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ABSTRACT

This issue of the journal includes these papers on contrastive linguistics: "A Note on Semantic Representation of Lexical Items and on Lexical Gaps" (Maria Grzegorek); "Some Remarks on Case Grammars as Bases for Contrastive Studies" (Hans U. Boas); "Are Exclusively Attributive Adjectives 'Transpositional'?--Some Comments on the Nature of Lexical Rules as Opposed to Syntactic Transformations" (Barbara Fedorowicz-Bacz); "Epenthesis or Deletion--I Could Do" (John W. Dewees); "A Contrastive Description of Deixis in Danish and English" (Claus Faerch); "Deceptive Words. A Study in the Contrastive Lexicon of Polish and English" (Jerzy Welna); "Some Aspects of Style in the Source and the Target Language" (Moirra Linnarud); "Tags in English and Equivalent Constructions in Polish" (Wieslaw Oleksy); "Definiteness in Finnish" (Andrew Chesterman); "Testing and Contrastive Analysis" (Naum R. Dimitrijevic); "Problems and Implications of Contrastive Analysis of Vocabulary and Culture" (Naum R. Dimitrijevic); "Towards an Erasure Principle for German and English Infinitive Complements" (Rudolf Thiem); and "Some Aspects of Modification in English and Polish--Pedagogical Implications" (Elzbieta Muskat-Tabakowska). A bibliography of English-Polish contrastive studies is also included. (MSE)

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## A NOTE ON SEMANTIC REPRESENTATION OF LEXICAL ITEMS AND LEXICAL GAPS

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Each lexical entry (a lexical entry is characterized by a one-to-one correspondence of form and meaning) is described in the lexicon in terms of four types of features: phonological, syntactic, semantic and pragmatic. The distinction of semantic and pragmatic features is such that semantic features characterize the cognitive meaning of a given word (denotation), whereas pragmatic features are used to mark differences of style, register, emotive associations, etc.<sup>1</sup> In this paper we deal in a sketchy way with some aspects of the semantic representation of lexical items and on this basis we discuss briefly some problems connected with intra- and inter-language lexical gaps.

### A. SEMANTIC REPRESENTATION

There are two assumptions underlying the use of semantic representations such as those discussed below:

1. Meanings of lexical items are decomposable into semantically simpler elements,
2. Meanings of lexical items can be classified in groups (lexico-semantic fields).

---

<sup>1</sup> It is not clear whether the features such as style, register, etc., form a uniform class. The term 'pragmatic features' is used here in an arbitrary way. Moreover it is not clear where the boundary between cognitive meaning and pragmatic meaning can be drawn. So far we do not know not only how to represent meanings of words but also what constitutes the meaning of a given word. See for instance Lakoff's discussion on fuzziness of meaning in Lakoff (1972).

Lexical decomposition is obtained by means of a paraphrase of a given word. The result of decomposition is represented as a set of semantic features (sememes) and relations between them according to which complex semantic structures are formed from simple sememes. (These relations are of various types, for instance predication, higher level predication, conjunction, disjunction, etc.). A typical example of lexical decomposition is for instance Katz's representation of the meaning of the English verb *chase* (Katz 1966:168). The semantic representation of this verb consists of two complex semantic markers: **ACTIVITY** and **INTENTION**.

*chase* (((Activity of x) (Nature: (Physical)) ((Motion)  
(Rate: fast) (Character: following y)),  
(Intention of x: (Trying to catch y) (motion)))

The semantic representation of any lexical item has to provide sufficient information in order to deduce from it at least the following relations of a given item to other items in the same lexicon:

- a. possible paraphrases of a given lexical item
- b. synonyms of a given lexical item
- c. semantic collocability of a given lexical item
- d. the semantic fields of a given lexical item and relationship to other members of the same semantic field.

### Paraphrases

Lexical items *x* and *y* constitute a natural paraphrase of some lexical item *z* if:

1. the semantic representation of *x* corresponds to some (simple or complex) semantic marker A in the semantic representation of *z*,
2. The semantic representation of *y* corresponds to some other (simple or complex) semantic marker B in the semantic representation of *z*,
3. A and B stand in some relation R one to another in the semantic representation of *z*,
4. A and B are the only two semantic markers on some level of decomposition of the meaning of *z*.

Suppose for instance that the semantic representation of the English verb *stink* consists of two semantic markers. **PROPERTY** and **EVALUATION**.

*stink* ((Property of x) (type: perceptual) (organ: nose)),  
((Evaluation of that property) (criterion: esthetical)  
(result: negative))

Since in the English lexicon there is a word which has the semantic representation identical to the first semantic marker, i.e. *smell* and a word whose semantic

representation corresponds to the second complex semantic marker, i.e. *bad*, *stink* can be paraphrased as *to smell bad*.<sup>2</sup> On the text level the two words which constitute the paraphrase occur in a specific syntagmatic relationship determined by the relation R in the semantic representation of the word which is paraphrased. Very often it is a modification structure. In our example Evaluation is a higher predicate than Property. The corresponding syntagmatic relationship is a modification structure whose head (a verb) corresponds to the lower predicate and the modifier (an adjective) to the higher predicate.

If two words *x* and *y* in a specific syntagmatic relationship are not normally used as a paraphrase of the word *z* by native speakers of the language to whose lexicon *x*, *y* and *z* belong, in spite of the same meaning being expressed by these two expressions, then *x* and *y* form an artificial paraphrase of *z*.<sup>3</sup>

### Synonyms

If it is accepted that there are synonymous expressions in language then these lexical items are synonymous by definition which have the same semantic representations. (It has to be kept in mind that semantic representation corresponds to the cognitive meaning of words only). As is well known even these words are not exchangeable in all contexts. Especially they cannot replace one another in the cases of fixed collocations such as idioms, proverbs, metaphors, compounds. For instance, with reference to seasons (spring, summer, etc.) one uses in Polish the word *pora* rather than *okres*, although these two words ought to have the same semantic representations.

$$\left\{ \begin{array}{l} \text{pora} \\ ? \text{ okres} \end{array} \right\} \text{ roku}$$

<sup>2</sup> Obviously there is more than one entry for the verb *smell* and more than one lexical entry for the adjective *bad*, e.g.

*smell*<sub>1</sub> = action of x .....

(*John was smelling flowers when I left him*)

*smell*<sub>2</sub> = cognition of x .....

(*We smelled garlic in the whole flat*)

*smell*<sub>3</sub> = perceptual property of x

(*Her hair smelled of shampoo*)

*bad*<sub>1</sub> = negative moral evaluation of men

(*John is a bad man*)

*bad*<sub>2</sub> = negative functional evaluation of objects, persons ...

(*This knife is bad. Mary is a bad teacher.*)

*bad*<sub>3</sub> = negative evaluation of perceptual properties

(*These plants smell bad*)

Only matching of *smell*<sub>2</sub> and *bad*<sub>2</sub> can form a paraphrase of *stink*.

<sup>3</sup> For instance "cause to, come about, to intend" is not used by native speakers of English to replace *persuade* although such a paraphrase may be used by linguists or philosophers for explication of meaning of the verb *persuade*.

It is hardly ever possible to replace a word in an idiom with its synonym or near synonym and retain the meaning of the idiom.<sup>4</sup> e.g.

*to kick the bucket*  
 \* *to sock the bucket*  
 \* *to kick the pail*

In the case of many pairs of nominal synonyms only one member of such a pair can be used metaphorically or is more likely to occur with abstract nouns. For instance English *way* seems to be more abstract than *road*, as the example below proves:

*He has made his way in life* (=He has succeeded in life)  
 \* *He has made his road in life.*

*Road*, however, not *way* is used in the expression *peace road*, in spite of the metaphorical meaning of this expression. This shows the indeterminacy of occurrence of lexical items in fixed collocations. In Polish *kres* and *koniec* have the same meaning (=the end), yet they are rarely exchangeable in the same contexts. Usually *kres* is collocated with abstract nouns, whereas *koniec* can be used with either abstract or concrete nouns, but no rule can be established. e.g.

być	{	<i>u kresu</i>	}	<i>sił</i>	(come to the end of one's strength)
		* <i>na końcu</i>			
	{	<i>koniec</i>	}	<i>ulicy</i>	(end of the road)
		* <i>kres</i>		(end of wandering)	
			{	<i>kres</i>	(end of wandering)
				<i>koniec</i>	<i>wędrówki</i>
				(end of wandering)	
				<i>koniec</i>	<i>przyjaźni</i>
				(end of the friendship)	

The problem is how, if at all, should these differences in use of synonyms be marked in lexical entries.

A similar problem arises in connection with near synonyms — for instance words whose meaning is basically the same, the differences concern the degree

<sup>4</sup> Lehrer (1974) observed that idioms differ in the possibility of lexical substitution. In some idioms it is possible to substitute one term with a near synonym and retain the meaning.

e. g.

*keep up one's end*  
*hold up one's end*  
*build castles in the air*  
 ?*build castles in the clouds* (Lehrer 1974:185)



of intensity of a given action, state of property. Consider the following Polish examples:

<i>Krzyczeć</i> (shout)	<i>prosić</i> (ask)	<i>gniew</i> (anger)	<i>brzydki</i> (ugly)
<i>wrzeszczeć</i> (yell)	<i>blagać</i> (implore)	<i>wściekłość</i> (rage)	<i>szpetny</i> (hideous)
		<i>furia</i> (fury)	<i>szkaradny</i> (execrable)

If such words have different semantic representations, then some mechanism has to relate these words as similar in meaning and to establish the degree of intensity for each particular item with reference to the item which is unmarked for intensity. Defining similar meanings in terms of the number of the semantic markers they share (i.e. the more semantic markers two items have in common the more similar are their meanings) doesn't work if we consider, for instance, such cases as adjectival antonyms whose semantic representations may differ in one feature only, yet they are by no means near synonyms, e.g. *good-bad*, *beautiful-ugly*.

One of the ways of handling near synonyms of this type would be to introduce rules of unilateral implication relating items with higher degree of intensity to items with lower degree of intensity, e.g. *blagać* implies *prosić* — but not vice versa.

### Semantic collocability

The semantic representation of each lexical item must provide the information necessary for establishing the proper cooccurrence relations of this item with other lexical items in sentences and larger pieces of text. Not only the selectional restrictions which determine the cooccurrence of verbs with their subject and objects, but also the restrictions on cooccurrence of distant elements of text must be deducible from semantic representations.

Consider the following examples:

1. \* *John was sitting at the table and chasing Bill.*
2. \* *John chased Bill but tried to catch Bill.*

Example 1 is ungrammatical because some semantic features of *chase* (Physical activity of *x*, motion = change of place by *x*) do not agree with comparable features of *sit* (Physical state of *x*, no change of place by *x*). The agreement of these features is necessary in this context — *and* in 1 is the 'simultaneous and'.

Part of the meaning of *chase* is *try to catch*. Sentence 2 is ungrammatical because *but* requires that the second clause asserts something which is not implied by the first clause.

The semantic representation of a given lexical item must also make it possible to determine the set of possible modifiers for each item. Consider for instance the lexical entry for the noun *ball*.

*ball*: Solid physical object. Shape: round, .....

Redundancy rules such as RR1 and RR2 specify the terms in which a solid physical object can be described.<sup>5</sup>

RR1: solid physical object property → weight, looks, (taste) (smell)

RR2: looks kind of → color, shape, size ...

According to these rules the noun *ball* can be collocated with any adjective which has in its semantic representation features such as weight description (e.g. *heavy, light*), color description e.g. *green, yellow*, or size description e.g. *big, small*. The 'shape' adjectives (*square, round, flat*, etc.) are not used as modifiers of the noun *ball* because the feature shape is already specified in the semantic representation of this noun, i.e. (shape: round). Repetition of the same feature which is included in the semantic representation of a given lexical entry in its modifier results in information redundancy, e.g. *a round ball, edible food*, etc.<sup>6</sup>

Semantic representation of adjectives has to provide information whether they can enter some scales or not. For instance, among antonyms gradable and nongradable antonyms can be distinguished.<sup>7</sup>

type 1 — gradable antonyms, e.g. *small, big; hot, cold*

type 2 — nongradable antonyms, e.g. *dead, alive; male, female*

The relevant differences between adjectives belonging to scales (type 1) and those which do not belong to scales (type 2) are:

1. Adjective of type 1 can be modified by adverbs such as *very, extremely, slightly, partially*, etc. whereas adjectives of type 2 cannot.
2. Negation of an adjective of type 2 forms a paraphrase of its antonym (e.g. *dead=not alive*), whereas negation of an adjective of type 1 does not even imply its antonym, e.g. *This water is not cold*, does not imply *This water is hot*.

<sup>5</sup> Redundancy rules will be discussed in the next section.

<sup>6</sup> Sentences 1 and 2 are tautologies (analytic). Sentences 1a and 2a may be interpreted either as anomalous or as synthetic

1. *This ball is round.*

2. *This food is edible.*

1a. *This ball is square.*

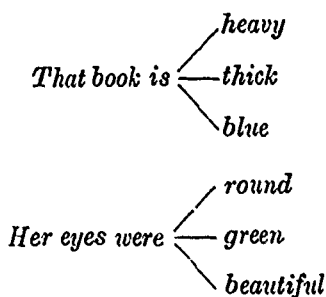
2a. *This food is inedible.*

<sup>7</sup> For gradable and ungradable antonyms see Lyons (1971).

The meanings of some nouns have two (or more) aspects but it is problematic whether we should postulate two different lexical entries. Consider for instance nouns such as *book* and *eye*. At least two different senses can be distinguished for these nouns:

- book* 1. a physical object ...  
2. recorded story (poem, lecture, etc.) ...
- eye* 1. part of human face  
2. man's organ of sight

*Book* and *eye* in the first sense can be collocated with any of the adjectives describing physical objects.



*Book* in the second sense (mental contents) can be described for instance in terms of *quantity* and *quality*.

*This book is long.* (quantity)  
*This is a three volume book.*

*This is a*

- / *dull*
- *very clever*
- *beautiful*
- \ *obscene*

*book*  
(quality)

Body organs are primarily described in terms of their function and health condition.

Some nouns do not require the distinction of several senses but their semantic representations have to specify the types of possible evaluation measures.<sup>8</sup> For instance the noun *soup* can be collocated with adjectives describing taste, color, smell, consistence, etc. (but not shape, height, length, etc.) The primary

<sup>8</sup> The necessity of incorporating an evaluation semantic marker into the description of meaning of some nouns was discussed in Katz (1966).

evaluation measure, however, is taste, as it is for any food product. This statement explains why a sentence:

3. *This soup is good.*

is interpreted as 3a:

3a. *This soup tastes good.*

and not as 3b:

3b. *This soup smells good.*

whereas sentence 4, for instance, is interpreted as 4a because [smell] is the primary evaluation measure for *perfume*.

4. *This is a good perfume.*

4a. *This perfume smells good.*

### Relation to other members of the field

Semantic representation of lexical items has to provide the information about the hierarchy relations among lexical items belonging to the same lexico-semantic field. These hierarchies are of various types. The most obvious ones are two types of relations:

1. general versus specific (the 'kind of' relation)

e.g.	color	<i>red, blue, green ...</i>
	furniture	<i>chair, bed, sofa, ...</i>
	fruit	<i>apple, pear, orange, ...</i>

2. whole versus part (the 'part of' relation)

e.g.	body	<i>leg, arm, head ...</i>
	car	<i>wheel, engine, brake ...</i>

Such relations among lexical items are represented in the lexicon by means of redundancy rules of the form a and b:

RRa:

$$a \wedge b \wedge c \dots d \xrightarrow{\text{kind of}} X$$

RRb:

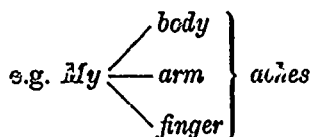
$$a \wedge b \wedge c \dots d \xrightarrow{\text{part of}} X$$

Thus part of the semantic representation of a lexical item consists in referring to some hierarchy-redundancy rules which define its place in semantic fields of which this lexical item is a member. If the semantic representations of two lexical items make reference to the same hierarchy-redundancy rule (or rules) then these two items belong to the same semantic field. Obviously, some prin-

principles relating semantic fields to their sub-fields have to belong to the lexicon too, for instance the principle of transitivity for the 'part of' hierarchy:

if  $a \xrightarrow{\text{part of}} X$   
 $X \xrightarrow{\text{part of}} Z$   
 then  $a \xrightarrow{\text{part of}} Z$

Due to the information about the membership of lexical items to various semantic fields repetition of some selectional restrictions for each particular item can be avoided. For instance, hyponyms share selectional restrictions with their hyperonyms.



Hierarchy-redundancy rules also account for collocations of distant lexical items. For instance they explain why sequences 5 and 6 are grammatical and 5a and 6a are not.

5. *Maybe that coat was blue. I never remember the color of anything.*

5a. \* *Maybe that coat was blue. I never remember the  $\left\{ \begin{array}{l} \text{shape} \\ \text{location} \end{array} \right\}$  of anything.*

6. *His face looked strange, especially the eyes.*

6a. \* *His face looked strange, especially  $\left\{ \begin{array}{l} \text{the buttons} \\ \text{the legs} \end{array} \right\}$ .*

## B. LEXICAL GAPS

Phonological and semantic representation can be paired in order to function as a lexical item of a given language L if they are both well formed representations according to the rules of the grammar of L. Phonological rules of the grammar of L determine possible sequence of phonemes in L, whereas semantic rules determine possible semantic structures of lexical items in L. Rules matching semantic representations with phonological representations are called lexicalization rules. Lexicalization rules which operate after some other lexicalization rule has applied are traditionally called word-formation rules (or rules of derivational morphology). If some possible semantic representation of L is not matched with some possible phonological representation of L, an accidental lexical gap arises. The three basic types of accidental lexical gaps are the following ones:

1. *A phonological gap.*

There is a phonological representation X (well-formed sequence of phonemes of L) but there is no semantic representation Y paired with it.

e.g.

$$\begin{bmatrix} X = /blik/ \\ Y = \emptyset \end{bmatrix}$$

\* *Blik* is an accidental gap in English because this sequence of phonemes has no meaning.<sup>9</sup>

2. *A semantic gap*

There is a semantic representation Y (a possible combination of semantic markers in L) but there is no phonological representation X paired with it.

e.g.

$$\begin{bmatrix} X = \emptyset \\ Y = \text{a dead plant} \end{bmatrix}$$

*A dead plant* is an accidental gap in English because there is no lexical item which expresses this meaning, although an appropriate lexicalization rule exists in English as the table below proves:<sup>10</sup>

LIVING	man	animal	plant
DEAD	corpse	carcass	$\emptyset$

3. *A word formation gap*

Due to the existence of some word formation rule, there is some semantic representation Y and some phonological representation X corresponding to Y, but a lexical item with the semantic representation Y and phonological representation X does not exist in L (or at least is not used by the speakers of L)

e.g.

$$\begin{bmatrix} X = \text{similar} + \text{ize} \\ Y = \text{to make similar} \end{bmatrix}$$

\* *Similarize* is an accidental gap in English because this word is not used by native speakers although there is a word formation rule which permits the semantic structure Y and the phonological combination X. This rule operates for instance in the derivation of *popularize* from *popular*.

If some semantic or phonological representation is ill-formed then by defini-

<sup>9</sup> This example is taken from Chomsky (1964:64).

<sup>10</sup> This example is taken from Lehrer (1970). Actually the word *carcass* refers only to bigger animals, not to flies, etc.

tion a lexicalization rule cannot operate. In this case a *systematic lexical gap* occurs.

Examples:

1. A phonological rule is violated

e.g. \**ftik* (Chomsky 1964:64)

2. A semantic rule is violated

e.g. \**wralm* (=a part of wrist and palm)<sup>11</sup>

This item is ill-formed because its placement on hierarchies of lexical items would require convergence of hierarchies which is against the principle that lexical hierarchies are nonconvergent.

Neologisms usually fill accidental gaps. Individual neologisms (as used in poetry, for instance), can also fill systematic gaps. Consider for instance Leśmian's *najgorszość* which violates the rule of de-adjectival noun formation because no noun in -*ość* can be based on the superlative degree of any adjective (Puzynina 1966) On the other hand *najgorszość* is also an accidental gap because there is a rule in Polish which says that nouns in -*ość* can be formed from adjectival stems.

Below we will concentrate on some problems connected with accidental semantic gaps. This type of lexical gap occurs if some well formed semantic structure is not lexicalized, although other semantic structures following the same pattern are lexicalized in a given language.

Two semantic structures follow the same pattern if they underlie two lexical items belonging to the same semantic field and if they differ only in the occurrence of one sememe. Consider for instance part of the semantic field of sensual data of taste and smell.

semantic field: sensual data  
subfields: sensual data of smell and taste  
relevant sememe: Esthetical Evaluation

	SMELL		TASTE	
	Natural paraphrase	Lexical item	Natural paraphrase	Lexical item
Laudatory esthetical evaluation	<i>a good smell</i>	<i>scent aroma fragrance</i>	<i>a good taste</i>	o
Disapproving esthetical evaluation	<i>a bad smell</i>	<i>stench odor fedor</i>	<i>a bad taste</i>	o

<sup>11</sup> The example and the principle are from Bever and Rosenbaum (1970).

In the case of one language the term lexical gap corresponds to every non-existing form which by virtue of some lexicalization rule or word-formation rule could be a lexical item of that language. Consider, for instance, all lexical gaps which can be found in English as a consequence of the fact that the sememe 'with special attention' has been incorporated in the word *scrutinize* (*scrutinize*=look with special attention).

Semantic field:           sensual activities  
Relevant sememe: 'with special attention'

Activity	Activity + 'with special attention'	
	lexical item	paraphrase
<i>look</i>	<i>scrutinize</i>	<i>look intently (closely)</i>
listen	o	listen with both ears
smell	o	?? smell intently
taste	o	?? taste intently

As it turns out the meaning "do something with special attention" is lexicalized in only one case in the field of sensory activities. This meaning is not lexicalized either in the case of other lexical items, belonging to such fields as mental or physical activities.

#### ENGLISH AND POLISH VERBS OF SENSUAL PERCEPTION

	English	Polish
<b>SMELL</b>		
active verb	<i>smell</i>	<i>wąchać</i>
cognitive verb	<i>smell</i>	o (=czuć zapach)
descriptive verb	o (=smell nice)	<i>pachnieć</i>
positive evaluation		
negative evaluation	<i>stink</i>	<i>śmierdzieć</i>
<b>TASTE</b>		
active verb	<i>taste</i>	<i>smakować, kosztować</i>
cognitive verb	<i>taste</i>	o (=czuć smak)
descriptive verb	o (=taste good)	<i>smakować</i>
positive evaluation		
negative evaluation	o (=taste bad)	<i>nie smakować</i>
<b>SIGHT</b>		
active verb	<i>look</i>	<i>patrzeć</i>
cognitive verb	<i>see</i>	<i>widzieć</i>
descriptive verb	<i>look</i>	<i>wyglądać</i>
<b>HEARING</b>		
active verb	<i>listen</i>	<i>śluchać</i>
cognitive verb	<i>hear</i>	<i>słyszeć</i>
descriptive verb	<i>sound</i>	<i>brzmieć</i>



Theoretically then, intra-language lexical gaps can be found in every such situation which some lexicalization rule applies to at least one member of a given lexical field. Practically, however, reservations have been made that at least two items of the field have to undergo the same lexicalization process in order to establish a lexicalization pattern (see Lehrer 1970).

If we compare two languages, the number of semantic lexical gaps is limited because only the combinations of sememes which are actually lexicalized in either of the two compared languages are taken into account. In order to find inter-language lexical gaps in a given semantic field we extend that field so that it comprises all members of this field in  $L_1$  and all members of a comparable field in  $L_2$ . Consider for instance the table on p. 16 (for each gap a corresponding natural paraphrase is given).

The comparison of English and Polish verbs of sensual perception makes it necessary that we distinguish more members of this field than the description of either English or Polish separately requires. Notice also that it is not necessary to distinguish two types of descriptive verbs in the case of verbs referring to sight and hearing because the sememes 'positive evaluation' and 'negative evaluation' are not lexicalized together with the descriptive verb in either language. Instead a natural paraphrase (*look good, look bad, etc.*) is used in both languages.

If a given lexical item of  $L_1$  has no lexical counterpart in  $L_2$  but is rendered by means of its natural paraphrase in  $L_2$ , we are concerned with an *item gap*. Two other types of interlanguage lexical gaps will be mentioned in this paper: a *synonym gap* and a *positional variant gap*.

A synonym type of gap occurs if, in one language, some lexical item has more near synonyms than its counterpart in the other language. Consider for instance the English noun *taste* and its Polish translation equivalent *smak*

	English	Polish
hyperonym:	<i>taste</i>	<i>smak</i>
near synonyms	<i>flavour</i>	∅
(hyponyms)	<i>savour</i>	∅
	<i>relish</i>	∅
	<i>smack</i>	∅
	<i>tang</i>	∅

To render any of the near synonyms of *taste* the Polish speaker has to use either the word *smak* or an artificial paraphrase.

The positional variant type of lexical gap can be illustrated by the following lexical correspondence between English and Polish:

E. <i>like</i>	P. <i>lubić</i>
	P. <i>podobać się</i>

One of the meanings of the verb *like* is "to evaluate positively the sensual data":<sup>12</sup>

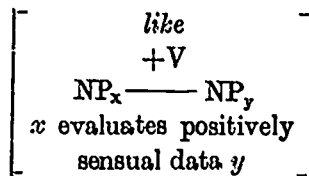
1. *I like* (the smell of) *this perfume*.
2. *I like* (the looks of) *your hair*.
3. *I like* (the taste of) *this soup*.
4. *I like* (the sound of) *this piece of music*.

In Polish equivalents of these sentences either the verb *lubić* or the verb *podobać się* can be used.

- 1a. *Lubię te perfumy* (zapach tych perfum)
- b. *Zapach tych perfum podoba mi się*.
- 2a. *?Lubię twoje włosy* (wygląd twoich włosów)
- b. *Twoje włosy podobają mi się* (wygląd twoich włosów podoba mi się).
- 3a. *Lubię tę zupę* (Lubię smak tej zupy)
- b. *\*Ta zupa podoba mi się* (\*Smak tej zupy podoba mi się)  
*Ta zupa mi smakuje*.<sup>13</sup>
- 4a. *Lubię ten utwór* (Lubię brzmienie tego utworu)
- b. *Ten utwór podoba mi się*.

In Polish two verbs *lubić* and *podobać się* express the same meanings as the English verb *like*. The occurrence of either *lubić* or *podobać się* is syntactically conditioned: *lubić* is used if the Perceiver NP ( $NP_x$ ) is topicalized, *podobać się* is used if the Sensual Data NP ( $NP_y$ ) is topicalized. In English fronting  $NP_y$  in sentences with the meaning discussed above is blocked. Thus for the meaning 'positive evaluation of sensual data' English has only one lexical entry, whereas Polish has two:

E.



<sup>12</sup> *Like* and *lubić* have other meanings too, for instance they are used to denote someone's positive emotional attitude towards some person or some event. *Lubić* in this meaning is not exchangeable with *podobać się*. Sentences 1 and 2 are not synonymous:

1. *Lubiłem tylko jedną kobietę*.
2. *Tylko jedna kobieta podobała mi się*.

<sup>13</sup> The Polish sentences expressing evaluation of taste constitute a separate problem because not *podobać* but *smakować* is used as a counterpart of *lubić*. Also, sentences with *smakować* usually have instantaneous interpretation, whereas sentences with *lubić* refer to the perceiver's general attitude towards some food product.

P.

$\begin{array}{c} \textit{lubić} \\ +V \\ N_{r_x} \text{ --- } NP_y \\ x \text{ evaluates positively} \\ \text{sensual data } y \end{array}$	$\begin{array}{c} \textit{podobać się} \\ +V \\ NP_y \text{ --- } NP_x \\ x \text{ evaluates positively} \\ \text{sensual data } y \end{array}$
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The comparison of these entries shows that there is a lexical gap in English in the sense that for the expression of the same meaning Polish has two words (whose use is syntactically conditioned) while English has only one.

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## SOME REMARKS ON CASE GRAMMARS AS BASES FOR CONTRASTIVE STUDIES

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In my dissertation I distinguished between two kinds of linguistic generalizations (cf. Boas 1975a:26 ff.). Primary linguistic elements that can be used to justify the basic assumptions of linguistic theories and grammatical models such as the postulating of components and levels of representation. Secondary generalizations concern the regularities observable within one component or on one level of representation and therefore presuppose a certain choice among the primary ones.

It was the setting up of generalizations of the first kind in Fillmore (1969a,b) and (1968a) that awarded case grammar the role of being, besides abstract syntax, the second crack in the transformational monolith of the late sixties.<sup>1</sup> Thus, Fillmore criticized the Chomskyan notion of deep structure as "an artificial intermediate level between the empirically discoverable 'semantic deep structure' and the observationally accessible surface structure, a level the properties of which have more to do with the methodological commitments of grammarians than with the nature of human languages" (1968a:88). He questioned in particular the necessity of expressing such grammatical relations as subject-of and object-of at the level of deep structure and postulated instead a division into a proposition consisting of a tenseless set of semantic relationships involving a verb and one or more nouns (and embedded sentences) and a 'modality' constituent. The latter includes such modalities on the sentence-as-a-whole as negation, tense, mood and aspect (cf. Fillmore 1968a:23). These deep case relationships comprise "a set of universal, presumably innate, concepts which identify certain types of judgments human beings are capable of making about the events that are going on around them, judgments about

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<sup>1</sup> For this view see Starosta (1989).

such matters as who did it, who it happened to, and what got changed." (1968a:24). The preliminary list of semantic case relationships of the 'Standard Theory' of case grammar, i.e. Fillmore (1968a:24 - 25), includes the following:

*Agentive (A)*, the case of the typically animate perceived instigator of the action identified by the verb.

*Instrumental (I)*, the case of the inanimate force or object causally involved in the action or state identified by the verb.

*Dative (D)*, the case of the animate being affected by the state or action identified by the verb.

*Factive (F)*, the case of the object or being resulting from the action or state identified by the verb, or understood as a part of the meaning of the verb.

*Locative (L)*, the case which identifies the location or spatial orientation of the state of action identified by the verb.

*Objective (O)*, the semantically most neutral case, the case of anything representable by a noun whose role in the action or state identified by the verb is identified by the semantic interpretation of the verb itself.

Any verb can be classified according to the semantic case relationships it may have to its co-occurring nouns, or to put it in Fillmore's words, the case frame features "indicate the set of case frames into which given verbs may be inserted" (Fillmore 1968a:27). To represent the fact that certain verbs are capable of occurring in more than one case environment (cf. (1) - (4)) Fillmore used the notation under (5) which collapses the possibilities given in (1) - (4) (cf. *ibid.*)

(1) *The door opened.* [--- O]

(2) *John opened the door.* [--- O + A]

(3) *The wind opened the door.* [--- O + I]

(4) *John opened the door with a chisel.* [--- O + I + A]

(5) +[\_\_\_ O(I) (A)]

Apart from the different array of cases verbs are distinguished from each other by the possibility that one of the cases may be an embedded sentence and by transformational properties such as exception features to the general subject and object selection rules, idiosyncratic choices of prepositions and specific complementizers (Fillmore 1968a:28 - 29).

Without going into further, especially technical, details of derivations in Fillmore's Standard Theory, let me only mention his contention that "the 'explanatory' use of this framework resides in the necessary claim that, although there can be compound instances of a single case (through noun phrase conjunction), each case relationship occurs only once in a simple sentence" (1968a:21). In addition, his rule for the normal or 'unmarked' subject choice is of interest for our purposes:

- (6) If there is an A, it becomes the subject; otherwise, if there is an I, it becomes the subject; otherwise, the subject is the O (1968a:33).

Following this rule the NP in question undergoes subject-fronting and after several other transformational operations may end up as the surface subject. A "non-normal" subject-choice may associate the feature [+ passive] with the verb which then triggers the appropriate changes.

Summarizing our short sketch of the Standard Theory of Case Grammar it must be pointed out that the main explanatory value of assuming universal semantic deep structure cases resides in the fact that distinct arrays of such case relationships impose a semantic classification on the verbs (and adjectives) of individual languages and "express a notion of 'sentence type' that may be expected to have universal validity, independently of such superficial differences as subject selection" (1968a:21).

It was probably the attractiveness of being able to work with a small number of possibly universal descriptive semantic categories or labels that prompted the more or less thorough descriptions of a considerable number of languages in terms of the case grammar paradigm.<sup>2</sup> Criticisms of the Standard Theory of Case Grammar have mostly centered around problems that had already been alluded to in Fillmore (1968a) and that are certain to crop up once larger amounts of data than the anecdotal 'clear cases' are being investigated. Among these problems there are three which concern the substantive claims and empirical consequences of Fillmore's theory and not so much its formal representation and which are therefore particularly relevant to contrastive studies.

The first two closely interrelated problems have to do with the number and definitions of the supposedly universal case relationships between a verbal element and one or more nouns. The third relates to the difference in subject selection possibilities of equivalent lexical items in different languages permitting the same array of cases.

The problems connected with the number and the definition of case relationships can, for the purposes of our discussion, be illustrated best by comparing the list of six cases presented above with the one given in Fillmore (1971b:251; 259): Agent, Experiencer, Instrument, Object, Source, Goal, Location, Time and Path.<sup>3</sup> The Experiencer which is partially identical to the old Dative occurs "where there is a genuine psychological event or mental state verb" (1971b:251). Depending on the class of the verb, as, for example, verbs of motion (*go ... from ... to*), verbs of change (*change ... from ...into*) and temporal lapse (*last ... from ... until*), Source and Goal

<sup>2</sup> Cf., for example, Donaldson (1973), Dugas (1969), Goldin (1968), Nilson (1973) and the references given there.

<sup>3</sup> In Fillmore (1968b) the cases Counteragent and Result were postulated.

are interpreted as earlier and later locations, states or time points. (cf. 1971:250). Because of this latter interpretation the Goal case can also include the former Factitive. Path is found in sentences like (7). Sentences containing this case as well as the cases of Location and Time (cf. (8)) violate

(7) *He walked down the hill across the bridge through the pasture to the chapel.*

(8) *He was sitting under the tree in the park on a bench Tuesday afternoon about three o'clock.* (1971b:259)

Fillmore's one-instance-per-clause principle only superficially. In (8) there is on a semantic level just one place and just one time specification. Fillmore also gives a reason why it is unnecessary to posit a new case like 'Force' as it had been suggested by Huddleston (1970). This putative case which would cover the accidental interpretation of (9) as well as the natural force phenomenon in (3) never occurs in contrast with either Agent or Instrument (cf. Fillmore 1971b:253) and may therefore be grouped with either of them. As to the treatment of *for you* in (10)

(9) *John broke the window.*

(10) *I do it for you.*

which could be analyzed as Benefactive Fillmore (1971b:261) proposes a higher sentence analysis in which "it is spelled out that somebody offers something to somebody else" and he postulates for this analysis an abstract verb of giving. A clause conflating principle then transforms the structure in (11) into

(11) *I give you (I do it)* (1971b:261).

(10). This assumption receives support from the fact that such a clause conflating principle might also be posited for the derivation of sentences like (12) and (13) on the grounds that there are languages in which such sentences can only be expressed as (14) and (15) respectively.

(12) *I hit the ball over the fence.*

(13) *I knocked the man down.*

(14) *I hit the ball; it went over the fence.*

(15) *I hit the man; he fell down* (Fillmore 1971b:256).

An examination of the above issues which, in fact, constitute only a small selection of those discussed in Fillmore (1971b) reveals that two seemingly contradictory lines of reasoning pervade his argumentation.<sup>4</sup> In his attempt

<sup>4</sup> This is also evidenced by Fillmore's (1971b:250) statement: "It is one thing to see if there is a stopping place in the attempt to list the semantic functions that go with any given predicator, another thing to see if the list of semantic functions found for different predicators have enough overlap to make it believable that there is a small list for grammatical theory in general".

to discover a repertory of universal case relationships "defined once and for all for human languages" (1971b:247) the criterion of descriptive adequacy in the sense of explicitness and the criterion of simplicity of the linguistic grammar collide. By the latter criterion the theory with the smaller number of case relationship, i.e. the one incorporating, for example, the clause conflating principle, would be favored, by the former criterion the theory which, in addition to Source and Goal, postulates cases like Distance or Duration<sup>5</sup> would be more highly valued.

For contrastive lexical investigations it seems preferable to give priority to descriptive explicitness of the possibly different kinds and numbers of semantic deep cases exhibited by the lexical items of the languages being confronted. This is all the more advisable because overemphasizing the simplicity criterion amounts to accepting the Generative Semantics approach in which prelexical transformations are needed to make up for the decomposition of monomorphemic lexical items.<sup>6</sup> This involves the setting up of a level of paraphrases the theoretical status and value of which is uncertain depriving thus contrastive analyses of the relatively sound basis of comparing possible semantic contexts of equivalent lexical items in the languages concerned.

To reconcile, however, Fillmore's claim as to the universality of case relationships with the fact that in certain languages case notions such as Source and Goal cannot be justified (cf. Frajzyngier (1975)) it might therefore be necessary to alter the status of the notion of case relationship. Semantic cases as unanalyzable units could be given up in favor of representing them as consisting of two or more components.<sup>7</sup> This opens the possibility to show that certain semantic notions as for example directionality may be expressed by case relationships in one language or language group and by lexical means in another.

The problems that arise in determining the number and the kinds of cases can then be said to be empirical in nature, once the primary generalization basic to case grammar is sufficiently motivated, namely that predicators, such as verbs, adjectives and certain nouns<sup>8</sup> can be intuitively seen as assigning different semantic functions to noun phrases that occur in specific syntactic positions with respect to them (cf. Fillmore 1971b:249). Where one should

<sup>5</sup> Cf., for example, Zoepfritz (1975) who argues for twenty deep case relationships in German, among them Distance and Duration.

