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ABSTRACT

This issue of the journal includes these papers on contrastive linguistics: "On Some Assumptions and Principles of Contrastive Grammar Illustrated from the Area of Reflexivity in Danish and English" (Torben Thrane); "Deletion in Coordinated Structures in English and Dutch" (Robert R. van Oirsouw); "Methods and Goals of Comparative Systematics" (Georges Garnier); "Color Words in English and Portuguese: A Contrastive Semantic Analysis" (John Robert Schmitz); "Those Relatives that Should Stack that Don't" (Elzbieta Tabakowska); "Towards a Pedagogical Grammar of Determiners: A Contrastive Approach" (Paul Robberecht); "Some Differences Between Arabic and English Comparative Structures" (Mohammad Anani); "Some Remarks About Translation and Style" (Hanne Martinet); "On the Relationship Between Communication Strategies and Learning Strategies" (Rolf Palmberg); "Comparing Sound Patterns" (Kari Suomi); "Contrastive Studies of Norwegian and Other Languages: A Bibliography" (Ernst Hakon Jahr). Reviews of the books, "Contrastive Analysis," by C. James and "Gramatyka Angielska dla Polakaw," by T.P. Krzeszowski, are also included. (MSE)

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TABLE OF CONTENTS

PAPERS AND STUDIES

REVIEWS

PAPERS AND STUDIES

ON SOME ASSUMPTIONS AND PRINCIPLES OF CONTRASTIVE GRAMMAR ILLUSTRATED FROM THE AREA OF REFLEXIVITY IN DANISH AND ENGLISH

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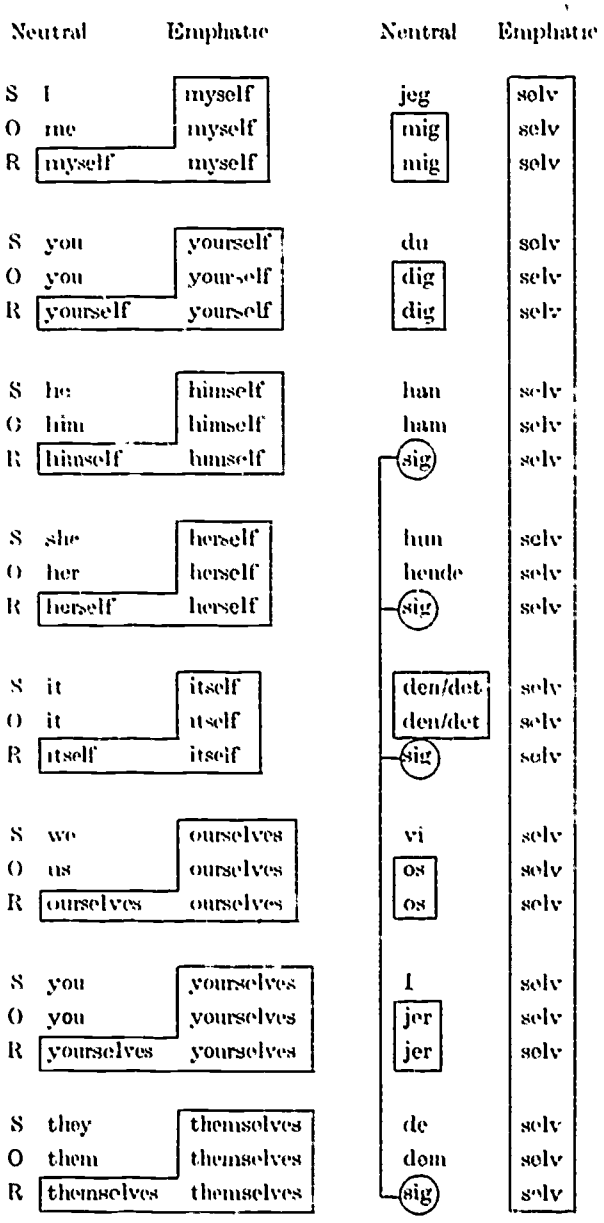
For the purposes of the present paper I shall take the business of contrastive linguistics to be the study of the structures of two (or more) languages with a view to revealing not only structural dissimilarities but also structural similarities in the languages in question.

