

SOME CONTRASTIVE CONSIDERATIONS ABOUT SEMANTICS IN THE COMMUNICATION PROCESS

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1. GENERAL REMARKS

The methodology of contrastive linguistics is to a great extent convergent with that applied to a non-contrastive analysis. There exists mainly a difference in the object of both of these sorts of studies. In the non-contrastive (intralingual) approach we may compare various structures of the same language with each other while the contrastive (interlingual) approach allows us to extend this method of analysis on various structures of two or more different languages being confronted. Thus, theoretically there are no limitations imposed upon the comparisons of structures in any two languages, but from the practical point of view not every comparison has the same value. Contrastive inquiries are not, of course, art for art's sake but should pursue some definite goals. Therefore it is not astonishing that we face the problem of determining which structures in two or more languages are comparable (cf. Milewski 1970; Halliday 1964: 115; Kirkwood 1966; Krzeszowski 1967; Marton 1968). It is beyond any doubt that one of the sufficient criteria of "being comparable" is semantic equivalence. By saying this, however, we do not exclude other equivalence criteria which are not meaning based.

A particular language system may be thought of as possessing two statuses, i.e. (a) non-contrastive and (b) contrastive. The former one is based on the oppositions of its own subsystems (e.g. *phoneme /s/ vs. phoneme /k/; phoneme vs. syllable; syllable vs. sentence*, etc.). The latter is always relative depending on the languages being compared. Thus, a specific structure of one language shapes the contrastive status of another language. According to this, English will have two different statuses when compared with Hungarian and Polish.

We shall not be far from right in saying that any intralingual analysis cannot be regarded as exhaustive. The larger the number of languages with which a given language is confronted the more complete its description will be and the fuller its typological status. A similar statement can also be made about various models. The more the models which have served as the basis of description of a given language the more many sided its description will be. Some phenomena of language structure are difficult to investigate on an exclusively non-contrastive basis because there is no fiducial point of analysis.

Contrastive explorations may be carried out on the basis of any linguistic model developed in non-contrastive linguistics. The choice of an appropriate theoretical framework will surely be determined by our practical aims.

2. SOME VIEWS ON LANGUAGE COMMUNICATION

The system of language communication may be approached from different points of view, which give different emphasis to its various aspects. The communicators, both the speaker and the hearer, perform, among other things, association operations between two sets, i.e.

- (a) the set of language expressions (labels)
- (b) the set of extralinguistic phenomena.

The set (b) is here consciously simplified to include both the objects of reality and the mental images of this reality in the minds of communicators. This simplification will not, however, affect our subsequent considerations. The set (b) is further referred to as the universe of information (semantic space) or simply as the universe of referents and is denoted by U_{inf} . Language expressions (a) will refer to the particular subsets of U_{inf} .

In the following discussion we will concentrate on some aspects of the relation between the sets (a) and (b). Considerations of this kind are inherently connected with the concerns of semantics (cf. Grzegorezyk 1969: 256). For the central problem of meaning is the relationship between language and the world outside language.

Language communication has for the most part a teleological character, i.e., it is goal-oriented. Intrinsicly connected with the realization of this goal, irrespective of how it may be formulated, is the selection (naming) of appropriate subsets of information in the universe U_{inf} and the description of relations that hold among them. In certain circumstances the said subsets may be chosen by pointing or by other optical signals. In most cases, however, we construct a language expression of the subset in question.

Carrying out the analysis of the association operations between language expressions and extralinguistic reality presupposes two hypotheses. The first is concerned with the structure of language and the second with the struc-

3. DETERMINATION GRAMMAR

Every expression of a natural language may be thought of as a determination string with respect to the determination grammar. Determination strings are constructed in order to name appropriate subsets in U_{inf} . They have different lengths and can be conceived of as structures *sui generis* composed of some number of ordered pairs in the form $\langle D_m, D_s \rangle$ where D_m denotes *determinatum* and D_s *determinans* (cf. Bally 1950: 102; Kastovsky 1969).

Determination grammar is intended to account, among other things, for the following fact: when one lexemic name $b (= D_s)$ is associated to another lexemic name $a (= D_m)$ then the pair $\langle a, b \rangle$ usually denotes a smaller subset in U_{inf} than the subset denoted only by a ; e.g., the Polish lexeme *chłopiec* 'a boy' denotes a larger subset than the following determination strings:

- (a) *mały chłopiec* 'a little boy'
- (b) *chłopiec biegnie* 'a boy runs, a boy is running'
- (c) *chłopiec brata* 'a boy of my brother'

The sets denoted by (a), (b), (c) are contained in the set denoted by *chłopiec*. All these three compound expressions have a similar determination structure, i.e., they may be considered ordered pairs, one member of which functions as D_m and the other as D_s . The D_s of these pairs diminishes the entropy of selection of an appropriate subset in relation to the subset denoted only by D_m . In other words, the D_s diminishes the number of possible semantic channels opened by the D_m (cf. Cheng 1968: 294).