<sup>6</sup> For a discussion of the Generative Semantics approach see, for example, Boas (1975a).

<sup>7</sup> In Fillmore (1970), however, deep cases are assumed to be unanalyzable. The problem of semantic features is also dealt with in Fillmore (1971a), in Starosta (1974) and in Nilson (1973) who sets up feature analyses for Agent, Experiencer, Instrument and Object.

<sup>8</sup> In combining Chomsky's (1968) lexicalist hypothesis with case grammar Stockwell et alia (1973) provide case frames for certain nouns.



stop in the attempt to classify and to specify these semantic relationships may depend on the kind of language and on one's commitments to completeness and explicitness of description.<sup>9</sup>

The third problem mentioned above relates to the distinct subject selection possibilities of equivalent lexical items in different languages permitting the same array of case relationships. Consider the following examples taken from Zimmermann (1972). In (16) and (17) we have systematic correspondences between English and German which correlate with case structure.

- |      |             |                          |  |
|------|-------------|--------------------------|--|
| (16) | __ O (A)    | __ O                     | __ O, A                                    |
|      | heat        | heiß werden              | heiß machen                                |
|      | grow        | wachsen                  | anbauen                                    |
|      | move        | sich drehen              | drehen (Zimmermann 1972: 173)              |
| (17) | _ O (I) (A) | (I) O                    | O (I) A                                    |
|      | open        | aufgehen,<br>sich öffnen | aufmachen, öffnen<br>(Zimmermann 1972:174) |

(18) through (25) demonstrate that if it is impossible in German to subjectivize the same NP as in English this NP shows up as a preposition in German.<sup>10</sup>

- (18) Cancer kills many people.  
*An Krebs sterben viele Leute.*  
*Krebs bringt viele Leute um.* (Zimmermann 1972:175)
- (19) \$ 100 buys you a nice vacation.  
*Für 100 \$ können sie sich einen schönen Urlaub machen.*
- (20) The German-Polish treaty begins a new era.  
*Mit dem deutsch-polnischen Vertrag beginnt eine neue Ära.*  
*Der deutsch-polnische Vertrag leitet eine neue Ära ein.*  
(Zimmermann 1972:176)
- (21) This book sells fast.  
*Dieses Buch verkauft sich schnell.*
- (22) This text reads well.  
*Dieser Text liest sich gut.*
- (23) The novel sold 100 000 copies.  
*Von dem Roman wurden 100 000 Exemplare verkauft.*
- (24) The car burst a tire.  
*An dem Wagen ist ein Reifen geplatzt.*
- (25) The car lacks a tire.  
*(An) dem Wagen fehlt ein Reifen.* (Zimmermann 1972:177)

<sup>9</sup> Compare, for example, Brekle (1969) who works with about fifteen relational constants in his system of generative sentence semantics.

<sup>10</sup> Cf. also König (1971).

For the latter kinds of phenomena Rohdenburg (1974) offers a wealth of material. He denies however that a case grammar framework can be used for his contrastive investigations (1974:105) into what he calls 'sekundäre Subjektivierungen'. Since his argumentation is based on a number of misconceptions and misinterpretations about the aims and methods of case grammar and on an incomplete evidence a discussion of some of his views may be in order in these remarks.

If one comes across statements like "So ist beispielsweise eine eindeutige Beantwortung der folgenden Fragen im Rahmen der Kasuslehre nicht möglich. a) Sind (102) b. und (102) c. gleichbedeutend?" (Rohdenburg 1974: 101) it is necessary to point out that

- (102) b. *4 people were injured in that landslide.*  
 c. *4 people were injured by that landslide.*

neither Chomskyan grammars of the Aspects type nor Fillmorean case grammars were ever supposed to be evaluated on the basis of the discovery procedures that might erroneously be thought to be associated with them.<sup>11</sup> It cannot be the task of a linguistic theory and grammar to decide on questions of paraphrasability, ambiguity, etc. Case grammar like any other generative linguistic theory can only be expected to reflect and formalize the intuitions of native speakers which is in fact one of the criteria for the descriptive adequacy of such grammars.

As an example for the kind of evidence Rohdenburg (1974:79) uses consider (26) and (27) where the b-versions falsify, according to Rohdenburg, Fillmore's

- (26) a. *Pat's champion hunter jumped across the hedge.*  
 b. *Pat jumped her champion hunter across the hedge.*  
 (27) a. *Doug's sister slipped into the museum through the back door.*  
 b. *Doug slipped his sister into the museum through the back door.*

one-instance per clause principle by exhibiting two Agents. That this objection is untenable follows from Fillmore's (1971b:248) embedding analysis of such constructions based on the fact that there are paraphrases of the type (28) which contain an explicit causative.<sup>12</sup>

With respect to the data below (cf. (28)) Rohdenburg (1974: 92 - 93) remarks that (28) b. makes one of the two interpretations of (28) a.

- (28) a. *That trick sold us the horse.*  
 b. *That trick sold us the horse to Peter.*  
 c. *That trick sold us the horse for Mary.*

<sup>11</sup> See, for example, Chomsky's (1965) statements on discovery procedures and their critique with respect to the competence-performance distinction in Boas (1975a).

<sup>12</sup> Similar analyses of causatives are proposed in Kastovsky (1973).

- d. *That trick sold us the horse to Peter for Mary.*  
 e. *With that trick, we sold the horse to Peter for Mary.*

explicit and tries to identify the case role of *us* in (28) b. To *Peter* being a Goal case and (28) c. and d. excluding *us* from Benefactive status he first proposes to treat *us* as an Agent and then discards this possibility because it would violate the subject selection rule which requires an Agent to become subject in an active sentence.<sup>13</sup> His question whether (28) d. and e. have the same meaning he decides in the negative on the basis of his impression that (28) d. unlike (28) b. and e. does not necessarily presuppose the active participation of the indirect object *us* in the 'commercial event'.<sup>14</sup> He finishes the argument with another question, namely whether (28) d. and e. should, in spite of their difference in meaning, be derived from the same deep structure (Rohdenburg 1974: 93).<sup>15</sup>

Notice first that, as was pointed out above, the subject selection rule certainly admits exceptions – Hutchins (1975:113) therefore speaks of Fillmore's rule of preference – and that the supposed difference in meaning, if it exists at all, results from the indeterminateness of the abstract NP *that trick* which is only superficially resolved in (28) e. It is still present in (29) and (30) and can only be remedied by mentioning the

- (29) *With*  $\left. \begin{array}{l} \textit{our} \\ \textit{their} \end{array} \right\}$  *trick, we sold the horse ...*  
 (30)  $\left. \begin{array}{l} \textit{Our} \\ \textit{Their} \end{array} \right\}$  *trick sold us the horse ...*

performer of the trick as in (31) and (32).

- (31)  $\left. \begin{array}{l} \textit{Our performing that trick} \\ \textit{Their performing that trick} \end{array} \right\}$  *sold us the horse ...*  
 (32)  $\left. \begin{array}{l} \textit{With our performance of that trick} \\ \textit{With their performance of that trick} \end{array} \right\}$  *we sold the horse ...*

<sup>13</sup> It is only a minor point that two out of the five claims of case grammar which Rohdenburg (1974:72) takes great pains to refute would have turned out to be no longer upheld in this form by Fillmore if he had taken Fillmore's views into consideration expressed in the same paper from which he quotes several times, namely his view that "certain predicators have their own lexically determined subject choices" (Fillmore 1971b: 247).

<sup>14</sup> This term is used in Fillmore (1975) which will be discussed below.

<sup>15</sup> It is beyond the scope of this paper to refute Rohdenburg's attacks on the paraphrasability principle of generative transformational grammar which is intimately related to the problem of deriving certain constructions from the same deep structure. It may suffice to point out that paraphrasability, ambiguity, etc. are the linguistic correlates to the native speaker's knowledge that something is the case in his language. For further discussion see Boas (1975a).

The following sentences further support our analysis of *that trick* as Instrument and of *us* as Agent or Goal although it

- (33) *That trick sold the horse for us.*
- (34) *That trick sold the horse to us.*
- (35) *That trick sold the horse to Peter for us.*
- (36) *?That trick sold the horse for us to Peter for Mary.*
- (37) *\*That trick sold to us the horse to Peter.*

is difficult in (36) to separate in the *for* phrases the Goal or Benefactive reading from the *instead-of* reading.

In other places one might have also wished that Rohdenburg's urge to refute case grammar would not have stopped him from looking for generalizations. Thus it would have been interesting to find out in how far the sentence type represented by (38) - (41) owes its existence to the functioning of demonstratives

- (38) *So, that dissolves the metal with this funny-looking acid.*
- (39) *So, that crosses the Alps with the snowmobile.*
- (40) *That polishes the mirror in 30 seconds flat with brand x.*
- (41) *That discovers the first vein of uranium with this Geiger counter.* (cf. Rohdenburg 1974:75).

like *that* as the subject such that no other types of NPs occur in this position. It seems that the high degree of semantic indeterminateness of such demonstratives which is due to their pragmatic character enables them to become subject with almost any verb because they could be derived from any kind of underlying clausal structure which is appropriate in the pragmatic context of the sentence. The data presented above in connection with the interpretation of the abstract NP *that trick* are a first indication that such an analysis may be on the right track.

Along similar lines the derivation of the subjects in such sentences as (42) - (45) the verbs of which Rohdenburg (1974:94) terms

- (42) *This houseboat sleeps eight adults or sixteen children.*
- (43) *This recipe feeds eight adults or four children.*
- (44) *This restaurant feeds four hundred people a day.*
- (45) *These seeds will grow (you) one window box of herbs.*

'kapazitätsbezeichnende Prädikate' (1974:94) might proceed if one is dissatisfied with the assumption of two different lexical entries for such verbs,<sup>16</sup> an assumption which according to Rohdenburg (1974:95) would amount to an abolition of case grammar.

<sup>16</sup> Justifications for assuming different entries for semantically related items are given in Stockwell et al (1973:724 - 25).

As far as a contrastive explanation of the above differences in subjectivization possibilities between English and German is concerned I would like to suggest the following typological one. The low versus high degree of morphological markedness of noun phrases in English and German respectively results in a high versus low degree of 'mobility' of NPs with respect to the grammatical relations associated with verbs. In addition this lack of morphological markedness in English makes it difficult to distinguish between remnants of embedded clauses and basically simple NPs,<sup>17</sup> a phenomenon which is in accordance with the observation that English as against German admits 'chopping transformations', i.e. transformations that move constituents across sentence boundaries without leaving a pronominal trace behind. In German the morphological integrity of clauses prohibits such reordering transformations across sentence boundaries.

In concluding these remarks I would like to mention some of Fillmore's (1975) most recent views on case grammar. Fillmore sees his deep case proposal as a contribution to the theory of grammatical levels and grammatical relations and "as offering at least part of the semantic valence descriptions of verbs and adjectives".<sup>18</sup> Fillmore (1975: 3). As a reaction to Anderson's (1971: 23) arguments for the existence of deep structure subjects and objects Fillmore concedes that a level of representation for these nuclear grammatical relations must be recognized asserting at the same time that a level of representation of case functions is not spurious. He also recapitulates the problems of determining the number and identity of cases. The solution he offers derives from a position in semantic theory with which one could associate the slogan: "Meanings are Relativized to Scenes" (Fillmore 1975.2). He suggests that

any verb identifying any particular aspect of the commercial event will constrain us to bring one or more of entities in the event *into perspective*, the manifestation of this choice for English being the selection of grammatical functions corresponding to the notions of deep structure subject and direct object (Fillmore 1975:29).

<sup>17</sup> Further arguments for the relevance of morphological marking in explaining syntactic differences between English and German are presented in Boas (1975a and b).

<sup>18</sup> Emmons (1974) tries to describe English verbs in terms of syntactic valences and criticizes Fillmore for obscuring "the various senses in which it is possible to speak of optional constituents in a sentence". (Fillmore 1975.11, cf. Emmons 1974.47 - 51). Fillmore (1975.12) comments on this as follows. "my intention was that all of the various senses of optionality could be accounted for by the fact that the system I proposed had *case frames* indicating the case notions conceptually present in a sentence, *case frame features*, indicating case notions that could be combined in construction with a given lexical item, and *deletion transformations*, by which, under various conditions a given constituent could be, or maybe had to be, absent from the surface structure". It would be interesting to investigate whether the surface oriented syntactic valence approach can be combined with Fillmore's semantic valence theory in an explanatorily adequate way.

This is evidenced by the verbs *sell*, *spend*, *pay* and *cost* which require different entities to be brought into perspective in different situations. Fillmore (1975: 30) summarizes his modified approach in the following way:

"The new question for the theory of cases is this: What do we need to know about the various participant roles in a situation in order to know which of these roles or which combinations of them can be put into perspective, and, for those which have been put into perspective, which is to become the subject and which is to become the direct object?"

Although the reintroduction of the deep grammatical relationships of subject and object constitutes a revision of the Standard Theory, the Extended or Revised Standard Theory, as it were, still preserves its most important feature, namely its primary generalization that deep semantic case structure descriptions of words and sentences offer a level of linguistic organization at which universal properties of lexical and clause structure are to be found.

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## ARE EXCLUSIVELY ATTRIBUTIVE ADJECTIVES "TRANSPOSITIONAL"? —

SOME COMMENTS ON THE NATURE OF LEXICAL RULES  
AS OPPOSED TO SYNTACTIC TRANSFORMATIONS

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Standard derivation of attributive adjectives from predicative relative clauses first proposed in (Chomsky 1957) and later developed by Smith (1961; 1964) has been put into question only recently (see e.g. Levi 1973; Baker 1973; Berman 1974). Earlier voices of the few opponents of this derivation (notably Winter 1965; Bolinger 1967) have apparently had little effect on the popular opinion among TG linguists since Chomskyan analysis of attributive adjectives has remained unaffected for nearly two decades and by many linguists is still recognized as the only valid description (for relevant statements see e. g. Sussex 1973:111; Kaluža 1975:76).

Counterevidence to the accepted analysis pointed out as early as 1965 (Winter) has been either ignored altogether or considered in terms of recognized exceptions which can easily be accounted for in a TG by means of a set of appropriate adjectivizing transformations deriving adjectives in question from sentential sources other than predicative relative clauses. This opinion concerned mainly two large groups of attributive adjectives for which no underlying N-be-Adj. structures could be proposed, namely: deadverbial and denominal adjectives. It was tacitly assumed, though never really worked out in detail in terms of concrete lists of underlying structures and sets of appropriate transformations (see Berman 1974:145) that exclusively attributive deadverbial and denominal adjectives derive from underlying sentences with relevant adverbs and nouns, respectively, and thus, they were disregarded by generative grammarians as easy and uninteresting cases which did not constitute any danger to the fundamentals of the Standard Theory as they could be accounted for within the limits of the transformational grammar, provided appropriate transformations were postulated. The view



that denominal and deadverbial adjectives are derived from underlying sentences has probably led some transformational grammarians to adopting the name 'transpositional adjectives' as a cover term used in reference to all adjectives that do not have predicative counterparts.

The view implying a syntactic origin to morphologically derived adjectives is by no means an invention of generative grammarians, for already Jespersen (1931) suggested that deadverbial adjectives came from sentences with adverbs (see Jespersen's analysis of 'shifted subjunct adjuncts' in MEG. II: 285 ff.). Marchand (1960) used the epithet 'transpositional' (i.e. syntactic) to describe adjectives in NP's which were mere renderings of grammatical relations transposed from their underlying sentences (see also Marchand 1966). In Marchand's (1966:133) opinion Adj-N phrases are nothing more than "morphologic combinations which go back to ultimate kernel sentences" and "a morphologic syntagma is nothing but an explicit syntagma — the sentence". A similar analysis of Polish derived adjectives has been proposed by Doroszewski, known among polonists as his conception of syntactic interpretation of lexicology ("składniowa interpretacja słowotwórstwa") (Doroszewski 1952:282); examples of syntactic interpretation of Polish derived adjectives can also be found in Bartnicka (1961:212 - 219).

In this paper the assumption that exclusively attributive adjectives derive transformationally will be put to question on the basis of cross-linguistic evidence from English and Polish. It will be tentatively suggested that in the semantic component these adjectives are present in NP's in their attributive position and function, arguments in support of this proposal being founded on the observed similarity in general characteristics between processes responsible for their putative derivation and lexical rules of word-formation.

An attempt at a transformational account of exclusively attributive adjectives along the lines of syntactic interpretation involves two main tasks: first, one has to see whether it is possible to postulate uniform deep structure sources for NP's containing attributive adjectives related to adverbs or nouns, and second, the exact process of changing adverbs and nouns into attributive adjectives needs to be worked out which means formulating relevant transformational rules and specifying conditions under which they may apply. There appear to be major problems with accomplishing the first task as attributive adjectives apparently come from highly versified sources depending not only on the given adjective but also on the kind of noun this adjective modifies in an NP. What is more, among exclusively attributive adjectives one can find groups of items for which no sentence sources at all can be proposed, and which are neither denominal nor deadverbial. The term 'transpositional adjectives' applied to these items implies a gross oversimplification since, by definition, they have no corresponding 'N+be+Adj' predications.

By way of example one type of such nonpredicate adjectives will be men-

tioned here, namely, adjectives which from the point of view of their semantic function can be described as 'intensifying'.

Intensifying adjectives belong to the class of adjectives that appear only in attributive position functioning, in some undefined semantic sense, as intensifiers of the nouns they modify. The type is encountered both in English and Polish and in both languages these 'intensifying' adjectives tend to have negative connotation,<sup>1</sup> cf.,

- (1) He is just *a bloody fool* (\*a fool who is bloody)  
 I can't open *the blasted door* (\*the door is blasted)  
 Don't talk to *the stupid/blithering idiot* (\*the idiot is blithering)  
 He is *a lowdown cheat* (\*a cheat who is lowdown)
- (2) a. On jest po prostu *skończonym idiotą* (\*idiota, który jest skończony)  
 b. Nie mogę otworzyć (tych) *przeklętych drzwi* (\*drzwi, które są przeklęte)  
 c. Byłem *ostatnim głupcem*, gdy się z tobą żeniłem (\*głupiec, który jest ostatni; \*ostatnio głupi)  
 d. Tak *wściekłego cymbała* dawno nie widziałam (\*cymbał, który jest wściekły)

It is very difficult, if not impossible, to find any paraphrases for Adj-N phrases underlined in (1) and (2). Thus, proposing any sentential sources to account for these NP's transformationally would be a highly artificial and totally unmotivated undertaking, not to speak of the apparent impossibility of a uniform transformational handling of these examples.

Berman (1974:145) observes that attributive adjectives that seem to be related to adverbs constitute the largest group of exceptions to the standard analysis of attributive adjectives. In this paper I shall discuss only some aspects of putative transformational derivations of exclusively attributive deadverbial adjectives modifying miscellaneous nouns.

Deadverbial adjectives found in NP's such as those in (3) appear to be related to adverbs occurring in predicative constructions such as those in (4) from which they might be considered to be derived. Morphological structure of the head-nouns in (3) does not seem to matter in the task of establishing the relationship between the adjectives of NP's in (3) and their cognate adverbs occurring in the underlying structures of (4), cf.,

- (3) a. a potential murderer (\*a murderer who is potential)  
 b. an absolute idiot (\*an idiot who is absolute)  
 c. a real danger (\*a danger which is real)

<sup>1</sup> Dr Kaznowski has pointed out to me an example of the English NP obviously belonging to the group under consideration, in which the intensifying adjective has positive implication, cf., *He is a fantastic sport* (\*a sport who is fantastic).

- d. a true friend (\*a friend who is true)
  - e. a definite improvement (\*an improvement, which is definite)
- (4)
- a. He is, potentially, a murderer
  - b. He is, absolutely, an idiot
  - c. It is, really, a danger
  - d. That is, truly, a friend
  - e. That is, definitely, an improvement

Considering Polish translational equivalents of the NP's in (3) it is possible to distinguish a corresponding group of Polish attributive adjectives related to adverbs occurring in predicative structures corresponding to the English predicative structures of (4), cf.

- (5) a. potencjalny morderca (\*morderca, który jest potencjalny)
  - b. absolutny idiota (\*idiota, który jest absolutny)
  - c. autentyczne niebezpieczeństwo (\*niebezpieczeństwo, które jest autentyczne)
  - d. prawdziwy przyjaciel (?przyjaciel, który jest prawdziwy)
  - e. zdecydowana poprawa (?poprawa, która jest zdecydowana)
- (6) a. To potencjalnie *jest* morderca — On, potencjalnie, *jest* mordercą
- b. To absolutnie *jest* idiota — On, absolutnie, *jest* idiotą
- c. To,  $\left\{ \begin{array}{l} \text{realnie} \\ \text{rzeczywiście} \end{array} \right\}$  *jest* niebezpieczeństwo — To *jest* rzeczywiście niebezpieczeństwo.
- d. To, *naprawdę, jest* przyjaciel — On *naprawdę jest* przyjacielem
- e. To *zdecydowanie jest* poprawa.

It can be noticed that adverbs in the Polish examples of (6) do not pattern consistently. It seems to me that they sound better when placed before the copula *być* if that copula is stressed. I have placed commas around some of the adverbs in (6) but many seem equally possible without commas though certainly, intonation (which is marked here by the commas) is a significant factor often determining the acceptability of these sentences. How it works and in what way exactly it influences the meaning of these sentences are questions that will not even be speculated about in this paper. For the contrastive purposes of this study it should be pointed out, however, that whereas English adjectives of the group under discussion are invariably exclusively attributive, some of their Polish equivalents can be used in predicative position (cf. examples 5d, 5e). Another contrastive observation hinges on the question of lexical productivity in the two languages as exemplified by differences in the number of adjectives created from adverbs present in the equivalent underlying structures of English and Polish. English examples in (7) cannot be rendered by congruent NP's in Polish although their underlying structures, given in (8) are congruent in both languages, cf.,

- (7) a. a probable murder — \*prawdopodobne morderstwo (but: morderstwo jest prawdopodobne)  
 b. the precise service it renders — \*dokładne usługi jakie świadcza  
 c. a possible { athlete } — { \*przypuszczalny } { atleta }  
           { murderer } — { \*możliwy } { morderca }  
 d. an apparent counterexample — { \*widoczny } kontrprzykład  
   { oczywisty }  
   { pozorny }  
 e. an eventual husband — { \* ewentualny } małżonek  
   { ostateczny }  
 f. his actual address — jego { \* aktualny } adres  
   { faktyczny }  
   { rzeczywisty }  
 g. the exact physical characteristics he had divined (Jespersen 1931)  
    — \*dokładna taka charakterystyka fizyczna jaką przewidział.
- (8) a. It was, probably, a murder — Prawdopodobnie było to morderstwo  
 b. This is, precisely, the service it renders — To są, dokładnie usługi  
   jakie świadcza  
 c. He is, possibly, { an athlete } — { Przypuszczalnie } jest on  
                           { a murderer } — { Możliwe, że }  
   { atleta }  
   { mordercą }  
 d. It is, apparently, a counterexample — Jest to { widocznie }  
   { wyraźnie } kontr-  
   { oczywiście } przykład  
   { pozornie }  
 e. He has eventually become a husband — Ostatecznie został mężem  
 f. This is, actually, his address — Jest to { faktycznie }, jego adres  
   { \* aktualnie }  
 g. This is exactly the physical characteristics he has divined — Jest to  
    dokładnie taka charakterystyka fizyczna, jaką przewidział.

Special constraints seem to be blocking Adj. Proposing in the Polish examples of 7a and 7b but I am unable to specify their nature at present. It seems that they depend on some lexical properties of nouns *morderstwo* and *usługi* in Polish since adjectives *prawdopodobny* and *dokładny* can freely be used in attributive position when modifying other nouns, e.g. *prawdopodobne zakończenie/rozwiązanie*, *dokładne sprawozdanie/plany*, etc. Examples 7e, 7f would provide useful material for the practical pedagogical English-Polish grammar since they are instances of what Lado (1957:83) calls 'deceptive cognates', i.e. lexical items which are similar in form (and probably the origin, too) but differ in meaning in two languages thus being a frequent source of language errors in foreign language learning. *Eventual* and *actual* in 7e and 7f must not be ren-

dered by the formally 'equivalent' Polish adjectives *ewentualny* and *aktualny* which have a different meaning in the lexicon of Polish. Adjectives *possible* and *apparent* from the English examples 5c and 5d cannot be translated by means of what are their literal equivalents in Polish, namely, adjectives *możliwy* and *widoczny* since the cooccurrence of these adjectives with nouns in Polish seems to be restricted to [- human] nouns in the former case, e.g. *możliwe wyjście z sytuacji*, (*inne*) *możliwe rozwiązanie* (But. *co za niemożliwa dziewczyna!*), and [+ concrete] nouns, in the latter case, cf. *widoczna plama*. Since the meaning of the adjective *widoczny* in Polish is not quite the same as the meaning of the adverb *widocznie*, which undoubtedly is equivalent to *apparently* in English, the fact that it does not occur attributively in (7d) can be explained if we assume that *widocznie* (in the sense of *apparently*) does not have a cognate adjective in Polish. Synonymous adjectives *oczywisty* and *pozorny* can be used as an equivalent of *apparent* in (7d), just as *przypuszczalny* may substitute *możliwy* in some cases of attribution to [+ human] nouns (see the possibilities in 7c, 7d). In the case of the Polish examples in (7f) and (7g) Adverb-to-Adj change does not apply at all because a possible cognate adjective *ostateczny* cannot modify [+ human] nouns in Polish (cf. *ostateczne słowo*, *ostateczny sąd* but *\*ostateczny człowiek*) in the first case (see 7f) and because it would change the meaning of the comparative construction involved in the modification of the noun *charakterystyka* in the second case (example 7g). In English, Adv-to-Adj transformation is apparently possible in structures of comparison but in Polish it seems to be blocked under such conditions.

Berman (1974:149) makes an interesting observation concerning English deadverbial adjectives of the type discussed here. Namely, she notices that whereas NP's such as those in (3) can occur at various places in a sentence their underlying adverbs are restricted to predicative position. Consider examples given in (9) and (10),

- (9) a. He made *a real contribution*  
 b. You must come up with *a definite alternative*  
 c. It is necessary to keep ahead of *potential rivals* (Berman 1974:149)  
 d. He gave me *the exact reason* for your absence  
 e. I don't know his *actual housewife*
- (10) a. \* He made, really, a contribution – He really made a contribution  
 b. \* You must come up with, definitely, an alternative ≠ You must definitely come up with an alternative  
 c. \* It's necessary to keep ahead of, potentially, rivals ≠ \* It's necessary to, potentially, keep ahead of rivals  
 d. \* He gave me, exactly, the reason of your absence ≠ ?He exactly gave me the reason of your absence  
 e. \* I don't know, actually, his housewife ≠ I don't actually know his housewife

If the adverbs in question were placed near the main verbs of the sentences in (10) these sentences might become grammatical in some cases but their meaning would differ from the meaning of the relevant examples in (9) as they would modify the verbs instead of the nouns in question. It seems that the only possible sources of the underlined NP's in (9) would be something like,

- (11) a. what was, really, a contribution
- b. what is, definitely, an alternative
- c. those, who are, potentially, rivals
- d. what was, exactly, the reason
- e. one who actually is his housewife

The same observation applies to the Polish NP's containing deadverbial adjectives of the type under discussion. Their underlying adverbs in the putative source sentence are restricted to predicative position. Object NP's of (12) are semantically different from the constructions with adverbs given in (13). The underlined NP's from (12) seem to have been derived from the relative clauses suggested in (14).

- (12) a. Nie będziemy uwzględnić oczywistych pomyłek
- b. Należy podjąć konkretną decyzję
- c. Nie znam jego faktycznego nazwiska
- d. Liczymy na pewny sukces

- (13) a. Nie będziemy, oczywiście, uwzględnić pomyłek ≠ \* Nie będziemy uwzględnić, oczywiście, pomyłek
- b. Należy konkretnie podjąć decyzję ≠  
      \* Należy podjąć, konkretnie, decyzję
- c. Faktycznie nie znam jego nazwiska ≠  
      \* Nie znam jego, faktycznie, nazwiska
- d. Na pewno liczymy na sukces ≠  
      ? Liczymy na sukces na pewno

- (14) a. to, co oczywiście jest pomyłką
- b. coś, co konkretnie (już) będzie decyzją
- c. to, co faktycznie jest jego nazwiskiem
- d. coś, co na pewno będzie sukcesem

The observation that adverbs underlying certain attributive adjectives are restricted to predicative position in the underlying sentences seems to point out an important insight concerning the nature of exclusively attributive adjectives related to adverbs. An attempt at formulating it in terms of a significant generalization prior to a putative transformational rule, however, gives rise to a whole series of problems.

First of all, in English as well as in Polish it is not the case that sentences with adverbs such as those in (4) and (6) must have 'corresponding' Adj-N constructions. E.g. adverbs in the predicative sentences of (15) are morpholo-

gically related to the relevant adjectives in (16) but they cannot be treated as their underlying sources, because of the obvious differences in meaning between (15) and (16), cf.

- (15) a. That is, basically, a mistake; *Zasadniczo, jest to błąd*  
 b. It was, definitely, a man; *To, stanowczo, był człowiek*  
 (16) a. That is a basic mistake; *Jest to zasadniczy błąd*  
 b. It was a definite man; *To był stanowczy człowiek*

Secondly, the constraints on Adverb-to-Adj shift depend both on the adverb involved and on the noun to be modified, cf.,

- (17) a. truly an improvement  $\neq$  \* a true improvement  
 b. truly a friend = a true friend  
 c. definitely an improvement = a definite improvement  
 d. definitely a friend  $\neq$  \* a definite friend  
 (18) a. naprawdę poprawa  $\neq$  ? \* prawdziwa poprawa  
 b. naprawdę przyjaciel = prawdziwy przyjaciel  
 c. zdecydowanie poprawa = zdecydowana poprawa  
 d. zdecydowanie przyjaciel  $\neq$  \* zdecydowany przyjaciel

Thirdly, there are examples of NP's containing deadverbial adjectives which are not related to constructions with corresponding adverbs in predicative position but appear to come from sentences with higher adverbs, i.e. from sentences in which the corresponding adverbs modify deleted declarative verbs implied by the performative analysis. Underlined NP's in the Polish examples of (19) seem semantically related to the sentences in (20) rather than to the predicative examples of (21), cf.,

- (19) a. Przeciętny Polak chodzi do teatru dwa razy w roku.  
 b. Co trzeci statystyczny obywatel posiada telewizor.  
 (20) a. Przeciętnie (rzecz ujmując), Polak chodzi do teatru dwa razy w roku  
 b. Statystycznie (rzecz ujmując/patrząc) co trzeci obywatel posiada telewizor.  
 (21) a. \* Polak, który jest przeciętny  
 \* Ten, kto przeciętnie jest Polakiem  
 b. Co trzeci obywatel, który jest statystyczny  
 ? \* Ten, kto/który statystycznie jest co trzecim obywatelem

Fourthly, even the generalization concerning the impossibility of placing adverbs underlying deadverbial attributive adjectives in positions other than the one after the copula *be* is not without exceptions. E.g. The Polish object NP in (22) seems to me to be more related to the construction in (23) with the corresponding adverb modifying the main verb rather than to the putative source sentences in (24) with this adverb in predicative position, cf.,

- (22) Widać wyraźną poprawę  
 (23) Wyraźnie widać poprawę

(24) a. ? Widać  $\left\{ \begin{array}{l} \text{coś} \\ \text{to,} \end{array} \right\}$  co wyraźnie jest poprawą

b. Widać, że wyraźnie *jest* poprawa

Considering the numerous problems posed by the idiosyncrasies of the data examined here it might be concluded that postulating a syntactic description of attributive deadverbial adjectives in terms of a set of Adv-to-Adj transformations would be an extremely difficult and uneconomical undertaking since the number of constraints required for such rules, assuming that they can be formulated, seems to outweigh the value of possible generalizations these rules might capture.

NP's containing deadverbial adjectives can be classified into many types from the point of view of the kind of noun these adjectives are used to modify, and various other aspects of these adjectives could still be considered contrastively. Yet, an examination of relevant examples invariably points out one fact, that there are no uniform sentence sources for these adjectives as exceptions to the suggested generalizations can be found in the case of nearly every type. The same conclusion applies to English and Polish denominal adjectives in NP's which have often been described as having sentential origin (for discussion see Lees 1960; Fedorowicz-Bacz 1974). As can be easily noticed it is not the case that simple sentences containing nouns in various functions are convertible into relevant Adj-N constructions even if corresponding denominal adjectives are available in the lexicons of English or Polish. E.g. although we have *they study medicine* → *medical students* or *the sun gives energy* → *solar energy* in English and *delegaci są z Warszawy* → *delegaci warszawscy* or *film pokazuje historię* → *film historyczny* in Polish, we do not have e.g. *they hope for promotion* ↔ \**promotional hopes*, *they study history* ↔ \**historical students* nor *praca dołączy uniwersytetu (opisuje go)* ↔ \**praca uniwersytecka* or *oni służą ojczyźnie* ↔ \**służba ojczyźniana*, etc. Besides, it is entirely unpredictable what suffix a given noun converted into a surface adjective will take, not even whether it will convert into an adjective at all.<sup>2</sup>

It seems that a theory deriving Adj-N collocations from underlying sentential (or phrasal) sources will have to be provided with a special filtering device to check all combinations produced by appropriate transformational

<sup>2</sup> The following quotation from Bolinger (1967:31) illustrates the point quite clearly. "There seems to be no good reason, for example, why Civil War had noun + noun *Union Forces* on one side and adj + noun *Confederate Forces* on the other, or any reason besides speech level why a man with a tin hat uses *construction materials* while one with a cap and gown uses *instructional materials* — word formation is a transformational wilderness. We may say a *medical man* for 'a doctor' but not \**a dental man* nor \**a surgical man* for 'a dentist' and 'a surgeon'. We keep a *dental appointment* and a *medical appointment* with a dentist and a doctor, but not an \**electrical appointment* with an electrician. There are *legal minds* in the law but not \**botanical minds* among botanists".



processes against the list of Adj-N collocations really found in a given language in order to filter out combinations that are not used. In terms of the TG theory a filtering device so conceived would mean a specification of a number of appropriate conditions on either the surface Adj N collocations, similar to Perlmutter's (1971) surface structure constraints or on particular adjectivizing transformations (as conditions on transformations - see e.g. Chomsky 1971). Since an inventory of Adj-N combinations acceptable in a given language will be needed in any case, and it cannot be supplied without consulting the inventory of Adj-N expressions in the vocabulary of a competent language user, introducing a complicated theoretical apparatus in order to account for relevant NP's seems a fairly uneconomical undertaking. A derivation of Adj-N phrases restricted by the acceptability constraints applicable only on the surface and conditioned pragmatically by the actual appearance of relevant Adj-N combinations in the language strikingly resembles conditions characterizing lexical processes of word-formation in that the products of both have to be checked against a list of existent items. In word-formation processes such e.g. compounding, a lexical derivation from underlying sentential sources has been generally accepted (see e.g. Lees 1960, also Nowakowski 1974) and it was assumed that all results of the derivational procedures applied there would have to be checked against the list of actual compounds given in the lexicon.

Morphological idiosyncrasies and the lack of uniform deep structure sources, as well as the necessity of involving a complicated theoretical apparatus that would still have to rely on the information provided by the vocabulary of a competent user of a language cast serious doubts on the assumption concerning transformational derivation of exclusively attributive adjectives. Similarity of conditions characterizing derivation of Adj-N phrases and some processes of word-formation (e.g. compounding) suggests that the analysis of relevant Adj-N phrases might be considered as a lexical process. In order to determine the character of derivations responsible for NP's containing exclusively attributive adjectives a clear-cut differentiation between syntactic (i.e. transformational) and lexical processes has to be established and a general characteristics of lexical rules as opposed to the syntactic ones needs to be given. The status of lexical rules is not yet established as no complete theory of the lexicon exists in the transformational grammar at present.<sup>3</sup>

<sup>3</sup> Not much has been written on the nature of the transformational grammar lexicon. The most prominent positions seem to be the two works by Gruber (1965; 1967) apart from Chomsky (1970). Papers and articles relating to the structure of the lexicon have been mostly concerned with the place of lexical insertion in the TG model and the decompositional analysis of certain lexical items (mainly verbs) - see e.g. McCawley (1968), Postal (1972), Fillmore (1968), Bolinger (1971) and the definition of the term 'related lexical entry' - Green (1969), Becker Makkai (1969), McCawley (1968a). Independent studies of lexis are conducted in Great Britain with an extensive application of the so-called 'technique of collocation' - see e.g. Halliday (1966) and Sinclair (1966).

Bolinger (1967) assumes the existence of two distinct types of transformations. 'syntactical' and lexical, which from the point of view of some essential differences in their respective characteristics should be kept separate in a grammar (see especially Bolinger's (1967) footnote 6 on page 7 where, among others, he says. "Lexical transformations and syntactical transformations, I think belong at different places in a grammar"). His statement of the differences between the two types of rules comes to observing that 'lexical coinages' (by which he understands products of lexical transformations) are "tied to a time and a place" unlike "free-flowing syntactical transformations that move as smoothly in one direction as in the other".