This definition presupposes principled comparison between languages — and *principled* comparison presupposes clarification of procedures whereby we can ensure that we do not compare the apples of language A with the pears of language B. We are, in other words, up against the very basic issue of determining what language structure is, and how we determine whether a structural property of language A is the 'same' as a structural property of language B.

In order to make the discussion of these issues as concrete as possible I shall relate it to the non-exhaustive study of a specific grammatical area, that of reflexivity, and I shall be discussing some of the points necessary to giving a contrastive analysis of reflexivity in Danish and English.

Our initial assumption — that reflexivity is a structural property of both Danish and English, sufficiently alike to be considered the same in some sense — springs from the observational fact that both languages allow distinctions to be drawn within their pronoun systems along roughly the same structural lines. The appropriate sections are displayed in (1):

(1)



In this display, S = Subject-function, O = Object-function, and R = Reflexive-function, 'Neutral' and 'Emphatic' are two rhetorical functions – marked by stress, pitch and intonation – usually distinguished for the *English* reflex-

ive pronouns (cf. Thrane 1980: 231—234); formal neutralizations between different functions — syntactic as well as rhetorical — are indicated by boxes, but pay especial attention to Danish *sig*, the sole and unambiguously reflexive pronoun in Danish, which is common to 3rd person irrespective of gender or number. This form — whose presence in Danish is in fact the *only*[1] justification for recognizing a separate *class* of reflexive pronouns — is a descendant of the Proto IE 3rd person reflexives in *s-* (cf. German *sich*, Latin *se*, Polish *się*), which have been lost in English and supplanted by the *-self* forms.

One general point indicated by (1), then, is that neither orthographic, phonological, morphemic, nor etymological identity between sets of items in two different languages *in themselves* count as evidence of 'sameness' for the purposes of contrastive analysis. The ultimate conclusion of this is that contrastive analysis is not — not even in principle — restricted to genetically related languages. What counts is *structural* identity. But what, more precisely, do we mean by that?

Those days are long gone when we could pretend that a satisfactory analysis could be purely formal, with no regard to meaning at all. Unfortunately, however, we have not yet been able to come up with a clear account of the criteria by which different kinds of meaning can be recognized, especially with respect to the intuitively necessary distinction between lexical meaning and grammatical meaning. It is possible, however, to extract one pertinent criterion from most standard treatments of structural semantics, and although it may not be the only — or even the ultimate — one, I am confident that it will play a prominent part. It can be formulated as in (2):

> (2) Any minimal sign (i.e. meaningful element) which contracts hyponymical relations with other signs, does so in virtue of having lexical meaning. Conversely, any minimal sign that cannot be shown to contract hyponymical relations with other signs, does not have lexical meaning.

If we apply this criterion to the items in (1) we find that both the English and the Danish pronouns behave alike: neither set can be shown to enter

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[1] This is not strictly true. Danish also has a reflexive possessive determiner, *sin/sit*, in contrast to the non-reflexive possessive determiners *hans* 'his', *hendes* 'her', and *dens/dets* 'its', all of which can also have pronominal function. So, an English sentence like

(i) she kissed her brother

— has two formally distinct Danish translational equivalents:

(ii) (a) hun kyssede sin bror
(b) hun kyssede hendes bror

In (a), *hun* and *sin* are co-referential, in (b) *hun* and *hendes* are not. Incidentally, this is the only area of reflexivity where Danish differs from German to a significant extent, owing to the gender-restrictions on *sein* and *ihr* in German. The present paper is not the proper setting for a more detailed discussion of the fairly intricate distinctions between the Danish reflexive and non-reflexive determiners, which I reserve for separate treatment elsewhere.

hyponymical relationships with any other signs and are therefore — according to (2) — devoid of lexical meaning. And yet it would be rash to claim that these pronouns were devoid of *meaning*. By common consent they have *referential* meaning, or reference (as opposed to sense, in Lyons) terms', and part of the assumption behind regarding the reflexive systems in English and Danish as similar, is the observation that they behave alike in referential terms. This is borne out by the translational relationship between the sentences in (3):

(3) (a) (i) Peter shot himself in the foot
(ii) Peter shot him in the foot
(b) (i) Peter skød sig i foden
(ii) Peter skød ham i foden

As a matter of fact, it is precisely the referential (or anaphoric) properties that serve as the most pervasive criterion for the existence of the class of reflexive pronouns in both English and Danish. But surely, referential meaning is not the same as grammatical meaning. At least, I think it is not usually considered to be. This view is supported if we consider the following list:

(4)	English	Danish
(a)	absent oneself	absentere sig
	betake oneself	begive sig
	bethink oneself	besinde sig
	demean oneself	nedværdige sig
	ingratiate oneself	indynde sig
	pride oneself	rose sig (af)[2]
(b)	bestir oneself	(vågne til dåd)
	perjure oneself	(begå mened)
(c)	(make an effort)	anstrenge sig
	(complain)	brokke sig
	(come right)	flaske sig
	(fall in love)	forelske sig
	(retire)	forføje sig
	(reproduce; be transmitted)	forplante sig
	(pretend)	forstille sig
	(behave (oneself))	gerere sig; opføre sig
	(claim)	påberåbe sig
	(be a nuisance)	skabe sig
	(hurry)	skynde sig
		etc.

This is a list of so-called reflexive *verbs*, in both English and Danish (a), in English but not Danish (b), and in Danish but not in English (c). The significance of these, in relation to the topic of grammatical meaning, is that we have no systematic oppositions like those between (i) and (ii) in (3):

[2] *Rose* may also be non-reflexive, transitive: *hun roste ham* 'she praised him'.

(5) (a) (i) Peter absented himself
(ii)*Peter absented him
(b) (i) Peter absenterede sig
(ii)*Peter absenterede ham

Nor do we have sentences — neither in English nor in Danish — from which the reflexive pronoun can be dropped (cf. (6)):

(6) (a) *Peter absented
(b) *Peter absenterede

We have, in other words, a class of sentences in both English and Danish, whose *grammaticality* depends on the presence of a reflexive pronoun (plus other, irrelevant factors, of course). In such cases the reflexive pronouns have a purely structure-preserving function, and although they even in such cases are subject to the normal selection rules of anaphora, what referential meaning they have is redundant.

It is an open question, however, if we should equate 'structure-preserving function' with 'grammatical meaning'. Some people would no doubt say that this would deplete the notion of 'meaning' of all empirical content, and I should tentatively agree. On the other hand, it would not be inconsistent with a substantive notion of 'meaning', nor with the facts as so far presented, to say that, *if* a purely structure-preserving element has meaning, then it has grammatical meaning. Grammatical meaning thus becomes a cover-term for a variety of types of meaning, notably of reference, modality, and degree. One could further speculate that the common features of all of these are semantic primitives of space and time, but that is another matter which I shall not pursue here.

Let us now return to the evidence provided by sentences like (3), (5), and (6) and the consequences to be drawn from it for contrastive analysis. First of all we note that, although it was originally the presence in both English and Danish of a particular subclass of pronouns which prompted contrastive analysis in this area, any contrastive analysis of reflexivity in Danish and English would be inept if it stopped there. For this reason I reject the possibility of adopting standard transformational deep structures as 'objective, language-neutral, and explicit' versions of the 'tertium comparationis' of contrastive linguistics. Current TG accounts of reflexivity are naïvely obsessed by the distinctions between reflexive and personal pronouns, developing competing versions of the 'clause mate' condition to account for various reputedly universal phenomena which happen to hold in English. The 'true' area of reflexivity is not just to be found among the pronouns, but also in the overall area of verb-complementation, as suggested by the sentences in (5): some verbs require one and only one type of complement, a reflexive pronoun.

This is a finding of potential general interest to contrastive analysis. It suggests that although we begin from one point in the grammar we may find

ourselves investigating a different, larger one. I want now to pursue this suggestion.

First of all, it raises some general issues concerning the notion of verb-complementation. Investigation of complement types will yield, as a by-product, a number of subclasses of verbs. But these subclasses will be of three kinds that should be kept strictly apart, according to three distinct analytical perspectives on the complements. They are all of them well-known, but quite often confused.

Firstly, from the perspective of grammatical or syntactic *functions*, the constituent complementing a verb is either an Object, a Complement, or an Adverbial, and the resultant verb-classification leads to the traditional classes of intransitive, transitive, ditransitive, complex transitive and intensive verbs.

Secondly, from the perspective of syntactic *categories*, the constituent complementing the verb is either a NP, an AJP, a PP, or an $\bar{S}$, according to standard practice. Significantly, the only verb classes intuitively established on this perspective, are the reflexive verbs and their complement class, the non-reflexive verbs. Otherwise the grammatical tradition has neglected this perspective as a potential basis for verb-classification.

