syntactic structure; identity of meanings of some sentences having different syntactic structures; deviant character of some sentences that are syntactically correct; ambiguity of some sentences that are not syntactically ambiguous, etc. On the other hand, semantics is not supposed to deal with aspects of the interpretation of a sentence which depends on the context of its use or the knowledge of a hearer assumed by a speaker.

In later works there are some positive accounts of the tasks of Katz's semantics. It should explicate the pre-theoretical concept of meaning in the same sense in which physics explicates the pre-theoretical concept of matter. To carry out this task one has to answer many questions which contain the term "meaning" or its derivatives referring to various properties and relations of expressions. The necessary condition of adequacy of these answers is their conformity with the intuitive judgments made by the users of a language in clear cases (i.e. when the judgments are unanimous); in unclear cases semantics can — as any other theory — make arbitrary decisions. The intuitive judgments concerning the various meaning properties and relations of expressions are to constitute the empirical data for the semantic component of grammar and the basis for testing it: the theoretical semantic predictions can be verified by comparing them with the intuitive judgments made by native speakers of a given language (Katz 1972: 54—55).

Both of these accounts of the tasks of Katz's semantics seem to be unsatisfactory. The former overestimates its explanatory power, while the latter ascribes to it the goals which are irrelevant for the theory of language. Let us begin with the latter. If semantics were to explicate the common concept of meaning, then it would describe the naive meta-theory of a given language, not the linguistic competence of its users. Being able to qualify sentences as ambiguous or not, mutually synonymous or not, analytic or synthetic, etc., presupposes quite different knowledge than to be a fluent user of the language in which these sentences occur. Even if these terms belong to the common vocabulary of the linguistic community, the way people use them

is no more relevant for semantics than the way in which any other word of the language is used. The concept of meaning mentioned at the beginning of this paper, the one that requires explication, is the traditional, philosophical concept of meaning — the concept which refers to the way people understand expressions (especially sentences) of their language, manifesting itself in acts of their linguistic communication, not in their describing the expressions in pre-theoretical, quasi-semantic terminology.

This does not imply that there are no empirical phenomena that can be referred to by the concept of semantic interpretation as defined in Katz's semantics. In fact, what a semanticist does when she describes her native language does not require asking other people questions containing semantic terms. She formulates a part of the theory of her own linguistic competence, assuming that she shares it with all native co-users of the language. If this assumption is true, what kind of phenomena can be described and explained by her theory?

Native speakers recognize, of course, the ambiguity of some sentences of their language even if they do not call them ambiguous; it manifests itself in empirically accessible differences of the way people interpret such sentences. Similarly, even though a speaker does not know the distinction between the analytic and the synthetic, she applies different criteria of affirmation and justification to sentences of these two kinds, referring either to their very structure and the meanings of component words, or also to facts described by them. Generally speaking, there is empirical evidence for the semantic properties and relations which Katz's semantics attempts to ascribe to expressions of a natural language, but they must be identified by observing acts of language use and some aspects of the non-linguistic behaviour of speakers and hearers that accompanies these acts. The problem is whether the semantics in question does it adequately and — if it does — whether it fulfils the purpose of completing a formal theory of language as built over its syntax and phonology.

Let us remember that almost every sentence of a natural language can be interpreted in a different way, depending on the various elements of the external and psychological situation of the participants of the act of communication in which the sentence is used. As a consequence, a sentence which is ambiguous when used in some circumstances can be unequivocally interpreted in some others; two sentences which are synonymous (being paraphrases of each other) when used in some situations can be differently interpreted in some other situations; and so on. For obvious reasons, the semantic description of a language cannot take into account all such depen-

dencies; it abstracts from the influence exerted by the extra-linguistic factors on the interpretation of a sentence. In other words, it describes the meanings of sentences as used in the situations which are neutral with respect to their interpretation; I have called them the 'empty' situations. But in practice such neutral situations rarely happen in human linguistic communication. That is why finding empirical evidence for the semantic part of the theory of language is not an easy task. To overcome this difficulty semanticists often make use of their own imagination and linguistic intuition. Still, the result of their work is empirically founded provided that the properties and relations ascribed by them to every sentence of a given language constitute the core of its meaning — in the sense that knowing this core is the necessary condition of understanding the sentence in any situation in which it can be used. But this meaning core of a sentence cannot be identified with its interpretation; usually the former is at most a close approximation of the latter.