To illustrate the differences between 'syntactical' and lexical transformations he juxtaposes the regular Passive transformation with the set of rules involved in the derivation of English prenominal modifiers in *-ing* and *-ed* appearing in attributive position with or without object complements, producing NP's such as *a slow walking man* and *a mortifying remark from the man walks slow* and *the remark mortified John* (1967:6 - 7) and observes that while any new verb found in a Subject-Verb-Object structure can easily shift into Passive without any danger as to the acceptability of the resultant sentence (e.g. *They napalmed the village* → *the village was napalmed*), the great majority of predications representing the 'man-walks-slow' type "are not transposable to attributive position" (*ibid.*) as shown in examples of (25) and (26):

- (25) a. — the man walks slow → a slow-walking man  
 — the girl loves home → a home-loving girl (with a possibility for the predicative use, cf: the girl is home-loving)  
 — the child behaves badly → an ill-behaved child (also: the child is ill-behaved)
- b. — the vision scared X → a scary vision<sup>4</sup>  
 — the remark flattened X → a flattening remark  
 — the experience shattered X → a shattering experience
- (26) a. — The secretary erases mistakes → \* a mistake-erasing secretary ≠ \* the secretary is mistake erasing  
 — the wife wakes her husband → \* a husband-waking wife ≠ \* the wife is husband waking

<sup>4</sup> *Scary* and *deceptive* stand for *scaring* and *deceiving* here. See Chomsky (1995: 277) in this context. As examples in (25b) show, however, Chomsky's generalization that verbs having the syntactic features [+ Abstract]... - ... [+ Animate], i.e., verbs allowing abstract subjects and animate objects, seem invariably to have an adjectival use, has counterexamples. (See also Bolinger 1967:7).

- but: — the man hates women → a woman hating man ≠ \* the man is  
woman hating
- b. — the remark angered X → \* an angering remark  
— the experience broke X → \* a breaking experience
- and: — the remark affected X → an affecting remark ('causing (perhaps  
angered him) pity')

(because of the different semantic features on the underlying Verb and the corresponding *-ing* participial adjective) (see Bolinger 1967:7).

Corresponding rules that might be proposed in order to account for equivalent NP's in Polish will also have the characteristics of lexical processes rather than that of syntactic transformations proper since their outputs like the outputs of the relevant derivations in English will have to be checked against the list of modifier-Noun collocations actually encountered in the language. cf.,

- (27) a. — profesor nie cierpi kobiet → nie cierpiący kobiet profesor  
— kolejka jeździ wolno → wolno jeżdżąca kolejka ('ciuchcia')  
— dziewczyna tańczy na linie → tańcząca na linie dziewczyna ('tan-  
cerka na linie')  
— pomoc domowa dochodzi do pracy → dochodząca pomoc domo-  
wa ('dochodząca')  
— uczeń dojeżdżający do szkoły → dojeżdżający uczeń ('dojeżdża-  
jący')
- b. — obraz przeraził X'a → przerażający obraz  
— uwaga pochlebila X'owi → pochlebiająca uwaga (also:  
pochlebna)  
— scena wzruszyła X'a → wzruszająca scena  
— ciężar przytłaczał X'a → przytłaczający ciężar  
— przeżycie zalamalo X'a → zalamujące przeżycie
- (28) a. — sekretarka wymazuje błędy → \* wymazująca błędy sekretarka  
— żona budzi męża → \* budząca męża żona  
— mąż chodzi do kina → \* ? chodzący do kina mąż  
— praca zadowolila recenzentów → \* ? zadawalająca praca  
— uwaga rozzłościła X'a → \* rozżaszczająca uwaga  
— {powodzenie} rozpuścili X'a → rozpuszczające pieniądze (powo-  
{pieniądze} dzenie)

Structures given in sentences of (25) and (27) have corresponding NP's which may be described as products of relevant adjectivizing rules yet sentences of (26) and (28) do not coin lexical expressions of the Adj-N form. Thus, adjectivizing processes noted above cannot be described as syntactic transformations since they do not produce grammatical results in all cases, the grammaticality of their outputs being dependent on the existence of a relevant Adjective-N collocation established in the given language.

Kuryłowicz (1969:27) observes that complicated lexical processes can be analysed as processes implying transformations and that lexical processes implying transformations (similar to the typical syntactic T's in that they derive lexical items from underlying sentences) include mainly those in which a change in the syntactic category of part of speech is observed. In his opinion lexical transformations constitute the core of lexicology and as instances of lexical (i.e. semantic) transformations he quotes the following processes (with "→" representing a syntactic T and "↓" designating a lexical T):

- (29) a. derivation of the Polish verb *zelenić się* (to be green) from the adjective *zielony* (green)

*zielony* → | *jest zielony*  
 ↓ *zeleni się*

- b. derivation of the Polish adjectives: *zapieklony*, *opuchły* from verbs *zapiec*, *opuchnąć*, respectively:

*zapiec* → | *zapieczony*; *opuchnąć* → | *opuchnięty*  
 ↓ *zapieklony* ↓ *opuchły*

- c. derivation of the Polish compound adjectives: *modrooki*, *siwobrody* from relevant adj-N phrases:

*modre oczy* → | o modrych oczach  
 ↓ *modrooki*

*siwa broda* → | z siwą brodą  
 ↓ *siwobrody*

In Gruber's (1967) conception of translational lexicon processes traditionally referred to as morphological derivation and conversion are described in terms of transformational rules of affixal and non-affixal word-extension, which, as he demonstrates, belong to the lexicon (see Gruber (1967:115) for transformational derivation of some causative verbs in English). Gruber claims that word-extension, whether productive or non-productive, affixal or non-affixal, should be treated in the lexicon, not in the transformational component of the grammar. In his conception, relevant substitutions and structural changes should not be caused by means of rules operating after items had been attached to the derived tree, but should occur in the course of the process of lexical attachment. Lexical entries should have underlying categorical trees rather than unstructured feature matrices for lexical environment (1967:36, 37) and they should be able to indicate how the underlying base tree can be restructured while becoming a tree terminating in phonological matrices (1967:115).

Berman (1974:185) points out another property of lexical processes by observing that "it is a well-recognized fact in diachronic linguistics that lexical

items formed by even such productive rules as *-er* nominalization typically move away from the generalized meaning of their 'source' to a more idiomatic, narrower, meaning". She quotes a Hungarian verb *ültet*, literally meaning: *cause-to-sit* from *ül*-(sit), actually used in the meaning of *to plant* (crops, trees ... etc.), as an example of a derived verb whose meaning is totally unrecoverable from the meaning suggested by the morphological structure. The equivalent Polish verb. *zasadzić* (*posadzić*) can also be quoted here as an instance of an output of a word-extension transformation applied to *siedzieć* which has adopted a narrower meaning of *plant* (e.g. *trees, bushes, lettuce, etc.*), if *posadzić* is analysed as derived from *siedzieć* in appropriate structures. *spowodować, żeby siedzieli* or *spowodować, żeby siedzi* or *spowodować siedzenie* by relevant causative transformations. Various properties distinguishing processes discussed here as 'lexical' from the processes describable in term of classical transformations such as the Passive T, indicate that a theory of lexicon specifying types and number of lexical rules (transformations) is badly needed within the generative grammar. A tentative list of features characterizing lexical processes as different from classical syntactic transformations can be formulated as follows:

- (a) Syntactic rules (or syntactic transformations) describe syntactic processes in the transformational component of the grammar whereas lexical rules (or lexical transformations) describe processes in the lexicon (predominantly word-formation processes), and thus belong properly to the lexicon.
- (b) Syntactic transformations result in sentences whereas lexical transformations form lexical elements (words or phrases).
- (c) Outputs of lexical rules have to be checked against a list of existing lexical items. In other words, the 'grammaticality' of the output of a lexical rule depends, in part, on the presence of a word or phrase that matches that output in the lexicon.<sup>5</sup>
- (d) Lexical transformations frequently involve a change of the syntactic part-of-speech category of the items involved.
- (e) There is no morphological regularity in lexical processes whereas outputs of syntactic transformations that introduce new morphemes (e.g. Agreement T, Passive T and others of the group called 'cosmetic transformations' by Krzeszowski (1974) are practically exceptionless.
- (f) Outputs of word-formation rules have a tendency to grow (see the results of productive affixal or non-affixal word-extension transformations) and change (e.g. by narrowing the meaning) while outputs of syntactic transformations do not change meanings that easily.
- (g) While syntactic transformations operate in terms of recognized structural relations such as *Subject-of, Object-of, etc.* (e.g. the formulation of Raising-Transformation depends on the notion of grammatical subject) structural

<sup>5</sup> This point is made quite effectively in Borman (1974:187).

information of this type is largely irrelevant for lexical rules (e.g. nominal compounds as well as A-N phrases containing denominal adjectives can be analysed in terms of syntaco-semantic case relations or in terms of Gruber's and Jackendoff's thematic relations, not necessarily in terms of corresponding sentence structures).

Since derivations proposed here for NP's with exclusively attributive denominal and deadverbial adjectives can be characterized in terms of the properties typical of lexical rules, enumerated in points (b), (c), (d), (e), and (g) above, they will have to be classified as *lexical* rather than syntactic (i.e. transformational) and in view of the evidence presented the assumption that exclusively attributive adjectives are derived transformationally (i.e. by postlexical transformations) cannot be maintained.

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## EPENTHESIS OR DELETION -- I COULD DO

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This paper presents some initial steps toward a minimal three way contrast between British English, American English, and Polish. The purpose of the contrast is to discover whether information emerges which might contribute to the current debate in linguistic semantics. The central issue of the paper, or at least the data on which the investigation is based is a feature of British English reduced sentences not occurring in American English or in Polish. A brief example if this feature can be illustrated by an exchange I recently had with a British friend. We were discussing a toy she had gotten for Christmas. "It is covered with fur" she said. I asked, "Does it vibrate?" Her reply was, "It might do". The response in AmE would never include the *do*. The operation of *do support* would not appear. It is just this additional *do* element occurring in some BrE reduced replies which interests me, and for a number of reasons. First I have found it difficult to even describe the surface and deep structure constraints on the item's occurrence. Second, it is interesting to compare from the point of view of regular common English tag questions such as the one following the juncture in this utterance: John went to the store, didn't he Here *do* occurs in both British and American English. Third, it has features of anaphoric reference which put it in the main stream of a class of issues which are important to the central theoretical approaches to linguistic semantics.

I will begin by giving some examples of the structure I am interested in. The first set of sentences have been agreed to by three native speakers of British English.

1. Will the sun shine more in January? It could do.
2. Will we all have to attend? We should do.
3. Will they go away if you don't come? They might do.
4. open
5. Do you expect her to get married soon? She should do.



6. Do you intend to go to Warsaw tomorrow? I might do.
7. open
8. open
9. Would you do it if I asked you to? I might do.

All the responses to this minimally controlled elicitation contained either *could*, *should*, or *might*. I will not vouch for the selection of informants since the population is so small. Nor can I defend my handling of the cross-dialectal eliciting. At least one of my informants said after an elicitation session, "I accepted it because it was an Americanism".

As you will notice, there are three holes in the pattern a *could* response to a *do* question, 4; a *could* response to a *would* question, 7; and a *should* response to a *would* question, 8. It is not clear whether these are actually unacceptable sentences or if they are due to incomplete elicitation. Since this paper will deal with *how* do-sentences mean rather than *what* do-sentences mean, I will spend little time discussing the signification. Let me say only that each of the *do* responses has a conditional feeling about it to the speakers. They would easily accept a following if-clause.

The following sentences were not agreed upon by all three speakers, being accepted by one or two but rejected outright by the remainder, or yielding to a preferred alternative.

10. Have you ever visited that country?

\*Yes, I have done.

11. Will we have a Christmas holiday?

We should do.                      We should have.

12. Will we know when the break will be?

We should do.                      We ought to.

13. Do you have to do it by Friday?

\*I should do.

14. Would you have shoes made here?

\*I might do.

15. Are we going to have staff meeting this Friday?

We might do.                      We might be.

16. Should you clean your teeth once a day

\*You should do.

Among these, 11 and 12 match the *will/should* pattern of 2, 13 matches the *do/should* pattern of 5, and 14 matches the *would/might* pattern of 9. Further elicitation will reveal whether these contradictions are inconsistencies or areas of further interest.

Only one response was universally rejected by this small universe of three informants.

17. Are you thinking about getting another car?

\*I should do.

I have no explanation for this as yet.

I can make a few generalizations about this type of elliptical structure in BrE. There are no negatives in it. That is, there are none of the form.

18. Will you (or won't you) go home? \*I might not do.

The structure does not appear as a question.

19. I heard she was going to Arkansas with Groucho Marx.

Is it true that she might do?

20. \*I should do, shouldn't I?

The pattern appears to be excluded from the second person singular and plural. It appears to be limited to *could*, *might*, and *should* among the models and seldom used have +ed as Quirk suggests. Finally, there is always contrastive stress on the modal.

21. I should do.                    rather than

22. \*I should do.                or

23. \*I should do.

Now let us look at *do support* structures in general and then at the most widely accepted formulation of normal tag questions as represented by that of Marina Burt (1971) and others. Then let us look at some approximation of the constraints on the *do* reply in BrE. And finally let us see if the anaphoric nature of this construction lends any support to either side of the semantics debate.

First what is *do support* in common English? Most verbs in English require the use of *do* in negation and in interrogation when there is no auxiliary support. Others require only the basic verb form. For example,

24. I like tripe.

25. Do you like tripe?

26. I don't (do not) like tripe.

With Auxiliary support, the *do* is not possible.

27. I am eating tripe.

28. Are you eating tripe?

29. I'm (I am) not eating tripe.

It appears to be true that in those cases where an Aux is a necessary vehicle for tense, number, person, negation, or question, and where no such Aux exists, *do* appears to serve the function. The exception, of course, is the verb *to be*. There is, for example,

30. I am a Marx fan.  
 31. Are you a Marx fan?  
 32. You're (you are) not a Marx fan.

*Do*, however, can appear with *be* in emphatic imperatives as in,

33. Do be sensible.

I believe *have* can appear without *do* support in BrE, though it is a marked form in AmE.

34. Have you the money? BrE

35. Do you have the peanut butter? AmE

So this then is the nature of *do support*; an element that emerges to serve as a stem for a variety of inflections which in some constructions have no Aux to attach to. In AmE, *do*, functioning in the support role (in contrast to a main verb role) does not co-occur with the Aux. In BrE, it does in the elliptic environments that are part of the focus of this paper. Incidentally, this feature is interesting to students of language acquisition. In the early language development, *do support* offers a fairly stable mark of achievement in children.

Marina Burt (1971:19) gives the following formulation of tag questions in common English.

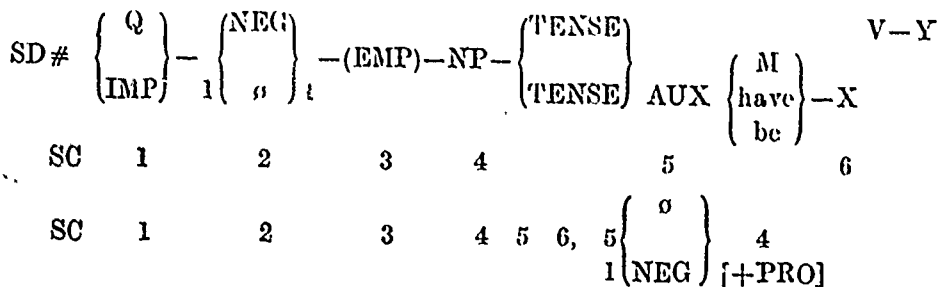


Diagram 1

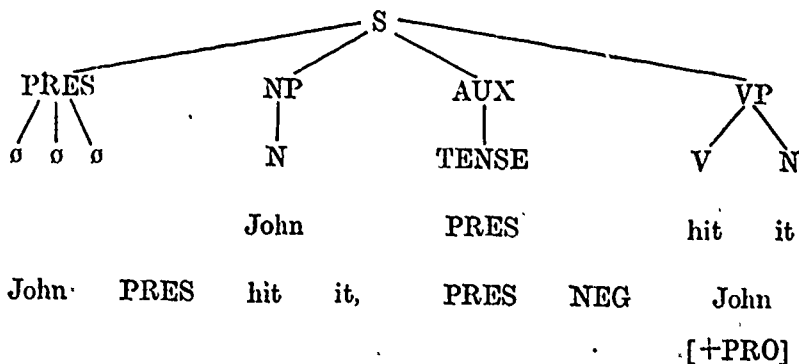


Diagram 2

However, as a result of this transformation, tense/pres is strained. So the output of this tag transformation meets the structural description of the *do support* transformation.

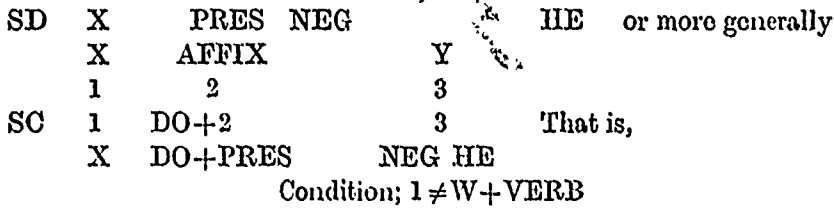


Diagram 3

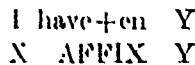
The condition assures that the variable string which precedes the affix cannot end with a verb, which would have been the case where the affix is not stranded.

Notice that this structure of the tag question is largely epenthetic if we can borrow a term from phonology. The node Q is realized, is built up, out of features in the main clause of the sentence, largely because of the high degree of variables that the template sentence may manifest. Constraints on matching these would be much more difficult than the constraints which Burt uses in copying them. And notice that a matched sentence with deletion would require an inelegant duplication of structures.

The next question is, what may the elliptical appearing BrE structure have in common with the epenthetic use of *do* in common English? Is the *do* in this elliptical construction then simply a case of *do support*? There appear to be two environments in which it can appear, neither fitting the structural description for this *do* rule. One is after certain modals. In this environment there is no affix to strand, and thus the structural description is not met. The other is with *have* as in 36.

36. He said I would not finish the book, but I have done.

Sentence 36 is not acceptable to my informants though Quirk suggests something quite like it. Here the structural description is met in



But notice that the construction

37. He said that I could not finish, but I have.

is possible with the same stress patterns.

The simplest formulation of the underlying structure is as follows

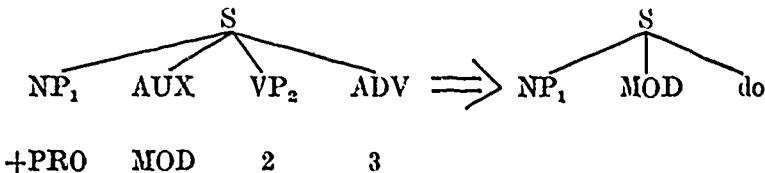


Diagram 4

where  $NP_1$ ,  $VP_1$ , and  $ADV_1$  are coreferent with the subject NP, the Main Clause VP, and the Main Clause ADV respectively. Derivations based on extraposition or other operations are rejected as inelegant. A Burt-like derivation does not seem possible because of the difference between the bound and free nature of these structures, though this may be open to objection.

In tags, the *do* has no more anaphoric reference than the *may*, *will*, *have* or *be* of such tags since *do* is simply an empty morpheme serving only as support for an affix. It is not a proform in that same sense that *do so* is in

38. I wanted to eat and I did so.

Notice that in

39. I didn't want to eat so I didn't do so.

a *do* emerges to carry the tense and negative in the regular fashion.

Ignoring for the time being the interesting constraints on these antecedents, the *do* in the BE elliptical construction is thus a result of deletion, though epiphetic, and has an anaphoric character, unlike the *do* tag. My investigation of *do so* structures is as yet incomplete, but initially shows that there is interesting support from them.

Now let us look at linguistic semantics and see how the anaphoric character of this structure might contribute to the debate in this field.

The study of semantics usually deals with the formalization of meaning in language. Meaning has been so important to linguistics for such a long time that much of the linguistic research of the west has attempted to ignore meaning. Of course it has not really been ignored. Meaning has always been acknowledged as the purpose and the source of all communication. But as Bloomfield (1933:75) writes, "The study of language can be conducted without special assumptions only so long as we pay no attention to the meaning of what is spoken". This statement by no means contrasts with the context from which it is taken. Language, even in the most traditional model, is a device which, in a very complicated fashion, relates some kind of signification to sound. (A nod to behaviorists who would not accept this idea of meaning). The earliest structural models emphasized the issues that came from the surface sound rather than meaning. For example, in Trager and Smith's (1966) *Outline of English structure*, 80% of the book was devoted to phonology, 19% to something like morphology and word formation, and a scant 1% to syntax. Nothing whatsoever was devoted to meaning.

But meaning has always been an important issue in linguistics. Bloomfield's school, perhaps to Bloomfield's dismay, tended to overplay his deemphasis of meaning. They did everything that they could to keep meaning out of language. Of course, it entered although it was not really easily acknowledged by the neo Bloomfieldians as Chomsky (1957:94) points out in *Syntactic structures*. And it entered at a number of quite critical points. One of these

points is in the heart of structural linguistics, phonology. Only when two utterances differ in meaning can they be shown to be phonemically distinct.

For Saussure, the linguistic sign united a concept and an acoustic image, meaning and sound. It was the image, that he was most successful in describing.

Even though Chomsky (1957:93) devoted considerable interest in *Syntactic structures* to the issue of meaning, I feel that the emphasis there was clearly illustrated by the following quotation. "It is important to recognize that by attempting to deal with grammar and semantics and their points of connection we need not alter the purely formal character of the theory of grammatical structure itself". That is to say, Chomsky saw the goal of linguistics at that time as the formalization of the study of syntax rather than the integration of semantics into the total structure. He appears to have doubted any systematic connection between syntax and semantics (Partee 1971:6). So meaning, up to the early mid 1960's, was a secondary field of interest to linguists.

It was not until Katz and Postal's (1963) early formulation of a syntactically motivated challenge to a semantics free grammar, and a more complete formulation a year later by Katz and Fodor's (1964) that issues of meaning and semantics were emphasized. Quite simply, Katz and Postal claimed that if a base component is to be the only source of input for a semantic component, then the base component must have all that is necessary for semantic interpretation. Parenthetically, at some point in the history of semantic theory this presentation changed from an empirical hypothesis to a criterion for judging the formulation of transformations and lost much of its empirical content. In their formulation, then, nothing must change between the point at which semantic interpretation is carried out and the phonological output Transformation, if the concept of an autonomous syntax is to be maintained, must not change meaning.

Let me briefly sketch the models that I am referring to. Initially in the *Syntactic structures* model there was a base component consisting of a set of phrase structure rules and lexical insertion. The final operations of this component produced the familiar kernel sentences. Another component within certain constraints, combined kernels, made sentences negative or interrogative, and generally patted them into shape for the phonological component. The semantic component, such as it was, interpreted roughly the base component.

So the history of the development of formulations of linguistic semantics is interesting, beginning with the formulation by Chomsky that meaning was based on an interpretation of information contained in deep structure. As it was initially formulated, the deep structure was a fairly nebulous term and evolved as the concepts of optional and obligatory transformations evolved. The concept was made more explicit by stating that it was at this point that

semantic interpretation took place. It is clearly circular to maintain that semantic interpretation takes place at the point of deep structure and in turn that deep structure is where semantic interpretation takes place. However this seems to have featured in some of the debates and has been pointed out by McCawley (1967). The concept evolved, however, and has eventually presented itself as a clearer target for debate. Chomsky, (1970) in his article "Deep Structures, Surface Structures, and Semantics", has written that lexical insertion takes place before any of the transformations. This precyclical, pretransformational point in the evolution of an utterance has been taken as the limit of deep structure.

But the challenges were forthcoming long before such a clear target presented itself and the Katz - Postal hypothesis had reached the status of a necessary condition for transformations by the time such challenges began to surface. One of the first challenges was that by Kuroda (1971). It was based on the fact that certain words, for example, *even*, *also*, and *only*, seem to be limited to one occurrence per sentence but could also occur in a number of positions within the sentence with different meanings. The next elegant, the simplest way of handling these words appeared to be by introducing them from a separate node and then placing them in their surface structure position within the sentence. This interpretation, which was syntactically motivated, contradicted the claim that transformations were meaning preserving. The force of a portion of this argument was weakened by evidence that more than one such item can occur in the sentence. But the explanation of the semantic scope of these words is still a goal. Other challenges were arising elsewhere. Kuroda's argument had set the style for a certain type, the variety that assaulted the Katz-Postal hypothesis.

It is generally acknowledged that the one that succeeded deals with the behavior of quantifiers. Roughly, the argument goes like this. For obligatory rules, the question of meaning preservingness is vacuous. These rules operate on abstract structures between which we cannot judge synonymy. The question of whether the obligatory *do support* rules, for example, changes meaning presupposes that we can assign meaning to an abstract P marker which fits the structural description for *do support*, but which has not undergone it. So it is only optional rules which are of interest. If, then, an operation does not appear to change meaning, and an independently motivated abstract structure can be added to the deep structure, the rule can be freed from the requirement of meaning preservingness. Katz and Postal did just this with NEG and based their arguments on those of Klima (1964). What they overlooked was an important violation of their argument. For Klima, the application of the *some-any* suppletion rule was optional in most of its environments. So in the following examples, 40 is related to 41 by an optional transformation, and 42 to 43.

40. I didn't have any of the bread.
41. I didn't have some of the bread.
42. Some of the ideas were not mine.
43. None of the ideas were mine.

Thus Klima's formulation would allow an optional rule that changed meaning in violation of the Katz-Postal model. There has been a lively commentary on the attempts to formulate a *some-any* rule. There has been no satisfactory solution yet.

These are the sorts of argument that led to the demise of the Katz-Postal hypothesis. One could either retain the idea that transformations do preserve meaning and modify the concept of deep structure (largely the position of generative semantics), or one could abandon the disputed hypothesis and retain the concept of deep structure (the interpretive semantics position).

Another type of argument to separate these two positions is that based simply on economy. As it is formulated, the extended standard theory of Chomsky, interpretative semantics, maintains that there must be two interpretative components. One of these interprets syntactically the primitives of the base component. This is of course the transformational component. The other is the one which interprets meaning, the semantic component. In this formulation, then, there are two components interpreting the same structure. One assault on the extended standard theory faults the lack of economy of a system which requires two different, two distinctive, two equally unwieldy interpretative components. The issue here is the autonomy of syntax. McCawley argues that if there is no principled boundary that can be drawn between deep and surface structure then there is no need for deep structure interpretation. The following are the characteristics that McCawley (1971) outlines for his rival grammar. In his model semantic features have the same formal nature as syntactic structures. They are labelled trees whose non-terminal node labels are the same set of labels that appear at the surface. He no longer maintains notions of a set of structures which separates syntax from semantics, what Chomsky and his followers called deep structure. Neither does he support the distinction between transformations and the semantic interpretive rules. These are given up in favor of a unified model which relates meaning and sound by intervening stages that are just as semantic as they are syntactic. He bases this conception partially on the claim that rules needed to decide what a grammatical sentence may mean are necessary to decide what is grammatical in the first place. Grammar then is taken to generate a set of surface structures somehow distinct from a set of deep structures by a set of derivations. These consist of a set of derivational constraints on what combinations may occur at the surface of language and how the different stages of the derivation may differ from one another.



Another type of argument, which is perhaps a subset of the preceding one, focuses on Chomsky's claim that the boundary of the deep structure is the operations of lexical insertion which occur in a block. If it is possible to find transformations which must apply before the lexical insertion, then it is possible to deny the existence of a principled boundary between deep and surface structures. Without this boundary it is impossible to specify the domain of the semantic interpretive rules. The unspecificity shows the weakness of this formulation, the necessity of abandoning it.

Pronominalization and anaphoric reference have features in these argument. It is this area that is interesting to the investigation of the *do* structure of this paper and the anaphoric reference of this item in the elliptical replies of BrE. My next steps in this investigation, steps which I have not taken yet, will be to find if the anaphoric nature of this proform fits any of the now classical assaults on the interpretive semantics position. For example, Postal (1969) has argued that there are certain lexical items resulting from lexical transformations that are immune to inbound and outbound anaphoric reference. These he calls anaphoric islands. Constraints on pronoun reference are illustrated in the following two sentences:

- 44. John's parents are dead and mine are living.
- 45. John is an orphan and mine are living.

Such islands appear to exist for the proforms under investigation.

- 46. I couldn't fasten the boards together with glue, but I could do with tape.
- 47. I couldn't glue the boards together, but I could do with tape.

Backwards pronominalization, perhaps proformization, (a feature of the Bach-Peters (1970) paradox) may follow some of the same constraints with this *do* form. For examples see the following sentences:

- 48. The gorilla<sub>1</sub> indicated that he<sub>1</sub> was leaving.
- 49. He<sub>1</sub> indicated that the gorilla<sub>1</sub> was leaving.
- 50. After he<sub>1</sub> smiled, the gorilla<sub>1</sub> left.

On the other hand, perhaps because of the verbal nature of this proform, comparable examples with *do* are difficult to find. The following are comparable to some extent:

- 51. If one must sit down, I would do.
- 52. I would do if one must sit down.
- 53. If one must do, I would sit down.

But notice that these last two meet the requirements of command for backward pronominalization.

Bach and Peters, on the basis of these features of anaphoric reference discovered sentences that violated at least one of three syntactically motivated

constraints on transformations. The following is an example of a Bach-Peters sentence:

54. (the child who was eating it<sub>2</sub>)<sub>1</sub> liked (the lody she<sub>1</sub> had)<sub>2</sub>

In such a sentence, the anaphoric reference crosses and the usual analysis would be infinitely recursive, violating the premise that derivations must be finite in length. I have been unable to find the essential endocentric crossing with the *do* structure. The following examples, which at first appear to have it, do not. Nor am I certain that they would be accepted by BrE of the *do* structure.

55. When I asked him<sub>1</sub> (to dance)<sub>2</sub>, John<sub>1</sub> said he<sub>1</sub> might do<sub>2</sub>.

56. When I asked if (he<sub>1</sub> would be hit by the tree)<sub>2</sub> (John, who thought it might do<sub>2</sub>)<sub>1</sub> left.

Other features remain to be investigated as well. How do these structures relate to gapping? On the model of some researchers' analysis, where do the operations involved in such a structure occur in relation to lexical insertion? I hope that further study will allow me to answer these questions.

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## A CONTRASTIVE DESCRIPTION OF DEIXIS IN DANISH AND ENGLISH

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On what principles should a contrastive analysis of two languages be based?<sup>1</sup> This is the all-important question which forces itself upon anyone who intends to engage in contrastive linguistics.<sup>2</sup> The present article is based on the assumption that *communicative* rather than *linguistic* competence should be focal in contrastive linguistics. This approach is illustrated by an investigation of certain problems related to nominal deictic expressions in Danish and English.

### I

As a point of departure, let us go back 40 years to Leonard Bloomfield, who is often mentioned as the founder of American structuralism. As American structuralism is characterized by a lack of interest in semantics it would be natural to ascribe this lack of interest in semantics to Bloomfield. This, however, would be wrong. Bloomfield did not mean that semantics is uninteresting or peripheral but that semantics is bewildering and alien to systematic empirical investigation. For this reason, he proposed that a linguistic description should begin with those structures that are most readily measurable — phonological structures — and gradually proceed 'downwards' towards semantic structures.

The situation today is analogous. We are becoming more and more unhappy about descriptions of la langue because we realize that for a learner of a foreign

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<sup>1</sup> A preliminary version of this paper was distributed and discussed in connection with the 10th International Conference on English-Polish Contrastive Analysis, Lubostronie, 26-28 April, 1976.

<sup>2</sup> A Danish-English project in error analysis, interlanguage studies, and contrastive linguistics was initiated at the Department of English, Copenhagen University in 1976.

language it is almost equally important to know 'how to say something in a given context' as to know 'how to say anything anytime' -- what a learner of a foreign language needs is the ability to produce adequate paroles, a communicative competence, not simply a competence of la langue, a Chomskyan competence. However, the task we are thus confronted by is overwhelming -- the task is 'nothing else but the contrasting of cultures', as Kari Sajavaara expresses it (Sajavaara 1975). For this reason it is understandable if researchers within contrastive analysis draw back from contrasting communicative competence and concentrate on phonological, syntactic, lexical or even semantic structures instead (and this, in itself, is an ambitious project); however, there remains the danger that the results of the contrastive analysis are difficult to translate into class-room practice because the individual has been left out. I therefore believe that we have to engage in contrastive pragmatics (including socio- and psycholinguistics) if we want our contrastive analysis to be worthwhile with regard to improvement in foreign language teaching. And as pragmatics is still much of a virgin area of linguistics this means that linguists working within contrastive analysis will have to carry out a fair amount of basic research.

## II

Each participant in a communicative event performs verbal acts of various types. It is possible to classify these verbal acts in different ways (one way of doing it could be based on Austin's distinction between verdictive, exercitive, commissive, behabitive and expositive speech acts (Austin 1962)), but here I am not concerned with a classification of utterances but with a description of parts of utterances. I adopt Searle's idea that in performing a speech act, e.g. a command, the speaker simultaneously performs an act of referring (Searle 1969). In other words, reference is an act within an act. We can now formulate the following two questions:

- (1) How is the act of reference related to semantic, lexical, syntactic and phonological features?
- (2) How do SL (source language) and TL (target language) contrast in respect of reference?

We cannot answer the second question before we have answered the first, and before we can do so we have to choose a specific linguistic model. Today it is almost universally accepted that a linguistic model should be 'predictive' and hence generative, in order to verify a linguistic description the description has to be as precise as possible -- hence formalization. A formalized generative model also facilitates a description of sociolectal and stylistic variation which can be incorporated into one and the same description by means of 'variable

rules' as proposed by Labov (1970). I assume that the generative description should include transformations, but I shall not embark on a discussion of this assumption here as the relevance of transformations can only be assessed within a discussion of systematic relations between sentences.

By adopting TG we have to choose between a generative semantics and an interpretative semantics variant. Generative semantics is related to formal logic, its object is to reduce human communication to a logical base in addition to operations of various kinds. Even if generative semantics cannot be said to advocate the logical positivists' 'reductional principle' (as exemplified by Quine's 'canonical representation' (Quine 1960)) it is based on the assumption that semantics can be formalized to the same degree and very much in the same way as is the case with syntax. This is something which has not been proved yet, what *has* been established, however, is the fact that a generative semantics model is nearly all-powerful and hence relatively uninteresting — how is it possible to falsify a description couched within generative semantics? I am therefore inclined to adopt the less powerful interpretative semantics variant. The type of interpretative TG which comes closest to the one I am working within is that proposed by Jackendoff (1972). Jackendoff's model is characterized by the fact that semantic interpretation of various types is carried out at different levels from deep to surface structure. However, the interpretative rules I shall advocate are pragmatico-semantic rather than purely semantic.

### III

Now let us take a look at the syntactic, the pragmatico semantic and the lexical level of a contrastive description of deixis in English and Danish.

Although we distinguish between syntactic structures and pragmatico-semantic interpretative rules, logical considerations should not be rejected as a means of establishing deep syntactic structures. Only, logical reasoning will have to be subject to empirical verification based on studies of language acquisition, language typology, experimental cognitive psychology, linguistic change and possibly studies within other areas as well. This means that logical reasoning only constitutes an initial, deductive stage in a dialectic description of language.

As all verbal acts contain acts of referring it is natural to expect language to offer specific means for carrying out these acts. Let us postulate that reference is a pragmatico semantic primitive which has as its syntactic counterpart the noun phrase (NP). This, incidentally, is a simplification as other syntactic items (adverbs and tense suffixes) may also be associated with reference; but in this paper I shall only be concerned with reference carried out by means of NP's.

The speaker has at his disposal the possibility of carrying out his act of referring in different ways. He can refer generically or partitively (i.e., he can

refer to a whole class of objects (generic reference) or to a subclass (partitive reference))<sup>3</sup>, he can refer definitely and indefinitely, dependent on his presupposing whether his hearer or hearers will be able to identify the intended referent or not. He can refer numerically to one object or to more than one object. Some of these types of reference are expressed by specific syntactic items (e.g. definite – indefinite reference), others (e.g. generic – partitive reference) have no specific syntactic expression but are rather expressed by an interaction of nominal and verbal characteristics (generic reference is thus typically carried out by means of non-progressive present tense verb form in connection with specific types of NP's). Here I shall only discuss definite, partitive reference to singular objects.

When is definite reference used? The speaker employs a NP containing a marker of definiteness whenever he assumes that the hearer or hearers can identify the intended referent by means of the NP in question. By 'identify' I mean that the hearer can offer an alternative way of performing the same act of reference (i.e., the speaker says 'Mary' and the hearer says 'your wife?').<sup>4</sup> The typical case of definite reference is reference to objects which are visible to the hearer at the time of the speech event, this type of reference, which is related to gestural reference (hence the name 'deictic reference'), constitutes the most *extensional* type of reference. When reference is carried out to objects which are not easily pointed out the definite marker is accompanied by an element which specifies the intension of the referent – extensional reference gives way to intensional reference. It is possible to set up a hierarchy of definite NP's ranging from a maximum of extension to a maximum of intension as illustrated by figure 1:

<i>I</i>	<i>this</i>	<i>he</i>	<i>Peter</i> <sup>5</sup>	<i>the+N</i>
<i>you</i>	<i>that</i>	<i>she</i>	⋮	
		<i>it</i>	<i>Mary</i>	
			⋮	

Figure 1

<sup>3</sup> The term 'partitive reference' is perhaps unfortunate as it is not intended to be narrowed down to phrases such as *some butter*, *some girls*. It is used here to cover all types of NP's which are not generic. In the article *Aspects of Generic Reference* I have discussed the opposition between generic and partitive reference in some detail.

<sup>4</sup> It follows that I am only concerned with 'referential', as opposed to 'attributive', definite expressions (see Donnellan 1966). 'Attributive' expressions (such as *the murderer* must be 2 foot 4 inches') are not deictic expressions as they lack the extensional element (see below).

<sup>5</sup> The position of proper names between personal pronouns and the definite article within the hierarchy is very tentative. Although it is the case that the class of proper names contains a much larger number of items than the class of personal pronouns it is far

On the basis of this hierarchy we can establish the fact that the only thing which is common to definite NP's is a marker of definiteness. It therefore appears to be natural to represent definiteness in the syntactic deep structure by a symbol, a proposal which has been made by John Lyons (1974). In this paper he proposed that NP's in deep structure contain the constituent D (for 'deixis'). I have discussed this proposal within a generative semantics framework in the article 'Deictic NP's and Generative Pragmatics' (Faerch 1975). The obligatory character of the D element within definite NP's is expressed by the phrase structure rule

$$NP \rightarrow D ((X) N (S))$$

which is an abbreviation of the following rules:

$$NP \rightarrow \left\{ \begin{array}{l} D \\ D N \\ D X N \\ D N S \\ D X N S \end{array} \right\}$$

where X stands for one or more adjectival premodifiers and S is a restrictive relative clause.