Thirdly, from the perspective of *semantic functions*, the constituent complementing the verb is either Benefactive, Locative, Objective, Agentive, Instrumental, or whatever other semantic case-relations are recognized. This, of course, is the basis of modern versions of case-grammar à la Chafe, Fillmore, Nilson, and Anderson, and the resulting verb-classes will be locative, ergative, benefactive, and others, depending on various properties of their 'case frames', in Fillmore's sense.

I take it to be a universal feature of language that sentence-constituents lay themselves open to analysis from each of these perspectives, which I shall refer to as FUNCTION, CATEGORY, and ROLE, respectively. If this is true, these three perspectives together will constitute a viable basis for a syntactic comparison between languages, since languages will differ among themselves in the ways and degrees that these three perspectives interact in a particular constituent. To illustrate with just one simple example, Fillmore's famous sentence

(7) (a) Chicago is windy

shows that the ROLE Locative is not incompatible with the FUNCTION Subject in English, as it is in standard, non-literary Danish, where the transitional equivalent of (7a) would be:

(7) (b) Det blæser (meget) i Chicago
It blows (much) in Chicago

The category we are mainly concerned with is that of reflexive pronoun.

Our initial task, therefore, is to register what functions are realized and what roles are performed by members of this category in English and Danish. Our gross findings can be displayed as in (8):

(8) (a)		*English*	*Danish*
RP realizes	S:	—	—
	C_s:	—	—
	C_o:	—	—
	O_d:	He shot himself	Han skod sig
	O_i:	He bought himself a car	Han købte sig en bil
	C_p:	He took the blame on himself	Han tog skylden på sig

(8) (b)	*English*	*Danish*
RP performs:		
AGENTIVE		
a. Ergative	—	—
b. Instrument	—	—
c. Force	—	Skorstenen faldt ned *af sig selv* (chimney-the fell down of its own accord)
	—	
d. Comitative	He was *by himself*	—
	—	Han havde hunden *med sig* (He had dog-the with him)
	—	
ABSOLUTIVE		
a. Affected	He shot *himself*	Han skod *sig*
b. Effected	The book wrote *itself*	Bogen skrev sig *selv*
CONCRETE LOCATION		
a. Locative	—	Han havde ingen penge *på sig* (He had no money on him)
b. Ablative	—	Han skubbede bordet væk *fra sig* (He pushed the table away from him)
c. Allative	—	Han trak bordet *til sig* (He pulled the table to him)
ABSTRACT LOCATION		
a. Locative	He was *beside himself* with fear	Han var *ude af sig selv* af frygt
b. Ablative	He recognized her expression *from himself*	Han genkendte hendes udtryk *fra sig selv*
	—	Han fralagde *sig* ansvaret (He renounced responsibility)

c. Allative	He took it *upon himself* ...	Han påtog *sig* ...
(or BENEFACTIVE)		
	He bought *himself* a car	Han købte *sig* en bil
	—	Hun tiltrak *sig* opmærksomhed (She attracted attention)

We shall not here go into all the details and problems presented in (8) but only concentrate on a few general points, beginning with (b). There are a few Danish examples (Force, Effected, Abstract locative and ablative) from which the emphatic *selv* cannot be removed without rendering the string ungrammatical. We cannot have **Skorstenen faldt ned af sig.* This might suggest that they are not 'purely' reflexive, but rather 'reflexive-emphatic'.[3] This is borne out by the fact that the true reflexive verbs in Danish – like those in (4) — cannot be expanded by *selv*. We cannot have

(9) *Hun forelskede sig selv en gang om ugen
She fell in love once a week

The second point -- more interesting to contrastive analysis perhaps — which I shall comment on is the disproportion in the number of different roles performed by the reflexives in the two languages, and especially the distribution over the LOCATIVE roles. This, of course, is the troublesome area in English reflexivization, for it is precisely here that reflexive pronouns compete with the corresponding personal pronouns. As we see from the Danish data, any account of this difference in the English pronominal system which bases itself on a version of the 'clause mate' condition is bound to fail as a universal account. It is also in this area that we find a large proportion of Danish reflexive verbs without a reflexive English counterpart, and thus it partly accounts for the disproportion of the sizes of groups (4b) and (4c).