Thus, semantics can explicate only some aspects of the role played by linguistic expressions in the real acts of communication. These aspects are, however, important enough to be worthy of explication. First of all, if there are sentences which are interpreted the same way in all situations of use (or in more than one, but in a limited number of ways), then the semantic description of such sentences can be the full description of their actual interpretations. In other cases the description is partial. It attempts to isolate the constant elements of meanings of expressions from the diversity of their interpretations in different situations of use. Apart from a semanticist's linguistic intuition, there are many facts that help to find such constant elements of meanings. In particular, it is reasonable to assume that if the speaker does not know the situation in which her message will be interpreted (as in the case of a written text intended to be read by unknown persons at different times and places), then she tries to express it in the linguistic form that has the same interpretation in every situation. The actual interpretation of a sentence chosen with such an intention may be considered its meaning core (or simply its meaning), as it is as close as possible to the interpretation of this sentence in the empty situation of its use. By describing so construed meanings of expressions of a given language, semantics delimits the role of extra-linguistic factors in human linguistic communication. These limits are sharp enough to make it possible to explain various aspects of this phenomenon — for example the fact that even the most detailed knowledge of the situation in which a sentence of an unknown language is used does not make us capable of interpreting this sentence. What remains to be shown is that knowing the meaning (as described by Katz's semantics) of a sentence

is sufficient to interpret this sentence at least in some situations of its use.

It seems that this was the initial goal of the semantics developed in Chomsky's school. The semantic component of the theory of language was supposed to 'imitate' native speakers in their way of interpreting sentences of a given language — the way manifesting itself, more or less directly, in the corresponding acts of communication. This formulation of the tasks of semantics is much closer to the general idea of generative grammars as describing the linguistic competence of users of a language, i.e. the knowledge that they must possess if they understand infinitely many sentences of the language and are able to say in it whatever they want to — the knowledge shared by all adult native speakers independently of their being able (or unable) to express it (Chomsky 1965: 18—19). On the other hand, the distinction between linguistic competence and linguistic performance, used to limit the tasks of the theory to the reconstruction of purely linguistic knowledge of the speakers, makes semantics free of the burden of explaining the ways in which the external situation can modify the interpretation of a sentence; what is expected is the description of the interpretations of sentences of a given language in the empty situation of their use.

But Katz's semantics does not meet this expectation. It seems that its authors were not aware of the fact that the conceptual apparatus introduced by them is too poor to make it possible to achieve the goal stated in their early declaration concerning the tasks of the semantic component of the theory of language. One can suppose that when they realized that, they formulated their goal in the way discussed above, i.e. in a more modest but still inadequate manner.

The generative grammar containing the semantic component of Katz's type can — after all needed modifications and supplements that do not essentially extend its conceptual apparatus — describe the native speakers' linguistic competence only in part. The 'upper limit' of its possibilities is much lower than the one demarcated by the situational independence of the interpretations of sentences. What it ignores is the information conveyed by sentences, and as long as this aspect of linguistic competence is ignored, the fundamental role of language — its role as the means of communication, i.e. of transferring information — remains unexplained.

To illustrate this inadequacy, let us consider the case of two persons, X and Y, who hear or read (in the empty situation) the Polish sentence:

(1) *Jan jest spolegliwym przyjacielem Piotra. [John is a trustworthy/compliant*

friend of Peter].[67]

X is a native speaker of the Polish language and can speak English; Y is an Englishman who has never learned the Polish language in a natural way but has at his disposal its generative grammar containing the semantic component of Katz's type. To what extent both of them interpret (1) in the same way?

They recognize the phonological and syntactic structure of (1). They also notice that (1) is ambiguous: in one meaning it implies the sentence *Piotr polega na opinii Jana* [*Peter relies on John's opinion*], in the other meaning it implies the sentence *Jan polega na opinii Piotra* [*John relies on Peter's opinion*]. Therefore, they can realize that the second meaning of (1) is in a sense the converse of its first meaning. Besides, X and Y are able to identify logical relations holding between some Polish sentences among which (1) occurs, for example, the relation of entailment between the conjunction of (1) and (2):

(2) *Jan jest człowiekiem, a wszyscy ludzie są omylni.* [*John is human and all human beings are fallible.*]

and the sentence (3):

(3) *Jan jest spolegliwym przyjacielem Piotra i jest omylny.* [*John is a trustworthy friend of Peter and is fallible.*]