Now let us consider how these syntactic specifications can be employed within the lexicon of a description of English (figure 2) p. 66.

Personal pronouns are used as unmodified heads, proper names as heads of NP's in which adjectival premodification is possible. Demonstrative pronouns are used as heads or as modifiers, if they are used as modifiers they can co-occur with adjectival premodification and/or with postmodification consisting of a restrictive relative clause. Finally, the definite article exactly corresponds to the demonstrative pronouns when these are used as modifiers.

This description does not pay attention to the fact that some of the personal pronouns may co-occur with postmodification. *you over there, he who's guilty of an offence*, I shall ignore these cases. The description does not pay any attention either to the fact that most of the lexemes have stressed and unstress-

from evident that this implies that proper names are characterized by a higher degree of *intention* than personal pronouns. In some cases this may be so, if, for instance, the speaker wants to single out a girl standing in the middle of a crowd of girls, he or she can do so by using a proper name (and *not* by using a personal pronoun). But even if there is only one girl present, the speaker may still prefer to refer by means of a proper name rather than a personal pronoun as proper names are often considered more polite than personal pronouns, especially in middle and upper middle class circles. (Child. 'She says she's hungry'. Mother. 'You don't say she! Say Aunt Mary' Child. 'Aunt Mary says she's hungry'.) So it may be the case that proper names can only be adequately described if we pay attention to various sociolinguistic features. See also below, footnote 7.



	Syntactic distribution	<Contrast>	<Human>	<Male>	<Proximate>	<Speaker> <Hearer>
<i>I</i>	[-]	+/-	+	ø	ø	<speaker>
<i>you</i>	[-]	+/-	+	ø	ø	<hearer>
<i>he</i>	[-]	+/-	+	+	ø	
<i>she</i>	[-]	+/-	+	-	ø	
<i>it</i>	[-]	-	-	ø	ø	
<i>James</i> ⋮	[(X)-]	+	+	+	ø	
<i>Joan</i> ⋮	[(X)-]	+	+	-	ø	
<i>this</i>	[-((X) N (S))]	+	{-//[ ø//[-(X) N (S)]	ø	+	
<i>that</i>	[-((X) N (S))]	+	{-//[ ø//[-(X) N (S)]	ø	-	
<i>the</i>	[-(X) N (S)]	-	ø	ø	ø	

Table of deictic lexemes in English

Figure 2

ed variants. As some of the lexemes (*it* and *the*) do not carry main stress in their normal uses it is necessary to indicate in the lexicon whether stress assignment is possible or not. Stress is normally associated with contrasting, which is a pragmatico-semantic concept – hence stress-assignment should be formulated in a way so that the pragmatico-semantic interpretative rules can take stress into consideration. I therefore propose that we operate with the feature <contrast> in the lexicon. If a lexeme is marked as <±contrast>, either value can be chosen when the lexeme is inserted into a syntactic string. Lexemes marked <+contrast> are stressed later on by the stress-assignment rules. Proper names and demonstrative pronouns are marked as <+contrast>. This is due to the fact that they are inherently contrastive, by this I mean that the use of a demonstrative pronoun or a proper name is always associated with contrast (*this* rather than *that*, *Peter* rather than *Paul*),<sup>6</sup> whereas personal pronouns are not always used in this way (*he* may be in contrast with *she*, but it can also be a variant of *she*, used when reference is performed to certain types of objects) This leads me on to another point. contrast is frequently expressed by nouns or adjectival modification, but this does not affect the character of the deictic lexemes; to see this, consider the following example:

*the old man was smiling, the young man crying*

<sup>6</sup> But see footnote 5 above.

The fact that the subject NP's are used to refer contrastively does not imply that the definite article should be marked as <+contrast> in these cases; the NP's, not the definite articles, are inherently contrastive.<sup>7</sup>

In connection with definite reference, the act of contrasting can thus be carried out in the following ways:

- (1) by means of a stressed variant of a deictic lexeme
- (2) by means of a deictic lexeme which is inherently contrastive
- (3) by means of nouns and adjectival modification.

Proper names and the personal pronouns are easily subcategorized by means of the features <human> and <male> (see figure 2, columns 3 and 4). With the definite article these features are irrelevant (marked in figure 2 with  $\emptyset$ ). With the demonstrative pronouns we have to indicate that *this* and *that* are restricted to non-human reference when used as unmodified heads, whereas there are no restrictions in other cases. *This* and *that* are kept apart by the feature <proximate>. Finally, *I* and *you*, these are the most primitive deictic lexemes in that they are used to refer to objects which constitute the speech situation itself. It is therefore justifiable to treat them as primitives by characterizing them as <speaker> and <hearer>, respectively.

The pragmatico-semantic rules operate on the syntactic string after lexicalization has been performed. Consider the example given in figure 3.

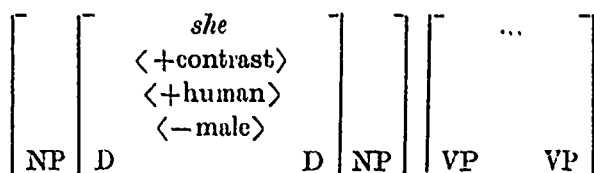


Figure 3

Four pragmatico-semantic interpretative rules operate on *she*, they specify that a speaker can use *she* (or its phonological equivalent, which has been left

<sup>7</sup> The concept of 'inherent contrast' is admittedly vague and demands further explanation. The problem is related to that mentioned above in footnote 5, the fact that a linguistic expression (proper name, adjective or noun) belongs to a large, possibly open, class of items does not imply that an utterance of the expression is associated with contrast. If we distinguish between NP's used to refer only and NP's used to refer and to describe at the same time (the distinction can be exemplified by NP's containing restrictive and parenthetical relative clauses, respectively), then we can say that a non-contrastive use of a proper name, adjective or noun is connected with description within the NP. If description within the NP is represented in DS as apposition, then *my old Dad* can be derived from (NP my Dad) & (my Dad old) NP, whereas *my old suit* (not *my new suit*) is derived from (NP my suit (my suit old) NP). The communicative function of appositional structures is probably to draw attention to something which the hearer or hearers already know, for which reason it is not considered appropriate by the speaker to treat the description as a predicate.

out in fig. 3) to carry out contrastive, definite reference to a female, human being. What exactly is meant by 'contrastive', 'definite' etc. is specified in a general, universal component, for which reason this need not be stated in language-specific descriptions.

Now let us take a brief glance at Danish deictic lexemes. Here we are confronted by a new problem which we have to consider before we can carry out a description of the entire system.

Modern colloquial Danish contains, at least in its spoken variant, compound lexemes consisting of pronoun + deictic locative adverb. *ham der* ('him there'), *den her* ('it/this here'). Similar lexemes are found in several standard types of British and American English. We can deal with them in (at least) two different ways:

- (1) we can treat them as individual lexemes
- (2) we can treat them as the result of lexicalization of two deictic lexemes within the same NP.

The former approach fails to express why two compound lexemes containing the same deictic locative adverb are both specified by the same value of the feature <proximate> (i.e., *ham der* and *den her* are both <+proximate>). I shall therefore adopt the latter approach, this leads to a smaller number of deictic lexemes and a more restricted use of the feature <proximate>, but at the same time it leads to a complication of the syntactic specification of lexemes as we now have to describe which lexemes can co-occur within the same NP.

Figure 4 contains a table of Danish lexemes, parallel to that set out for English in fig. 2.<sup>8</sup> I shall now discuss some of the more important contrasts between Danish and English within this area of the grammar.

The obvious contrasts are associated with the Danish gender system, all Danish nouns being either common or neuter, and with the Danish definite article which has an enclitic variant (cf. the last two lexemes in fig. 4). These contrasts rarely cause problems for Danish learners of English.

The personal pronouns *han* and *hun* ('he' and 'she') can both co occur with the deictic lexemes which are at the same time marked by the features <human> and <male>, characteristic of personal pronouns, and by the feature <proximate>, characteristic of demonstrative pronouns:

*hende her er tungere end hende der*  
 ('her here is heavier than her there')

<sup>8</sup> Fig. 8 does not give a faithful impression of the multitude of possible deictic combinations in colloquial Danish. It is possible to split up the compound deictic lexemes and place the locative particle after the noun, *den mand her* ('this man here'). Furthermore, the more formal simplex deictic lexemes *denne/dette* ('this'), found almost exclusively

	Syntactic distribution	<Contrast>	<Human>	<Male>	<Proximate>	<Speaker> <Hearer>	<Common gender>
<i>jeg</i>	[ - ]	+ / -	+	0	0	<speaker>	0
<i>du</i>	[ - ]	+ / -	+	0	0	<hearer>	0
<i>han</i>	[ - (Lok D) ] { (D (X) N (S)) } (S)	+ / - +	+	+	0		0
<i>hun</i>	- // -	+ / - +	+	-	0		0
<i>den</i>	[ - (Lok D) ] [ - (Lok D) ] X N (S) [ - (Lok D) ] N (S)	+ / - + / - +	- 0	0	0		+
<i>det</i>	- // -	+ / - + / - +	- 0	0	0		-
<i>her</i>	[ Lok ]	+	0	0	+		0
<i>der</i>	- // -	+	0	0	-		0
<i>-en</i>	[ (D) - N (S) ]	-	0	0	0		+
<i>-et</i>	- // -	-	0	0	0		-

Table of deictic lexemes in Danish

Figure 4

If we look at figure 2 we will not find any English lexemes marked in the same way, thus Danish learners either have to disregard some of the features which specify the Danish complex lexemes or employ a NP containing a noun which supplies the features which are not expressed by the deictic lexeme:

*hende her* →  $\begin{cases} \textit{she} & \text{(less marked than Danish equivalent)} \\ \textit{this girl} & \text{(more highly marked than Danish equivalent)} \end{cases}$   
('her here')

There is a third possibility in English which I have not considered yet: demonstrative pronoun followed by the 'prop'-word *one*:

→ *this one* (less marked than Danish equivalent)

The Danish lexemes *den* and *det* may function as personal pronouns, as demonstrative pronouns and as definite articles. When they function as personal pro

in the written language, can be combined with both *her* and *der* in the spoken, very colloquial language, *denne her / der* ('thus here / there'). The difference between *den* + locative particle and *denne* + locative adverb is stylistic (and possibly sociolectal), not semantic.

nouns they correspond to *it*, but as I mentioned earlier *it* is not readily used to express contrast: the stressed variant of *it* is *this* or *that*, normally in connection with the 'prop'-word *one*. In Danish, *den* and *det* can be stressed to express contrast; this means that in Danish contrast can be expressed without explicitly marking the proximity of the referent (cf. English stressed *he* and *she*). In figure 5 I have indicated some English translation equivalents of Danish sentences containing *den*:

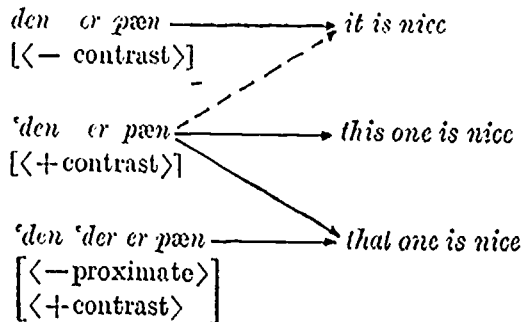


Figure 5

Danish teachers of English are often surprised at the difficulty Danes have in learning the English  $\langle \pm \textit{proximate} \rangle$  lexemes, they are surprised because Danish also knows the contrast between  $\langle + \textit{proximate} \rangle$  and  $\langle - \textit{proximate} \rangle$  (expressed by *her* ('here') and *der* ('there'), respectively), so why the difficulty? The reason is, of course, that contrast can be expressed in Danish by means of stressed *den* and *det*, without any indication of the proximity of the referent; in situations in which these lexemes are used a Dane is not accustomed to choose between a + and a -  $\langle \textit{proximate} \rangle$  marker as he will have to do in English.

If we look at the use of *den* and *det* as definite articles we can describe another well-known difficulty for Danish learners of English. Unstressed *den* and *det* are used instead of the enclitic article in connection with adjectival premodification:

*huset*  
(‘house-the’)

*det gamle hus*  
(‘the old house’)

The stressed *den* and *det* may directly precede the noun:

*det hus*  
(‘ $\left. \begin{array}{l} \textit{this} \\ \textit{that} \end{array} \right\}$  house’)

The same distributions also occur in cases where the noun is postmodified by a restrictive relative clause:

*huset jeg boede i*  
 ('house-the I lived in')

*det gamle hus jeg boede i*  
 ('the old house I lived in')

\**det hus jeg boede i*  
 ( ' {this } house I lived in ' )  
 ( {that }

This sentence containing the stressed *det* again exemplifies a dilemma for the Dane: he is used to express contrast by the deictic lexeme; but this specification of contrast is frequently redundant as contrast is inherently expressed by the restrictive relative clause. (This observation is supported by the fact that sentences containing stressed *den/det* + N + restrictive relative clause are frequently interchangeable with sentences containing N + enclitic article + restrictive relative clause — *huset jeg boede i*). In English, this redundancy is avoided; thus the most normal translation equivalent of '*det hus jeg boede i*' is *the house I lived in*. Here, then, we face a contrast which causes difficulty for the Dane; and the problem even spreads to NP's containing premodification (*that old house I lived in*), although *den* and *det* in the Danish sentences of this type are only stressed in cases where contrast goes beyond what is expressed inherently by adjective + restrictive relative clause.

## IV

The approach to contrastive analysis I have illustrated above with a tentative description of a limited part of deixis in Danish and English lies within the tradition of notional grammar, if 'notional' is taken to comprise 'communicative' or 'functional'. Notional grammar, going back to Jespersen, seems to be undergoing a renaissance, not only in descriptions of individual languages (cf. Lecch & Svartvik 1975), but also in connection with contrastive analysis (see, e.g., Marton 1972). I believe that the way from theoretical description to pedagogical practice can be shortened if we adopt a notional (= communicative) approach. But before it is possible to make positive suggestions as to how a certain problem can best be dealt with in the class room, it is necessary to investigate the problem in connection with an analysis of learners' approximative systems (Nemser 1969). As I have not carried out this part of the work yet my article must necessarily remain theoretical.

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# DECEPTIVE WORDS. A STUDY IN THE CONTRASTIVE LEXICON OF POLISH AND ENGLISH

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## 1. INTRODUCTION

1.1 In the lexicons of any two languages there are words characterized by the correspondence in the graphemic and/or phonemic structures, which is usually due to common etymology or interborrowing. In most instances the similarity is accompanied by various degrees of semantic analogy seen, for instance, in the pairs like E. *army* : P. *armia*, E. *manuscript* : P. *manuskrypt*, or E. *machine* : P. *maszyn*, etc. The extent of the semantic correspondence varies in such pairs, which means that not only full identity, but also partial coincidence, and the contrast of meaning are characteristic of the relations between them.

If a classification of words having similar structures is made in terms of logical division into distributional types (e.g. Lyons 1968:71), the following system of semantic relations in P/E grapho-phonemically related pairs is obtained:

- (i) Equivalence, e.g. E *alphabet* : P *alfabet* (but see 1.2 below)
- (ii) Inclusion. (a) with the E unit having more meanings, e.g. E *fiction* : P *fikcja*, and (b) with the P unit having more meanings, e.g. E *protocol* : P *protokół*
- (iii) Overlapping, e.g. E. *platform* : P. *platforma*
- (iv) Contrast, e.g. E. *lecture* : P. *lektura*

Since the notion of equivalence implies the existence of full semantic correlation in such P/E pairs, it is to be emphasized that the equivalence is in the majority of cases only relative.

1.2 The four types of relations shown above may be described as follows:

In (i) each lexical unit can be freely rendered by its grapho-phonemic equivalent in the other language, as in the case of E *alphabet* : P *alfabet*.



Remark. Equivalence has been included into the classification of false pairs because it can sometimes be deceptive. In his analysis of deceptive pairs in Serbo-Croat and English, Ivir (1968) distinguished a sub-class of pairs identical semantically but differing in the frequency of use. The pair quoted by him, S-C *analfabet* . E. *analphabete* (cf. P. *analfabeta*) correlate both semantically and formally, but the frequency of use of the E word is very low, the usual term being E *illiterate*.

In (ii) any lexical unit can be rendered by its partner but the reverse is confined only to part of the meanings, cf. (a) P *fikcja* : E *fiction*, but E *fiction* : P *fikcja* (and P *beletrystyka*); (b) E *protocol* . P *protokól*, but P *protokól* . E *protocol* (and E *minutes*).

In (iii) the semantic correlation is only partial and is limited to some semantically corresponding areas which are only part of the full semantic field, while the remaining areas are rendered by grapho-phonemically unrelated lexical units, e.g. E *platform* : P *platforma* (and P *peron*).

In (iv) the rendering of the P or E item by a grapho-phonemically corresponding partner in the other language is impossible, cf. E *fatigue* (. P *zmęczenie* 'weariness'), P *fatyga* (: E *trouble*).

Considerable differences in the amount of semantic interference are found if we compare particular types of the above set of relations. Thus in (i) there is practically no interference. The probability of inaccurate interpretation increases in the classes (ii) and (iii), while relation (iv) always leads to a faulty translation when a grapho-phonemic replica is employed.

1.3 Misleading lexical pairs are also found on the level of phraseology when no formal similarity is involved, cf. the following pairs:

E *high school* : P *szkola wyższa*  
 E *good-humoured* : P *w dobrym humorze*  
 E *sea wolf* : P *wilk morski*, etc.

In the above examples interference is two-directional and its result may be the segmental translation of the lexical units from one language into another. There is, however, no semantic correlation between the segmental correspondences since E *high school* is not P *szkola wyższa*, etc. The approximate equivalents of the E phrases would be correspondingly P *szkola średnia*, *mily*, and *drapieżna ryba*, while the analogical replicas of the P phrases are E *university*, *in a good mood* (in high spirits), and *old salt*. As the present paper deals with the formally related pairs, this type has been excluded from the investigation.

1.4. The similarity of the grapho-phonemic structures on the level of morphology can also lead to a false translation. This is observed, for instance, when the transfer of a P stem, let us say, *autent-* is made from P to E. The parallelism of semantically and formally related suffixes P *-yzm* and E *-izm* may result in the construction of an apparently correct form E *\*authenticism*, which does not

exist. Instead, the complex suffix used in E with the analogical stem is E *-icity*, hence E *authenticity*. Other potentially incorrect translations due to morphological interference may be those which follow:

P *artyzm* : E *\*artism* (E artistry), P *asynchronia*: E *\*asynchrony* (E asynchronism), P *asynchroniczny* . E *\*asynchronic* (E asynchronous), P *deflacyjny* . E *\*deflative* (E deflationary), P *spazmatyczny* . E *\*spasmatic* (E spasmodic), P *bufonada* : E *\*buffonade* (E buffonery), etc.

Interference on the level of morphology may also affect prefixes:

P *antytalent* : E *\*antitalent* (cf. E anti-, E talent), P *antysanitarny* : E *\*antisanitary* (E unsanitary), P *apolityczny* : E *\*apolitical* (E non-political), P *autoironia* : E *\*autoirony* (E self-irony, cf. E *auto-*), P *dekonspirować* : E *\*deconspire* (E unmask, cf. de-, E conspire), etc.

The interference in the above classes is unidirectional, since it occurs only when the translation is made from P into E, while the rendering of E words like *spasmodic*, *non-political*, etc. does not present any problems for a speaker of Polish. If errors are made, they are due to application of the P word formation rules to the grammatical processes in English.

1.5 The interference of this kind also occurs on the derivational and lexical levels simultaneously and is then also unidirectional. Through a false lexical analysis one can arrive at quasi-English formulae in the case when a P word consists of at least two morphemes and has a formal replica in the system of E. Words like P *eksmisja*, *eksmito wać* illustrate such componential cognates. E [ex + mission] and [ex + mit], (cf. E *transmission*, *transmit*) do not combine to form the equivalents of P words. Consequently the forms E *\*exmission* and *\*exmit* are false and other formally unrelated elements must be selected from the lexicon of E to render properly the meaning of P words.

Also the most recent works confirm that word formation rules are usually applied at random even in one language. As Jackendoff (1975:653) rightly observes the formation of words through combining a prefix and a stem "seems to be an idiosyncratic fact". Of course, the possibility of disagreement is considerably greater when two languages are involved.

## 2. DECEPTIVE WORDS: DEFINITION

2.1 The discussion of the lexico semantic interference will be confined only to those cases where the grapho phonemic similarity of the stems is found in the pairs. Such pairs from two languages showing various degrees of coincidence in their formal structures were labelled differently by various writers. Thus, Schach (1951) uses the term 'heteronyms', Haugen (1953:47) calls them "synonymous diamorphs", while the term "deceptive cognates" invented by Lado (1957:83) is less acceptable since it covers not only etymologically related words, but also those in which formal similarity is purely accidental. Accord-

ing to the definition formulated by Lado deceptive cognates are "words that are similar in form but mean different things".

The above definition and the term are not satisfactory for still another reason. adjective 'deceptive' used by Lado is misleading in the context of his definition. If we assume, following him, that deceptive cognates mean different things, as in the case of E *lecture* . P *lektura* (class iv), then types (ii) and (iii) represented by the pairs E *fiction* . P *fikcja*, E *platform* . P *platforma*, etc. which exhibit different degrees of semantic overlapping would not belong to this group of words.

The terms used by the compilers of the French-English and German-English dictionaries in which such pairs are listed are French 'faux amis du traducteur' (i.e. false friends of a translator) and German 'irreführende Wörter' (or 'irreführende Fremdwörter'), i.e. misleading words. The latter term is also used by Akulenko in his dictionary of deceptive words in Russian and English (Akulenko 1969).

2.2 The term used in the present paper is 'deceptive words' ('deceptive pairs'). It may be defined as follows:

A deceptive word is a word in the lexicon of some language which exhibits easily identifiable grapho-phonemic similarity to a word (words) in another language. The resemblance is accompanied by either partial correlation in the meaning or by the absence of any direct semantic correspondence.

2.3 The analysis of deceptive words in the subsequent paragraphs will cover in turn (a) words characterized by the absence of any semantic correspondence, i.e. those showing the contrast (class iv), words with some degree of semantic overlapping (iii), and finally (c) those in which the meanings correlate only partially (iiab). The words listed are only a representative selection.

### 3. CONTRAST

3.1 According to our earlier formulation formally corresponding words are in full contrast when no overlapping of their semantic fields takes place so that a term from one language cannot be replaced by its formal replica in the context of the other language without harming the correctness of the translation. But even here the risk of being led into error is not the same in all the instances. Such a danger is conspicuously less imminent when a pair is etymologically unrelated, i.e. when the counterparts are not cognates, cf. the pairs below:

E *back* : P *bak* ('a back part', 'can, sideburns'), E *dement* : P *dementować* ('make mad' : 'deny'), E *dote* : P *dotować* ('be weak-minded', etc. : 'donate'), E *facet* : P *facet* ('surface of a cut gem' : 'chap'), E *flower* : P *flower* ('blossom' : 'fowling piece'), E *gem* : P *gem* ('jewel' : 'game').

Similarly there is little doubt that some related words will be avoided in the translation:

E *barrage* : P *baraż* ('barrier' : 'playing off'), E *desk* : P *deska* ('a piece of furniture' : 'plank'), E *floret* : P *floret* ('small flower' : 'foil'), E *talon* : P *talon* ('claw' : 'coupon').

The units in both groups stand in contrast and appear as a rule in mutually exclusive contexts. A potential wrong translation is possible only in the situation when the words listed above are isolated from any significant context.

3.2 Interference is reduced to a minimum in the translation from E to P when different parts of speech exhibit the similarity of the formal structure, although the opposite direction of the transfer may lead to the wrong choice of an E lexical unit:

E *remnant* : P *remanent* ('remaining' : 'stock taking'). E *transparent* . P *transparent* ('transmitting light' : 'banner').

3.3 There are also pairs of words which correlate only when the E item is extended by the adding of the generalizing element:

P *blankiet* . E *blank form* (not E blanket), P *cross* : E *cross-country race* (not E cross), P *dancing* : E *dancing party; dancing hall* (not E dancing), P *faktura* : E *facture treatment* (not E facture), P *kaucja* . E *caution money* (not E caution), P *neon* . E *neon sign* (not E neon), P *oliwa* . E *olive oil* (not E olive), P *sleeping* . E *sleeping car* (not E sleeping), P *stoper* . E *stopwatch* (not E stopper), P *trencz* : E *trench coat* (not E trench).

In all the above pairs the interference is unidirectional since an E element is semantically defined by the added units, like *form, race, party/hall, treatment, money, sign, oil, car, watch, coat*.

3.4 The interference in the translation from E to P seems to be in general excluded in words which contrast semantically since they belong to different meaning spheres. Nevertheless the graphophonemic resemblance may be the source of error, cf.:

(a) nouns denoting people

E *absolvent* . P *absolwent* ('a person who absolves' : 'graduate'), E *adept* : P *adept* ('expert' : 'student, adherent'), E *applicant* : P *aplikant* ('a person who applies' : 'apprentice'), E *compositor* . P *kompozytor* ('type-setter' : 'composer'), E *expedient* . P *ekspedient* ('a means' : 'shop-assistant'), E *keeper* : P *kiper* ('guard' : 'taster'), E *lunatic* . P *lunatyk* (madman' : 'sommambulist'), E *passer* . P *pasz* ('pedestrian' : 'receiver of stolen goods'), E *pensionary* . P *pensjonariusz* ('pensioner' : 'boarder'), E *physician* : P *fizyk* ('doctor' : 'physicist'), E *pupil* : P *pupil* ('student' : 'favourite'), E *terminator* . P *terminator* ('a person bringing something to an end' : 'apprentice'), also. E *dragon* . P *dragon* ('a fabulous monster' : 'dragon')

(b) names of objects, etc.

E *barrette* : P *baretka* ('pin with a clasp' : 'medal ribbon'), E *bullion* : P

*bulion* ('gold ingots' : 'broth'), E *fabric* : P *fabryka* ('cloth', etc. : 'factory'), E *paragon* . P *paragon* ('model' : 'bill of sale'), E *paravane* : P *parawan* ('a device to destroy mines' : 'screen'). E *perron* . P *peron* ('flight of steps' : 'platform'), E *smoking* : P *smoking* ('the act of smoking tobacco' : 'tuxedo')

(c) abstract nouns

E *apellation* : P *apelacja* ('name, epithet' : 'appeal'), E *census* : P *cenzus* ('official count of people' : 'qualifications'), E *conduct* . P *kondukt* ('behaviour' : 'funeral procession'), E *direction* : P *dyrkcja* ('guidance, the course taken by the moving body' : 'a body of directors'), E *eviction* . P *ewikcja* ('expulsion' : 'guarantee'), E *habilitation* : P *habilitacja* ('the furnishing of money to work a mine' : 'post-doctoral examination'), E *lecture* . P *lektura* ('speech' : 'reading list'), E *legitimation* : P *legitymacja* ('making lawful' : 'ID card'), E *ordination* . P *ordynacja* ('admitting a person to the ministry of church' : 'electoral law'), E *provision* . P *pro wizja* ('a statement making a provision, 'supply' : 'percentage'), E *raid* : P *rajd* ('attack' : 'rally'), E *rumour* . P *rumor* ('gossip' : 'rumble'); also E *credence* : P *kredens* ('belief' : 'sideboard'), E *traffic* : P *trafika* ('people and cars, trade' : 'tobacco-shop')

3.5 Parts of speech other than nouns are more rarely involved in this kind of interference. When they are, serious complications may arise especially when adjectives (a) and adverbs (c) are rendered.

(a) E *azure* : P *azurowy* ('clear blue' : 'transparent'), E *consumptive* : P *konsumpcyjny* ('of TB' : 'consumable'), E *discrete* : P *dyskretny* ('distinct' : 'discreet'), E *feral* : P *feralny* ('wild' : 'ill-fated'; the E/P pair is etymologically unrelated), E *genial* . P *genialny* ('cheery' : 'of genius'), E *principal* : P *pryncypialny* ('most important' : 'of principle')

(b) E *compromise* . P *kompromitować* ('settle' : 'discredit'), E *legitimate* . P *legitymować* ('declare lawful' : 'check up'), E *novelize* . P *nowelizować* ('put in the form of the novel' : 'amend'), E *postpone* . P *postponować* ('delay' : 'treat slightly'), E *require* : P *rekwirować* ('need' : 'requisition'), E *reflect* : P *reflektować* ('think, throw back light' : 'be inclined, bring somebody to reason')

(c) E *actually* : P *aktualnie* ('in fact' : 'at the moment'), E *eventually* : P *ewentualnie* ('finally' : 'possibly')

Both adverbs are derived from the adjectives E *actual*, *eventual* which are in partial semantic correlation with P *aktualny*, *ewentualny*.

3.6 On the whole advanced learners of English translating the above words from E to P are not often exposed to the danger of the interference since the differences of meaning in such pairs are considerable. The translation from P to E often results in the use of a deceptive counterpart and such lexical errors are found even in the speech of the bilinguals. Mistakes are usually found in those pairs which show some semantic affinity.

(i) abstract nouns

(a) E *accord* : P *akord* ('agreement' : 'chord, piece-work'), E *acquisition* . P

*akwizycja* ('acquiring': 'soliciting people'), E *advance*. P *awans* ('moving forward': 'promotion'), but cf. E *social advance*: P *awans społeczny* with no contrast, E *affair*: P *afera* ('a particular action': 'swindle'), E *aliment*. P *aliment(y)* ('support, food': 'alimony'), E *alimentation*. P *alimentacja* ('nourishment': 'obligation to pay alimony'), E *apparition*: P *aparycja* ('the act of appearing, ghost': 'looks'), E *assignment*. P *asygnacja* ('the legal transfer of property': 'transfer of funds'), E *audition*: P *audycja* ('the act of hearing': 'broadcast'), E *characterization*: P *charakteryzacja* ('the way the actor presents the personality in the play, description of features', etc.: 'make-up'), E *compilation*: P *kompilacja* ('the act of compiling': 'patchwork'), E *concept*: P *koncept* ('idea': 'bright idea'), E *concourse*: P *konkurs* ('a running, crowd': 'competition'), E *concurrence*: P *konkurencja* ('a happening at the same time': 'rivalry, event'), E *conspiration*: P *konspiracja* ('joint action': 'conspiracy'), E *devotion*: P *dewocja* ('loyalty, earnestness in religion': 'bigotry'), E *emotion*: P *emocja* ('a strong feeling': 'excitement'), E *evidence*. P *ewidencja* 'whatever makes clear the truth': 'record'), E *fatigue*. P *fatyga* ('weariness': 'trouble'), E *gratification*. P *gratyfikacja* ('a gratifying': 'extra-pay'), E *instruction*: P *instrukcja* ('teaching': 'instructions'), E *melioration*. P *melioracja* ('improvement': 'drainage'), E *precedence*: P *precedens* ('the act of preceding': 'precedent'), E *recension*: P *recenzja* ('the revision of a text': 'a review'), E *reclamation*: P *reklamacja* ('protest': 'complaint'), E *recollections*: P *rekolekcje* ('memories': 'retreat'), E *routine*. P *rutyna* ('a fixed method of doing sth': 'competence, experience'), E *sympathy*. P *sympatia* ('a sharing of another's sorrow': 'liking'), E *vagary*: P *wagary* ('caprice': 'truancy')

(b) E *pietism*: P *pietyzm* ('deep piety': 'veneration, piety'), E *quota*: P *kwota* ('the share of a total due': 'sum')

The semantic fields of E and P words are distinctly different in both groups. But the most significant fact observed here is that the meanings of the P words are much narrower than those of their E partners. The meanings of the latter are mostly generalizations of the semantic element contained in the P words. Typical pairs of this type are, for instance, E *concept*: P *koncept*, E *affair*: P *afera*, E *melioration*: P *melioracja*, E *reclamation*: P *reklamacja* as well as some others, although in a few cases this relation is vague (E *evidence*: P *ewidencja*, or E *vagary*: P *wagary*, etc.). There are only a few examples of the reverse semantic relation (cf. b).

When the degree of abstraction is different in the particular elements of the pair, the P noun frequently denotes a concrete object, while the corresponding deceptive partner represents a more abstract notion:

E *agenda*: P *agenda* ('things to be done, a list of them': 'memo book, branch'), E *ambulatory*: P *ambulatorium* ('a covered place for walking': 'poly-clinic'), E *prospect*: P *prospekt* ('expectation': 'folder')

But the reverse relation can be exemplified by:

E *codex* : P *kodeks* ('a MS volume' : 'code')

Other less abstract words usually exhibit the same relations in their semantic content:

E *collation* . P *kolacja* ('a light meal, careful comparison' : 'supper'), E *fraction* . P *frakcja* ('a part of a whole number' : 'faction'), E *sentence* : P *sentencja* ('a group of words' : 'maxim')

A few nouns in the pairs have parallel, though irreplaceable meanings.

E *novel* : P *nowela* ('a long story' : 'a short story'), E *pension* : P *pensja* ('a regular payment of money which is not wages' : 'wages'), E *stipend* : P *stypendium* ('a fixed pay of a clergyman' : 'fellowship')

Nouns denoting people also show the contrast general (E) ~ particular (P), cf..

E *active* . P *aktyw* ('a person or thing that is active' : 'active members of some organization'), E *activist* . P *aktywista* ('a person who supports activism' : 'politically active party member'), E *amazon* . P *amazonka* ('a tall strong woman' : 'horse-woman'), E *creature* : P *kreatura* ('a person under the influence of another', etc. : 'contemptible person'), E *literate* . P *literat* ('an educated person' : 'man of letters'), E *occupant* . P *okupant* ('a person who occupies' : 'invader')

Only in a few pairs nouns have parallel meanings:

E *dilettante* : P *dyletant* ('a lover of fine arts, following some art as an amusement' : 'amateur', used pejoratively), E *novelist* . P *nowelista* ('a writer of novels' : 'short-story writer')

No generalization of this kind can be made when the nouns in a pair denote objects. Here, all the three types, i.e. (a) the semantic dominance of the E word, (b) of the P word, and (c) the parallel meaning, can be distinguished:

(a) E *baton* . P *baton* ('a stick' : 'a stick of chocolate'), E *caravan* : P *karawan* ('a closed truck, trailer' : 'hearse'), E *dress* : P *dres* ('an outer covering' : 'track suit'), E *exemplar* . P *egzemplarz* ('model' : 'a copy'), E *garniture* . P *garnitur* ('decoration' : 'suit'), E *pendent* . P *pendent* ('a hanging ornament' : 'shoulder-belt'), E *tobacco* : P *tabaka* ('prepared leaves' : 'snuff'), E *wagon* : P *wagon* ('a four-wheeled vehicle' : 'railway-car')

(b) E *carbine* : P *karabin* ('a short light rifle' : 'rifle'), E *conserves* : P *konserva* ('jam' : 'canned food'), E *destructor* . P *destruktor* ('a furnace for burning the refuse' : 'destroyer'), E *gazette* . P *gazeta* ('an official government journal' : 'newspaper')

(c) E *adapter* . P *adapter* ('device for fitting together parts of different size', etc. : 'pick-up, reproducer'), E *binocle* . P *binokle* ('telescope, opera-glasses', etc. : 'pince-nez'), E *canister* : P *kanister* ('a small can for tea' : 'petrol-can'), E *cymbal* . P *cymbal* ('one of the pair of concave plates' : 'dulcimer'), E *parapet* : P *parapet* ('a low wall, barrier' : 'window-sill')

In the group of adjectives it is again the E word which is usually more general, as seen in the following pairs:

E *consequent* : P *konsekwentny* ('resulting' : 'consistent'), E *demonstrative* : P *demonstracyjny* ('showing clearly' : 'ostentatious'), E *fractional* : P *frakcyjny* ('forming a fraction, very small' : 'factional'), E *notorious* : P *notoryczny* ('ill-famed' : 'repeating bad deeds'), E *obscure* : P *obskurny* ('not well known' : 'shabby'), E *ordinary* : P *ordynerny* ('usual' : 'vulgar'), E *sympathetic* : P *sympatyczny* ('showing kind feelings' : 'attractive'), but cf. the correlative pair E *sympathetic ink* : P *atrament sympatyczny*.

The units in the pair E *communicative* : P *komunikatywny* ('talkative' : 'clear') have parallel meanings.

In the pairs of verbs the meaning of the E word is more general, cf.:

E *colligate* : P *koligować* ('connect' : 'connect by marriage'), E *concur* : P *konkurrować* ('come together' : 'rival, compete'), E *control* : P *kontrować* ('have power or authority' : 'check up'), E *defraud* : P *defraudować* ('cheat' : 'embezzle'), E *meliorate* : P *meliorować* ('improve' : 'drain land'), E *refer* : P *referować* ('direct attention' : 'report')

3.7 Summing up, when contrast is involved, deceptive words used by a learner of English to translate a P word almost always disturb the communication, though the degree of interference is not the same in various groups. Occasionally in the translation from E to P a deceptive word employed by a student may convey the meaning not very distant from that he wants to arrive at, cf. *the activists' meeting*, *the amazon was riding a horse*, *to meliorate land*, etc. On the other hand some such phrases or sentences are semantically unacceptable or improbable at least, cf. *\*the compositor himself directed the orchestra*, or *\*this prospect has been printed here*, etc.

The conclusion is that the use of deceptive words need not lead to a complete misunderstanding even in two-directional translation. However, some amount of semantic affinity in the pair is always necessary for the correctness of such a translation.