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[3] If our main concern had been an account of the Danish reflexive system for its own sake, the implied dichotomy 'emphatic' vs. 'non-emphatic' would be far too simplistic. First of all we should have to be more specific as to the precise meaning of 'emphatic', probably in relation to such parameters as new vs. old information, contrast, and focus, as suggested in an – unpublished – paper by Karen Risager (1972). Secondly, we should have to relate the notion of emphasis to the notion of agency, as suggested by the existence of such 'minimal pairs' as:

(a) han brændte sig = 'he got burned'
(b) han brændte sig selv = 'he burned himself'

– where the intuitive assignment of cases to *han* would be absolutive (neutral, objective) in (a), but ergative (agentive) in (b). A possible means of coming to grips with such problems might be to operate with an 'emphasis hierarchy' for the various possible arguments in a given predication, but this, too, I reserve for later treatment.

Finally with respect to (8b), the display of semantic roles is not uncontroversial. A student of various versions of case-grammar will notice that it represents a compromise between the localist versions (as developped by scholars like John Anderson, Jim Miller and other Edinburgh-trained people) and the American branch, represented by Fillmore and, especially, Nilsen. The localist doctrine is roughly captured in numerical — if not in terminological — terms by the scarcity of the headings given in capitals, whereas the various sub-roles are reminiscent of the American version. I still think that the localist version has a lot of merit, but it does lay itself open to charges of at least attempted reductionism. But precisely *where* the limits should be drawn between the strictness of localism and the freely sprouting American version of Nilsen unfortunately remains unclear.

The last general point I shall raise concerns the apparently perfect correlation between functions realized by reflexives in Danish and English which is suggested by (8a). I point out in passing that it is strictly speaking wrong to suggest that reflexives cannot realize functions of predicate complements, but to allow them here would lead to discussion of a number of details that would take us too far afield for present purposes. What remains, then, is a suggestion that reflexivity is a property to be discussed *only* in relation to two- or three-place predicators. This suggestion would be wrong, and it would conceal one of the most interesting aspects of a contrastive analysis of reflexivity in the two languages in question.

There are two subclasses of what I shall call 'inherently reflexive verbs' in English; representatives are

(10) (a) move, shave, wash
(b) behave, overeat, oversleep

The characteristic of group (a)-verbs is that they can be two-place predicators, such that their second argument may belong to one of several different categories, e.g. NP, personal pronoun, or reflexive pronoun. In contrast, group (b)-verbs, when they are two-place predicators, can only have a reflexive as their second argument. Common to the two classes is that their members may also be one-place predicators. When they are, however, their unmarked interpretation is roughly the same as that of the same verb construed with a reflexive pronoun as second argument; cf. (11):

(11) (a) (i) John moved
(ii) John moved himself
(iii) John moved the piano
(b) (i) John overate
(ii) John overate himself
(iii) *John overate three apples

Anyone wishing to translate *John moved* into Danish will have a number of

possibilities to choose from:

(12) (a) John flyttede (meaning: John moved house)
(b) John flyttede sig (meaning: John moved away from the place occupied by him till then)
(c) John bevægede sig (meaning: John changed his position, but without moving from his place)

There might be others, more technical ones, but these will suffice. Of the two Danish verbs *flytte* and *bevæge*, *flytte* is apparently a representative of the Danish version of sub-class (10 a), in that it can be a one-place predicator, or a two-place predicator with either a NP, a personal pronoun, or a reflexive pronoun as second argument. In contrast, *bevæge* can only be a two-place predicator which can have either a NP, a personal pronoun or a reflexive pronoun as second argument. But the equation of *flytte* with *move* in terms of class-membership is spurious, for the Danish verb *cannot* be interpreted as reflexive when it occurs as a one-place predicator, only as a 'normal' intransitive verb. Generally Danish does not have *any* inherently reflexive verbs.[4] And this is the second reason for the difference in sizes between groups (4b) and (4c).