Moreover, both of them can qualify (1) as a synthetic sentence and ascribe to it some other properties defined in the semantic component of the grammar. But Y understands (1) in a much weaker sense of the word "to understand" than X does; in the usual sense of this word Y does not understand it at all, because he does not grasp the information which is conveyed by (1) in any of its meanings. Only X knows what kind of observation can confirm (1) in the first or in the second of its meanings, so only X can have reasons to believe or to doubt what the sentence says. It is only X for whom (1) can be a substitute for some kind of life experience. Finally, only X can translate (1) (as well as (2) and (3)) into some other language, including Y's native language.

---

⁶

[7] In its original meaning the word *spolegliwy* can be translated as *reliable*, *trustworthy*. However, some people use it as synonymous with *posłuszny*, which means *compliant*, *obedient* (*to somebody's will*) (note added in English translation).

All these differences are not mutually independent; their common cause is that natural linguistic competence includes the knowledge of the truth conditions of sentences, while the artificial linguistic competence provided by the generative grammar with Katz's semantic component does not include such knowledge. Thus, as the description of a natural language, generative grammar so conceived is incomplete; in fact, it is a description of some class of (existing or possible) natural languages which are structurally similar but different in respect to the information conveyed by their particular sentences. In other words, what is called here 'language' is a non-interpreted language, while every natural language is an interpreted language.

In the past some linguists and philosophers of language tried to analyze and to describe the properties of linguistic expressions that are ignored by the generative grammar. Russell and Morris attempted to do that in their conception of language as the substitute for — or the extension of — our sense perceptions: when we hear and understand the sentence *It's raining*, our reaction is the same as if we looked through a window. Bloomfield stressed the function of language as the lengthened arm: the substitute for our organs of reacting (his famous example of appetite for an apple: we can ask somebody else to pick it instead of picking it ourselves). Ajdukiewicz's concept of the empirical rule of a language and Quine's concept of stimulus meaning are some explications of these ideas.

However, the formal theory which would explicate the concept of informational content of a sentence of natural language has never been created. One of the obstacles was the radical empiricism of its early visions. Their common assumption was that one can ascribe some array of sense perceptions (or some kind of arrays of sense perceptions) to each sentence of a natural language as the meaning of this sentence; the assumption seems untenable, and the transition from the corresponding concept of synonymity of sentences to the concept of synonymity of their component words is rather unfeasible. It seems that an attempt to build such a theory can succeed only if its philosophical assumptions are as neutral as possible, limited to the most general and formal theses of ontology and the theory of knowledge.

Let me sketch the way in which, striving for this goal, one can use the referential conceptual apparatus of the logical semantics of formal languages. To give the referential description of the language J, we have to assign an object belonging to the model of J (i.e. the fragment of the world one can speak about in J) to each of the simple extra-logical expressions of J. These correlates of expressions, called their denotations or extensions, are — depending on the syntactical category of an expression — individuals

(elements of the universe of discourse), sets of individuals, sets of ordered pairs of individuals, and so on. The assignment is done in the meta-language J' of J, together with the rules which lead from the denotations of simple component expressions to the denotation of complex expression depending on its structure. Finally, we state how the truth value of simple sentences depends on the denotations of their component expressions, and how the truth value of compound sentences depends on the truth value of their component sentences. In this way we define in J' the concept of being a true sentence of J in its chosen model.

It is the definition of truth that can be designated to the role of reconstructing this fragment of linguistic competence which makes it possible to use a language as the means of transferring information. One knows what information is conveyed by each of the sentences of his native language because one knows (1) what object is denoted by each of the simple expressions, (2) how to identify the denotations of complex expression, and (3) what relation must hold between the denotations of the components of a given sentence if the sentence is to be true. In other words, to learn a given language one must learn to recognize the truth conditions of each of its sentences in the model which is supposed to be described in this language. That explains why we accept or refuse to accept some sentences when we know, by experience, the real states of affairs, and why the sentences of our language can substitute our direct cognitive contacts with the world we live in.

Let us notice that the truth conditions of all extensionally isomorphic sentences (i.e. sentences built in the same way with simple expressions having, correspondingly, the same denotations) are identical. One can assume that information conveyed by a given sentence is represented by its extensional structure, i.e. by the arrangement of the denotations of its simple components, which 'follows' the structure of this sentence. The concept of the set of all extensional structures of the sentences of a given language can be the explication of the common concept of the set of states of affairs which are describable in this language.