#### 4. OVERLAPPING

4.1 The deceptive pairs in which the meanings overlap can also cause serious confusion in the translation. From the fact that such pairs have one meaning in common the learner of English may draw a wrong conclusion that the total overlapping exists.

It seems that the degree of the overlapping is not indifferent for the plausibility of making a faulty translation. If an ambiguous word shares two or three of its meanings with its partner it may really begin to be interpreted as a perfect semantic replica of the latter in the remaining spheres of the semantic content. Contrarywise, the danger of such a false translation is less probable



when the identity is obvious in one of the meanings only, while the remaining areas do not overlap.

Typical cases are those represented by the following pairs:

**E** *anonym* : **P** *anonim* which overlap in 'a person whose name is unknown', but do not share the meanings 'a fictitious name' (**E**) and 'anonymous letter' (**P**).

**E** *aura* : **P** *aura*, both 'something supposed to come from a person and surrounding him', but in addition 'emanation' (**E**), 'weather' (**P**).

**E** *operator* : **P** *operator*, both 'a man who operates', but other meanings do not correlate, e. g. 'a man operating a telephone' (**E**), 'camera-man' (**P**).

**E** *positive* . **P** *pozytywny*, both 'definite', but also 'sure' (**E**), 'favourable' (**P**).

**E** *rent* : **P** *renta*, both 'what is paid for the use of natural resources', but 'a regular payment for the use of property' (**E**), 'pension' (**P**).

**E** *revision* : **P** *rewizja*, both 'revising', but also 'a review of work' (**E**), 'search' (**P**).

**E** *séance* : **P** *seans*, both 'a meeting to communicate with spirits', but also 'the session of a learned society' (**E**), 'performance, show' (**P**)

More meanings overlap in the pairs below:

**E** *cadence* : **P** *kadencja*, both 'falling of the voice, final part in music', but also 'rhythm' (**E**), 'term of office'; 'cadenza' or 'solo performance' (**P**).

**E** *mandate* . **P** *mandat*, both 'the will of voters', 'a commission to administer the territory', but also 'command' (**E**), 'a fine' (**P**), etc.

## 5. INCLUSION

5.1 Of the two types of inclusion (cf. 1.1) more important for the translator from **P** to **E** is that in which the semantic range is wider in the **E** word than in its **E** counterpart. The reason for that will be obvious when we take into account the semantic relation which, for instance, is found in the pair **E** *fiction* : **P** *fikcja*. Although the **E** noun has an extra meaning 'novels and short stories', this is quite irrelevant for the translator who practically always employs the **E** formal replica to render the common part of the meaning. Such pairs are deceptive only for the speaker of **E** who will have to look for another **P** word (here **P** *beletrystyka*) to make a correct translation. This type has a very rich representation in the lexicons of both languages and it can be illustrated by the pairs **E** *address* : **P** *adresować*, where **P** does not mean 'to deliver a speech' or 'to speak directly to', or **E** *record* : **P** *rekord* where the meanings of the **E** word 'anything written' and 'disc' are not shared by the **P** partner.

5.2 Those words in which the semantic field of the P lexical unit is wider than that of its E counterpart are the source of faulty translations from P to E. This takes place when the P extra sememe is thought to be the property of the E word. Typical examples for this type of correlation may be the following:

E *academy* : P *akademia* 'a place for instruction, etc.,' but also 'celebration' (P) which is not part of the E meaning complex; AE *central* : P *centrala* 'telephone exchange', but E is not 'head office', E *dolphin* : P *delfin* 'sea mammal', but also 'dauphin' (P), E *gastronomy* : P *gastronomia* 'the art of good cooking', but in P also 'the catering business', E *parasol* : P *parasol*, both 'sunshade', but P has the semantic range of 'umbrella', E *ramp* : P *rampa* 'a stepping way connecting two different levels', but E does not include 'footlights', E *urn* : P *urna* 'hollow vessel to hold ashes', but P also denotes 'ballot box', and many other analogical cases.

#### 6. THE TABLE

The table shows the possibilities of semantic interference in deceptive words, i.e. grapho-phonemically related pairs with different degrees of semantic similarity. Pluses denote the presence, minuses denote the absence of the interference:

Type	Examples	Direction	Interference
Contrast	E <i>lecturo</i>	E → P	+
	P <i>lektura</i>	P → E	+
Overlapping	E <i>platform</i>	E → P	+
	P <i>platforma</i>	P → E	+
Inclusion	(a) E <i>fiction</i>	E → P	+
	P <i>fikcija</i>	P → E	-
	(b) E <i>protocol</i>	E → P	-
	P <i>protokól</i>	P → E	+

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## SOME ASPECTS OF STYLE IN THE SOURCE AND THE TARGET LANGUAGE

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### 1. INTRODUCTION AND AIMS

One obvious point of difference between performance in the native language (source language) and the language being learned (target language) is the greater quantity of errors in the target language. There are other more subtle differences between the learner's performance in the target language and that of a native speaker of that language. They can be described as differences in style. Can we explain these differences contrastively, by saying that typical stylistic features of Swedish are present in the student's attempt at the target language, or are they due to gaps in the knowledge of the learner, which he fills with whatever means he has at his disposal? In that case they are basically due to under-representation of constructions which the learner finds difficult (Levenston 1971:115 ff.).

An attempt is made in this investigation to see how much or how little the style of a writer varies in written work in the source and the target language. Two fields have been examined in particular:

- a) Lexis.
- b) Sentence Connection.

There is an attempt to answer the following questions:

- 1) Does the student who has a limited vocabulary in Swedish also have a limited vocabulary in English, measured in terms of lexical density?
- 2) Do the means used for sentence connection vary in the two languages as used by these students?
- 3) How do the means of sentence connection used affect the evaluator of the written work?

- 4) Is there a correlation between the ability to write well in Swedish and in English, or more correctly between the evaluation given to the same student's work in Swedish and in English?

## 2. MATERIAL AND METHODS

### 2.1. MATERIAL

The material investigated is Swedish students' free production in Swedish and in English, written by pupils in their second year at high school. They are, on average, seventeen years of age. English is introduced into the school curriculum at an early stage in Sweden. These pupils are now in their eighth year of English studies, having started in their fourth year of compulsory school. At present pupils start English in their third year of compulsory school, at the age of nine. This means that a relatively high standard has been reached by the pupils examined here.

The essays in both languages were written at official examinations. They were limited by time and not to any specific number of words. Twenty-five essays were obtained in each of the two languages.

The subjects given were as follows:

Swedish: *My childhood school.*

*Young people and their spare-time.*

English: *The view from my window.*

*A journey I should like to make.*

*A prominent statesman of our time.*

*A film I enjoyed.*

There should ideally have been no choice of subject, as variations in style can be due to variations in the subject matter. For the purposes of this investigation, however, the subjects are similar enough to be acceptable.

### 2.2 METHODS

#### 2.2.1. Lexical Density

The method used to measure the vocabulary of the students is that of counting the lexical density of the texts. Lexical density (LD) is a term which describes the percentage of lexical words in the total number of words in any given text either written or spoken. The total number of orthographic words and the total number of lexical words are put into relation to each other to establish lexical density:

$$\frac{LW}{OW} \times \frac{100}{1} = LD$$

In this investigation, the basis for the distinction between lexical and function words is the discussion in Quirk et al (1972:44 - 47) on closed-system and open-class items. Nouns, adjectives and verbs, apart from auxiliaries, have been counted as lexical words. Verbs with a double function such as BE and HAVE have been included in the count when they appear in their lexical function. Adverbs such as EASILY, ending in -ly and corresponding to adjectives, have also been regarded as lexical words. One lexical item such as TURN UP is regarded as two words, TURN a lexical word and UP a function word. Contracted forms such as HAVEN'T and hyphenated forms such as BABY-SITTER are regarded as one word.

There are several investigations of LD in English. The important factor for determining the density of a text appears to be the presence or absence of feedback, that is, interruptions of any kind in the form of questions, comments or gestures which cause the speaker or writer to adjust their language. All texts with an LD of 36% or under have feedback. This includes the vast majority of spoken English and written texts of the type "Problem Page" in magazines, where readers' questions are answered. Other written texts have an LD of 40% or more (Ur. 1971:445 - 449).

A small scale investigation of Swedish university students' written work showed that they had a lower LD than native speakers writing on the same subject (Linnarud 1975:12ff).

This difference was shown to be due to various inter-related factors. Non-native speakers use fewer nouns due to shortcomings in their vocabulary. They also write shorter sentences with a resultant increase in the number of auxiliary verbs used. Their lack of vocabulary also gives rise to the addition of words and phrases which a native speaker might well prune, such as the use of NOT IMPORTANT instead of UNIMPORTANT. This is in no way an error but can account for stylistic differences between the native and the non-native writer (Arabski 1975).

The phenomenon of LD has not been investigated in this way in Swedish and we have therefore no idea of what to expect as a normal LD for the type of written work investigated here. The fact that the definite article is incorporated with the noun in Swedish gives rise to an inherent difference between the two languages. We can compare the following two sentences.

	Orthographic Words	Lexical Words	LD
SWEDISH: "Ge mig boken" sade mannen.	5	4	80%
ENGLISH: "Give me the book", said the man.	7	4	57.1%

Both sentences express exactly the same thought but have completely different values for LD. It is also clear that results in Polish and other inflected languages

with their wealth of cases would bear very little similarity to the results obtained in English.

The results of the LD counts in the two languages can therefore not be compared. What can be compared is the student's LD in each language compared to the average for the whole class.

### 2.2!2. Sentence Connection

Eight of the students were chosen for more detailed investigation. Their essays were examined from the point of view of sentence connection and type and quantity of error.

The means of sentence connection have been classified according to the GCE (Quirk et al 1972:649ff).

a) Implications in the Semantic Content.

b) Lexical Equivalence.

c) Syntactic Devices. (In detail in Table 3).

These factors can all interact to give unity to a text. Implications in the semantic content are not discussed further here.

The reason for choosing sentence connection for special study is the oft-heard comment among native speakers of English teaching in Sweden, that Swedes are all right at putting a sentence together, but fall down badly in connected discourse. If this is true, it could be due to the lack of creativity in written form in language teaching. Most pupils spend a major part of their time filling in missing words in already completed sentences, and therefore get a fairly good grasp of how to construct the bits of a jig-saw puzzle, but almost none of how to fit them together. Even more unfortunately, they have very little idea of how to convey in English something they really want to say in contrast to what the teacher wants them to say.

## 3. RESULTS

### 3.1. RESULTS OF THE LD COUNT

The only assumptions made in advance about the expected LDs in this study, was that the essays in English would have had an LD of 40% or over, with a few between 36% and 40%, if they had been written by native speakers. The expected results for Swedes writing in English would be somewhat lower.

The actual results show that nine of twenty-five had an LD under 40%, but of these five had over 39%. Only two had below 36%. The results given for university students are from the investigation by the present author (Linnarud 1975:14). If we accept the figures for LD as a meas-

Table 1

Language	Lowest	Highest	Average LD
Swedish	36.69%	52.10%	43.48%
English	25.33%	51.48%	41.81%
University students in English	30.40%	46.96%	39.33%

ure of how near the writer has come to the standard of a native speaker, the fact that university students have a lower standard than school pupils may seem surprising. One explanation may be that the particular students investigated were not representative. Another may be found in the present employment situation in Sweden, which is such that language studies at university level are not a very attractive field for the more ambitious students. There are large numbers of unemployed language teachers as it is. The standard of proficiency may well be higher on average among the pupils of the second and third year at high school than among university students of English starting their first term. A look at the results on the whole shows that the figures for Swedish and English are strikingly similar, although the score for Swedish is somewhat higher than that for English.

A closer look at individual performances shows that in eight of the twenty-five cases the LDs in Swedish and in English lie within decimal points of each other. Of the remaining seventeen, thirteen had a higher figure in English than in Swedish.

It is of greater interest to compare the individual student's performance with the average result in both languages as a more realistic measure of their comparative ability in each.

Table 2

	English above average	English below average	Total
Swedish above average	7	3	10
Swedish below average	3	9	12
Total	10	12	22

The remaining three of the twenty-five were within decimal points of the average in both languages. This means that nineteen of the twenty five kept on the same side of the average line in both the source and the target language. The answer to the first question posed in the introduction, "Does a student with a limited vocabulary in Swedish also have a limited vocabulary in English, measured in terms of lexical density?", must be as follows:



This and the converse appear to be true of the students in this investigation.

It is of course exceedingly presumptuous to assume that LD measures all aspects of the students' lexis. This is obviously not the case. Other important aspects are:

1) The measure of lexical variety known as the type/token ratio (Kučera and Francis 1970:356) or lexical variation (LV) (Linnarud 1975:8). These counts measure the variation in the vocabulary used by the writer and may well be a more important factor in influencing the evaluator favourably than LD. A high LD may be achieved with a large amount of repetition of a small vocabulary.

2) The degree of appropriateness and difficulty of the vocabulary used. This is to a certain extent the explanation of a high count in lexical variation. A grasp of words of above average difficulty allows a greater variation of vocabulary.

Another point which has been raised in discussion is, "Does LD decrease in proportion to the length of the text?" There seems to be no logical reason why it should and there is no evidence in these fifty essays that it does. On the contrary it varies freely throughout each text and is totally independent of length.

### 3.2. RESULTS OF THE INVESTIGATION OF SENTENCE CONNECTION

The most frequently used method was by lexical equivalence, where the connecting link between sentences was either a repetition of a lexical word from the previous sentence or the use of a synonym or hyponym for that word. Next in frequency was substitution by pro-forms, where a pro-form such as HE was substituted for a noun in the previous sentence. Of syntactic devices, the most frequently used were logical connectors, but of them certain sub-sections such as reformulation or replacement were not used at all. The most frequently used logical connector was BUT and its equivalent in Swedish. Sentences beginning with AND or BUT are often regarded as unacceptable in prescriptive teaching but are to be found in written English, and have been regarded as acceptable here. For details of the students' use of sentence connectors see Table 3.

The question, "Do the means of sentence connection vary in the two languages as used by these students?", can be answered as follows. The essays in Swedish were shorter than those in English. The figures can therefore not be compared directly. However, the students showed a similarity in their patterns of sentence connection in both languages. Those who used logical connectors in the source language also used them in the target language.

Table 3

	A	B	C	D	E	F	G	H
	S En	S En	S En	S En	S En	S En	S En	S En
<i>Lexical equivalence</i>	++	++	++	++	++	++	++	-+
<i>Time relaters</i>	++	++		+-		++	+-	++
<i>Place relaters</i>	-+	-+	-+			-+	-+	+-
<i>Logical connectors</i>								
and	-+	--	-+				-+	
but	--	-+	++	++		++	++	++
enumeration	++	+-			-+	-+	++	
addition	-+	+-				-+		
summation	++				+-		-+	
apposition		-+						
result	-+	-+	+-					
inference		+-	++				+-	
or								
reformulation								
replacement								
contrast	+-			+-	++	+-	+-	
concession	-+	-+	-+			-+		
for								
<i>Substitution pro-for us</i>								
noun phrases/adverbials	++	++	++	+-		-+	++	++
predicate								
<i>Discourse reference</i>								
sentence/clause	++	++	-+	-+	++	++	+-	++
noun phrase								
<i>Comparison</i>								
<i>Ellipsis</i>								
dialogue								
same speaker	-+	+-			+-			+-
<i>Structural parallelism</i>								-+

A-H = 8 students

S = Swedish

En = English.

The question "How do the means of sentence connection used affect the evaluator of the written work?", can be answered as follows. Only one of the students, four in all, given the mark 4, judged by a 5 point scale (that is, judged good) did not have a high rate of usage of logical connectors. Her method was primarily by means of lexical equivalents and she used a large and varied vocabulary. The students who had the highest number of logical connec-

ters had also the greatest variety in their means of sentence connection due to obvious reasons. This variety would appear to impress the evaluator favourably. The four essays judged to be good are B, D, F and G in Table 3.

### 3.3 CORRELATION BETWEEN THE EVALUATION OF THE STUDENTS' WORK IN SWEDISH AND IN ENGLISH

The marks given for the work in Swedish were not for the essay alone. The examination included a summary and the evaluation is given for the two together. According to the evaluator the mark given for the essay alone would be identical with the mark for the two together, in all but one case, where a poor summary had brought down the mark well below the student's usual level. This is the case where the marks given in Swedish and in English differ most: 2 in Swedish and 4 in English.

Table 4

Same in Swedish and in English	
Mark 4	3
Mark 3	6
Mark 2	3
Total	12
Higher in Swedish than in English	
Marks 4 and 3	3
Marks 3 and 2	4
Marks 2 and 1	2
Total	9
Higher in English than in Swedish	
Marks 4 and 5	1
Marks 3 and 4	1
Marks 2 and 3	1
Marks 2 and 4	1
Total	4

This would seem to suggest that the result in Swedish is the basic one. Very few pupils achieve a better result in English than in Swedish, in fact only four out of twenty-five.

The correlation between students' performance in the source and the target language was investigated in Gothenburg, where the conclusion was reached that those who achieved poor results in their native language also achieved poor results in the target language. It was also evident that the source language interfered with the target language to a greater extent for pupils who had a poor performance in the source language (Stendahl 1972: 117 - 123).

The fourth and final question from the introduction, "Is there a correlation between the ability to write well in Swedish and in English, or more correctly between the evaluation given to the same student's work in Swedish and in English?", can be answered in the affirmative. In only one case was there a difference of more than one mark between the evaluations in the two languages, and that case has already been pointed out as being of doubtful value for this investigation. The conclusion must be that all who write well in Swedish do not necessarily write well in English, but nearly all who write well in English also write well in Swedish.

#### 4. CONCLUSIONS

Deficiencies in the source language are mirrored in the target language. A below average LD in Swedish is usually accompanied by a below average LD in English, suggesting that a limited vocabulary in Swedish is usually accompanied by a limited vocabulary in English.

As far as sentence connection is concerned, much needs to be done to emphasise its importance for advanced learners. Particularly the use of logical connectors should be given greater attention in teaching, as they appear to be of importance in influencing the reader to judge the text favourably. A good variety in means of sentence connection gives an impression of fluency usually found in the native speaker but all too seldom in the foreign learner. We must challenge the fact that all those years of English studies simply mean a chance to go through the rules for the simple as opposed to the progressive or the use of DO in questions and negation etc. every year in the same way for nine years instead of for six or seven. The students are most certainly capable of responding to increased demands for creativity.

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## TAGS IN ENGLISH AND EQUIVALENT CONSTRUCTIONS IN POLISH

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This paper is divided into two sections. In the first section we shall review some of the approaches toward the analysis of tagged sentences in English. The second section will be devoted to the postulation of the performative analysis of tagged sentences as best suited for the analysis of these sentences in English and Polish. For reasons of clarity some terminological problems will be dealt with at the outset of the first section.

The term TAG has been used in the literature, both theoretical and pedagogical, to refer to several constructions frequently found in Spoken English. Consider the following sentences;

1. *John did it, didn't he?*
- A 2. *John didn't do it, did he?*
3. *John did it, did he?*
4. *John didn't do it, didn't he?*
5. *Do it now, will you?*
- B 6. *Do it now, won't you?*
7. *Don't do it, will you?*
8. *Pass me the hammer, would you?*
- C 9. *What a nice girl she is, isn't she?*<sup>1</sup>

---

<sup>1</sup> The question mark at the end of each sentence in (1 - 9) should not be taken to mean that they are all questions. In fact, different authors seem to have different feelings about the question mark in tagged sentences, we shall not decide the matter here. One may notice in passing that the selection of the proper question mark should be related to the type of intonation employed, which, in turn, is related to some deeper factors, e.g., semantic interpretation.

It is generally agreed that the surface structures of (1 - 9) contain two constituents and that the constituent which proceeds the comma belongs to the category Sentence. The second constituent is most often referred to as Tag.<sup>2</sup>

However, the interpretation of the whole construction in question is far from being clear and uniform. This is reflected in the various names given to sentences (1 - 9) representing here three types of the construction under investigation. Thus, A-type sentences are often called Interrogative Tags or Question Tags, B-type sentences are called Imperative Tags, and C-type sentences are called Exclamatory Tags.<sup>3</sup> In some approaches, though, A-type is christened Tagged Declarative (Hudson 1975), and B-type Tagged Imperative (Stoekwell et al. 1973).

Also controversial is the evaluation of the discursive function of sentences like those in (1 - 9). A-type sentences are usually referred to as questions but B-type sentences have different interpretations, e.g. 'urging' for (7), 'command' for (5) and (6), or 'request' for (8). C-type sentences have been referred to as exclamations (cf. McCawley, N. (1973), also Leech and Svartvik (1975)).

Undoubtedly, these linguists who propose terms ending in -ive (interrogative, imperative, etc.) pay more attention to syntactic properties of the forms in question, whereas these who propose terms like 'question' or 'request', etc., are more interested in the function these forms perform in discourse.<sup>4</sup> Being of an opinion that form and function must be kept apart in linguistic analysis we propose the following terminology, Declarative, Imperative, and Exclamatory will be used to refer to the mood of the first constituent of the construction under investigation, and the term Tag will be preserved for the

<sup>2</sup> Huddleston (1970) says that the relation between the two constituents is that of parataxis. For an extensive and revealing discussion of paratactic constructions see Polański (1967), especially Chapters: II and III.

<sup>3</sup> Besides the above mentioned types Bolinger (1957) arrives at a different classification of tags taking into account both the word order and the intonation pattern in tags. He distinguishes five types of tags:

1. Auxiliary tags: *Find them, did he?*
2. Tentations: *He will I suppose?*
3. Imputations: *They'll attend to it later you say?*
4. Expletions: *How does he like it I wonder?*
5. Intonation tags: *Says he is sorry, eh?*

Bolinger also mentions tags which are added after a Yes/No Question, and even after a Wh Question, e.g.:

*Did he go there did he?* (Bolinger 1957:47)

*Where's the paper is it?* (Bolinger 1957:27)

The above five types, according to Bolinger (1957) cover only a part of the linguistic phenomena in English that are usually called tags, in fact, he says, there is an unlimited variety of tags. Cattell (1973, 616) also mentions tags attached to Yes/No Questions.

<sup>4</sup> Hartmann and Stork (1973) invented a term 'confirmational interrogative'.

second constituent. The conjunction of the term, e.g., Declarative Tag, Imperative Tag, etc., will refer to a very superficial characterization of the whole construction and will simply mean that a Tag has been formed on a declarative sentence, interrogative sentence, etc. Where the specific characterization of the construction is irrelevant for the discussion a neutral term 'tagged sentence' will be used.

After these preliminaries we shall now dwell on some tendencies in the analyses of tagged sentences. For reasons of space and time the presentation will be reduced to A-type sentences, i.e. Declarative Tags.<sup>5</sup>

Various analyses have been proposed for Declarative Tags in English. These analyses may be divided into two major groups, syntactic analyses and semantic analyses. We shall deal with them in order.

**Syntactic analyses.** The central problem in a syntactic analysis is how to account for the formation of Tags. In the discussions of Tags that may be found in numerous transformational treatments it is possible to distinguish two approaches; according to one of these approaches a tagged sentence is derived from an underlying simple sentence and the Tag is introduced by means of a Tag-transformation. Needless to say, there are differences among adherents of this approach as to the exact formulation of the relevant transformation but common to all of them is a simple-sentence-source for deriving tags (cf. Klima (1964); Arbin (1969); Burt (1971); Lester (1971); Thomas (1965)). In the second approach represented by Huddleston (1970), Stockwell et al. (1973), and Sadock (1971) tags are derived from an underlying compound-sentence-source. To illustrate these two approaches we shall consider proposals made by Thomas (1965) and Stockwell et al. (1973).

In Thomas (1965:188) the transformation which produces Declarative Tags (Thomas uses 'tag question') uses the same structural analysis as the regular interrogative transformation and works in four stages:

1. a duplicate tense marker is added
2. a Pro form of the same number and gender as the subject is added after the duplicate tense marker
3. 'n't' is added to the duplicate tense marker if there is no negative morpheme present in the matrix sentence
4. 'Q' is deleted

A similar formulation of the transformation in question may be found in Lester (1971:164).

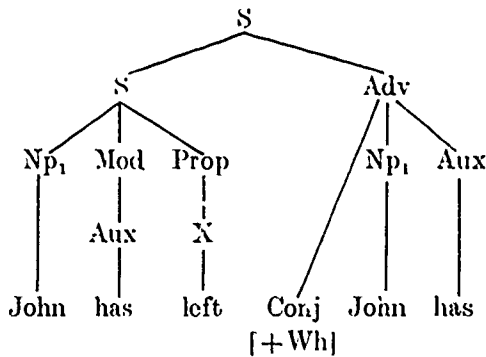
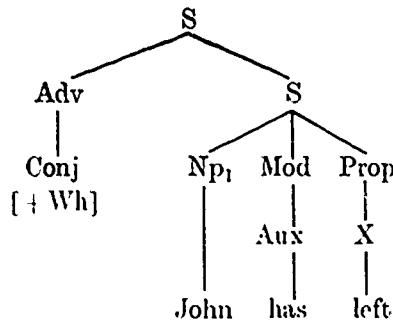
A slightly different version of the same simple-sentence-source approach is discussed in Stockwell et al. (1973:622-624). Declarative Tags are again deri-

<sup>5</sup> Other types of tagged sentences have been discussed in Klima (1964), Arbin (1969), Huddleston (1970), Stockwell et al (1973), Bolinger (1967), K 'z and Postal (1964), and Sadock (1971).



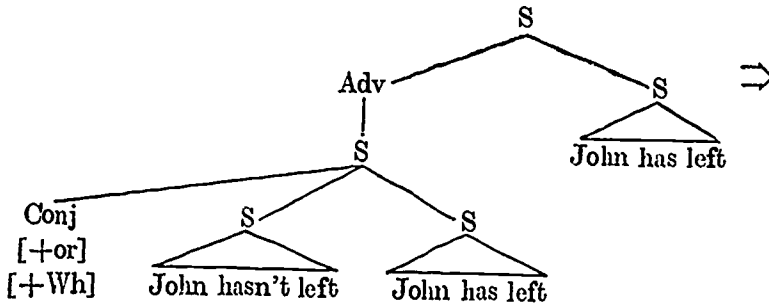
ved by means of a rule which copies the subject NP and the relevant parts of Aux after a sentence and makes the tag opposite to the main sentence with respect to negation. To avoid a situation where a separate trigger in the base is necessary to derive such sentences Stockwell et al (1973) suggested that WH should be generated as a sentence adverb. Thus, the copying rule would operate on (55a) and convert it to (55b), both examples are repeated here for convenience after Stockwell et al (1973:623).

55a.

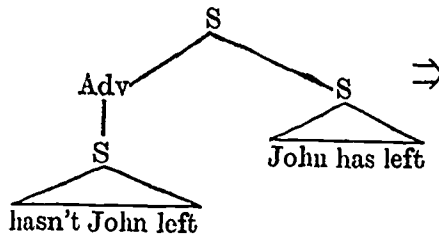


In the second approach Declarative Tags are derived from an underlying compound sentence source. According to Stockwell et al (1973:622) *John has left, hasn't he?* is derived from (54a) which is the deep structure representation of *John has left, hasn't he?*. (54b) is an intermediate structure after the application of Conjunction Spreading, WH Spreading, Conjunction Deletion, Auxiliary Fronting, WH Deletion, and Alternative Q Reduction to (54a). Then, (54b) undergoes the tag rule which moves adverb to post-position and reduces the question. The final result is represented in (54c).

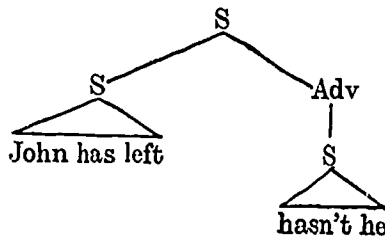
54a.



54b.



54c.



The above sketched approach is also advocated by Sadock (1971). He assumes that the surface form of tag questions mirrors a combination of both an assertive and an interrogative clause in deep structure (Sadock 1971:228). Sadock's approach is basically semantic and for this reason it will be discussed in some detail in the next section. So far we have attempted a presentation of what we think typical syntactic approaches towards the analysis of Declarative Tags within a transformational framework. It is not our purpose here to decide which of the two approaches is more adequate. arguments for and against both of the approaches may be found in the quoted literature. It suffices to say that both approaches are silent about semantic problems involved in the analysis of tagged sentences. This brings us to the second group of the analyses proposed for tagged sentences, i.e. semantic analyses.

Semantic analyses. Now the problem is not how to derive a tagged sentence transformationally but how to account for its meaning.

According to Cattell (1973) tags are used to convey the speaker's attitude towards what is expressed in the main clause (i.e. the clause on which the tag is formed. Cattell calls it a 'host clause'), and to ask whether the listener agrees with it. The analysis of sentences like (10) and (11) has led him to the conclusion that the problem of matching vs. contrastive polarity in tagged sentences (some linguists use other pairs, e.g. positive vs. negative polarity, or constant vs. reversed polarity) does not have to be related to syntactic phenomena but to a semantic nature of polarity. Thus, tag questions with contrastive polarity to their hosts represent the speaker's point of view and question tags with matching polarity do not represent the speaker's point of view. Let us now have a brief look at Cattell's analysis.

10. *The book is obscene, is it?*

11. *The book is obscene, isn't it?*

12. *Sally isn't pregnant, is she?*<sup>6</sup>

Under his analysis the point of view expressed in the host clause of (10) is not the speaker's. In (11), on the other hand, the speaker is offering his own opinion. In both cases, says Cattell, the speaker is asking the listener for agreement. Then, he argues that sentences like (12) may have three interpretations,

1. one where the host clause is the confident viewpoint of the speaker
2. one where the host clause is still the view-point of the speaker but only tentatively
3. one where the host clause is not the viewpoint of the speaker.

These differences in meaning are, according to Cattell, reflected in different intonation contours, the falling intonation contour for the first interpretation, the rising intonation contour for the second, and the rising intonation contour for the third. To explain an apparent contradiction to the effect that contrastive polarity tags express the speaker's point of view, which is not the case for the third interpretation Cattell assumes that

- a. the first and the second interpretations may be paraphrased as (13), and the third one as (14).
- b. the negative is part of the basic sentence for interpretations (1) and (2), and it is part of the question for interpretation (3).

13. *It is correct that Sally isn't pregnant, isn't it?*

14. *It isn't correct that Sally is pregnant, is it?*

There are four observations to be made about Cattell's analysis of (12). Firstly, if (13) is a paraphrase of (12) under interpretations (1) and (2), and if what Cattell calls the host clause in (12) is what he calls the underlying host

<sup>6</sup> (10), (11), (12), as well as (13) and (14) are repeated here after Cattell where they appear as (12a), (12b), (21), (36a), and (36b), respectively. In (14) which is Cattell's (36b) the phrase ... *by any chance*... has been omitted as it is irrelevant for the discussion.

clause in (13) then Cattell contradicts himself since interpretations (1) and (2) both involve contrastive polarity, which is not the case in (13). However, Cattell's proposal works for (14) because here the host clause and the tag show matching polarity and therefore the host clause does not represent the speaker's point of view. Secondly, if, however, the host clauses for (13) and (14) are *It is correct that...*, and *It isn't correct that...* respectively, then the tags show contrastive polarity to their respective host clauses both in (13) and (14). The situation reverses now; Cattell's proposal is good for (13) but not for (14). Thirdly, it seems to us that both in (13) and (14) the tag has been formed on the first clause, i.e., *It is correct...* in the case of (13) and *It isn't correct...* in the case of (14) and not on the second clause, i.e., *Sally isn't pregnant...*, and *Sally is pregnant...*, respectively for (13) and (14). If the latter was the case the subject NP which is repeated in the tag would have to be *she*. Incidentally, English allows to form tags on both clauses. Langendoen (1970:10 - 20) reports on the results of an experiment in which his students were asked to play a game he called "The Walrus and the Alligator". The aim of the game is to practice tag formation. "Walrus" says any declarative sentence he pleases and "Alligator" must respond to it by adding the appropriate tag as if he were "Walrus" himself. For our purposes it is enough to quote two examples, figures to the right of "Alligator's" responses represent the number of students who selected the given tag. The total number of students participating in the experiment was forty six.

W: *I believe that Dr Spock is innocent.*

A: *Don't I?* 36

*Isn't he?* 10

W: *Dr Spock is innocent, I believe.*

A: *Isn't he?* 38

*Don't I?* 7

*Isn't it?* 1

The above examples clearly show that native speakers of English, at least native speakers of American English, form tags on the main clause though the formation on the subordinate clause or a parenthetical expression is also possible but less frequent. Finally, Cattell's account of tagged sentences seems to reveal more about the meaning of the host clause than of the tag, let alone the whole tagged sentence. Moreover, he makes no proposals about some sort of formalism that would relate structures like (13) and (14) to surface forms, i.e., to (12). The need for such formalism has been recently pointed out by Polański (1975:13) who states that:

"Expressions may either be closely related to natural language sentences or to the formulae of mathematical logic. ... (loc cit) A much more important problem is the question of the manner of relating these structures to the surface structures. A consistent set of rules modelled on a formalised system is necessary in this field".

Another version of the semantic approach has been offered by Hudson (1975). He attempts an analysis of what he calls Tag-Questions in terms of illocutionary forces. However, by Tag-Question he means the constituent added after the comma, i.e., the tag alone. In his analysis sentences like (1) and (2) would consist of a declarative and an interrogative. The meaning of the whole sentence (in our terminology proposed above such a sentence is called a Declarative Tag) is, according to Hudson, an automatic consequence of the interaction between the meanings of the declarative and the interrogative. In other words, the illocutionary meaning of tagged declaratives is made up of the intersection of the possible illocutionary meanings of declaratives and interrogatives. Accordingly, Hudson assumes that the meaning of tags in tagged declaratives is identical with the ordinary meaning of interrogatives, whereas the meaning of declaratives in tagged declaratives is identical with the ordinary meaning of declaratives. Therefore, one of his conclusions is that there is no need for special statements in a grammar about the meaning of the whole tagged sentence. However, while discussing polar interrogatives (his term for Yes/No interrogatives) Hudson (1975:23) notices that they are different with respect to conductiveness. polar interrogatives may be non-conductive, positively-conductive, and negatively conductive. The non-conductive interpretation for tagged declaratives must be ruled out. It follows, then, that tags with matching polarity are all positively-conductive, and these with contrastive polarity are negatively-conductive. Hudson then argues that declaratives with contrastive polarity tags (for example (1) and (2) given above) can be matched functionally by simple interrogatives with negative or positive polarity, similar to that in the tag. Under this analysis (1) could be matched by (15), and (2) by (16).

15. *Didn't John do it?*

16. *Did John do it?*

On the other hand, declarative tags with matching polarity correspond to positively-conductive interrogatives, (3), and (4) would correspond to (17), and (18) respectively.

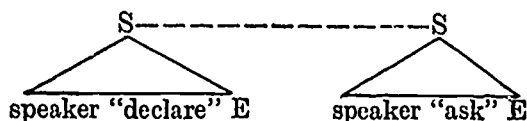
17. *Did John do it?*

18. *Didn't John do it?*

By way of commentary it may be said that Hudson's treatment of declarative tags is inconsistent, if not contradictory. As was mentioned above, he claims that the meaning of tagged declaratives is made up of the possible meanings of declarative and interrogative sentences that are members of the tagged sentence. However, it is difficult to imagine how one can state something in the declarative (which is characteristic of declaratives) and then express ignorance on the very same thing in the interrogative (which is characteristic of interrogatives). This has been pointed out by Sadock (1971:228) who claims

that (19) is ill-formed if it is to represent an underlying structure for tagged sentences.

19.



where "E" stands for a proposition.

Hudson's treatment of the functional relationship holding between interrogatives and tagged declaratives must also be rejected because it simply does not work.

If instead of the expression 'matches functionally' we use a mark of equality "=" we obtain the following pairs of sentences that match functionally under Hudson's analysis.

A. 1=15            B. 3=17  
       2=16            4=18

But notice that (15) is identical with (18), and (16) is identical with (17); in fact, they are the same sentences. Therefore, we can postulate C employing "=" to stand for identical sentences as well.

C. 15=18  
       16=17

It is easy to notice that if (1) is matched functionally by (15) and (15) is identical with (18) then (1) is also matched by (18). Then, since (18) matches functionally with (4) it follows that (4) matches functionally with (1) as well. The same reasoning may be applied to (2) and (3). Thus we arrive at D.

D. 1=4  
       2=3

It seems to us that D is false because it is very unusual if possible at all for (1), i.e., *John did it, didn't he?* to match functionally with (4), i.e., *John didn't do it, didn't he?*

In connection with Hudson (1975) it may be added that he is unclear about the intersection of the possible illocutionary meanings of declaratives and interrogatives and that his understanding of 'illocutionary meaning' is closer to Cohen's (1971) idea of 'illocutionary meaning' than to Austin's (1962) 'illocutionary force'.

As we have seen the semantic analyses of Declarative Tags that were sketched above, as well as the syntactic analyses, all suffer from various inconsistencies and/or misinterpretations. In the above presented approaches the pro-

blems of intonation in tagged sentences are very often reduced to marginal observations. A more extensive study of intonation patterns in tagged sentences in English and their relation to syntactic/semantic features of the tagged sentence, which contain these patterns may be found in Bolinger (1957), Sinclair (1971), Quirk et al (1971), and Cygan (1973). However, the authors of papers dealt with above should not be blamed for neglecting intonation in tagged sentences since their attention was concentrated on syntactic/semantic consideration. For similar reasons we shall have nothing more to say about intonation in tagged sentences here.

We have reviewed above what we think to be main tendencies in the analysis of Declarative Tags in English. It is time now to turn to Polish. However, there is a serious problem here. According to a common belief there are no Tags in Polish, and, indeed, the syntactic interpretations for Tags in English presented in the previous section would result in ungrammatical sentences if applied to Polish. For example, (20) and (21) as counterparts of (1) and (2) respectively, in Polish, are all ungrammatical.