This fact will eventually lead us to a more careful study of predicator-types in the two languages, and to renewed study of the relationship between active and passive verb phrases. From one point of view, passive is simply a 'valency-reducing' operation, which means that an n-place predicator in active form will be reduced to an $n \div 1$-place predicator when passivized. Since Danish does not have any inherently reflexive verbs, it follows that reflexivity in Danish cannot be expressed by a one-place predicator. Furthermore, since English can express reflexivity by means of a one-place predicator, it follows that there will be two distinct one-place structures in English which will be equivalent to Danish reflexive two-place structures, one involving an active

[4] Once more, this may not be true without qualification. As Niels Ege has pointed out to me, there are such verbs as øve 'practise', which would have at least the following distribution:
(a) han øvede 'he practised'.
(b) han øvede sig 'he practised'
(c) han øvede afslutningen 'he practised the ending'.
(d)*han øvede i at tale fransk
he pr. in to speak French
(e) han øvede sig i at tale fransk 'he practised speaking French'
he pr. himself in to speak French
(f) han øvede hende i at tale fransk 'he trained her in speaking French'
he trained her in to speak French
The non occurrence of (d), however, might suggest that the *unmarked* interpretation of (a) is not necessarily reflexive, as it invariably is with the English verbs. And secondly, even if the existence in Danish of inherently reflexive verbs is conceded in principle, the number of them is exceedingly small.

intransitive verb, and one involving the passive of a transitive verb. This conjecture is borne out by the following examples:

(13) (a) (i) John *moved* (active, inherently reflexive)
(ii) John *bevægede sig*
(b) (i) Sound *is transmitted* through air (passive, non-reflexive)
(ii) Lyd *forplanter sig* gennem luft

It will have been noticed that I have made no attempt to explain what reflexivity is, let alone define it. In view of the preceding discussion, however, the following tentative definition might be offered in conclusion:

(14) Reflexivity is a semantic notion which covers the fact that the origin and the goal of an action may be identical.

Since the means of expressing this notion forms part of the grammatical structures of both Danish and English, in that it combines pronominal usage with various aspects of verb-complementation, both of which constitute closed grammatical systems, the area of reflexivity is a profitable area of contrastive grammatical analysis.

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DELETION IN COORDINATED STRUCTURES IN ENGLISH AND DUTCH

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For the last fifteen or so years, linguists have attempted to account for sentences like:

1. John and Mary went fishing.
2. John ate fish and Mary, rice.
3. John caught, and Mary prepared, the excessively large fish.

by relating them, through deletion rules such as Gapping, Right-node Raising, and Coordination, to coordinations of sentences themselves not containing coordinations. Thus, various rules have been suggested to relate sentences 1, 2, and 3 to sentences 1a, 2a, and 3a:

1a. John went fishing and Mary went fishing.
2a. John ate fish and Mary ate rice.
3a. John caught the excessively large fish, and Mary prepared the excessively large fish.

Such rules, which essentially say: delete category or string X if X has an identical counterpart preceding or following it in the coordinated structure of which it forms part, have been made subject to various constraints: either general contraints or constraints particular to one rule. It is our aim in this paper to demonstrate that rules effecting deletion in coordinated structures are all subject to a constraint which we shall call the *Peripherality Constraint*.

Before getting to the essence of this paper, we shall first of all state a few assumptions which will not be supported in this paper for lack of space

We assume that there is just one rule which effects deletion under identity in coordinated structures. This rule will subsume rules such as Gapping,[1]

[1] For a formulation of the rule of Gapping see Ross, J. R. (1970).

Coordination Reduction,[2] Right-node Raising[3] and that part of VP-deletion[4] which operates in coordinated structures.[5] The rule is optional, which we shall take to mean that the application or non-application of the rule does not affect the grammaticality of the string in question: both input and output of the deletion rule operating in coordinated structures will have to be acceptable sentences of, in the case of this paper, English or Dutch.[6] It follows immediately from our assumption that we shall not attempt to account for coordinations attached to so-called symmetrical predicates, as will be clear from sentences 4 and 4a and 5 and 5a.

4. John and Mary are a happy couple.

*4a. John is a happy couple and Mary is a happy couple.

5. Mopeds and bicycles are similar in appearance.

*5a. Mopeds are similar in appearance and bicycles are similar in appearance.

Such coordinations differ from coordinations 1 to 3 in that they are not paraphrasable by coordinations of sentences themselves not containing coordinations.[7]

What we wish to demonstrate in the rest of this paper is that a coordinate deletion rule of the type that we have just outlined, and therefore *a forteriori* rules such as Gapping, Right-node Raising, Coordination Reduction and VP-deletion operating in coordinated structures are subject to a constraint, the *Peripherality Constraint*, which constrains the position of the deletion target relative to the constituent immediately dominating the deletion target.