Longer expressions can also be represented in the form of strings of determination pairs, e.g.: the Polish sentence *Mały chłopiec biegnie szybko do dużego domu* 'A little boy runs quickly to the big house' may be analysed into the following determination pairs:

- (a) $\langle \text{chłopiec, mały} \rangle$ '<boy, little>'
- (b) $\langle \text{chłopiec, biegnie do} \rangle$ '<boy, runs to>'
- (c) $\langle \text{biegnie do, szybko} \rangle$ '<runs to, quickly>'
- (d) $\langle \text{biegnie do, domu} \rangle$ '<runs to, house>'
- (e) $\langle \text{domu, dużego} \rangle$ '<house, big>'

The above determination pairs not only show which of their members functions as D_m and which as D_s but also give us information on how the D_s is associated to D_m (inflectional suffixes). This problem in principle does not fall within the scope of determination grammar but is rather the concern of adherence grammar. Determination grammar is concerned with what determines what, and this information is exhibited by the order of members in determination pairs. Therefore, it is fully redundant and superfluous to specify other adherence information, and it would be sufficient to operate with forms of

ture of the extralinguistic world. The universe U_{inf} , which, theoretically considered, may contain an unlimited number of subsets, is constantly classified and reclassified according to the communicative purposes of man. The classification of subsets in U_{inf} occurs on various levels of abstraction (cf. Kay 1941). The question now arises as to ways of selecting (naming) a target subset out of the universe U_{inf} . There are, generally speaking, two possibilities:

(1) to every particular subset may be associated a separate ready expression (lexeme) which must be memorized. Such a solution is, however, not feasible. The universe U_{inf} , as was assumed above, may contain an unlimited number of subsets (practically it is limited but it is very large). Thus an unlimited memory would be necessary in order to denote the subsets in question.

(2) some subsets are given simple (lexemic) expressions while other are denoted by compound ones (i.e., groups of lexemes, sentences, texts).

If language would proceed according to formulation (1) it would be a very primitive and above all uneconomical device. All means of denotation which require the same number of expressions as that of subsets in U_{inf} are not interesting for humans as participants in the communication system. Language makes sense as a means of communication only to the extent to which it is able to denote (select) an unlimited number of subsets in U_{inf} with the help of a limited number of expressions (simple expressions as well as compound ones).

As we are inclined to say here language in the communication process follows formulation (2). And it should be further stressed that lexemes serve as names of subsets on the higher levels of abstraction while compound expressions refer to subsets on lower levels. (The levels of abstraction are relative to each other). Thus larger domains are given lexemic names while more specific sets acquire expressions longer than one lexeme (cf. Nida 1964: 77). The classes of phenomena named by lexemes are too large to serve communication purposes, and that is why we must reduce their entropy (cf. Jespersen 1958: 108f).

The user of a language is, then, not forced to memorize the expression of every particular subset which he wishes to select out of U_{inf} . What he really needs to do is to store in his memory the lexemic names (in principle only a part of them) and the "rules" of constructing compound expressions (it is also possible that he must memorize some compound expressions).

From the psycholinguistic point of view we can discern various stages in the process of creating language expressions before they appear on the surface. Particular stages could be handled by appropriate grammars, and it is our belief that some of these stages could be captured (although in a very simplified manner) by a *Determination Grammar* and an *Adherence Grammar*. Below, we will try to sketch briefly some of the principles of both of these types of grammars in order to make clear our contrastive considerations about semantics.

lexemes similar to the reconstructed roots of the Indo-European protolanguage or to the forms of roots in Semitic languages (cf. *otl* 'kill'). Thus in the determination grammar of Polish it is sufficient to make use of the ordered pairs whose members have the following shapes: <chłope-, mał->, <chłopc-; biegn->, <dom-, duż->, etc.

Determination grammar must arrive at decisions with regard to:

- which lexemes (words) are determinatively comexive so that they can be grouped into determination pairs;
- which lexemes in language expressions function as Dm's and which play the role of Ds's;
- which of the lexemic names of a concrete determination string function as *determinatum absolutum*, i.e., the Dm which in its turn does not determine anything else and which may be regarded as a starting (or central) point of a determination process (cf. Jespersen 1958: 96). In the above examples the role of *determinatum absolutum* is played by *chłopiec*.

Domination relations in determination grammar rest on principles other than those of IC-Grammar or Dependency Grammar, because in determination grammar expressions denoting larger subsets in the universe U_{inf} dominate over the expressions denoting smaller subsets. Thus in the Polish sentence *Mały chłopiec biegnie szybko* 'A little boy runs (is running) quickly' the domination relations will be represented in the following way:

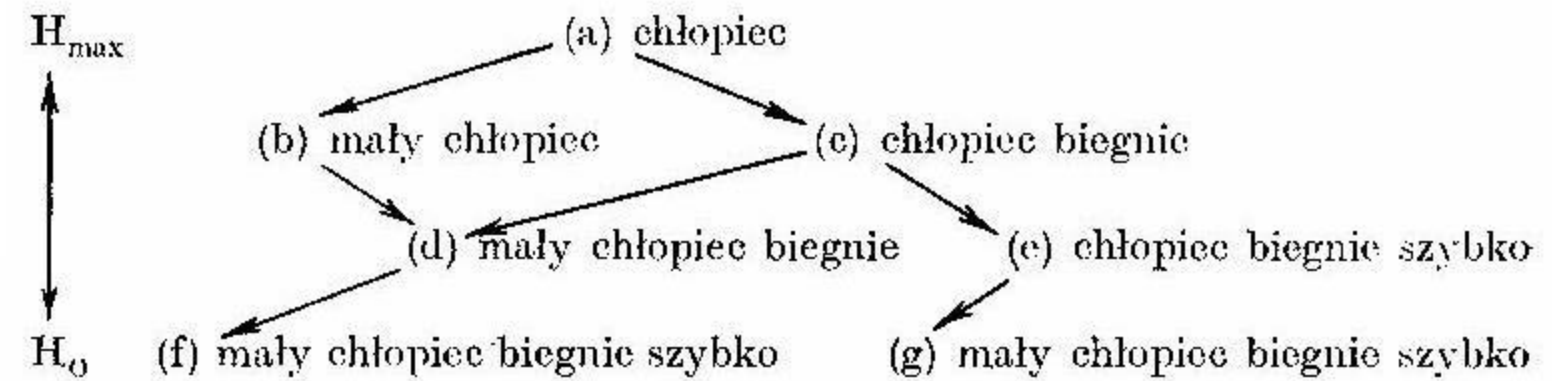


Fig. 1

The domination tree as shown in Fig. 1 could (of course) be reversed and the domination relations changed in such a way that the expressions of smaller subsets would dominate over the expressions of larger subsets.

It was repeatedly stressed above that determination strings are constructed to serve the purpose of denoting the subsets in U_{inf} . But the same aim may be realized in a different way:

- the expression of the same subset in U_{inf} may be arrived at within the framework of the same determination string.

Fig. 1 illustrates three possibilities of derivation:

- I. (a) \rightarrow (b) \rightarrow (d) \rightarrow (f)
 II. (a) \rightarrow (c) \rightarrow (d) \rightarrow (f)
 III. (a) \rightarrow (c) \rightarrow (e) \rightarrow (g)
 (f) = (g)

(b) the same subset may be named by determination strings of various length. We assume that in a given language there occurs more than one determination string which produce an equivalent denotative effect. But the shortest determination string must also exist. The following Polish sentences, which under certain communicative conditions have the same meaning, should illustrate this point:

- (A) (1) *Praca uszczęśliwiła go* *The work happied him
 (2) *Praca uczyniła go szczęśliwym* The work made him happy
 (3) *Praca spowodowała, że został szczęśliwy* The work caused him to become happy
 (4) *On został szczęśliwy dzięki pracy* He became happy because of the work
- (B) (1) *On mi ufa* He trusts me
 (2) *On ma do mnie zaufanie* He has trust in me
 (3) *On żywi do mnie uczucie zaufania* He fosters a feeling of trust in me
 (4) *Ja cieszę się jego zaufaniem* I enjoy his trust

Considering the examples just cited two linguistic views are possible:

- (a) all sentences of (A) and (B) denote identical (or slightly different) subsets respectively;
 (b) there are four different semantic structures present in every group of sentences.¹

Our belief is that both these views hold to a certain degree. We postulate that all sentences of (A) denote the same subset of information in U_{inf} , but it is demonstrated from a different angle each time. This is equivalent to saying that a different determination channel is activated each time. The same is also true for the sentences of (B). Thus one and the same subset is reflected in a different way each time. This also means that in each sentence different connections to the lexemic names of other subsets are involved. These different connections may be regarded as additional semantic information. It does not seem to be out of place to suggest that with regard to the denoted subset the four sentences (in each group) are in complementary semantic distribution.

Apart from the above considerations it would be worth testing how native speakers actually judge and use such sentences, because linguists are able to

¹ In transformational grammar the surface differences result from optionality in certain transformations.

find many different interpretations for them. We are convinced that the differences among these sentences may be both communicatively relevant as well as redundant depending upon the communication purpose. For the confirmation of this view we find evidence in the circumdetermination phenomenon to be discussed later.

4. ADHERENCE GRAMMAR

The output of determination grammar, i.e., the strings of ordered determination pairs, may be looked upon as having a predominantly non-linear structure. This is especially clear when one D_m has two or more D_s 's. Unfortunately, we are not able to communicate a non-linear structure of this kind in a non-linear way. The transposition of non-linear determination structures into linear surface structures causes some problems which make adherence grammar indispensable.

The lexemes of which the determination pairs $\langle D_m, D_s \rangle$ consist do not always immediately follow or precede each other but are divided by the members of other pairs. Moreover, an ordered pair may be represented on the surface by only one element (cf. Polish *idę* 'I go' which reconstructs the determination pair in the form of $\langle ja, iść \rangle$). A language must have at its disposal a means with which to guarantee the mutual association of the members of determination pairs in a non-ambiguous way.

Adherence grammar (and other factors such as knowledge about the extralinguistic reality) enables the receiver of the communiqué to reconstruct the underlying determination structure correctly and thereby to arrive at the target subset in U_{inf} intended by the speaker. Adherence grammar is concerned with the means by which the formalization of adherence connexity is achieved, i.e., it investigates how the elements of a string are assigned to each other. The output of an adherence grammar are ordered pairs of the type $\langle A_m, A_s \rangle$, where A_m denotes *adhaesum* and A_s *adhaerens*. In the Polish sentence *Mały chłopiec biega szybko* we know exactly that *mały* is assigned to *chłopiec* and not to *biega*, and that *szybko* is assigned to *biega* and not to *chłopiec*, although it would be possible, as the following sentence shows: *Szybki chłopiec biega mało* 'A quick boy runs little' (cf. Zabrocki 1969).