20. \**Jan to zrobił, a. (czy) nie on?*  
       b. *(czy) nie zrobił on?*  
 21. \**Jan tego nie zrobił, a. czy on?*  
       b. *(czy) zrobił on?*

The semantic interpretations dealt with above are not helpful, either. What is more, the above presented approaches do not even allow for the identification of the proper equivalents of English tagged sentences in Polish. If pressed by this contention we assume that Tags are absent from Polish we may be happy as linguists but we are faced with an uneasy situation as teachers of English. We simply have to answer the following questions, What do we do, as speakers of Polish, in situations and/or contexts where the English use a Tag? And next, How are we to teach these English forms successfully to Polish learners? There is also another aspect of this situation; how to translate English Tags into Polish. Undoubtedly, answers to these questions would have some pedagogical validity. They would also bear on some theoretical issues relevant to the contrastive analysis. As to the latter, it has been pointed out by R. Lakoff (1972) that we should not be discouraged by superficial differences among languages. She argues, for example, that Tags in English formed on declaratives are intermediate between a statement and a question. The effect of a tag is to soften the declaration from an expression of certainty, demanding belief, to an expression of likelihood, merely requesting it. Lakoff, then, points out that the same distinction may be made in Japanese, though with different syntactic means.

It is, therefore, possible that similar effects may be achieved in different languages with different means. One language may employ syntactic processes to realize some effects and another language may employ morphological

processes to achieve the same or at least similar effects.<sup>7</sup> The important thing is to have a linguistic theory that would make it possible to account for such differences in a systematic way.

We have seen above that the presented proposals to analyse English tagged sentences cannot be applied to Polish because they do not constitute a reliable 'tertium comparationis'. What we need is a linguistic theory that would allow us to analyse functions some elements of a language perform in linguistic communication.

It will be assumed here that the theory of speech acts might be a good candidate. The validity of this theory to linguistic research has been argued for quite convincingly by a number of linguists; we shall not repeat these arguments here. It seems that this theory has more to offer with respect to the analysis of tagged sentences than the approaches reviewed above.

Stemming from the theory of performative verbs and the theory of speech acts is the analysis of tagged sentences in English offered by R. Lakoff (1969).

Lakoff argues that sentences like (1) and (2) should be derived from underlying structures like (22) and (23), respectively.

22. *I suppose John did it.*

23. *I suppose John didn't do it.*

According to Lakoff, sentences like (1) and (2), though they share some syntactic properties of questions are not synonymous with them. In fact, they can be treated as statements of supposition of a positive answer with an implied request not for information (which is characteristic of normal questions) but for reassurance that the supposition is correct. All this is supposed to be expressed in (22), and (23), where *suppose* is an abstract performative verb.

Despite an obvious oversimplification, we shall assume, after Lakoff, tentatively, that the proposed structures i.e., (22) and (23) are correct sources accounting for the communicative functions of (1), and (2). We shall also assume that (22) and (23) can be rendered into Polish as (24) and (25), respectively.

24. *(Ja) przypuszczam, że Jan to zrobił.*

25. *(Ja) przypuszczam, że Jan tego nie zrobił.*

The above assumption has serious theoretical implications. It means that at some such level of analysis as is represented by (22) and (23) for English, and by (24) and (25) for Polish these two languages are comparable. In other words, English and Polish are comparable at the level of communicative functions, which (22-25) represent.

<sup>7</sup> Both terms; 'syntactic' and 'morphological' processes are taken in the narrow sense.



In search of the exponents of the communicative functions expressed in (24) and (25) we propose (26 - 29):

26. *Jan to zrobił, a. prawda?*  
     b. *co? co nie?*  
     c. *no nie?*  
     d. *nieprawdaż?*
27. *Chyba Jan to zrobił?*
28. *Jan tego nie zrobił, a. prawda?*  
     b. *co? co nie?*  
     c. *no nie?*  
     d. *nieprawdaż?*
29. *Jan chyba tego nie zrobił?*

It is not difficult to notice that (26 a - d, and 27), as well as (28a - d, and 29), are very close in their communicative function to the English sentences (1), and (2).

Interestingly enough, the performative analysis of sentences like (1) and (2), which made it possible to propose sentences (26 - 29) as their Polish equivalents is confirmed by the data collected from various professional translations of English tagged sentences into Polish. Consider the following pairs;

30. *You are Rin Tin Tin, aren't you?* (I. Murdoek 1958:198).  
 31. *Prawda, że jesteś Rin Tin Tin?* ( —, — 1975:227).  
 32. *You're a pretty bright boy, aren't you?* (E. Hemingway 1961:72).  
 33. *Cwaniak z ciebie, co?* ( —, — 1974:280).  
 34. *I have ears, don't I?* (I. Shaw 1957:20).  
 35. *Bo mam uszy. Co, może nie?* ( —, — 1975:24).  
 36. *He comes here to eat every night, don't he?* (E. Hemingway 1961:84).  
 37. *Przychodzi tu jeść co wieczór, no nie?* ( —, — 1974:292).  
 38. *But you are a Roman yourself, aren't you?* (R. Kipling 1924:144).  
 39. *Ale ty chyba sam też jesteś Rzymianinem?* ( —, — 1934:160).

The above examples should not create a false impression that it is always the case that English tags are translated into Polish as *prawda*, *co*, etc. Very often English tagged sentences appear as interrogatives in Polish translations, e.g.:

40. *Ridiculous, isn't it?* (J. Conrad 1923:188).  
 41. *Czy to nie śmieszne?* ( —, — 1973:192).

Even a superficial analysis of Declarative Tags in English and equivalent constructions in Polish allows for certain observations to be made. For ease of exposition and brevity *prawda*, *co*, etc., will be referred to as 'tags'.

1. 'Tags' in Polish do not show the systematic relationship holding between the tag and the declarative on which it is built; characteristic of the tag formation in English.
2. 'Tags' in Polish seem to be neutral with respect to polarity; *prawda, co*, etc., can be added freely after a declarative with or without a negative element.
3. *Prawda* occurs both finally and initially; in the latter case it is followed by 'ze-clause'.
4. *Chyba* does not occur finally.
5. 'Tags' in Polish do not display the variety of intonational patterns characteristic of tags in English.

On the basis of the above observations we can now conclude that Declarative Tags in English are significantly different from the equivalent constructions in Polish in their syntactic properties. This, at least in part, explains the inability of the syntactic approaches reviewed above to establish a basis that would allow one to perform an adequate contrastive analysis of tagged sentences in English and Polish. However, the facts presented in (30 - 41) allow to assume that the general line of analysis is correct and that the performative analysis of Declarative Tags in English may be successfully performed and it proves helpful in the identification of the equivalent constructions in Polish. We shall not discuss the type of equivalence that is at stake here. The problems of equivalent constructions have been extensively discussed in Krzeszowski (1974).

As was mentioned above the communicative functions of tagged sentences in English and Polish are very much the same. A question arises whether the analysis of tags proposed by R. Lakoff (1969) is adequate. Earlier in this paper we assumed, tentatively, that it had been; it allowed us to identify the communicatively equivalent forms in English and Polish. Now, we have to reject Lakoff's analysis for the following reasons:

1. *Suppose* cannot function as the performative predicate because it is not a verb of saying (cf. in this connection Karttunen 1974).
2. It is difficult to see how *suppose* can form a performative clause without being able to take *you* as its direct object.
3. *Suppose*, together with a number of other verbs such as e.g. *believe, think, guess, assume*, etc., belongs to a class of verbs which express 'personal attitude' towards the proposition following them; we shall call these verbs 'attitudinal verbs'. This class of verbs is distinct from the class of 'performative verbs'.
4. Declarative Tags in English are complex semantically and functionally. Lakoff's analysis does not capture this complexity. Moreover, experimental data reported by Smackey and Beym (1970) point to the fact that tags

in English are very complex psycholinguistic patterns and the kinds of attitudinal meanings as well as emotional qualities they convey are more complex than has been suspected.

It seems reasonable to propose that one and the same Declarative Tag may be analysed as having different communicative functions. An adequate analysis of Declarative Tags in English should account for all communicative functions these tags signal in linguistic communication. Otherwise the analysis is partial. Needless to say most of the existing analysis of tagged sentences are only partial without being called so.

It will be proposed here that one such function of Declarative Tags in English is to express a request for confirmation of what was stated in the declarative constituent of the tagged sentence. This proposal may be represented as in (42);

42. *I request of you that you confirm 'S'*

(42) seems to indicate the following:

1. The person who utters something that may be represented by (42) is expecting some response. This has not been accounted for in Lakoff's analysis.
2. (42) contains a very clear indication that two persons are participating in the given linguistic situation.
3. The two clauses *I request of you that you confirm...* are the underlying source for the surface occurrence of the tag.

It is important to bear in mind that (42) represents only one possible function that may be carried out by a declarative tag, namely that of a request for confirmation of the proposition expressed in 'S'. The analysis is therefore, partial. This analysis can be easily extended to account for Polish sentences.

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## DEFINITENESS IN FINNISH

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Definiteness is a particularly thorny corner in Finnish syntax. It has proved notoriously difficult to define and describe explicitly, and has been the subject of great controversy among Finnish linguists for at least 70 years. It also causes well-nigh insuperable language learning problems, both for Finns learning languages which have a clearer expression of definiteness, and for non-Finns struggling with the bewilderingly diffuse realization of this category in Finnish.

What follows is an attempt to outline the present "state of the art" in this area of Finnish, and to compare it with certain features of English and Polish. (The question of genericity, however, will not be discussed here.)

### 1. THE TERM *SPECIES*<sup>1</sup>

The general category of definiteness appears in Finnish grammar under the name of *species*, a term which was introduced by the Swedish linguist Noreen (1904), who distinguished three categories of *species* in Swedish: definite, indefinite, and 'general'. The Finnish Language Commission adopted the term *species* in their 1915 report, but they defined the category as having only two members: definite *species*, applying to objects which were 'known or previously mentioned'; and indefinite *species*, for objects which were 'unknown or not previously mentioned' (38; all translations are my own). It has, of course, since been pointed out that 'known' need not imply 'previously mentioned' but also 'known by virtue of the situation'; and that the terms of the opposition are better thought of as simply 'known' or 'unknown'.

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<sup>1</sup> The Finnish spelling will be used throughout.

It was early realized that "in Finnish there is no one way of expressing the category of *spesies* which could be compared e.g. to the articles of many Indo-European languages" (Ahlman 1928:134). Attempts were therefore made to list and describe all the various ways in which the 'known/unknown' opposition could be expressed.<sup>2</sup> (E. g. Ahlman 1928; Hakulinen 1946; Ikola 1954). These have included the following. nominative vs. partitive case, nominative vs. genitive case, partitive vs. accusative case, word order, number concord between subject and verb, number of verb after subject preceded by a cardinal, agreement between subject and modifier, pronouns used as determiners, intonation, stress, whether or not the noun concerned is psychological subject or psychological predicate, capital vs. lower case initial letters, and various combinations of these factors acting together.

Two central factors were case — particularly the partitive case — and subject-verb concord. The relations between these, existential sentences and *spesies* were the subject of a still controversial debate in *Virittäjä*, the journal of the Finnish Language Society, in the 1950's.<sup>3</sup>

Eventually a suggestion was made by Siro (1957), which has since been taken up by other linguists (Ikola 1964, Itkonen 1975; Enkvist 1975). Siro argued that *spesies* was not one thing, but two. On the one hand, it concerns whether the noun is thought of as denoting a total or partial amount — this Siro called quantitative *spesies*, if the amount denoted by the noun is considered as total, the quantitative *spesies* is definite, and if partial, indefinite. On the other hand, *spesies* concerns whether the noun has a known or unknown referent — this he called notive *spesies*, and this too may be definite (if the referent is known) or indefinite (referent unknown). What is meant exactly by 'known' is not discussed in detail, but it may be taken to mean 'uniquely identifiable'.

Notive *spesies* corresponds to the system of reference which determines the use of the English articles, and quantitative *spesies* is to some extent related to the count/mass distinction, as will be seen below.

I shall now discuss each *spesies*-type in more detail, and finally consider the relations between them.

## 2. QUANTITATIVE *SPESES*

Quantitative *spesies* (hereafter QS) is expressed primarily by case: the partitive case shows indefinite QS, and the nominative (for subject nouns and predicate complement nouns) or accusative (for object nouns) show definite QS.

<sup>2</sup> The terms 'express' and 'show' are used very loosely in this paper, which is more a preliminary discussion than a formal analysis.

<sup>3</sup> The debate is reviewed and discussed in German by Schlachter (1968).

- |   |                                 |
|---|---------------------------------|
| (1) <i>Liha</i> (nom.) <i>oli pöydällä.</i>   | ('The meat was on the table.')  |
| (2) <i>Lihaa</i> (part.) <i>oli pöydällä.</i> | ('Some meat was on the table.') |
| (3) <i>Söimme lihan</i> (acc.).               | ('We ate the meat.')            |
| (4) <i>Söimme lihaa</i> (part.).              | ('We ate (some) meat.')         |

However, it is by no means always possible to express QS in this way. There are a number of conditions which must be fulfilled, of which the first concerns the concept of *divisibility* in Finnish (see e.g. Barrett 1953).

Opinions differ as to whether this term is best described as syntactic or semantic, but it will be treated here as semantic. A noun in Finnish is thought of as being either divisible or non-divisible. Non-divisible nouns are those whose referents are conceived of as individual units, which can be multiplied but not divided: thus *poika* ('boy') can be multiplied (one can think of boys, three boys), but a divided boy, part or parts of a boy, cannot still be conceived of as 'boy' (in non-cannibalistic cultures, at least). Divisible nouns, however, can be divided in this way: *vesi* ('water') is conceptually divisible, since a less-than-total amount of water is still 'water'.

This appears similar to the English count/mass distinction, but there is a difference: plural nouns in Finnish are also divisible. *Pojat* ('boys') can be divided conceptually into individual units, individual boys. (Plural invariable nouns, such as *kasvot* ('face') are, however, conceptually non-divisible.) Thus in Finnish the major distinction is not between count and mass, but between singular count (non-divisible) on one hand, and plural count and mass (both divisible) on the other. The Finnish distinction neatly describes the distribution of (*an*) (for indefinite non-divisibles) vs. *some* or the zero article (for indefinite divisibles) in English.

The *first condition* for the expression of QS is thus that the noun must be conceptually divisible: logically enough, only divisible nouns can be considered capable of denoting a total or partial quantity at all.

The *second condition* is that the noun must be functioning either as subject, predicate complement or object in its clause, since only these positions allow the nominative or accusative cases.

The third and fourth conditions relate to the expression of the QS of the object noun only, and concern the complex nature of the partitive case, which has a veritable multitude of functions,<sup>4</sup> only one of which is to show indefinite QS. It is also used to express irresultative (imperfective) aspect,<sup>5</sup> if the verb is 'inherently irresultative' (e.g. if it is a verb of perception or emotion), or if it is used in an irresultative sense, the direct object must be in the partitive, as illustrated by the following examples.

<sup>4</sup> See e.g. Denison (1957), Ikola (1972), Itkonen (1975).

<sup>5</sup> Finnish can also show irresultative aspect overtly in the (non-stative) verb, although it rarely needs to; and in such cases the direct object also takes the partitive.

- (5) *Rakastan sinua* (part.). ('I love you.' — Inherently irresultative.)  
 (6) *Mies ampui linnun* (acc.). ('The man shot the bird.' — Resultative sense: the bird was shot dead.)  
 (7) *Mies ampui lintua* (part.). ('The man shot and wounded the bird', or '...shot at...' or '...was shooting...' — Irresultative sense: several equivalents are possible, depending on how the irresultativeness is interpreted.)

This rule for the partitive takes precedence over the expression of QS. The *third condition* for the expression of QS is therefore that the verb must be resultative or used in a resultative sense. Sentences with a verb that could be interpreted irresultatively and a divisible object in the partitive are thus ambiguous. example (4) above could either have the interpretation given there — 'resultative action plus indefinite QS' — or the interpretation 'irresultative action plus ambiguous or unexpressed QS', in which case the verb might be rendered 'we were eating'.

Yet another function of the partitive is to mark the direct object in negative sentences.<sup>6</sup> This rule for the partitive overrides both QS expression and the irresultative rule, so that the *fourth condition*, for the expression of the QS of object nouns, is that the sentence must be (semantically) non-negative.

The fifth and last condition concerns a restriction on the use of the partitive for (unquantified) subject nouns: the subject can only be in the partitive if the verb is existential,<sup>7</sup> in which case the verb is invariably singular, regardless of the number of the subject. But given an existential verb, negation alone is enough to produce a partitive subject, regardless of the QS. The *fifth condition*, therefore, is that for QS to be expressed in the subject noun the verb must be both existential and non-negative.<sup>8</sup>

Conditions 2 - 5 are restrictions on when QS may be realized by case. It should be pointed out, however, that QS may also be expressed overtly by quantifiers such as *muutama* ('a few') etc., in which case these conditions need not hold.

Despite the apparent diversity of these functions of the partitive they do seem to have something in common. The idea of partialness or incompleteness can be related to nouns (indefinite QS) and to verbs (irresultative aspect)<sup>9</sup>, and

<sup>6</sup> These include sentences that may be syntactically non-negative, yet express doubt or expect a negative answer, etc.

<sup>7</sup> See Moreau (1972) for a discussion of why this should be so.

<sup>8</sup> It would, however, be more accurate to say that in order to allow a QS contrast to be expressed in the subject the verb must be potentially existential, because if a divisible subject is in the nominative — showing definite QS — the verb may lose its existential force. See examples (1) and (2) above. (1) would hardly be classed as an existential sentence. Opinions differ on precisely how the Finnish existential sentence should be defined, see Schlachter (1958).

<sup>9</sup> This does not apply only to Finnish, of course. Dahl and Karlson (1975) compare the functions of the Finnish partitive with those of the Russian genitive, both cases can



negation is surely the very essence of incompleteness, since the action of the verb then never occurs at all, and the object is as far as possible from being totally involved. Several linguists have attempted to formulate this common element. Ikola (1972) speaks of whether or not the action expressed by the verb has "caused in the situation a change of such a kind that the action could not be continued" (9); if there is no such change, the object is in the partitive. Similarly, Dahl and Karlsson (1975) suggest that the decisive factor is whether or not there is a crucial change in the state of the referent of the object. And at the end of his thesis Dension (1957: 262) concludes that the essence of the partitive is "the implication of indefiniteness and incompleteness".

Nevertheless, as Dahl and Karlsson point out, there are problems with the *spesies* of quantified nouns which have yet to be solved (and which will not be touched on here). Also, the fact that more than one distinct interpretation is often possible for sentences containing a partitive object suggests that, for contrastive purposes at least, the three major functions of the case are best described separately. (See e. g. the ambiguity of (4) discussed under the third condition, above.)

### 3. NOTIVE *SPECIES*

Notive *species* (NS) is defined in terms of whether or not the noun has a known referent.

It has been said that there is a link between NS and stress (e. g. Hakulinen 1946, Siro 1964; see also Szwedek 1975). Yet it may be argued that this link is, at best, an indirect one. Sentence stress indicates the information structure of the clause (cf. Halliday 1970), and it is reasonable to expect that nouns with unknown referents should normally be new information, and hence stressed. But the sentence stress of new information by no means invariably falls on nouns with unknown referents, indeed, it need not fall on a noun at all. If it does fall on a noun, it indicates no more than that the noun in question represents new information. Of course, if the referent of a noun is 'known' (notively definite) because it has already been mentioned, then this noun is unlikely to be stressed as new information, since by definition it is in fact 'given', not new.<sup>10</sup> On the other hand, a noun that is 'known' because of the

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show imperfective aspect, and both are affected by negation. Szwedek (1975:172 ff) argues that the perfective/imperfective aspectual contrast in Polish can be shown by word order, which in turn can also be used to show whether a noun is coreferential or not. Coreferentiality, however, would be treated under notive *species* in Finnish, but see section 4 below.

<sup>10</sup> It should be noted, however, that 'new information' is not an ambiguous term; see Dahl (1976).

situation, not because of a previous mention, can readily be made new information and stressed since it has not been 'given'. Unknown referents tend to be stressed not because they are unknown referents, but because they are normally new information. The relation between NS and stress therefore seems to be more a question of logical deduction than of syntax, and it is misleading to describe stress as 'expressing' NS. Rather: stress expresses information structure, information structure is (partly) determined by previous context, and previous context is one factor which can make the referent of a noun 'known'.

Notive *species* in Finnish need not be overtly expressed at all: some nouns, simply by virtue of their meaning, already have unique — and hence known — referents, and their definite NS needs no further expression. These nouns include proper nouns, nouns normally considered to have, automatically, referents made unique by the context or situation, such as *aurinko* ('the sun') etc; and possessed nouns, with a possessive suffix and/or a genitive modifier, such as *isäni* ('my father'), *talon* (gen.) *isäntä* ('the master of the house').

Overt syntactic expression is primarily of two kinds. The first involves word order, and it can be usefully described in terms of the thematic structure of the sentence, provided that *theme* and *rheme* are defined formally, with reference to word order alone. The following sentences illustrate the point.

- (8) *Mies oli keittiössä.* ("The man was in the kitchen.")  
 (9) *Keittiössä oli mies.* ("In the kitchen was a man.")

In (8) *mies* ('man') must be interpreted as being notively definite since it appears in the theme. In (9) the reverse is the case: *mies* has indefinite NS, appearing in the rheme.

The second syntactic means of expressing NS is the use of certain function words, in particular the pronouns *se* ('it', the plural form is *ne*) and *joku* ('someone'). Their use — especially that of *se* — is frequent in colloquial speech. (Compare *ten* and *jakiś* in Polish.) Hence the difference between (10) and (11).

- (10) *Se mies oli keittiössä.* ("The man was in the kitchen.")  
 (11) *Joku mies oli keittiössä.* ("A man was in the kitchen.")

Szwedek (1975:121 ff) argues that there are certain cases where the use of the Polish pronouns is essential, a fact which confirms their status as 'substitute articles'. In

- (12) *Kiedy wszedłem zobaczyłem, że jakiś mężczyzna stoi przy oknie.* ('When I entered I saw that a man was standing by the window.')

*jakiś* is apparently essential if a non coreferential interpretation is wanted, since otherwise the thematic position of *mężczyzna* ('man') would produce a reading with a known referent. Precisely the same is true of Finnish:

(12a) *Kun tulin sisään näin, että joku mies seisoi ikkunan luona.*

If *joku* is omitted, and if the same word order is preserved, *mies* ('man') can no longer have indefinite NS.

The case is the same if a notively definite interpretation is required for a noun in the rheme: the pronoun is essential.

(13) ?*Kun tulin sisään näin, että ikkunan luona seisoi se mies.*

True, this sentence sounds rather strange; and it is interesting that the corresponding Polish is also odd, if just acceptable:

(13a) ? *Kiedy wszedłem zobaczyłem, że przy oknie stoi ten mężczyzna.*

The English, too, is slightly unnatural:

(13b) ?*When I entered I saw that by the window was standing the man.*

(This is somewhat improved if *there* is added: ... *there was standing ...*)

These three languages, therefore, seem to dislike this conflict between the interpretation determined by the 'definite pronoun-cum-article' and the rhematic position. A different word order would be preferred in each case to resolve the conflict.

However, for both Finnish and Polish it may be suggested that these two syntactic means of expressing NS are not of equal strength, as it were: in both languages thematically determined NS can be overruled by function words.

The normal thematic determination can also be overruled if the noun in question has been situationally or contextually determined. Thus in

(14) *Ovella oli Pauli.* ('At the door was Pauli.')

the noun *Pauli* must, by virtue of its status as a proper noun, have a known referent, despite its position in the rheme.

Yet the normal situational/contextual determination may in turn be overruled by function words; or, more accurately, the presence of function words may preclude the situational/contextual determination which would otherwise normally hold. In

(15) *Joku Pauli oli ovella.* ('some Pauli (or other) was at the door', or 'Someone who says his name is Pauli...')

the noun *Pauli* must have indefinite NS, despite its proper noun status and also despite its thematic position.

The three main ways in which NS can be expressed in Finnish, therefore, appear to constitute a hierarchy: if there are function words (substitute articles) they express it; if there are none, it may be 'covertly' expressed by the situation or context; and if the NS is still unexpressed, it is revealed by the word order alone.

The influence of case and QS on NS is discussed below.

#### 4. THE RELATIONS BETWEEN NOTIVE AND QUANTITATIVE *SPESES*

Although *spesies* has been considered so far in terms of its two types, it is difficult to represent them as being entirely distinct, of equivalent status, and independent of each other. There are many cases where the NS is expressed only indirectly, via the context or situation. Further, there are cases where the definiteness or indefiniteness of one of the *spesies*-types seems to be incompatible with the indefiniteness or definiteness of the other type, for a given noun.

For example, if the QS of a given noun is indefinite, it is difficult to see how the NS of this noun could be definite. indefinite QS surely precludes the possibility of a known referent for the partitive noun, although such a noun may of course be modified by a noun with a known referent. It has been argued (e. g. in Siro 1964) that in the sentence

(16) *Tämän sarjan (gen.) osia (part.) on sitojalla.*

(‘Some parts of this series are at the binder’s.’)

*osia* (‘parts’) has indefinite QS (since it is partitive), yet definite NS because of the preceding genitive modifier and because of its thematic position. But this seems a strange view: we still do not know which parts are concerned; these referents are not known, not identifiable, although we know which class they belong to. *Osia* must surely have indefinite NS here.

It thus seems that indefinite QS entails indefinite NS. Similarly, it can be argued that definite QS entails definite NS. In examples (1) and (2) above, if the amount of meat is understood — and stated to be total, the knowledge of this surely implies a known referent, hence the *the* in English. The same may apply to divisible plural nouns in the nominative or accusative.

However, it is fair to point out that opinion is still divided on this latter claim. There are problem sentences such as

(17) *Koivussa on isot lehdet (nom. pl.).* (‘On the birch (there) are big leaves.’)

where the subject noun can be analysed either (a) as divisible and showing definite QS (and indefinite NS, rhematic position), or (b) as conceptually non-divisible, a plurale tantum, in which case QS does not apply. Itkonen (1975:24) argues for analysis (b) on various semantic and formal<sup>11</sup> grounds; and the description of *spesies* can certainly be simplified if his approach is adopted, since it then becomes possible to say that definite and indefinite QS entail definite and indefinite NS, respectively,<sup>12</sup> and that the methods

<sup>11</sup> E.g. the subject will not take *kaikki* (‘all’), which Itkonen suggests as one formal test for ‘divisible and quantitatively definite’ as opposed to non-divisible nouns.

<sup>12</sup> And in this case a third analysis of the subject noun in (17) becomes possible: divisible with definite QS and therefore also definite NS. There is little agreement on this point.

for expressing NS discussed above in section 3 only need apply for nouns which cannot show QS.

From the point of view of the contrastive analysis of definiteness, moreover, the description can be streamlined further if QS is omitted altogether, as ultimately corresponding more to the quantifier system than to the articles in English. The QS-determined NS can then simply be represented as case-determined NS, which dominates all the other methods discussed above. The hierarchy proposed in section 3 then receives an additional step at the top: if the relevant conditions of section 2 hold, NS is expressed by case; if this does not apply, NS is expressed by function words; if there are no function words NS may be expressed indirectly, by the situation or context; and if the NS is still unexpressed it is revealed by word order alone.

We thus appear to have come back full circle, to one category of species, with various means of expression, corresponding to the article system in English.

It will have become evident however, that many problems concerning definiteness in Finnish still remain open, and many require a more detailed discussion and a more formalized representation than that given here.

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## TESTING AND CONTRASTIVE ANALYSIS

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Though visible efforts have been made to introduce objective measures into research in the humanities for some time the introduction of such measures and methods into certain areas of applied linguistics has proceeded fairly slowly. Not only is little attention paid to the possibilities offered by certain (non-linguistic) disciplines in the objectivization of research methodology in applied linguistics, but it also seems that in some cases basic methodological principles of research are being overlooked. Namely, subjective criteria in defining language tests are still sometimes in use; information about some important variables in research are not presented.

It goes without saying that only objective measures should be used in modern research, or rather as objective and reliable as possible in research on human behaviour. Nevertheless, in some large-scale projects in applied linguistics, generally multidisciplinary in character, there seems to be a kind of imbalance in the scientific approach adopted. Whereas on the one hand, highly refined analyses, objective and appropriate to the material and aim of the project, are applied (these are as a rule linguistic descriptions or analyses) an approach which lacks the necessary scientific rigour is adopted in the treatment of other closely connected problems. For instance, while in CA as well as in EA the linguistic analyses are often refined, explicit, objective etc, the testing of contrastive analysis hypothesis (CAH) seems to lack the same degree of scientific rigour and explicitness.

What we would like to do in this paper is to point some of these methodological requirements in the area of testing of CAH.

After a period of intensive work on CA of Ls and Lt at the level which could be called more linguistic than methodological, a period without much, or with little experimentation and testing, we have reached a point now when hypotheses have to be proved. We should no longer be content with elegantly phrased hypotheses or claims. A theory or a hypothesis, formulated

with the aim of being applied in practical situations, has to be proved, we want to see whether it works or not. One way of doing this is by testing the theory or hypothesis.

Contrastive analysis of Ls and Lt, with the final aim of application in teaching, can have different phases. For instance:

CA -----→ prediction of difficulties -----→ errors -----→ formulation of hypothesis about the errors -----→ testing of the hypothesis -----→ writing pedagogical material.

Of course, this is not the only possible order of steps; Whitman has four steps in his analysis and no testing. His procedure includes the following steps:

Description -----→ Selection -----→ Contrast -----→ Prediction  
(Whitman 1970).

At this time it is not our intention to discuss the possibility of predicting students' errors or linguistic behaviour on the basis of CA of Ls and Lt. As is well known, there are 'contrastivists' and those who doubt, in varying degrees, the possibilities of predicting student errors by means of CA. Our aim is simply to draw attention to the importance of testing CAH as a step in CA.

First of all, it should be made quite clear that testing cannot and should not be excluded from CA projects. It constitutes an extremely important link between the initial theoretical step to the final one — the application of CA results to teaching. The importance of testing a hypothesis is obvious and does not require explanation. However, as has been said much more attention is paid to the theoretical part of the analyses than to the practical testing of the assumption. And if there is any testing it is sometimes done without scientific rigour.

In order to prove their hypotheses some authors construct tests to trap students, tests which "... can be criticized because they were designed specifically to catch the errors the analyses predicted and no other errors" (see Whitman, Jackson (1972:29). This kind of test has only 'surface validity' and no value (either theoretical or practical) at all. Consequently, one can doubt the conclusions arrived at on the basis of such tests.

What requirements, then, should be met in order to make the testing of CAH reliable and sound, relevant to its aim and the material tested? In our brief survey of the problems of the testing of CAH we would like to discuss the following:

- the test, its psychometric characteristics, form and content.
- the sample of population to which the test is administered.  
teaching methods and techniques used with the sample of population.
- the methods used to analyse the obtained results.

Before we proceed some general remarks on language testing must be made.



In testing students in L2 (achievement and proficiency tests) we are *not* trying to discover the *cause* of students' errors. Our aim is only to find out what he knows. In a test which is supposed to help us conclude something about the origin of these errors we are operating in an area where we should know much more about language testing than we do today and also much more about language learning. This kind of testing may be objective but only to the extent of our present knowledge and there is a lot more to be learned about language learning and testing than some people think.<sup>1</sup> We should be more cautious therefore about the conclusions we draw on the basis of 'objective' testing.

When we start testing a CAH it means we believe we can test this hypothesis in an objective and reliable way. It seems to us that we are trying to test a hypothesis by using another hypothesis which has yet to be proved. We shall discuss this problem of testing a CAH with the assumption that this is possible or, rather, we shall be talking about the problems that those who are engaged in this kind of testing have to solve first.

First of all it must be stressed that in spite of great advances in applied linguistics we still lack an adequate theory of foreign language testing. There are wide gaps in certain practical as well as theoretical aspects of language testing, mainly in test construction and its validation. But it is also true that we do have enough knowledge about language and test construction in general in order to prepare measuring instruments which will certainly be more objective and reliable than subjective criteria. Furthermore, modern statistical procedures can help us evaluate correctly the different results obtained on tests, which would be impossible if only raw scores were studied.

Now after this introductory warning about the incompleteness of testing theory let us see what kind of requirements must be met by the tests in the testing of CAH.

One of the main requirements of a good test is its validity. It is one of the central issues in language testing because we still do not have a satisfactory answer to the question, what does it mean to learn and know a foreign language? The answer to this question is much more complex than it may appear at first sight. This is a question we must answer before writing, for instance, achievement or placement test, a task which is much simpler than one we are dealing with here. What we are trying to do in testing a CAH is to obtain students' responses in L2 which will necessarily include incorrect responses, and in such a way as to be able to make sound conclusions about the *origin* of these mistakes.

The validity of a measuring instrument in testing a CAH must be defined first. Investigators must inform us how they have established the validity of

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<sup>1</sup> Cf. Corder (1974).

their instruments. And it is not sufficient to use the least reliable type of validity, so-called 'face validity'. A test we use in CAH should have a precise coefficient of correlation. We must be sure (or at least as much as we can today) that we are measuring what we want and not something else.

A problem which is easier to solve than validity is establishing the reliability of a test. The reliability of a test must also be expressed in exact terms and should never be left to the teacher's or investigator's subjective feelings. Although considerable attention is paid to this requirement in testing in general and thus in language tests too, it seems to be neglected in the area of testing CAH. Without the coefficient of reliability we cannot accept the results of any CAH testing, regardless of how refined linguistic analysis may have been.

In order to show us that the hypothesis was correct some investigators give percentages of erroneous responses to a test item and say that over 90% of students made a certain mistake. First of all, we cannot accept percentages or raw scores alone in an analysis of test results. They must be processed/computed by means of appropriate statistical procedures. Secondly, one has little faith in the soundness of a test item which is solved by over 90% of students. It would be the same if the test item were answered by only 5 - 10%. In the first case it is probably too easy and in the latter too difficult. Therefore, as with validity and reliability we should have exact data on the difficulty and discrimination of tests as whole and of individual items as well.

Testing a CAH need not be practical or economical because it is a part of research, and the main point in this kind of testing is achieving an aim, regardless of cost or time. Therefore, the question whether the test will be oral or written, whether we shall insist on students' encoding or decoding, is of no importance if the test works. As in all other areas of testing CAH the adequacy of the medium has to be tried out and tested. There is a great difference between asking a student to respond orally or in writing, particularly in tests which propose to discover errors (not correct responses), on the basis of which conclusions are made about the origin of these errors.

One of the principal problems of testing a foreign language yet to be solved is that of determining a basic approach (not just techniques) to the elicitation of students' responses. Two main approaches can be discussed: an integrative and discrete item approach, while a third is being developed. None of these meets the requirements of language testing, the testing of L2 in general, let alone the very specific kind of testing we have in testing a hypothesis like CAH.<sup>2</sup> Thus only experimentation will tell us which approach will be the most appropriate to the given purpose of testing CAH

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<sup>2</sup> For an analysis of tests using different structures and design, cf. Whitman, R. L., K. L. Jackson (1972).

A very fine linguistic analysis may be wasted in a couple of 'minor' methodological issues, such as the techniques of elicitation of students' responses. In research on human behaviour one must be very careful with the classification of variables, namely labeling some of them as crucial and others as peripheral unless there are extremely solid grounds for such divisions.

The actual techniques used to elicit students' responses are of extreme importance for the reliability of the final results obtained on a test, we would like to stress the particular importance of this in tests used to prove a theoretical assumption. Though there are numerous testing techniques we still lack certain insights of relevance to the testing of CAH.<sup>3</sup> Thus we do not know whether there are testing techniques which could be labeled "neutral", neutral as regards the students' familiarity with it. The less artificial a technique is the more neutral it will be. Therefore, it seems to us that we should aim towards the use of such techniques in language testing in general and particularly in research.

There is not enough research in this area of applied linguistics and without the exact correlations we shall be operating with instruments whose nature we do not understand very well. In such a situation the results obtained must be accepted with due caution.

For instance some claim that translation from Ls into Lt is the best or the most appropriate technique for testing a CAH, others maintain that better results are achieved if multiple-choice items are used. For a reliable assessment we cannot be satisfied with statements like these (though there are a few methodologically sound research projects in this area).<sup>4</sup> What we need are exact correlations not only for a couple of techniques (translation vs. multiple-choice) but for many more of them perhaps trying a combination of translation from Ls into Lt and multiple-choice items.

The problem of elicitation techniques in language research is not a peripheral one, though some may think so. How a student will react depends, obviously, on what he is exposed to and on the situation we place him in. If we need students' reactions to prove a hypothesis this proof should be well grounded, which again depends on the use of appropriate research methodology as mentioned at the beginning of this paper.

The content of the language course taken by our subjects is also an important variable for the final assessment of the results. For example, if a particular structure is not practiced, is not given adequate attention, we can predict a certain number of errors in the use of that structure. The opposite is also true. If a structure, very different in Lt from its corresponding one in

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<sup>3</sup> The only fairly exhaustive, but not complete, list of testing techniques is "Sample Test Items" by K. Radovanović (1974).

<sup>4</sup> Cf. for instance, Whitman R. L., K. L. Jackson (1972).

Lt, is given ample time and practice in the teaching, the results may be contrary to the hypothesis (that students will make a lot of mistakes, owing to the difference between the two structures).

Therefore the test must reflect the content of the course not only in terms of presented material but also in terms of the time devoted to the material presented during the course. In other words, the selection of the material for the test which tests a CAH is of special importance, we would say of greater importance than for an achievement or proficiency test.