Let us start with a relatively trivial observation. A coordination of NP's with identical adjectives can be reduced to a coordination of nouns with just the one adjective preceding, as in (6):

6. Old men and old women who .....

to:

6a. Old men and women who .....

However, if there are unlike determiners preceding the like adjectives, no such reduction takes place;

7. The old men and some old women who... ..

cannot be reduced to:

7a. The old men and some women who .....

Now one observation which is highly similar to this rather trivial observation

[2] For a formulation of this rule see, e.g., Koutsoudas 1971.

[3] For a formulation see, e.g., Hudson 1976.

[4] For an excellent discussion of the phenomenon of VP-deletion see Sag 1976.

[5] For discussion of this assumption of a unitary rule see van Oirsouw (1981: 105 – 116).

[6] For discussion of this assumptions and its consequences see van Oirsouw (1981: ch. III).

[7] For further discussion see van Oirsouw (1981 : 68–73).

is Jackendoff's observation in his 1972 paper: "Gapping and related rules"; that like verbs cannot be deleted if there are unlike adverbs preceding the verb. Thus sentence (8) cannot be reduced to (8a);

*8a. Simon quickly dropped the gold, and Peter, slowly, the diamonds.

is not an acceptable sentence in English to Jackendoff. Something that Jackendoff does not observe is that if the unlike adverbs *follow* the like verb, deletion *is* possible. While sentence (8a) is out, sentence (8b)

8b. Simon dropped the gold quickly, and Peter the diamonds slowly.

is acceptable. To this observation, we can add a series of highly similar observations. Notice, for instance, that like direct objects cannot be deleted if there is an unlike adverb *following* it: sentence (9)

9. Mary makes chicken curry frequently, and her husband eats chicken curry occasionally.

cannot be reduced to:

*9a. Mary makes frequently, and her husband eats chicken curry occasionally.

But when the like direct object is not followed by the unlike adverb, deletion is possible, as in:

9b. Mary frequently makes, and her husband occasionally eats, chicken curry.

We can observe the same for VP-deletion in coordinated structures. A VP preceded by *not* and followed by unlike adverbs cannot be deleted:

10. Lee drew his gun quickly, but Clint didn't draw his gun with such speed

cannot be reduced to:

*10a. Lee drew his gun quickly, but Clint didn't with such speed.

A fourth observation on English: An indirect object, when preceded by unlike verbs and followed by unlike direct objects, cannot be deleted under identity; sentence (11)

11. John gave the girl in the red sweater a book, and Peter sold the girl in the red sweater a record.

cannot be reduced to:

11a. John gave a book, and Harry sold the girl in the red sweater a record.

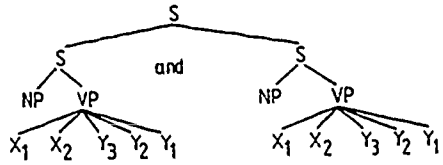
However, as soon as we move the indirect object to the end of the sentence by means of *to*, deletion becomes possible again;

11b. John gave a book, and Harry sold a record, to the girl in the red sweater.

What all these observations have in common is that in those cases where deletion was not possible, the deletion target constituent or string was not leftmost or rightmost to its immdeiately dominating constituent. In the equivalent sentences where deletion was possible, the deletion target consti-

tuent was either the rightmost or the leftmost one under its immediately dominating constituent.

The constituent structure we envisage for the purpose of the coordinate deletion rule is as follows:[8]



We have strong evidence on the basis of the English examples that identical constituents must be in the X1 or Y1 position if deletion is to take place under VP. We shall test this hypothesis about English in Dutch, where the two word orders it exhibits, namely SVO in main clauses, and SOV in subordinate clauses, present us with a few interesting facts. First of all, it can be demonstrated that the same observations about peripherality of deletion target constituents are true of English and of Dutch, insofar as there is a parallel between constructions in these languages. We cannot replicate Jackendoff's findings about the impossibility of deleting like verbs with unlike adverbs preceding because of the simple fact that the pre-verbal position is not available in Dutch; neither in subordinate clauses nor in main clauses. There is, however, one verb deletion phenomenon in Dutch which is virtually identical to Jackendoff's pre-verbal observation. First of all, observe that prepositional phrases in Dutch may occur either before or after a past participle or infinitive. Thus, we may have the word order as in 12a or as in 12b:

12a. Jan mag de fiets voor 100 gulden verkopen.
Jan may the bicycle for 100 guilders sell.