Recognizing the state of affairs described by a given sentence is always the necessary condition, but not always the sufficient condition for understanding this sentence. We can admit, in accordance with intuition, that there are sentences which have the same extensional structure but are understood in a different way, i.e. differ in meaning. For example, assuming that the expressions "mortal" and "fallible" are coextensive, the sentences:

(4) *Nobody is immortal.*

(5) *Nobody is infallible.*

describe the same state of affairs, but their meanings are different. That's why we refuse to accept (5) as a conclusion of (4).

The logical theory of language describes this aspect of understanding sentences by means of the so-called meaning postulates or axioms of a given language; when added to the definition of truth, the set of meaning postulates of the language completes its semantic description. Two sentences can be called synonymous (having the same meaning or intension) in the weak sense of the term if and only if the biconditional having them as arguments is not only true but also follows from the meaning postulates of a given language, i.e. it is an analytic sentence of this language. In the strong sense of the term, two sentences are synonymous if and only if they describe the same state of affairs and, in addition, the biconditionals formed from their corresponding simple components are analytic sentences of the language in question. The sentences (4) and (5) are not synonymous in any of these senses. On the other hand, (5) is weakly synonymous with the sentence:

(6) *Nobody's opinions can be taken for granted.*

and strongly synonymous with the sentence:

(7) *Nobody is omniscient.*

assuming that *For every x, x is infallible if and only if x is omniscient* is an analytic English sentence (cf. Carnap 1947: 56, 59).

The theory of meaning based on the concept of meaning postulates seems to play a similar role as Katz's semantics (though the former seems to be more elegant that the latter). But none of them can pretend to be a full description of the semantic competence of native speakers of any language. The core of the semantic competence is the ability to recognize the truth conditions of all sentences of a given language.

Natural languages differ from formal languages in some respects (for example, the former but not the latter are characterized by lexical ambiguity and referential vagueness of their expressions). Therefore, the logical semantics requires some adjustments if it is used in the description of natural languages. On the other hand, Quine's criticism of the concepts of synonymity, analyticity, and meaning applies to the theory of formal languages as well as to the theory of natural language — including Katz's semantics. In this case, Quine's thesis says that there are no criteria for reconstructing the dictionary of a given language (Tartaglia 1972).

However, all arguments set forward against Quine's criticism of the logical theory of meaning can be used in defence of the semantics developed in Chomsky's school. Let us add to them the following reflection. The sets of meaning postulates in the logical theory of language, as well as the dictionaries in the semantic component of the generative grammar, are means of the theoretical description of the phenomenon of linguistic communication. Scientific value of these means depends on the empirical adequacy of the description in which they are used. It seems obvious that two descriptions which differ with respect to their conceptual apparatus can be empirically adequate to the same degree (although we may prefer one of them as more transparent or more economic). Different sets of meaning postulates or different methods of constructing dictionaries can be equally acceptable. If so, the question which sentences of a given language are *really* analytic sentences, or what dictionary description is the only *proper* dictionary description of a given language, makes no sense.

Finally, let us note that — contrary to a wide-spread opinion — the methodological status of semantics is not inferior to the status of syntax in this respect: indeed, we have neither the general concept of sentence nor the universal method of discovering the *real* syntactic structures of expressions. The difference in the level of development between syntax and semantics is natural in the case of two disciplines, one of which is supposed to continue the accomplishments of the other.

Bibliography

1. Carnap, Rudolf (1947) *Meaning and Necessity*. Chicago (IL): The University of Chicago Press.

2. Chomsky, Noam (1965) *Aspects of the Theory of Syntax*. Cambridge (MA): MIT Press.

3. Chomsky, Noam (1972) *Language and Mind*. New York: Harcourt Brace Jovanovich.

4. Katz, Jerrold J. (1972) *Semantic Theory*. New York: Harper & Row.

5. Katz, Jerrold J. and Jerry A. Fodor (1963) "The Structure of a Semantic Theory". *Language* 39, no. 2: 170—210.

6. Stanosz, Barbara (1974) "Meaning and Interpretation". *Semiotica* 11, no. 4: 347—358.

7. Tartaglia, Philip O. (1972) *Problems in the Construction of a Theory of Natural Language*. The Hague: Mouton.