In conclusion of this brief discussion of the measuring instrument used in testing CAH the following can be said:

In CA and in testing CAH much more attention is being paid to linguistic and language analyses of the material than to certain psychometric and methodological aspects of the problem. It is commendable that investigators are concerned about the model of the description which is to be used, obviously, without an adequate model and its adequate application the rest of the analysis could easily lead us astray. However, if the measures used in testing hypotheses are not adequate, then again, but in another way, the final results will blur the picture we are trying to bring into focus.<sup>6</sup>

The sample of population on which a CA, or any other, hypothesis will be tested must be very carefully selected. Every report on the results of CAH testing should include information on the population studied. In any language experiment, and testing is a kind of experiment, students' knowledge of the language is of evident importance. Both the researcher and the reader of the report should have as clear an understanding as possible of the level of the students' knowledge of Lt. It is only too natural that this variable affects the subjects' reactions to the stimuli in the test and in that way directly influences the results of the test, which in turn is connected with the main point of the report — accepting or rejecting the hypothesis.

However, this variable, like a few others, mentioned here, seem to have escaped the attention of some of those engaged in testing CAH. Either no information is given at all or only enough to give serious doubts about the value of the testing (without further analysis of the results).

The students' language proficiency may be defined in a very vague and subjective manner, for example, the "students studied Lt for four years" or "our subjects were from an intermediate, advanced level of instruction". Obviously, this kind of information does not mean much to anybody, either to those who read the reports or, which is even more important, to the researchers themselves. One can interpret errors, their significance, nature etc., only if the stu-

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<sup>6</sup> It is surprising that authors of books on testing do not, as a rule, discuss the problem of the testing of CAH, see, for example, Lado (1961), Valotto (1967); Harris (1969); Clark (1972); Heaton (1975).

dents' general knowledge of the language is known. In other words, the same error does not carry the same weight if made by a 'beginner' or a student at a very 'advanced level of instruction'.

Because of the importance of this information on the students' language ability, standardized language tests should be used for a precise 'placement' of students. If this kind of measure is not available and locally produced tests are administered, detailed information about the test should be supplied. In addition to this information other subjective factors may add to the meaning of the non-standardized test, e.g. students' grades,<sup>6</sup> the set books used in the course (this may be more meaningful if well-known textbooks are used). These measures, subjective as they are, may, together with the test, give a much better picture of students' language proficiency than just the number of years.

In short, errors which students make on a test used to test a hypothesis (in our case CAH) are meaningful only in relation to their knowledge of the language being tested, or to the level of their interlanguage.

Knowledge of Lt is not the only variable connected with the subjects in a language experiment of this kind. The type of school, students' motivation to learn the language etc., can and indeed do, influence the results of any kind of testing.<sup>7</sup>

The results of a test may also depend on the students' familiarity with a particular teaching (not only testing) technique or method, which may be similar or even the same as testing technique. For instance, familiarity with translation from the mother tongue, as a testing technique, can definitely influence the results of a test which includes translation from Ls into Lt. Of course, the opposite is also true. Students who have never translated from Ls may show poorer results on a test which requires translation. Here we should not forget the fact that we are dealing with *students*, with those whose knowledge of Lt is in constant change.

Clearly, the teaching techniques used with the subjects taking part in CAH are of considerable significance. Nevertheless some projects lack this information and thus leave the reader in a state of doubt as to the reliability of the whole experiment.

In a general evaluation of the results obtained from testing CAH the time when the students are tested plays a very important part. There will certainly be a difference in the results, in terms of the kind and number of errors, immediately upon the presentation of a particular language item and after a cert-

<sup>6</sup> If grades are given, they should be accompanied by a description of their value, see Harris (1989:84).

<sup>7</sup> How important motivation can be in language learning, see Gardner, R. C., W. E. Lambort (1972).

ain period of time.<sup>8</sup> In order to understand these errors we should know how they correlate, what the differences of occurrences signify etc. We do not have such data as yet and this poses important question. Is there a period of time which the student must be given in order to assimilate new Lt material, a period during which he himself is hypothesizing about the Lt systems, finding solutions and "fixing" them, all this before we test our CAH? During this period of hypothesizing the student is necessarily making mistakes and making them not only under the influence of Ls, but other mistakes as well. He makes all kinds of inter and intralingual errors, etc.<sup>9</sup>

If, during 'hypothesizing period' the student necessarily makes mistakes how can we be sure which are those mistakes for which we can claim to be the result of Ls negative influence? Perhaps it would be safer to say that such mistakes are made under the influence of Ls only after a period of assimilation has passed. This question, like certain other areas of errors analysis has yet to be clarified. However, this does not mean that we should not be experimenting and looking for the right answers.

Let us summarize the main points of our paper:

- Outlining some difficulties and methodological problems of testing a CAH it was not our intention to dispute the usefulness of CA in foreign language learning/teaching. It definitely has its role and place in methodics and even in methodology. How predictive it may be remains to be discovered.
- More objective and more powerful tests and other kinds of measures should be used in applied linguistics research in general and particularly in projects and experiments whose aim is to prove a theoretical assumption.
- Some measuring instruments are used, even in large scale projects, under the name of tests without having the necessary characteristics of a true test. In this way they only pay lip service both to the researcher and to the whole discipline.
- Testing CAH is of great importance both for the practical aspects of foreign language teaching and for a more precise and explicative formulation of certain theoretical assumptions about foreign-language learning.

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<sup>8</sup> The negative transfer from Ls to Lt is not the same at all language levels. Most researchers are concerned about syntactic and phonological analyses. Yet it seems to us that negative transfer is just as strong at the lexical level but it has not been recognized. Ls lexis affects Lt in a more subtle way though. A research into the problem of the intensity of Ls influence at different language levels should constitute a part of any broadly conceived project of CA and CAH testing. It would be very good if we had information not only about the intensity of the errors, their frequency but their relative importance in communication too.

<sup>9</sup> There are different types of incorrect uses of Lt (see the classification Corder makes, Corder (1974)). However, when the errors are supposed to be the result of the negative influence of Ls one generally speaks of 'errors', without making any classification.

— If tests are to be used to verify (confirm or discard) a CAH they should conform to standard psychometric and methodological requirements, which, among other things, include the following:

a) exact statements about the validity, reliability, objectivity and difficulty of the instrument used in the project/testing;

b) deeper insights into validity of language tests which measure a CAH are essential in order to give a final formulation of a test which would correspond to its aim. We lack such insights and experimental research should be undertaken in that direction too;

c) a detailed description of the sample of population on which the hypothesis is tested;

d) a detailed description of the teaching techniques and methods used with the sample;

— Further development and elaboration of elicitation techniques are needed as one of the basic conditions in any kind of experimental work and thus in the testing of CAH.

— The correlation of different testing techniques must also be established;

— The results obtained from testing a CAH should be processed according to standard statistical procedures and should not be left to the subjective evaluation of the teacher/researcher.

— For a more complete understanding of students' errors, their origin and nature we should know more about the nature of foreign-language learning, regardless of the tests we use in proving or rejecting an assumption or hypothesis. Today, we seem to lack such knowledge.

— Instead of insisting on the linguistic aspects of these errors it would be better to aim at a more complete CA by continuing our efforts in developing objective measuring instruments and gaining a deeper understanding of foreign language learning. Linguistic analysis alone is no longer sufficient.

Applied linguistics, which includes CA and EA as well as their testing, will establish itself as a scientific discipline only if principles of scientific research are strictly followed, if experimentation adheres to the rules of objective observation and verification. The procedures we use must be not only explicit but also explicative.

It is our firm belief, founded on work done in the recent past and even more so on what is being done today that applied linguistics and methodics will definitely gain the status they deserve alongside other linguistic disciplines, and will be accepted as such even by the exclusive supporters of theoretical disciplines. It is up to us (if I may paraphrase the words of a well known applied linguist) not to others, to achieve this.

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## PROBLEMS AND IMPLICATIONS OF CONTRASTIVE ANALYSIS OF VOCABULARY AND CULTURE

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The chief aim of pedagogically oriented CA projects, which are what we have in mind here, is to improve  $L_2$  teaching and facilitate  $L_2$  learning by making use of contrasts and differences discovered between  $L_1$  and  $L_2$  in teaching and in the preparation of teaching material.

Although CA of  $L_1$  and  $L_2$  is no longer a novelty (as a matter of fact, it is well past its heyday) in the impressive amount of research already done in this field of applied linguistics two areas have not received sufficient attention: lexis and culture.

Most contrastive studies deal mainly with phonology, morphology and syntax. Even in large-scale contrastive projects, culture, as a rule, is omitted, and lexis, either only touched upon or limited to comparisons at morphological level; sometimes lexis remains at the level of 'promises'; in other words, it is on the list of future tasks, although little or nothing has been done so far.<sup>1</sup>

It is a well-known fact, however that there are serious problems in the teaching and learning of  $L_2$  at the lexical and cultural levels. Gross misunderstandings and even complete breakdown of communication may result from incorrect usage of words or unfamiliarity with the cultural patterns of  $L_2$ . If this is so, why then have lexis and culture been neglected to such an extent, ignored even, in contrastive studies and analyses? There are several possible reasons for this imbalance of research on phonology, morphology and syntax on the one hand and lexis and culture on the other:

a) Grammar and phonology, being closed systems, lend themselves better to CA than those areas which are more elusive, fluid or subject to change, such

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<sup>1</sup> It is almost twenty years since Lado wrote his pioneering book *Linguistics across cultures*, in which two chapters were devoted to the problems of comparing  $L_1$  and  $L_2$  vocabulary systems and two cultures. It is therefore surprising that so few papers deal with vocabulary and culture comparisons in the multitude of contrastive analysis projects and papers.

as lexis and culture.<sup>2</sup> Because of the very nature of lexis some authors think that CA of lexis is not only 'lengthy' but 'unusable'.

b) Some, if not most, CA have as their primary aim the preparation of pedagogical grammar, which, naturally, does not include lexis and culture.

c) One of the central aims of foreign-language teaching at the elementary level today is the mastery of the structure of the language and its phonology, not lexis, accordingly lexis is treated as if it were something that can easily be fit into grammatical patterns which have been mastered. This attitude to lexis is often extended to intermediate and even advanced level of instruction, ignoring thus the importance and complexity of the learning of vocabulary at the latter two stages.

d) However paradoxical it may sound, the notion of the communicative component of L<sub>2</sub> learning is of recent origin. Speech, the use of language for the purpose of communication with speakers of that language, has been the center of L<sub>2</sub> learning for more than thirty years, and yet the importance of communicative competence has been recognized only recently, grammatical correctness having been the main concern of language teachers.<sup>3</sup>

e) Most of the authors involved in contrastive analysis projects and research were either not interested in teaching or, rather, were not actually involved in it and thus failed to recognize the difficulties and importance of lexis and culture in L<sub>2</sub> teaching/learning.

Nevertheless, regardless of the changing attitude towards CA for pedagogical purposes, and the directions it may take in the future, a strong point can be made for contrastive analysis of L<sub>s</sub> and L<sub>t</sub> lexis as well as L<sub>s</sub>C and L<sub>t</sub>C. This also implies that these analyses can be affected in such a way as to be usable in and applicable to language teaching.

In view of the foregoing, the aim of this paper could be formulated as follows:

i. Firstly, we would like to draw the attention both to the importance and problems of contrastive analysis of lexis and culture of L<sub>s</sub> and L<sub>t</sub> and to the lack of such studies.

ii. Insofar as time allows we would like to discuss, or rather outline, why and how this could be done so as to be useful in teaching and learning foreign languages.

<sup>2</sup> As a matter of fact lexis is less fluid and amorphous, less resistant to systematization and categorization than is often thought. One can talk about lexical systems and categories only different types than those found in grammar. This is of particular importance for contrastive lexical studies.

<sup>3</sup> Contrastive analysis of lexis and culture raises a question which seems nowadays to be more pertinent than before, that of different degrees of correctness and adequacy — grammatical correctness and communicative adequacy. In other words, should one aim at native-like linguistic competence or native-like communicative competence, the latter implying certainly a degree of linguistic competence.

iii. We would also like to describe, however briefly, the form which the final product of a contrastive analysis of lexis and culture might take.

First of all, there are authors who do not make the important distinction between contrastive learning-teaching and contrastive analysis. Contrastive analysis belongs to the province of methodics, i.e., it should take place outside the classroom and affect teaching indirectly. In other words, CA is not a teaching technique, even less a method of teaching, but rather a technique which aids textbook and test writer in the preparation of teaching material.

There are much more effective classroom procedures than juxtaposition, explanations and drills of contrastive pairs in lexis or other language elements (cf. Hadlich 1965). The results of CA regardless of the language level, are not for direct application in the classroom through an 'analytical teaching approach'. This appears to be a common knowledge, yet needs to be stressed because one still hears opinions to the contrary.

Hadlich (1965:429) has shown how "... contrastive analytic techniques on the lexical level should wane". CA should wane only if and when it has been downgraded to the level of a teaching technique.

Other authors (Kufner 1963) omit lexis from their contrastive studies not because their primary aim is the analysis of grammatical structures but because they think that lexical contrastive analysis should be based on a "... full description of the universe as seen by a speaker of English, then of the universe as seen by a speaker of German..." (Kufner 1963 : 75). This is of course, for an English-German CA. The point we would like to make here is that for teaching purposes one need not undertake a global contrastive analysis of the two lexis, or the totality of the conceptions of the speakers of the two languages.<sup>4</sup> Such analyses would certainly be of great interest for both linguists and language teachers, anthropologists, etc., but it is not essential for the fairly limited purposes of what is called elementary, intermediate and advanced level foreign language learning, which is what we are concerned with.

Contrastive projects of lexis can be approached from two standpoints. We can contrast and analyse lexical items from two languages from the semantic point of view and from the standpoint of occurrence which includes frequency, availability, disponibilit e and some other criteria which we shall come to later.

The semantic basis of lexical analysis constitutes the cornerstone of the analysis. The proper cornerstone, however, does not seem to have been found, since CA of lexis lags behind other contrastive projects. For more comprehensive

<sup>4</sup> Cf. Orsz gh (1960:222) and Lado (1957:89). According to Orsz gh the new type of dictionary should "... say more about less". He does not discuss the problem of a contrastive dictionary but postulates a dictionary which would include, among other things, emotive applicability of words, stylistic range etc.

lexical contrastive projects "...some fundamental and as yet not completely verified problems" have to be solved. These problems have to do with the "... underlying universal matrix of semantic features and a set of universal selection rules which establish the basic patterns of human cognition" (Di Pietro 1971.111). For obvious reasons (lack of space and the complexity of the problem of semantics) we cannot go deeper into this question. But, clearly, for such practical problems as the teaching of foreign languages, solutions of some kind ought to be worked out. Teaching cannot wait until all linguistic and theoretical problems have been solved.

For the present we can propose only which might be termed an eclectic and practical approach to the problem of making a contrastive analysis of the lexis of two languages. The notion of 'range' described by Stockwell, Bowen and Martin (1965.265) supplemented by Lado's and Mackey's lexical criteria as well as those of Politzer seems to offer a good starting point for a lexical CA.<sup>5</sup>

The semantic level of the contrastive lexical analysis is certainly important but other levels of analysis should also figure in general lexical studies, particularly when they have a pedagogical aim.

We should know not only how lexical items in two languages differ or are similar in meaning or form (cf. Ivir 1969) but also other features which will become apparent only if other criteria are taken into consideration, for instance, frequency, different types of lexical availability, currency, familiarity, range, co-occurrence, (cf. Gougenheim et al. (1958); Dimitrijević (1969); Mackey, Savard, Ardouin (1971); Mackey (1965); Savard (1970)).

By computing data about frequency, availability and other lexical criteria, a list similar to the one Savard compiled (1a valence lexicalc) would be obtained, this list would be useful not only in selection and grading for teaching purposes but would also serve as a guide for the selection of words for contrastive analysis.

What would be the final result or product of lexical contrastive analysis? In short, we would suggest the compilation of a contrastive dictionary where a well-chosen number of lexical items of  $L_1$  would be listed together with their most important meanings, usage, giving examples and contrasts with the 'equi-

<sup>5</sup> In his analysis of vocabulary comparison Lado (1957.76) is concerned with three aspects of words, form, meaning and distribution. These aspects and their different relations and combinations would make a useful contribution to lexical contrastive analysis, particularly when combined with other criteria and other lexical aspects.

<sup>6</sup> Studies of lexical availability and distribution have produced some interesting and very useful results, regardless of whether they were done for one language only (mainly French) or in contrastive studies. Serbo-Croatian and English, Serbo-Croatian-Hungarian. We discussed some of these results at the II International Congress of Applied Linguistics in Cambridge, 1969. Through contrastive studies of lexical availability it is possible to see how different cultures, social, sex, age and other factors effect the degree of availability of words for immediate use.

valents' from  $L_1$ . Traditional, noncontrastive, dictionaries often mislead students even in such simple examples as saying *Good day*. In English the phrase can be used both when meeting someone and when taking leave while its 'equivalent' in Serbo-Croatian *Dobar dan* is used only when meeting someone. Thus *Good day* means *dobar dan* but Serbo-Croatian speakers must learn that it also has the meaning of *Good bye*. The German word *Freund* has a different meaning from its English 'equivalent' *friend*, and though in giving this example to illustrate the difficulty of lexical contrastive analysis Kufner at the same time distinguishes this pair very cleverly by saying "it is much easier to find a friend than a Freund". Similar explanations would be given for the different meanings and usages of the 'same' words in Russian and English *Građanin*, *tovarishch* and *gospodin*, namely *citizen*, *comrade* and *Mr. (gentleman, Sir)*. They are evidently different in their connotative meanings and associations, and use, their availability and frequency in English and Russian. The contrastive dictionary would state in what way they differ.

The idea of a contrastive dictionary of English (or any other language) for foreign students raises an important practical question: which words will be contrasted, i.e. included in the dictionary. There are two possible answers to this question:

i. Selection on the basis of purely subjective criteria, i.e. on the basis of our teaching experience.

ii. Selection on the basis of criteria mentioned earlier in the paper. This would have to be corrected by a subjective analysis because it appears that some lexical items escape objective criteria. In this way we would obtain something we could call *The teacher's 2500/5000 word book based on a contrastive analysis of the two languages (English-French, German-Russian, etc.)*.

A contrastive dictionary would be equally useful to students, teachers and textbook writers, helping them to develop an awareness of the different connotative meanings and differences which 'the same words' may have in two languages.

By reference to this new type of dictionary students would avoid incorrect substitutions of lexical items in  $L_1$  under the negative transfer from  $L_2$ . For instance, in Serbo-Croatian there are two words for *hand* and *arm* (*šaka* — *RUKA*): however, in most cases only the word *ruka* is used, whether the speakers have in mind *arm* or *hand*. It is the same with another lexical pair, *leg* and *foot* (*noga* — *stopalo*). When native speakers of Serbo-Croatian start learning/speaking English they transfer this kind of substitution from their  $L_1$  into English and instead of *arm* or *foot* they say *hand* and *leg*.<sup>7</sup>

<sup>7</sup> Abberton (1968) gives very good examples of lexical mistakes in English made by Serbo-Croatian speakers including "those whose English is otherwise excellent". Most of those mistakes, certainly some of them, would have been avoided if a contrastive English-Serbo-Croatian dictionary had been available.

A contrastive dictionary would also help the student avoid pitfalls and mistakes which stem from what is known as convergent and divergent relations and zero representation in the lexis of the two languages (cf. Carroll, 1963), or in mastering false cognates and all cases where the "... semantic field seems to be divided differently in  $L_1$  and  $L_2$ " (Politzer 1972: 116).

A possible practical objection to contrastive dictionaries could be their size because 'simple words' would require lengthy explanations. This may be true. A dictionary of 5000 words could easily fill several hundred pages, if not more. We do not see any drawbacks (except financial) to having good though sizable reference books.

A lexical CA could be extended to idiomatic expressions, similes and what is sometimes called 'set phrases' and collocations, once the basic lexical analysis has been completed.

The results of lexical contrastive studies (and cultural as well) can be used not only in the teaching of foreign languages but in testing as well. There is no time to go into the problem of CA and testing but a very useful application of the results of CA in testing is in the selection of distractors for multiple-choice items.<sup>8</sup>

Since our main concern here is the teaching of foreign languages, the emphasis in this paper is on the implications of lexical CA in that area. But contrastive lexical studies may also have a broader linguistic significance.

Contrasting a lexical item in one language with the corresponding item or items in another, may bring to light semantic features which, without CA, would have escaped our attention.

It is possible that idiomatic expressions, collocations, similes and 'set phrases' in different languages spring from or are governed by certain 'underlying rules' of perception, universal human ways in the linguistic interpretation of reality and specific features of natural languages. We are well aware that some studies of this exist or are in the process of development but it is our feeling that more should be done. Linguists today are showing more interest in semantic research than they did ten or fifteen years ago and therefore we may hope to receive more help from them in lexical CA for pedagogical purposes.

It is not because lexis and culture have been given insufficient attention in CA projects and research that we are discussing these two questions in a paper of only 12 pages, which may appear overambitious or even pretentious. The reason why we have put lexis and culture together is not a formal one but of a fundamental nature. Learning a foreign language necessarily means

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<sup>8</sup> Lado (1961) is the only author to go into the problem of testing  $L_1$ C in any depth. Harris (1969) and Heaton (1975) omit culture completely and other authors of textbooks on testing only touch upon the subject (cf. Valotto (1967); Clark (1972)).

learning about the culture of the language in which it operates, and the link between culture and language seems to be most overt in the area of lexis. "Contrastive lexical analysis also drives home that point that contrastive language analysis must ultimately be linked to a contrastive cultural analysis" (Politzer 1972:115).

Turning now to the problem of contrastive analysis of  $L_2$  culture ( $L_2C$ ) and  $L_1$  culture ( $L_1C$ ) it will be necessary to begin again with what is common knowledge.

For a successful application to CA and language teaching culture must first of all be defined, but the definition must be appropriate to pedagogical purposes. There are different definitions of culture, depending on one's basic orientation (linguistic, anthropological, etc). If we accept the definition of culture as a sum of different norms of behaviours, beliefs, ways of communication, systems of value, "all those historically created designs for living explicit and implicit... which exist at any given time as potential guides for the behavior of men" (Kluckhohn and Kelly in Hoijer (1953:554)) this means that cultures differ, that they overlap, that a culture is patterned (can be categorized or observed as a set of structural units) and that it must be a part of every foreign language course. If this is so, it is obvious that there will be problems in the teaching of  $L_2C$ , some of them stemming from various kinds of negative transfer from  $L_2C$  because we tend to transfer cultural patterns from  $L_2C$  to  $L_1C$ . Not only are cultural patterns transferred very easily, but we are also less aware of this kind of negative transfer than if it occurs at the phonological or some other linguistic level. We expect foreigners to say the things we are accustomed to and we are surprised when we are not understood the way we would like to be.

Of course, there are cultural overlaps, not only differences, but they must be discovered and systematized. Textbook writers are aware of these similarities (and differences), in their writing and teaching and they rely on their own experience and knowledge about  $L_1C$  which may be subjective, biased and even prejudiced.

Although the general consensus of opinion is that culture should be taught<sup>9</sup> the basic principle, the rationale of teaching culture have not been sufficiently elaborated. Teachers do not know how and when to teach it, and in textbooks one finds gross oversimplifications and methodological errors in the way culture is presented. For example, if included at all in a foreign language course, culture is often presented in only one form, only 'English culture' (or French,

<sup>9</sup> In a survey conducted in Belgrade in 1973-74 students of English, German, French and Russian agreed about the need for teaching culture as a part of foreign language courses (cf. Dunitrijević, Djordjević (1975)).



German, etc), without any reference to subclasses or cultural differences within that culture as opposed to  $L_sC$ , students should be made aware of cultural dialects, social and age differences too. This would make the teaching of culture more complete, and prevent students from adopting an oversimplified, inaccurate view of the culture whose language they are studying.

If  $L_sC$  should be taught, if cultures differ, grave errors sometimes result from insufficient knowledge of a culture whose language is being studied, if there is negative transfer from  $L_sC$  to  $L_tC$  (we could continue the list of if's) it seems obvious to us not only that the goals of teaching culture should be made more specific (which very often is not the case) but that we should know both the differences and similarities (cultural overlaps) between the two cultures. One way of obtaining such knowledge is through a systematic contrastive analysis which at the present moment is lacking. Before a contrastive analysis of two cultures can be made both of them must be accurately described and analysed, using the same methodological approach.

The methodology of making a CA of two cultures for pedagogical or general purposes is even less developed than for lexis. There are several reasons for the lack of an adequate and explicit methodological procedure for cultural contrastive analysis. One of them is the problem of working out a definition of culture applicable to language teaching and contrastive analysis. In CA of two cultures different approaches can be adopted. Thus Nickel supports the behavioural kind of CA rather than linguistic "... since many linguistic expressions have become stereotyped and no longer reflect spontaneously creative psycholinguistic processes" (Nickel 1974:118).

As a starting point in a CA of culture one might coordinate the teaching aims, syllabus and parameters suggested by several authors. Nostrand, Upshur, Brooks, Lado, etc. Nostrand lists about thirty headings under four rubrics. culture, society, the individual and ecology (giving them a common label Emergent Model (cf. in Seelye 1968)). Upshur (1966) gives a useful description and classification of 'observed foreign cultural patterns' and 'patterns to be appropriately performed' (some kind of receptive and productive skills). Lado (1957) discusses the same matter from the point of view of structural units and Brooks (1964) classifies cultural patterns according to different topics.

An appropriate and functional matrix which would include certain parameters by the authors mentioned above, and others too, could serve as a basis for describing and selecting the cultural patterns to be included in a contrastive study and later in teaching.

A cultural contrastive analysis would offer enough material for a special kind of 'cultural dictionary', a reference book for teachers, textbook writers and students (*Guide to patterns and usage of English culture for foreign students*). The entries in this 'cultural thesaurus' would be the patterns which we en-

counter frequently and teach within the frame of foreign language courses. With an accurate description of L<sub>1</sub> cultural patterns, L<sub>2</sub> cultural patterns and a systematic contrastive analysis we would be able to produce language material with less cultural bias, prejudice and subjectivity.<sup>10</sup>

It may be hoped that with the development of sociolinguistics and its impact on the teaching of foreign languages more attention and time will be devoted to the communicative aspect of foreign language teaching, which also implies a more systematic teaching of culture and a different attitude towards the teaching of Lexis.

However, if we are less optimistic and look at the problem under discussion from a more realistic point of view, we must remind ourselves of the concluding lines in Lado's book *Linguistics across cultures*, published twenty years ago, "Even though a total analysis and comparison of any two highly complex cultures may not be readily available for some time to come..." Twenty years have passed and we still have not obtained such an analysis in spite of the enormous amount of work done in the field of applied linguistics and other linguistic disciplines.

With an approach of this kind students will learn not only to produce correct sentences but also say the right thing at the right place to the right person. We should not forget that "There are rules of use without which the rules of grammar would be useless"<sup>11</sup> (Hymes 1972:278).

What should be the major tasks in a lexical and cultural contrastive analysis?

i. Recognition of the importance of such studies and their inclusion in CA projects.

ii. Development of a methodology for CA of lexis and culture, adequate to pedagogical purposes.

iii. Carrying out of the contrastive analyses.

iv. Compilation of a contrastive dictionary and contrastive reference material for culture.

Let us summarize the main points:

— Lexical and cultural contrastive studies are generally neglected or even completely ignored in contrastive analysis projects.

<sup>10</sup> For pedagogical purposes CA of two cultures should include "... not only linguistic data, but also behavioural phenomena of a somatic nature not reflected in language" (Nickel 1974:119).

<sup>11</sup> At Puškin Institute of the Russian language in Moscow a special kind of Russian dictionary is being compiled. This dictionary is based on a "linguacultural method" (*lingvostranovedčeskii slovar-metod*). Thus, it will not be contrastive but in the explanation of lexical items the cultural component will be taken into account, special uses and associations of words and phrases deriving from local cultural and other factors will be described. See Vereshchagin, Kostomarov (1973).

– Foreign language students make mistakes at lexical and cultural levels which lead to serious misunderstandings and even to a breakdown in communication.

– Lexical and cultural mistakes seem to be most persistent and are characteristic not only for beginners but also for speakers who have attained an advanced level of grammar and phonology.

– Examiners do not easily agree about the lexical and cultural mistakes their students make as opposed to syntactical mistakes, therefore the former need more study and attention.

– Lexical and cultural contrastive analyses are feasible in spite of some theoretical and methodological problems.

– The analyses of lexis and culture need not be total; for pedagogical purposes partial analyses will suffice.

– The final product of lexical and cultural CA would be:

a) a kind of thesaurus (a contrastive dictionary) which would include not only equivalents of  $L_s$  or a description in  $L_t$  of the meanings of lexical items (as in bilingual and monolingual dictionaries) but an exhaustive description of usage contrasted with meanings and usages in  $L_s$  and

b) a contrastive reference book of  $L_t C$  in which an approach similar to that for contrastive dictionary would be applied.

The main aim of this paper was to call your attention to the possibility of and need for compiling a new type of dictionary and a reference book of  $L_t$  cultural patterns.

Our intention in this paper was not to define problems and solve them but (being more realistic) only raise some questions and initiate a discussion which could contribute to the formulation of a broader and more useful approach to contrastive analysis.

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## TOWARDS AN ERASURE PRINCIPLE FOR GERMAN AND ENGLISH INFINITIVE COMPLEMENTS

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One of the many grammatical problems that have attracted considerable attention within the framework of transformational grammar but nevertheless have proved resistant to satisfactory analysis is the problem of stating the principles which determine coreference between certain noun phrases in superordinate sentences and the underlying subjects of infinitive and gerund complement sentences. In the present paper I am attempting to propose a solution to this problem. I am confining myself to an analysis of German and English infinitive complements, taking English gerund complements into consideration only so far as they correspond to German infinitive complements. The so-called accusative-with-infinitive constructions and gerund complements with overt subjects occurring in oblique cases lie outside the scope of this analysis because the coreference constraints to be examined do not apply to the derivation of these complement constructions.

This paper is not contrastive in the sense that it expounds differences between infinitive complementation in English and German. It is, however, confrontational in that it points to a semantic phenomenon common to both languages, and presumably shared by other languages, including, as it seems, the Polish language in which there exist analogous problems, as I have taken it from the paper Dr Lewandowska (1976) presented at the 9th International Conference on Polish-English Contrastive Linguistics.

It seems necessary to me, in the first place, to review some of the proposals that have been made with regard to the coreference constraints in the derivation of English infinitive complements, and to point out where these proposals fail as to empirical or descriptive adequacy.

The first extensive analysis of this problem within the framework of transformational grammar was put forward by Rosenbaum (1967). He shows that a

transformational grammar can adequately account for the fact that certain infinitive and gerund complements are understood to have a 'latent' or 'logical' subject not occurring as such in surface structure. In accord with the transformational principle of recoverable deletions, these complements are propounded as having deep structure subjects which are deleted by a transformation applicable under an identity condition. Rosenbaum (1967.6) claims that this identity erasure transformation, now more commonly known as Equi-NP-Deletion, is subject to the following coreference constraint:

The following conditions (henceforth the *erasure principle*) govern the application of the identity erasure transformation. An  $NP_j$  is erased by an identical  $NP_i$  if and only if there is a  $S_a$  such that

- (i)  $NP_j$  is dominated by  $S_a$
- (ii)  $NP_j$  neither dominates nor is dominated by  $S_a$
- (iii) for all  $NP_k$  neither dominating nor dominated by  $S_a$ , the distance between  $NP_j$  and  $NP_k$  is greater than the distance between  $NP_j$  and  $NP_i$ , where the distance between two nodes is defined in terms of the number of branches in the path connecting them.

According to this principle, the complement subject  $NP_j$  can only be erased if it is identical, or coreferential, with a certain noun phrase  $NP_i$  in the matrix sentence. This  $NP_i$  henceforth called the controller, is always the one 'nearest' to the complement subject, nearness being measured in terms of the number of branches in a treediagram.

Rosenbaum's Erasure Principle successfully predicts the controller in all cases in which the matrix verb is a two place predicate, because there is, apart from the complement, only one other  $NP$  in the matrix sentences i.e., in sentences like

- (1) Peter tried to convince them
- (2) Peter preferred to wait until evening

it correctly specifies the matrix subject *Peter* to be coreferential with the 'understood' subject of the infinitive complement. In the case of subject complementation, it correctly specifies the matrix object to be coreferential with the complement subject, as in:

- (3) It annoyed Peter to learn that the train was late

For object complementation with three-place matrix verbs, the Erasure Principle always designates the other object as coreferential with the complement subject, but disallows the two subjects to be coreferential. This is correct for the majority of three-place verbs like *accuse*, *advise*, *ask*, *encourage*, *force*, *order*, *persuade*, *prevent*, *remind*, *urge*, and many others, as may be exemplified by the following sentences:

- (4) Mary accused Peter of having stolen her dissertation
- (5) Mary advised Peter to start early
- (6) Mary prevented Peter from getting married
- (7) Mary urged Peter to buy a hat

Postal (1970: 475 f), König/Legenhausen (1972:45 f), and Jackendoff (1972: 208) have pointed out, however, that in sentences with the verbs *promise*, *swear*, *vow*, *make an oath*, and *learn* the Erasure Principle makes wrong predictions because in fact the two subjects are understood to be coreferential.

- (8) The poet promised his friends to rhyme no more
- (9) The poet swore (vowed) made an oath to Erato to rhyme no more
- (10) The poet learned from the archer to hunt with bow and arrow

To these I would like to add the verbs *threaten*, *offer*, *owe*, *affirm*, *assure*, *confess*, *admit*, *betray*, *disclose*, *conceal*, *deny*, *boast*, *apologize*, and *complain*. They exhibit the same exceptional properties with regard to the Erasure Principle, as shown in the following sentences:

- (11) The tyrant threatened the poet to have his tongue cut off
- (12) The tyrant offered (to) his allies to declare war on their enemies
- (13) Peter owes it to his children to vindicate their dead mother's reputation
- (14) He affirmed to them never to have been there before
- (15) He assured them of being ready to help
- (16) He confessed to his friend to having stolen the money
- (17) He admitted to the police to having committed murder
- (18) He denied to the police ever having been there before
- (19) He had never betrayed/disclosed to them having stolen the money
- (20) He concealed from his wife having met the woman before
- (21) He often boasts to his friends of being the best tennis player in town
- (22) He apologized to his friends for being rude
- (23) He complained to his boss of/about having not enough work to do

I am going to comment on sentences like these later on.

It is interesting to note in this connection that infinitive complementation in German corresponds exactly to what has been said about English. Moreover, the translation equivalents of the verbs just mentioned also form exceptions to the Erasure Principle as stated by Rosenbaum. The verbs are: *versprechen*, *geloben*, *schwören*, *drohen*, *anbieten*, *schulden*, *lernen*, *versichern*, *gestehen*, *zugeben*, *verraten*, *eröffnen*, *verheimlichen*, *bestreiten*, *sich rühmen*, *sich entschuldigen*, *sich beklagen*, *sich beschweren*. As most of the sentences (8)–(23) have close equivalents in German, it is sufficient to give only a few examples:

- (8') Der Dichter versprach seinen Freunden, nicht mehr zu reimen
- (9') Der Dichter schwor/gelobte Erato, nicht mehr zu reimen
- (11') Der Tyrann drohte dem Dichter (damit), seine Zunge abschneiden zu lassen
- (13') Peter schuldet es seinen Kindern, das Ansehen ihrer toten Mutter wiederherzustellen



- (16') Er gestand seinem Freund, das Geld gestohlen zu haben  
 (20') Er verheimlichte seiner Ehefrau, die Frau schon getroffen zu haben  
 Whereas the majority of these verbs take a surface object in the dative case, a few verbs only occur with a verb-specific prepositional phrase ('verbspezifische Präpositionalangabe'; cf. Engelen 1975: 161 - 176):  
 (17') Er gab vor der Polizei zu, einen Mord begangen zu haben  
 (21') Er rühmt sich oft gegenüber seinen Freunden, der beste Tennisspieler in der Stadt zu sein  
 (23') Er beklagte/beschwerte sich bei seinem Chef (darüber), nicht genug Arbeit zu haben

In view of these exceptions, the general validity of Rosenbaum's Erasure Principle can no longer be sustained. This is not very surprising if one stops to consider that Rosenbaum tries to explain purely on the basis of structural considerations what turns out to be very clearly a semantic phenomenon.

Before I go to outline a solution to the control problem on a semantic basis, I would like to comment briefly on a few other proposals that have been put forward by Stockwell et al. (1968), Postal (1970), and Jackendoff (1972).

The objections raised against Rosenbaum's analysis also hold against the solution proposed by Stockwell et al., because it merely constitutes a reformulation of Rosenbaum's Erasure Principle in terms of case grammar. That this is true is evident from their attempt to explain the sentence

- (24) He promised us to leave at once  
 as a 'simple blend' of the two constructions (25) and (26) without presenting any evidence for their assumption (Stockwell et al. 1968:560):  
 (25) He promised us that he would leave at once  
 (26) He promised to leave at once

Postal (1970:470 - 476) proposes that the determination of the controller is to be accomplished by three *modal constraints* which he calls the *Ought*, the *Will Would*, and the *Would of intention* modal constraint. Specifically, he propounds that sentences containing infinitive constructions of the kind under consideration here should be derived from underlying structures in which the complement contains a modal. Thus, in the following pairs which serve as examples for the three modal constraints each, the (b) sentences should be considered transformationally derived from the structures underlying the (a) sentences:

- (27a) Harry told Max<sub>1</sub> that he<sub>1</sub>  $\left. \begin{array}{l} \text{should} \\ \text{ought to} \end{array} \right\}$  enlist in the army  
 (27b) Harry told Max to enlist in the army (Postal 1970:471)  
 (28a) George asked Bill<sub>1</sub> if he<sub>1</sub> would help Mary  
 (28b) George asked Bill to help Mary (Postal 1970: 473)

(29a) Harry, promised Bill that he, would visit Greta

(29b) Harry promised Bill to visit Greta (Postal 1970:475 f)

Apart from the question of whether the (a) and (b) sentences are really paraphrases of each other, which is certainly doubtful at least in the cases of (27a) and (27b), Postal's proposal leads to difficulties with verbs that do not allow dependent *that*-clauses at all. Thus, for verbs like *beg*, *beseech*, *implore*, Postal is forced to require an obligatory rule that transforms the embedded sentence into an infinitive complement (Postal 1970:474). The choice of the correct modal constraint for verbs like these obviously becomes rather arbitrary.