Thus ordered pairs of the type $\langle \text{chłopc-}, \text{bieg-} \rangle$ fall into the scope of determination grammar, while pairs of the type $\langle \text{chłopiec}, \text{mały} \rangle$ are the object of adherence grammar. There is, however, an intrinsic interrelation between both these grammars.

In the light of our considerations morphology should be viewed to a great extent as the object of adherence grammar, and so it should be shifted from the paradigmatic plane to the syntagmatic one. In other words, morphology is one of the exponents of syntax. Theoretically every 'part of speech' may

occur in two statuses, i.e., *in statu adhaeso* (and so *determinato*) as well as *in statu adhaerente* (and so *determinante*), (cf. Sweet 1913: 24). In practice, however, there will be some restrictions imposed upon it.

5. THE STRATEGY OF NAMING ON THE LEXEMIC LEVEL

It is rather commonplace to state that the classification of semantic space and the naming of the various classes derived there from are divergent in different languages. Efforts to systematize vocabulary date back to antiquity and continue today. Different approaches have been taken to solve this problem.

Classes of higher-level abstraction are usually named, as was mentioned above, by simple lexemes. Unfortunately, the naming of these classes does not coincide in any two given languages and is thus the major source of trouble, for the strategy of naming on the lexemic level influences to a large extent the strategy of building up compound expressions. If naming and classification on the higher levels of abstraction were carried out in various languages in the same way, then the strategy of constructing compound expressions in a foreign language would be largely predictable on the basis of a speaker's knowledge of his native language.

The specific structure of the classification of semantic space in a language becomes especially available for our observation when confronted with another language (cf. Nemes 1971). It is a well known fact that the simple lexemic expressions of one language may be rendered in another language by simple lexemes as well as by compound expressions (including sentences and texts). The set of information denoted by the English verb *check out* (of a hotel) is rendered in Polish by: *wyrównać rachunek w hotelu i wyprowadzić się*. Lack of equivalence between two lexemic names may cause serious misunderstandings in translation. Thus, for example, the title of the work by N. Wiener *Cybernetics or control and communication in the animal and the machine* was translated into Polish as: *Cybernetyka czyli sterowanie i komunikacja w zwierzęciu i maszynie*, which is inappropriate because the levels of abstraction are mixed up. This may be easily seen from the following confrontation:

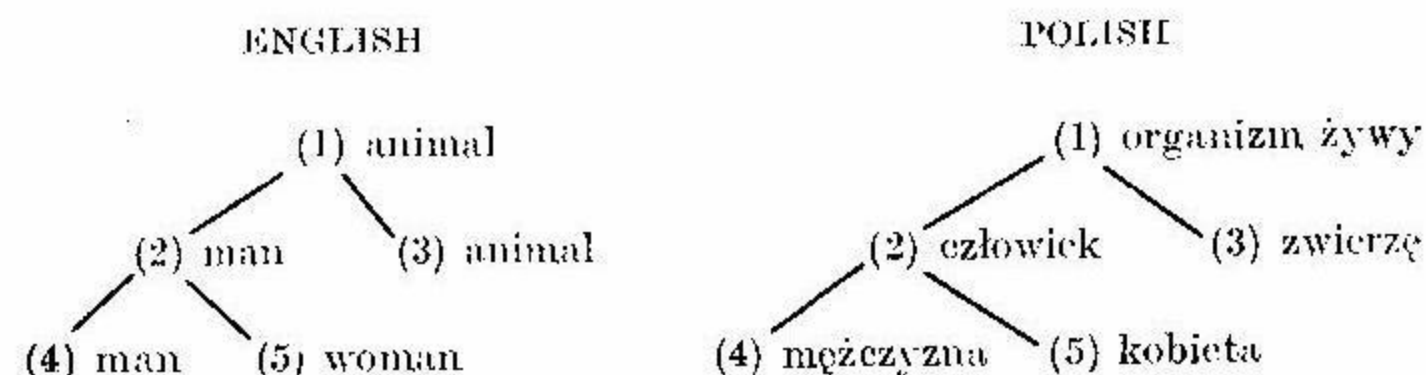


Fig. 2.

The correct Polish translation should be: *Cybernetyka czyli sterowanie i komunikacja w organizmie żywym i maszynie*. Furthermore, to cite another example, the translation of the Hungarian word *reggelizem* into English or Polish must start with lexemes denoting larger subsets (than that denoted by *reggelizni*) and their entropy must then be reduced with the help of another lexeme in order to arrive at *I eat/have breakfast* or *Jem śniadanie* respectively. A similar situation exists with the Polish word *sąsiadka* 'a woman neighbor', English *neighbor* and Hungarian *szomszéd*. The English and Hungarian words, which here open two semantic channels, have greater denotative entropy than the Polish word.

In the classification of lexemes and compound expressions we may distinguish various levels of abstraction. Usually, lexemes denote sets on the higher level of abstraction in U_{inf} and so include the sets of the lower level of abstraction denoted by compound expressions which contain these lexemes as Dm's. But with regard to the levels of abstraction the lexemic names are also differentiated; cf. e.g.:

- (a) *robić* 'to do'
 (b) *palić, pisać, czytać* 'to heat', 'to write', 'to read'
 (c) *palić w piecu, pisać list, czytać książkę* 'to heat a stove', 'to write a letter', 'to read a book'

The sets denoted by the names of the level (c) are included in the sets denoted by the lexemic expressions of the level (b), which are in turn included in the set denoted by the lexemic expression of the level (a). It is interesting to observe that questions contain the name of a larger set than that asked about; cf.:

- Co robisz? Czytam* What are you doing? I am reading
Co czytasz? Czytam książkę What are you reading? I am reading
 a book.

In other terms the expressions of the higher-level abstraction open more semantic channels than the expressions of lower-level abstraction. In the following we will turn our attention to contrastive aspects of compound expressions.

6. DETERMINATION CONNEXITY²

Theoretically any lexeme in a language may be determined by any other lexeme thus making possible the existence of any determination string. As a matter of fact such a situation does not occur in any natural language because of

² The determination connexity is related to the problem of selectional and strict subcategorizational features in transformational grammar (cf. Chomsky 1965: 63f; Langedoen 1969: 34f;). But instead of setting up any rules for determination connexity we propose to make up an inventory of all determination pairs actually occurring in a language.

the many constraints imposed upon the determination connexity. This results in the exclusion of a great number of possible strings. To specify explicitly the rules of determination connexity in a language is not an easy task, and sometimes it is almost unattainable. Languages differ strongly as to the constraints imposed upon the connexity in question. Thus the strategy of the determination connexity in a foreign language is difficult to predict on the basis of the native language, and it seems best to conceive of it (at least to a high degree) as random.

In order to use a foreign language correctly we are forced, however, to surmount these difficulties, because without knowing the above mentioned constraints we would not be able to construct determinatively acceptable strings of lexemes. In other words, we must know which ordered pairs of lexemes are determinatively connexive. It should also be emphasized that the knowledge of determination connexity although indispensable does not yet guarantee the desired denotative meaning for the correct determination string. Thus, for example, the English lexeme *book* is connexive with *big* and *great*. But the denotative meanings of the strings *big book* and *great book* are different.

The lexemic classification and the determination connexity provide the necessary conditions upon which the alternating strategies for constructing compound expressions operate. Below we shall try, in a tentative way, to account for some aspects of this problem.

7. CONVERGENT STRATEGIES

It is not easy to define what convergent (congruent) strategies should be like, although intuitively the matter seems to be clear. The examples cited will illustrate what we have in mind. This kind of strategy could also be called similar or even identical. If two or more languages reveal a convergent strategy to some extent, then knowing the equivalent lexemes enables us to predict the correct determination strings of one language on the basis of the connexity of the other languages. This operation reduces to filling the same determination structure with equivalent lexemes of another language.

Thus if we know that in a number of languages there exist such determination pairs as: <student-, read-> and <read-, book->, we are then able to create the following correct determination strings:

(A) English:	The student is reading a book.
Polish:	Student czyta książkę
Russian:	Студент читает книгу
German:	Der Student liest ein Buch
Lithuanian:	Studentas skaito knygą
Hungarian:	A diák olvas egy könyvet

Finnish:	Ylioppilas lukee kirjaa
Japanese:	Gakkusei-wa hon-o yonde imasu

A similar, although, with regard to Polish and Japanese, less predictable situation, occurs with the pair <play with-, fire->:

(B) English:	to play with fire
Polish:	igrać z ogniem
Russian:	играть с огнём
German:	mit dem Feuer spielen
Swedish:	leka med elden
Lithuanian:	žaisti ugnimi
Hungarian:	a tűzzel játszani
Finnish:	leikkiä tulella
Japanese:	hiasobi suru

The two above groups of determination strings denote respectively the same two target subsets in semantic space. However, it may occur that the determination strings of two languages built up seemingly on the basis of convergent strategy happen not to be connexive in one language or to denote different things in the two languages. Thus, starting with the English string *play with fire* one might propose the Polish *grać z ogniem*, which, however, denotes something other than *igrać z ogniem*. The reason for this must be that the condition of convergent strategies is violated, i.e., either the lexemes are not equivalent or there is a difference in constraints imposed upon their connexity.

8. DIVERGENT STRATEGIES

(a) Differences in the determination connexity constraints

Lexemic expressions which are largely equivalent may not coincide as to restrictions imposed upon their determination connexity. We could operate here with the notion of determination valence too. The English verb 'go by' and the Polish verb 'iść' exhibit different determination valences. Thus, in English the pair <go by-, train-> is connexive but the same pair in Polish is not. Therefore, in English it is possible to form the sentence *I go by train*. In Polish, however, the sentence **Idę pociągiem* is determinatively not connexive and we must therefore resort to the verb *jechać*. On the basis of the English pair <go by-, train> the strategy for arriving at correct determination strings is not predictable in such languages as:

Polish:	jechać pociągiem
Russian:	ехать поездом
Lithuanian:	važiuoti traukiniu

German:	mit dem Zug fahren
Swedish:	åka tåg
Finnish:	matkustaa junalla

but it is predictable in:

Hungarian:	vonattal menni
Japanese:	densya de ikimasu

Thus the notion 'go by' or 'go' cannot be determined by the notion 'train' in Polish, Russian, German, Lithuanian, Swedish and Finnish. But this does not mean that the reverse determination may not hold. Thus we have the Polish *pociąg idzie*, and the Russian *поезд идёт* 'the train goes'.