It should be noted that Postal is only concerned with analysing linguistic verbs used non-declaratively. His modal constraints therefore do not apply to a large group of non linguistic verbs like *force*, *oblige*, *prevent*, although they involve controller uniqueness just as the other verbs do. Moreover, Postal does not mention the class of linguistic verbs that require their complements to be *vorzeitig*, i.e., they require the action, process, or state referred to by the complement to be previous to the action referred to by the matrix sentence, as in the following examples:

(30) The police accused/suspected the poet of having stolen the money

(31) He apologized to his wife for having written the letter

It would clearly be absurd to claim the presence of a modal in the deep structure of these gerund complements. Accordingly, no modal constraint is available to explain the differing coreference constraints in sentences like (30) and (31).

The conclusion seems inevitable that the modal constraints neither fully succeed in predicting which particular noun phrase must be the controller in specific cases, nor do they adequately designate the verbs that require controller uniqueness. Although Postal's analysis does not provide a satisfactory solution, it nevertheless points to the fact that the verbs under consideration share a semantic feature which allows for the unique determination of the controller.

Jackendoff (1972:207 - 228) proposes to account for these facts by what he calls *networks of coreference*, which he defines as well-formedness conditions imposed by particular verbs on the semantic representation of sentences in which they occur. The networks of coreference are, in turn, defined with regard to his *thematic relations* with which these verbs are associated in functional sentence structure. The thematic relations may be viewed as being equivalent to Fillmore's case relations; the objections Jackendoff (1972: 34 - 36) raises against this comparison have been removed by Fillmore's (1971a) revision of case grammar. The coreference condition necessary to identify the controller would thus be a function of the thematic relations associated with a particular verb.

It should be pointed out, however, that Jackendoff's proposal does not lead to a generalization of the kind that a certain thematic relation without exception acts as the controller in complement subject deletion under coreference. This entails that Jackendoff has to state his networks of coreference for each verb, or class of verb, individually. Accordingly, he assigns the same set of thematic relations to the verbs *permit* and *force* as to verb *promise* (1972: 216 f), which requires him to state that for the first two verbs control lies with the thematic relation that is ordinarily realized as surface object, whereas for *promise* it is the thematic relation that ordinarily forms its subject.

Apart from these shortcomings, Jackendoff's proposal again supports the conclusion arrived at above that the coreference constraints under discussion are a function of certain semantic features common to predicates that allow infinitive and gerund complements, because his thematic relations may be considered as general semantic properties of predicates.

I would now like to show that it is possible to avoid having to mark each verb individually for control. This seems feasible to me on the basis of case grammar. I propose to refer to the following set of semantic case relationships, which are given below together with shortened versions of Fillmore's definitions of them (Fillmore 1971a:41):

Agentive	(A) instigator of an action, animate
Experiencer	(E) the affected of a psychological event or in a mental state, animate
Instrumental	(I) instrument; stimulus in a mental event
Objective	(O) semantically most neutral case
Source	(So) the origin or starting point of an action
Goal	(G) the receiver, or end point, of an action

For obvious reasons, I cannot go deeply into the problem of how particular predicates can be shown to associate with one or several of these cases. It must be sufficient to mention that a number of syntactic tests, such as the imperative test, the *do so* test and the *happen* test, may serve for distinguishing among Agentives, Experiencers, and Objectives (cf. Cruse 1973 and Dillon 1974). Other paraphrase tests may be available for identifying Instrumentals (cf. Nilsen 1972 and 1973). I must, however, go into the question of how Source and Goal are to be assigned to particular verbs, because it will prove essential to the following argument.

Abstracting from their originally locative meaning, Fillmore uses these two cases to account for the converse relation between verbs like *lend* and *borrow*, or *sell* and *buy*. Two lexically distinct predicates are said to be the converse of each other if they imply each other, and if the lexical substitution of one term for the other coincides with a reversal in the position of two of their noun

phrases. This may be illustrated by the following examples in which I have indicated the case roles non-formally:

(32a) *The poet sells roses to schoolgirls.*

A=So            O            G

(32b) *Schoolgirls buy roses from the poet*

A=G            O            So

By allowing two separate underlying cases to be represented by a single surface noun phrase, Fillmore is moreover able to explain the well-known differences and similarities in the meaning of the verbs *give*, *get*, and *take*

(33a) *Peter gives the book to Mary*

A=So            O            G

(33b) *Mary gets the book from Peter*

G            O            So

(33c) *Mary takes the book from Peter*

A=G            O            So

To indicate the difference between (33b) and (33c) as each being the converse of (33a) I suggest we call sentences like (33b) *process-converses* and sentences like (33c) *action-converses*. The three of them all imply unilaterally the following *result-sentence*:

(33d) *Mary has the book*

This way of accounting for converseness receives further independent support from the results of Bendix' (1966:76) feature analysis of *give*, *get*, *take*, *lend*, *borrow*, and a few other verbs.

It follows from these considerations that the best way of establishing that a given predicate has Source and Goal among its cases is to show that it has at least one converse term. Let us therefore examine another well-known pair of converse verbs, namely *teach* and *learn*, which may, as opposed to the verbs examined before, take infinitive complements as their objects. Consider the following examples, where I have again indicated the cases non-formally:

(34a) *The archer taught the poet to hunt with bow and arrow*

A=So            G            O

(34b) *The poet learned from the archer to hunt with bow and arrow*

A=G            So            O

(34b) has been given above as a counterexample to Rosenbaum's

Erasure Principle. It is important to observe that in both (34a) and (34b) the noun phrase understood to be coreferential with the erased complement

subject is *the poet*. The same coreference condition obtains in German, as may be illustrated by the translation equivalents of (34a) and (34b).

(34a') *Der Bogner lehrte den Dichter, mit Pfeil und Bogen zu jagen*  
 A=So                                G                                O

(34b') *Der Dichter lernte vom Bogner, mit Pfeil und Bogen zu jagen*  
 A=G                                        So                                        O

In each of the four sentences, the Goal in the matrix sentence must be then controller. This is obviously the point where the controller problem and the converseness analysis converge. If a semantic erasure principle can be formulated in terms of case relationships at all, and it must be kept in mind that case relationships represent certain general semantic properties of predicates, the consideration of these sentences leads to the conclusion that the controller is determined on the basis of the Source-Goal relation.

To support this proposal, it would, strictly speaking, be necessary to show that each of the large group of verbs like *permit*, *advise*, *ask*, *accuse*, *force*, has a converse. As all of these verbs require their surface objects to be coreferential with the deleted complement subject, we are led to assume, on the analogy of *teach*, that their objects are Goals. These verbs, however, do not appear to have lexically distinct converse terms either in German or in English, whereas they all permit of grammatical conversion, i.e. passivization. It is a well-known fact that the passive transformation does not affect the coreference relation under discussion, and a passivized sentence may be said to correspond to the process-converse mentioned above.

Another way out of this dilemma is to use paraphrases with corresponding verbal nouns, e.g.:

(35a) John permitted the children to go to the zoo

(35b) John gave the children permission to go to the zoo

(35c) The children got permission from John to go to zoo

The last sentence correlates with the passive version of the first one:

(35d) The children were permitted (by John) to go to zoo

The corresponding result-sentence would be as follows:

(35e) The children had permission to go to the zoo

This may not, under closer examination, prove to have a general application, because such paraphrases are not available for each of these verbs, but it certainly supports the analysis under the given conditions.

It should be observed, however, that these paraphrases do not seem to distinguish verbs like *permit* from verbs like *promise*, as is evident from the following examples as compared to (35a-o):

(36a) The poet promised his friends to rhyme no more

(36b) The poet gave his friends the promise to rhyme no more

(36c) His friends received the promise from the poet to rhyme no more

In view of these similarities, Jackendoff (1972:214 - 219) is led to assume the same set of thematic relations for *permit* and *promise*. Observe, however, that the process-sentences with *promise*, as opposed to those with *permit*, are very odd if the Agentive is left out:

(36d) \*His friends received the promise to rhyme no more

(36e) \*His friends were promised to rhyme no more

The German translation equivalents with *versprechen* exhibit the same oddness, while those with *erlauben* do not:

(36d') \*Die Freunde erhielten das Versprechen, nicht mehr zu reimen

(36e') \*Den Freunden wurde versprochen, nicht mehr zu reimen

(37) Die Kinder erhielten die Erlaubnis, in den Zoo zu gehen

On the other hand, sentences with nominalizations instead of infinitive complements are quite acceptable:

(38) John was promised an expeditious consideration of his application

(38') Hans wurde eine schnelle Bearbeitung seines Antrages versprochen

Thus, it seems that the sentences (35) - (38) do not clearly support the assumption that the surface object of the verb *promise*, in contradistinction to *permit* and similar verbs, is not Goal but some other case. It is therefore necessary to produce some more evidence.

For this, let us in the first instance consider more closely the list of verbs given above as exceptions to Rosenbaum's Erasure Principle. Apart from *learn*, which has already been attended to, and *owe*, which I propose to deal with shortly, they are verbs that denote specific linguistic performances. This is true also for *offer* when it is used with an infinitive complement. The greatest common semantic measure for the objects of these verbs therefore is the feature *hearer of a specific linguistic performance*, which may be marked positively or negatively, thus accounting for verbs like *conceal*.

In contrast to this, the other group of three-place verbs, such as *permit*, *accuse*, *force*, *suspect*, *prevent*, also includes non-linguistic verbs, and consequently their objects do not allow of the same common characterization. For them, the greatest common semantic measure more generally is the feature *participant affected by the action or process denoted by the verb*. The definition must include *process* to account for the objects of Experiencer verbs like *envy* and its German counterpart *beneiden*, e. g.:

(39) The boy envied the other children for being allowed to play outside

(39') Der Junge beneidete die anderen Kinder (darum), draußen spielen zu dürfen

These two characterizations may seem rather vague, but it must be kept in mind that they constitute generalizations which are to cover a considerable number of almost disparate applications.

It is important to observe that the salient point of these characterizations is the distinction between two different kinds of objects. Although they appear to

coincide in the case of verbs like *accuse*, it can be shown that they must be kept apart. This is evident from instances where the two co-occur, e.g. in the German sentence:

(40) Maria beschuldigte *Peter vor allen Leuten*, ihre Dissertation gestohlen zu haben

It is not even necessary that the accused person is actually present when the accusation is made, e. g.:

(41) Während seiner Abwesenheit beschuldigte Maria *Peter allen Leuten gegenüber*, ihre Dissertation gestohlen zu haben. A literal translation of this sentence would be as follows:

(41') While he was absent, Mary accused *Peter in front of everybody* of having stolen her dissertation

The possibility of the two kinds of objects co-occurring is due to the fact that any linguistic verb notionally implies the presence of a hearer, although not all of them allow it to occur in surface structure. Thus, it was possible to quote sentences like (17) and (21) as counterexamples to Rosenbaum's Erasure Principle:

(17) He admitted to the police to having committed murder

(21) He often boasts to his friends of being the best tennis-player in town  
With verbs like *admit* and *boast*, *that*-clauses are usually preferred to infinitive complements when they co-occur with this kind of object. That accounts for the impression that sentences like (17) and (21) are somewhat unusual, although they are in the opinion of a native speaker by all means grammatical. In English, these verbs apparently require their objects almost invariably to take the preposition *to*, with the exception of *conceal* which takes *from*, whereas the corresponding German verbs take the prepositions *zu*, *vor*, *gegenüber* and *bei*. It has already been pointed out, however, that in German there is with objects of this kind no clear-cut distinction between those that require these prepositions and those that are datives morphologically.

Moreover, it is interesting to observe in this connection that in both English and German there are other verb-specific prepositional phrases which in fact impose a secondary coreference constraint on the complements to verbs that ordinarily do not impose them. Thus, (41') may be compared to the following sentences:

(42) Mary said to her friends *about Peter* that he had stolen her dissertation

(43) \*Mary said to her friends *about Peter* that Bill had stolen her dissertation  
The latter sentence obviously is meaningless in that the complement does not refer to *Peter*, unless one assumes that *Peter* is a girl referred to by the pronoun *her*.

All this seems to support the assumption that the objects of the verbs just discussed are semantically distinct from those of the other verbs. At this point I cannot go into the question of whether it is possible to identify the

former with one of Fillmore's cases. To leave the question open for the time being, let us call it the X case.

There is, however, evidence that the characterization of X, as opposed to that of Goal, has to be slightly modified. For this, consider the following quotation from the *OED* (s. v. *oblige*):

(44) In gratitude for the bequest of Preston, the town council obliged *themselves to his son* to build that aisle to his memory

*Oblige* obviously belongs to the class of verbs that take a Goal object, and accordingly *themselves* is to be classified as such, while *to his son* can only be assigned to case X. The same is true of the corresponding German verb *verpflichten*:

(44') Aus Dankbarkeit für Prestons Vermachtnis verpflichtete *sich* des Stadtrat *seinem Sohn gegenüber* (dazu), das Seitenschiff zu seinem Gedenken zu erbauen

Although *oblige* and *verpflichten* seem to be linguistic verbs here, they can also be used in a non-linguistic meaning. Thus, the characterization of X should be modified so as to include possible non-linguistic verbs. I would suggest the following: *participant involved in (but not affected by) the action, process, or state denoted by the verb*. The characterization must include *state* to account for verbs like *owe*, as we are going to see immediately.

Now, it is relevant to compare the verb *oblige oneself* with *promise*, *swear*, *vow*, and *threaten*. They all denote the performance of a speech act that, to different degrees, binds the speaker to the hearer with regard to a future action for or, in the case of *threaten*, against the hearer. *Oblige oneself* can be said to be the superordinate term, while the other three verbs are its hyponyms, i.e. they each imply the superordinate term (cf. Lyons 1968:453 - 455).

This comparison points to a very interesting conclusion. Consider the following set of sentences:

(45) They obliged *themselves to the son* to erect a statue to the memory of his father

(46) They promised/threatened/ swore to/ vowed *to the son* to erect a statue to the memory of his father

(47) They owed it *to the son* to erect a statue to the memory of his father  
We can observe that the object representing Goal in (45), i.e. *themselves*, does not appear in the sentences (46) and (47), whereas case X, i.e. *to the son*, appears in three of them. (47) is obviously the result-sentence of (45) and (46), differing notably from other result-sentences in that *owe* requires an object.

For these reasons, we are led to assume that *promise*, *threaten*, *swear*, and *vow* incorporate the missing Goal, which it seems must be coreferential with the surface subject. In other words, the verbs under consideration are semantically reflexive.



The same conclusions are valid for German, as can be inferred from the following sentences:

- (45') Sie verpflichteten *sich dem Sohn gegenüber*, eine Statue zum Gedenken an seinen Vater zu errichten  
 (46') Sie versprachen/drohten/schworen/gelobten *dem Sohn*, eine Statue zum Gedenken an seinen Vater zu errichten  
 (47') Sie schuldeten es *dem Sohn*, eine Statue zum Gedenken an seinen Vater zu errichten

Furthermore, this conclusion can be corroborated by comparing some English verbs which I have already mentioned as constituting exceptions to Rosenbaum's Erasure Principle to their reflexive German counterparts, i.e. *offer/sich er bieten*, *apologize/sich entschuldigen*, *complain/sich beklagen*, *boast/sich rühmen*. For reasons of space, I cannot go into details in this paper.

My aim would be to show that in all instances in which verbs as those examined above impose coreference constraints not only on dependent infinitive complements, but also on other complements such as *that*-clauses, the Source-Goal relation is relevant to coreference.

The result of the present paper is the following Erasure Principle: The Goal of the matrix verb deletes the subject of the infinitive complement.

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## SOME ASPECTS OF MODIFICATION IN ENGLISH AND POLISH — PEDAGOGICAL IMPLICATIONS

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The remarks presented in this paper follow the author's research on the distinction between restrictive (R) and nonrestrictive (NR) modification in English and Polish. The results were partially discussed elsewhere (Muskat-Tabakowska, 1976), but the analysis of the data made it seem justified to discuss certain aspects of the problem separately, in view of their pedagogical implications.

The arguments presented further in this paper result from the following observations. R and NR modification (of both types, i.e. S-modification and NP-modification), nearly absent from written compositions produced by learners on the intermediate level (i.e. students of junior years of English Philology), become relatively frequent in the work of more advanced students (years IV and V). The latter refers mainly to NR modification with free modifiers in the sentence final position, which confirms the opinion expressed by F. Christensen, who considers this particular structure as one of the characteristics of 'mature style' (Christensen 1968:575).

In spite of the level of proficiency in English which enables the students to produce sentences of considerable length and syntactic complexity, errors attested in their work prove that they are often unaware of the existence of conventional, formal and semantic criteria that distinguish between the two kinds of modification. Consequently, the students do not realize that faulty punctuation — in absence of the other criteria — can result in blurring the distinction and lead to distortion of meaning. The nature of these errors changes in a characteristic way during the course of learning, and is strictly related to syntactic preferences. Students of junior years use restrictive modifying clauses more frequently than the non restrictive ones, the most common error being the use of the 'surplus' comma in front of the relative pronoun

(for discussion, see Muskat-Tabakowska, 1976). In senior years, however, the preference for NR modification becomes evident, the absence of comma preceding the relative pronoun being a frequent error. It is the systematic character of both types of error that accounts for my conviction that they reflect some sort of transitional competence on the part of the learners.

As 'superfluous' punctuation seems to disappear at the later stages of learning,<sup>1</sup> it is mainly 'inadequate' punctuation that I intend to consider in this place. It is the purpose of this paper to provide some suggestions concerning possible remedial procedures, as the limitation of the scope of this investigation has also been promoted by the disquieting discovery that not only does the error persevere, but it becomes more frequent in the work produced by students whose formal education in the field of the English language has practically been completed.

The starting point for the present discussion was an analysis of all instances of modification, encountered in 43 essays written by the fifth year students as a part of requirements for the examination in Methods of Teaching in the Institute of English of the Jagellonian University.

The results of the analysis are given below:

Types of modification	RESTRICTIVE		NONRESTRICTIVE		
	Correct punctuation	'Surplus' comma	Correct punctuation	No comma, no ambiguity	No comma, potential ambiguity
	14	5	16	15	17
Totals	19		16	32	
			48		
	67				

In spite of their limited scope, the data confirm my earlier hypothesis: the rule which requires insertion of a comma in front of the pronoun in *any* relative clause (which is most probably due to the interference of the learners' native tongue) is eradicated during the process of formal teaching. The new rule ('no comma introducing *any* relative clauses') occurs as the result of overgeneralization, which accounts for inadequate punctuation in cases of NR modification. This was also confirmed by some data taken from English texts written by Poles who are highly proficient in English but who had learned the language by the natural method and had never received any formal education. Cf.

1. *The investigation, which was carried out, made possible preliminary determination of SO<sub>2</sub> distribution in space and time.*

(R, written by a person who learned English in Britain, where he spent several years).

<sup>1</sup> For a detailed discussion of this problem, see Muskat-Tabakowska 1976.

Such instances most probably result from interference, reinforced by observation of linguistic data (i.e. cases of NR modification) which cannot be properly classified because the principle of classification is unknown. Cf., however.

2. *The Department of Analyses and Forecasting of Atmospheric and Water Pollution, where the proposed investigation would be conducted, employs 28 workers.*

(NR, from the same text as ex. 1)

As the data seem to show, both presence and absence of formal normative tuition can result in overgeneralization. The former leads to inadequate, the latter – to superfluous punctuation. This in turn suggests that although the taxonomy of modifying relative clauses must be taught, some new techniques should be introduced in order to make the process of teaching more effective. It was the search for such techniques that provided an incentive for the following investigation.

In Polish, punctuation of both R and NR clauses is regulated by a 'categorically demanding rule' ('przepis bezwzględnie nakazujący', cf. Przylibscy 1973:22) which requires that the clause is set off by two commas – the 'opening' and the 'closing' one. The nature of the rule is purely conventional, which accounts for systematic ambiguity (in respect of R vs. NR modification) of all modifying clauses that are not disambiguated by some other factors.

In English, the comma is 'the most flexible of all punctuation marks in the range of its use and it has eluded grammarians' attempts to categorize its uses satisfactorily' (Quirk et al. 1972:1058). In spite of the fact that investigating the system of punctuation means 'dealing with tendencies which, while clear enough, are by no means rules' (Quirk et al. 1972:1061), a fairly general rule has been formulated which states that 'a comma occurs before a relative pronoun in a non-restrictive clause, matching the commencement of a new tone unit' (Quirk et al. 1972:1064).

In Polish, this part of the rule that demands the use of the 'closing' comma is gradually becoming a purely normative prescription, as its omission is the common practice among the native speakers of Polish (cf. Przylibscy 1973:46). Ample evidence can be found in written and printed texts of all sorts. The 'opening' comma, however, is a proverbial 'must' with the educated Poles.

In English, the corresponding rule – despite its differentiating function – also seems mostly prescriptive with many native speakers. The data collected for the purposes of this investigation prove that the comma – written equivalent of the 'comma intonation' – is used mainly in those cases in which the lack of punctuation would make reading difficult, result in significant ambiguity, or lead to misunderstanding.

The examples which were used to check this hypothesis come from an informal letter, written by an English girl (with a university diploma in humanities). The letter included eight instances of NR relative clauses, only four of

which were preceded by a comma. The remaining four were presented to five native speakers of English, who were given the text in its entirety. It was accompanied by a note explaining that it was selected for the purpose of testing a group of students in comprehension, and that they were kindly asked to correct all mistakes that they might find in it. Four of my informants were British, the fifth was an American, all of them were educated (university diplomas), two were professional teachers of English. The sentences, as well as the results, are given below.

3. *Rita left our flat to go to Milan where she is now teaching English.*

(An obvious case of NR modification. Comma supplied by one informant, a professional teacher of English).

4. *With the three-day week, we went home early on Thursdays and Fridays which was a bright light in the gloom!*

(NR S-modification. None of the informants supplied the comma).

5. *The Warsaw Book Fair is from 19th to 24th May this year, two days shorter than before which will be a good thing as the last two days did drag...*

(NR S-modification. Comma supplied by one informant — the same as in case of 3. — probably in order to set off the inserted adverbial phrase.)

6. *We have also been to various plays which we have enjoyed.*

(NR NP modification. *we had first seen the plays and only afterwards enjoyed them*, which rules out the possibility of R modification. None of the informants supplied the comma).

The necessity of using a comma in the remaining four NR clauses was confirmed by all informants, who acknowledged the disambiguating or clarifying function of punctuation in these cases:

7. *Many thanks for the lovely postcard from the mountains, which arrived this morning.*

(There was only one postcard, and it arrived this morning.) cf.

7a. *Many thanks for the lovely postcard from the mountains  $\left\{ \begin{array}{l} \text{which} \\ \text{that} \end{array} \right\}$  arrived this morning.*

(There were more postcards, and one of them arrived this morning).

8. *It has been very mild, but we had one surprise morning of snow, which had all melted by the afternoon.*

(Snow came as a surprise, but it melted soon.)

cf.

8a. *\*It has been very mild, but we had one surprise morning of snow  $\left\{ \begin{array}{l} \text{which} \\ \text{that} \end{array} \right\}$  had all melted by the afternoon.*

(Semantically unacceptable).

9. *She is hoping to go into social work, which she was doing here before.*

(She is hoping to begin doing the same kind of work.)

cf.

9a. *She is hoping to go into social work*  $\left\{ \begin{array}{l} \textit{which} \\ \textit{that} \end{array} \right\}$  *she was doing here before.*

(She is hoping to come back to the same job.)

10. *Please thank Tadek for his letter, which I have sent to be framed.*

(There was only one letter, and it will be framed.)

cf.

10a. *Please thank Tadek for his letter*  $\left\{ \begin{array}{l} \textit{which} \\ \textit{that} \end{array} \right\}$  *I have sent to be framed.*

(There were more letters, and one of them will be framed.)

These examples seem to imply that the native speaker's linguistic intuition accounts for less correspondence between intonation in speech and punctuation in writing than it is usually given credit for. Punctuation is not used consistently as a means of 'recording intonation'. Once the discrepancy between the norm and usage is stated, however, there does not seem to be much point in teaching the former, which the traditional approach tends to do. Consequently, one must begin by looking for criteria of differentiation between the two types of modification other than the unreliable, mainly conventional and normative, criterion of presence or absence of a comma.

The deep structure of relative clauses, both R and NR, is apparently the same for the two languages under consideration. Out of the existing interpretations, I feel inclined to accept the one presented by Sandra A. Thompson, i.e. the assumption that an 'appropriate underlying representation for a relative clause sentence is a conjunction' (Thompson 1971:80). At least in case of NR modification such an interpretation seems widely accepted, and it is generally assumed that all NRs must be derived from sequences of sentences. In respect of Polish, traditional taxonomies based on semantic criteria consider relative clause sentences as having "za podstawę to, że oba mówią o tym samym przedmiocie".<sup>2</sup> cf. "a relative clause sentence is equivalent to two independent predicators on the same argument" (Thompson 1971:80). NP and S-modifying NR clauses had not been isolated till relatively recently (both R and NR relative clauses were classified as 'przydawkowe' – attributive, cf. discussion in Tabakowska 1966). However, one of the earliest definitions emphasises the aspect of tense in such clauses,<sup>3</sup> as well as semantic import of the relative pronoun itself: "... a zaimki *który, co* oznaczają to samo, co *a on, a ten, i on, on zaś*".<sup>4</sup> This function of the relative pronoun was also noticed by Thomp-

<sup>2</sup> ... based upon the fact that they both refer to the same object' (Klemensiewicz 1937:255 - 256), quoted in Tabakowska (1966:133)).

<sup>3</sup> A factor seemingly more significant in Polish than in English. Detailed discussion of this aspect of the problem, however promising, exceeds the scope of this paper.

<sup>4</sup> ... and the pronouns *which, what* (= *which* in English, EMT) mean the same as: *and he, and this one, but he*' (Krasnowolski (1898:120), quoted in Tabakowska (1966:134)).

son, who uses it as one of formal criteria of identification of such clauses.<sup>5</sup>

Klemensiewicz (1963: 86), who acknowledges the existence of the distinction between R ('zdania przydawkowe') and NR ('zdania rozwijające') relative clauses, enumerates the following formal criteria which he considers characteristic of the former (but *not* the latter) category:

3. Criterion of clause reduction:

a. the V of the VP in the relative clause can be replaced with a participle ('imiesłów przymiotnikowy czynny lub bierny'), e. g.

11. *Zły to ptak, co własne gniazdo kala.*

11a. *Zły to ptak, kalający własne gniazdo.*

cf.

11b. *It's an ill bird that fouls its own nest.*

11c. *It's an ill bird fouling its own nest.*

b. the V of the VP in *some* (sic) of such relative clauses can be placed with a gerund, eg.

12. *Starożytny był zwyczaj, iż dziedzice rowi na pierwszej uczcie sami służyli ludowi.*

12a. *Starożytny był zwyczaj służenia samych dziedziców ludowi na pierwszej uczcie.*

cf.

12b. *There was an old custom such that the new squires themselves served the people at the first feast.*

12c. *There was an old custom of serving the people by the new squires themselves at the first feast.*

2. Criterion of attribute conjunction. a non-reduced relative clause can be joined to the attribute by means of a conjunction, eg.

13 ... *ową piosenkę, sławną dziś na całym świecie, a którą po raz pierwszy ... wygrały Włochom polskie trąby legijonów.*

cf.

13a. *?... that song, now famous all over the world, and which was played to the Italians for the first time by the Polish legions trumpets.*

<sup>5</sup> Thompson acknowledges the existence of certain restriction on this test, and cannot be used to combine the main clause and the NP-modifying NR clause if one of the constituents is either a question or an imperative; cf. her example:

*Tell your father, who is outside, that supper is ready.*

but:

\* *Tell your father that supper is ready, and he is outside.*

The test applied to the Polish equivalent of the sentence gives:

*Powiedz ojcu, który jest na dworze, że kolacja gotowa.*

\**Powiedz ojcu, że kolacja gotowa, i on jest na dworze.*

?*Powiedz ojcu, że kolacja gotowa, a on jest na dworze.*

It seems likely that possible acceptability of the last of the above sentences results from the distinction between semantic import of the conjunction *and* as compared with *a*. Detailed discussion exceeds the scope of the present analysis.



3. Criterion of 'augury': in the main clause deictic pronouns *ten* (this), *ów* (that), *taki* (such) are used, which introduce the contents of the relative clause, eg.

14. *Odrodzenie nastąpi przez tych, którzy idą.*

cf.

14a. *Renaissance will be brought about by those who keep going.*<sup>6</sup>

As shown in Tabakowska (1966), none of these criteria can be considered reliable; either because they only apply in some cases (eg. there are verbs in Polish which do not form attributive participles) or else because they apply to evidently NR clauses as well, cf. eg.

15. *Pierwszą książkę Wojciechowskiego, napisaną w 1966 r., pożyczyła mi Maria.* (Criterion 1a)

cf.

15a. *Wojciechowski's first book, written in 1966, was lent to me by Maria.*

16. *Wspominała lata wojny, lata szamotania się ze złym losem.*

(Criterion 1b)

cf.

16a. *She remembered the years of war, the years of fighting against the cruel fate.*

17. *Aktorka Maja Komorowska, bardzo już sławna, a której ja jeszcze nie oglądałem, nieczęsto występuje w telewizji.*

(Criterion 2)

cf.

17a. ? *Actress Maja Komorowska, already very famous and whom I have not yet seen, seldom appears in TV.*

18. *Tę książkę, która jest już powszechnie znana, pożyczyła mi Maria.* (Criterion 3)

cf.

18a. *This book, which is already very well-known, was lent to me by Maria.*

Klemensiewicz himself uses the criteria with considerable lack of consistency, and the distinction between the two types of modification often becomes blurred. This can be easily seen in the sentence 13. above, which is apparently an instance of NR modification (the 'augury', i.e. the pronoun *ową*, clearly refers back to some restriction imposed by the earlier context, which has not been quoted). Similarly, sentences qualified as 'rozwijające' (examples given in Klemensiewicz (1963:101) fulfil criterion 1b and, as was rightly observed by Tabakowska (1966:137), are intuitively felt to be 'attributive' (i.e. restrictive).

As is seen from the English versions of 11. - 18., all the above remarks apply to English in the same measure as they apply to Polish. The failure of Kle-

<sup>6</sup> Examples 11. - 14. from Klemensiewicz 1963:86. The headings — EMT.

mensiewicz's formal criteria, as well as evidence given by Thompson, seem to imply that the distinction between R and NR modifying clauses has no syntactic foundations, either in English or in Polish. To quote Thompson (1971:87) again, "the differences between restrictive and non-restrictive relative clause sentences are not of the sort that ought to be represented structurally, instead, they are differences representing a speaker's decision about how to present to the hearer information present in the modifying representation".

It is precisely this decision that in Polish often becomes overtly manifested in the surface structure of NR relative clause sentences. Namely, the NR modifying clauses can include one of the limited set of semantically cognate adverbs (or adverbial phrases).<sup>7</sup> The list includes such items as *zresztą* (after all), *naviasem mówiąc* (by the way, incidentally), *nota bene*, *w dodatku* (in addition), etc. The semantic import of all these lexical items emphasises the supplementary ('rozwijający') character of information conveyed by the relative clause, and they cannot occur with R modification. Cf. eg.

11d. *Zły to ptak, który*  $\left. \begin{array}{l} \text{zresztą} \\ \text{naviasem mówiąc} \\ \text{nota bene} \\ \text{w dodatku} \\ \vdots \\ \vdots \end{array} \right\} \textit{własne gniazdo kała.}$

11d. can be interpreted only as a case of NR modification. *This one is an ill bird, and -- on top of everything else -- it fouls its own nest.* Thus, the meaning of 11d. is equivalent to

11e. *It is an ill bird, which fouls its own nest.*

Cf. also

11f. *Zły to ptak, i kała własne gniazdo.,*

which is equivalent to

11g. *It is an ill bird, and it fouls its own nest.*

The conjunctions *jednak* (however), *przecież* (and yet), *wszakże* (all the same), *baądź co baądź* (nevertheless), etc. are also used in NR relative clauses, in such cases in which the relative clause conveys some information whose semantic import contrasts with the contents of the main clause or comes as something unexpected by the sender of the message<sup>8</sup>, cf.

<sup>7</sup> These are called 'wskaźniki zespołena wypowiedzi współrzędnych' and discussed in Twardzikowa (1969:137), who considers them as one of the formal criteria of differentiating between 'rozwijające' (developing) and 'uzupełniające' (complementing) relative clauses in Polish.

<sup>8</sup> In Polish taxonomies, these conjunctions are classified as 'przeciwstawne' (contrasting), cf. eg. Szober (1963:105).

8b. *Ostatnio pogoda była bardzo łagodna, ale jednego rana nies. dziewanie spadł śnieg, który jednak całkiem stopniał już po południu.*<sup>9</sup>

To sum up, it can be stated that — apart from semantic considerations — the following criteria of differentiation between R and NR relative clauses can be established:

- I. English: 1. NR clauses are never introduced by the pronoun *that*.  
 2. NR clauses are cut off by commas in cases of potential ambiguity or misunderstanding.  
 3. NR clauses can be represented as:  $S_1 + \text{and} + S_2$  (cf., however, footnote no. 5 above)
- II. Polish: 4. NR clauses often include certain lexical items that cannot occur with R modification.<sup>10</sup>  
 5. NR clauses can be represented as:  $S_1 + \left\{ \begin{matrix} i \\ a \end{matrix} \right\} + S_2$  (cf. footnote 5 above)

The criterion shared by English and Polish is, of course, the clearcut discrimination between R and NR modification in the spoken medium, i.e. by means of intonation. Its possible use in teaching was discussed elsewhere (Muskat-Tabakowska 1976). Apart from this distinction, to the best of my knowledge none of the criteria formulated above has been consistently employed in teaching. Allen (1959:235) offers an exercise based on criterion 3 above, discussing it under the heading of 'Connective Relative'. In the same textbook, we find an exercise which requires that NR relative clause sentences are split into separate constituents in order to yield 'an acceptable spoken form of narrative' (Allen 1959:233). Otherwise, most of the exercises involve recognition ('In which of the following sentences are commas required?', Pink 1954:29). Production is usually limited to exercises that require combination of ready-to-be used clauses ('Combine the following pairs of sentences by means of non-defining relative pronouns' (Allen 1959:231)). The obvious disadvantage of such exercises seems to be that they consist of separate items, devoid of both linguistic and extralinguistic context. In order to elicit expected response, the items must be either fairly obvious eg.

19. *Julius Caesar came to Britain in 55 B. C. He was a powerful Roman general.*  
 (Allen 1959:231),

or else the entire amount of information needed for making proper classification must be crammed into a single sentence, which renders it artificial and overloaded, eg.

<sup>9</sup> Translation of 8. offered by one of my fourth year students.

<sup>10</sup> The possibility of occurrence of analogous items in the surface structure of English NR relative clauses cannot of course be excluded. However, they are less frequent — possibly because of the discriminating function of the comma.

20. *Louis XIV of France who reigned for seventy-one years and Francis Joseph who became Emperor of Austria in 1848 and survived with little to make life worth living up to 1916 are the only two crowned heads to eclipse the historic staying power of Victoria* (Pink 1954:32).

The result usually is that the exercise is done quite automatically, which does not ensure correctness of subsequent original production. And the ultimate purpose is, after all, to make prospective writers aware of the need to check whether a given sentence, placed in a given context, does indeed convey the meaning that it was intended to convey.

In view of the discussion presented earlier in this paper, conscious and systematic comparison between English and Polish seems a promising device, which in turn suggests the principles of cognitive code learning as the optimum approach. Such an assumption, utilizing the criteria of differentiation between English and Polish R and NR relative clause modification that were formulated above, entails the use of certain selected techniques. Out of those, the technique of translation seems to me most advisable. I would use it (as I actually do with my own students) 'primarily as an incentive for the student to approach the English (and Polish, as I suggest using translation both from and into the target language — EMT) text with a maximum of concentration' (Aarts 1968:226). The function of the entire text would consist mainly in providing semantic clues concerning interpretation of modifiers in respect of R vs. NR differentiation. Translation from Polish into English would entail conscious choice of the proper pronoun (*that* or no *that*) and emphasis on disambiguating factors, of which the comma is the most important one. On the other hand, translating from English into Polish would incorporate translating 'the meaning' of the non-restrictive comma, i.e. inserting into the Polish version lexical signals that in Polish perform the function of disambiguation of relative clauses in terms of their R or NR character. Both types of exercises would in fact involve what is called 'retranslation', i.e. provision of carefully selected and presented stimuli in the native tongue that are meant to elicit desired (and well defined) responses in the foreign language.

Apart from translation, paraphrase seems to be another useful technique. Exercises would be based on criteria 3 and 5, which — in view of their considerable similarity for the two languages under consideration — do not require the use of contrastive techniques.

Last but not least, in view of the fact that the R vs. NR ambiguity is finally resolved only on the basis of extralinguistic signals, i.e. assumptions of the writer (possibly defined in terms of focus and presupposition, cf. Jackendoff (1972; ch 6)), broad contextualization of teaching materials would also be postulated, eg in the form of commentaries, sets of questions drawing the students' attention to certain points, etc.

I hope that the above remarks would prove helpful if taken into consideration when preparing teaching materials. However, it is only actual implementation that can prove (or disprove, as the case may be) their practical value.

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