Thus if the foreign language learner automatically transfers the connectivity strategies of his native language to the language he is learning he may fail to construct acceptable utterances. To help the student of a foreign language in this respect we should put at his disposal a kind of dictionary which would take into account the whole range of the determination valence of a given lexeme, i.e., specify all of its determinants.

(b) *Analytic vs. synthetic*

As suggested above, we can arrive at the expression of the same target subset of U_{inf} in different ways within the same language, i.e., there can be both analytic and synthetic expressions. This same phenomenon can be observed on the interlingual level of analysis. To denote the same subset of information the speaker of one language may be inclined to use a simple (i.e., synthetic) expression while the speaker of another language may prefer a compound (analytic) one.

The synthetic expression may be thought of as the shortest string needed to denote the target subset. But we can arrive at the label of the same target subset in an analytic way, i.e., we can start from the expression denoting a larger subset (than that denoted by the synthetic expression) and subsequently reduce its entropy by attaching another expression to it. Or to put it differently, the synthetic form designates a smaller subset than the subset designated by the Dm or *determinatum absolutum* of the corresponding analytic expression. Therein lies the essence of analytic forms in comparison to synthetic ones. The Dm of the analytic form covers a set of greater indeterminacy than the set actually required in the communication process. Therefore, it is necessary to reduce its entropy in order to achieve the intended communicative effect.

It seems as if there could be no language which would possess only synthetic forms or exclusively analytic ones. In the former case we would be dealing exclusively with words, in the latter only with expressions made up of more than one word (groups of words, sentences, texts). Natural languages oscillate

between these two extremes, although they may show preference for one of these types of expressions with regard to the denotation of a particular subset in U_{inf} . Thus, some kinds of expressions common in one language may not be accessible to the speakers of another language.

In Fig. 3 below we compare some analytic and synthetic expressions mainly on an interlingual level:

Analytic	Synthetic
E have breakfast	H reggelizni
P jeść śniadanie	R завтракать
G Glück wünschen	E congratulate
	G beglückwünschen
E make happy	P uszczęśliwiać
E take tiny bites	P pojadać
	H eszegetri
E make fast	E fasten
	P umocować, przytwierdzić, umocnić
G Ende machen	G beenden
P zrobić koniec	P zakończyć
E a piece of furniture	P mebel
P toczyć się podskakując	E bump

As can be seen from Fig. 3 synthetic forms of one language can be transposed into analytic forms of the same language or into analytic forms of another language and vice versa. This transposition is not automatic and it may be that a synthetic form of one language can be expressed only in an analytic way in another language. However, the possibility of such a transposition provides some kind of verification for our hypothesis that there are different ways of constructing the expressions of the same subset. Furthermore, this possibility gives us one of the keys to understanding the phenomenon of circumdetermination as well as to understanding some aspects of the determination strategy of language in general.

On the basis of this hypothesis the phenomenon of *circumdetermination* (circumlocution) is explainable. The mechanism of circumdetermination is inherently contained in the nature of language. Circumdetermination may be viewed from two sides:

- The speaker of a foreign language is in a position to use longer determination strings without knowing the shortest ones;
- Knowing the shortest determination string does not mean that he is also able to construct longer ones.

Point (a) has positive as well as negative consequences. It throws open the door to the possibility that even without the knowledge of a whole vocabulary we can virtually say what we need (i.e., we are in the position to build up an

appropriate expression of a target subset). Thus, the student of a foreign language who has acquired a limited amount of lexemes may not feel a need to increase his vocabulary because he is able to express himself in any situation. He has reached a certain ceiling. Suppose he knows two German expressions (lexemes) *machen* and *Ende*, then he can create the third expression *Ende machen* without memorizing the lexeme *beenden*. Similarly if we know the English lexemes *get* and *wider* we can form the expression *get wider* instead of using the verb *widen*. Thus, the analytic way of constructing language may deliver us from having to learn a new lexeme, but it nevertheless forces us to know the appropriate rule of determination connexity. Conversely, a synthetic form involves memorizing an additional lexeme but does not require the knowledge of determination connexity necessary to make up the corresponding analytic form.

In order to exemplify the realization of the circumdetermination principle formulated in point (a) we present below some of the constructions used by Polish students learning English, Russian and German³.

*Circumdetermination constructions
actually used*

*Synthetic constructions which
might have been used instead*

English:

- (1) We were not sure of his guilt, and so we decided the matter in his favor
- (2) Mr. Brown, who is very energetic will be able to discipline the boys and teach them how to behave
- (3) She used all her persuasive power to convince him

- We gave him the benefit of the doubt
- Mr. Brown is very energetic and he will lick the boys into shape
- She brought her eloquence to bear

Russian:

- (1) Он стал (начал) говорить
- (2) У нас пятидневная рабочая неделя
- (3) ... определить постоянную величину

- Он заговорил
- У нас пятидневка
- ... определить константу

German:

- (1) Wir möchten ein Zimmer für zwei Personen
- (2) *Ich kann dir das Geheimnis nicht sagen
- (3) Sie machte dem Spiel ein Ende

- Wir möchten ein Doppelzimmer
- Ich kann dir das nicht verraten
- Sie beendete das Spiel

The decision in favor of an analytic or synthetic strategy on the part of the student may be influenced, among other factors, by the native language as well as by the order in which language materials have been presented to him. The transfer from analytic forms to synthetic ones and vice versa is not automatic but requires some additional information as stated above. Thus the knowledge of the shortest determination string does not preclude our inability to construct more analytic forms (cf. (b)). For example, if we know the Russian forms: *дождить, проверить, поддерживать* we are not yet able to predict automatically the corresponding analytic strings: *идём дождь, подвергать проверке, выразить поддержку* or if we know the German sentence *Ich muss darüber nachdenken* we are not yet able to foresee also *Ich muss mir das durch den Kopf gehen lassen*.

(c) *Different determination channels*

In intralingual analysis we often have to deal with determination strings in which the function of the *determinatum absolutum* is switched from one lexeme to another within the same string, as for instance in Polish:

- (1) ON pracuje dobrze 'He works well'
- (2) Jego PRACA jest dobra 'His work is good'
- (3) PRACA uszczęśliwiła go 'The work made him happy'
- (4) ON został dzięki pracy szczęśliwy 'He became happy because of the work'

The problem is to decide whether such strings which contain the same lexemes but in which the determination relations have changed (or to express it in other words, in which the second or third determination channel has been opened) denote the same or different subsets in U_{inf} , that is, whether the opening of an additional determination channel causes also the opening of the second semantic channel. The cases now under discussion also include passive constructions, nominalizations, etc.

It seems that we could find confirmations for both interpretations. Let us start with the first possibility. The non-contrastive approach is here not decisive, for we may suspect that two sentences like: *I have the book* and *The book is with me* mean the same as well as that they do not. In interlingual analysis we observe that these two types of sentences may be somehow semantically equivalent; i.e., one language decides this matter in favor of one determination channel while the other language prefers another determination channel. This procedure becomes especially clear if we compare the translation of the following German sentences into English:

- German: Die NERVEN leiden bei unserem Geschäft
- English: Our WORK affects the nerves

³ For the English examples I am indebted to Dr. M. Kobylański, for Russian to Dr. A. Bartoszewicz and for German to Dr. W. Pfeiffer.

German: Die SPANNUNG der Zuschauer elektrisierte die Luft
 English: The AIR was electrified by the excitement of spectators

Furthermore, it is sometimes claimed that German does not use the passive so often as English (cf. Neuse 1962). Polish also seems to prefer active constructions. Hungarian rarely makes use of the passive. French in its turn seems to display a prevalent tendency to render English impersonal constructions with active ones (cf. Glenn 1955). Moreover, one language may be provided with both of the determination channels while another language may have access to only one determination channel, for example:

English: SHE has blue eyes
 Her EYES are blue
 Polish: ONA ma niebieskie oczy
 OCZY jej są niebieskie
 Hungarian: Kék a SZEMe (Neki kék SZEMe van)

With regard to this type of sentence we can state that Hungarian has developed only one determination channel. But in other cases the determination structure may be parallel to a great extent in all three languages, e.g.:

English: SOMETHING smells
 ... SMELL of something
 Polish: COŚ pachnie
 ... ZAPACH czegoś
 Hungarian: VALAMI szaglik
 Valaminek SZAGa van

The lack of parallelism among the determination channels may be observed very often in the case of constructions expressing the notion 'to have', e.g.:

English: I have a dog
 Polish: JA mam psa 'I have a dog'
 U mnie jest PIES 'a DOG is with me'
 Russian: У МЕНЯ (ЕСТЬ) СОБАКА 'a DOG is with me'
 Hungarian: (Nekem) van KUTYÁm '(to me) is my DOG'
 Finnish: Minulla on KOIRA 'a DOG is with me'

Intuitively we feel that some semantic difference must exist when the second determination channel is opened within the same determination string. The matter may, however, be decided in two ways:

(1) Both the determination openings of the semantic channel are in complementary distribution, e.g., the opening of the second determination channel means only that we are activating the same semantic channel in another way.

(2) The additional information about how the semantic channel opens may be considered as relevant semantic information which also brings about a relevant difference in question.

It seems that we are not yet in a position to solve this problem univocally in favor of the interpretation (1) or (2) or both. On the interlingual level of analysis, however, the differences may be stated as follows: one language opens the first determination channel or both and another language activates only the second determination channel. Thus, in English and Polish you can say *SHE has blue eyes* or *Her EYES are blue* but Hungarian has developed only the second possibility (*a SZEMe kék*); in other words, in English and Polish *SHE* as well as *EYES* may function as principal Dm but in Hungarian only *EYE*.

There are also clear-cut instances in which the change of determination relation within a given string automatically activates a second (different) semantic channel, e.g.:

- (1) *I frightened the dog* vs. *The DOG frightened me*
 (2) *I was frightened by the dog* vs. *The DOG was frightened by me*

The explanation of active and passive construction by L. Zabrocki in terms of a communication model may be correlated with the opening of the first or second determination channel (cf. Zabrocki 1968).

A particular language opens only some of the determination channels within a given set of lexemes. Thus in the English sentence *I read a book* we can open the second channel *The BOOK is read by me*. But the conceivable third channel **The READING of the book is mine* does not work. It does not mean, however, that such a channel cannot be exploited in any language. In connection with this it would be worth citing two Japanese examples which at first glance display unusual determination relations:

- (1) *Otite iru oogi-o hiroitotta* 'He raised the lying fan'
 (2) *Oogi-no otiteiruno-o hiroitotta* 'He raised the lying of the fan'

English, Polish and Russian open here only the first determination channel but Japanese is able to operate with both channels. As some scholars admit both Japanese expressions are semantically equivalent, i.e., they describe the same situation (cf. Kholodovič 1971). It seems that we should speak here rather about complementary equivalence.

From the point of view of the learner of a foreign language what does matter is whether the constraints imposed upon the strategy of 'channel opening' operations are predictable. At first glance they seem to be random to a high degree.

(d) *Unexpected semantic channel*

Some of the determination strings as a whole or some of the lexemes of which they consist open semantic channels in a foreign language in a way that is unusual from the standpoint of our native language. As can be inferred the strategy of constructing such determination strings is totally or, at best, to a very great extent, unpredictable. It is difficult to state the rules for forming such expressions. The trouble is that they constitute a considerable amount of all utterances. One can learn them only through memorization. They reflect a different grasp of the extralinguistic world and can be called external idioms (cf. Lado 1966 : 86). We think here, among others, of the following expressions:

English	Polish
It can't be helped	Trudno; Nie na to nie poradzę
Help yourself	Poczęstuj się
That was a corker	Zatkało mnie
Take it easy	Nie przejmuj się
Stand and deliver	Pieniądze albo życie
My honor is involved	Chodzi o mój honor
Where do I book the seats	Gdzie mam kupić bilety
For reasons beyond my control	Z powodów ode mnie niezależnych

The phenomenon now under discussion may be formulated as follows: the equivalent semantic channels are opened in two languages by determination structures which are unexpected from the standpoint of another language. The two groups of examples cited below illustrate more clearly this specific property of various languages:

(A) English:	The suit fits well (The suit looks good)	
Polish:	Ubranie dobrze leży	'The suit lies well'
German:	Der Anzug sitzt gut	'The suit sits well'
Hungarian:	A ruha jól áll	'The suit stands well'
(B) English:	Neither fish nor fowl	
Polish:	Ni pies ni wydra	'Neither dog nor otter'
Russian:	Ни рыба ни мясо	'Neither fish nor meat'
Lithuanian:	Neĩ vilkas neĩ gegutė	'Neither wolf nor cuckoo'
Finnish:	Ei kala eikä lintu	'Neither fish nor bird'

Speaking about rules of grammar in the above presented cases would seem to be frivolous and would neglect the real difficulties in language teaching. Instead of setting up rules of doubtful value it would be far better to prepare a

vast dictionary which would contain all the unpredictable structures in a foreign language and would specify them in a predictable way.

(e) *...if the desired semantic channel cannot be opened?*

As Eugene Nida put it: 'there can be no exact translations' (1964 : 156). Such an assertion is completely understandable, and it results from the impossibility of achieving absolute correspondences between two languages. Sometimes, however, it is also hard to find expressions which are relatively equivalent. This difficulty originates from the differences both in the structure of the extralinguistic reality and in the specific ways in which a language reflects this reality (cf. Lado 1966 : 78). In extreme cases a given notion present in one language may not occur in another language. Thus, it is assumed that the notion or intuition of time is lacking in the Hopi language (cf. Carroll 1956). Similar although less extreme cases may be encountered elsewhere. It is not easy, for example, to express adequately the idea of *reconcile* (speaking of God reconciling the world to himself) in the translation of the Bible into the Venda language, since the semantic channels opened by the closest equivalents, i.e., *pfumedzanya* and *fhelekedzi* do not coincide with the semantic channel opened by *reconcile*. The former includes contradictory semantic information and the latter is restricted to marital infidelity (cf. Nida 1971 : 342). There are also scattered instances of similar difficulties encountered by the speakers of languages with more related cultural background. Thus, e.g., it requires some effort on the part of a native speaker of English to express the idea of Polish *dom bieleje* '*A house whites'. The sentence that comes here in mind '*A house shines forth white*' only inadequately approaches the idea in question (cf. Lyons 1968 : 436 - 7).

The problems now raised are closely connected with the 'linguistic relativity' hypothesis. We do not intend to devote more attention to it here, limiting ourselves to the statement that some semantic channels are scarcely accessible to the speakers of a given language community although the possibility exists of developing them.

CLOSING REMARKS

The aim of our paper was to inquire briefly into selected problems of contrastive semantics in the framework of a so-called determination grammar. The contrastive aspects of adherence grammar were not touched upon here. We frankly admit, that the principles of the determination as well as the adherence grammar have been oversimplified and a detailed study, if intended, would need more space. So our attention was mainly concentrated upon general ideas which should be more carefully elaborated in detail.

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