12b. Jan mag de fiets verkopen voor 100 gulden.
Jan may the bicycle sell for 100 guilders.

The infinitive *verkopen* can be either rightmost or non-rightmost, and in the latter case it is not deletable; while 13a is acceptable, 13b is not.

13a. Jan mag de fiets voor 100 gulden, en moet de brommer voor 200 gulden verkopen.
Jan may the bicycle for 100 guilders, and has the moped for 200 guilders to sell.

is ok, but not:

13b. *Jan mag de fiets voor 100 gulden, en moet de brommer verkopen voor 200 gulden.
Jan may the bicycle for 100 guilders, and has the moped to sell for 100 guilders.

[8] For motivation of this constituent structure see van Oirsouw (1981 : 36–49).

While in 13a the infinitive is obviously peripheral, it is not peripheral in 13b, which is why 13b deletion is not allowed.

We can also replicate the facts about deletion of categories other than verbs which we cited earlier for English. First of all, deletion of direct objects is possible in Dutch, as it is in English; sentence 14 is acceptable.

14. Jan bemint, en Piet haat Marietje.
Jan loves, and Piet hates, Marietje.

However, if the direct objects in a sentence like 14 are followed by unlike prepositional phrases or adverbs, deletion is impossible, same as in English; sentence 14a is out:

14a. Jan bemint ø intens, en Piet haat Marietje met heel z'n hart.
Jan loves intensely, and Piet hates Marietje with all his herat.

Likewise, the deletion of like indirect objects is impossible if these like indirect objects are followed by unlike direct objects: we cannot reduce sentence (15)

15. Jan geeft Marietje een boek, en verkoopt Marietje een plaat.
Jan gives Marietje a book, and sells Marietje a record.

to something like:

15a*. Jan geeft een boek, en verkoopt Marietje een plant.
Jan gives a book, and sells Marietje a record.

We can, however, move the indirect object to post-direct object position by means of a preposition, in the same way as in English. In this case the indirect object will be peripheral, and deletion then does become possible again, as in·

15b. Jan geeft een boek, en verkoopt een plaat aan Marietje.
Jan gives a book, and sells a record to Marietje.

In these cases, where English and Dutch have similar structures, we find that the deletion facts are identical: if constituents are not peripheral to their immediately dominating nodes, they may not be deleted under identity. We can now start to examine deletion under identity in coordinated subordinated clauses, where the word order sin Dutch is SOV rather than SVO. Here again we find that the same constraints on peripherality of the deletion target constituents hold. We can have, for instance, deletion of identical verbs in subordinated clauses; sentence 16

16. Ik geloof dat Jan kaas koopt, en Piet vlees koopt.
I believe that Jan cheese buys, and Piet meat buys.

can be reduced to:

16a. Ik geloof dat Jan kaas, en Piet vlees koopt.
I believe that Jan cheese, and Piet meat buys.

But as soon as we have unlike prepositional phrases following the identical verbs, deletion becomes impossible; sentence 16a is unacceptable

*16a. Ik geloof dat Jan kaas en Edam, en Piet vlees koopt in Gouda.

The same type of observation can also be made about indirect objetes in subordinate clauses: when these precede the direct object, they are not deletable,

but as prepositional phrases following the verb, they are deletable. Thus, while we cannot get:

*17. Ik geloof dat Jan een boek geeft, en Klaas het meisje met rode
I believe that Jan a book gives, and Klaas the girl with the red
haar een plaat verkoopt.
hair a record sells.

we can, if we move the indirect object *het meisje met het rode haar* to the end of the coordinated clause by means of a preposition, get:

17a. Ik geloof dat Jan een boek geeft, en Klaas een plaat verkoopt, aan
I believe that Jan a book gives, and Klaas a record sells, to the
het meisje met het rode haar.
girl with the red hair.

Given this situation, we would also expect the following situation; if there is an indirect object preceding a like direct object, in a subordinated clause, then deletion should not be able to apply. This is indeed the case; we cannot reduce

18. Ik geloof dat Jan Marie een boek geeft, en Klaas Susan een boek
verkoopt.
I believe that Jan Marie a book gives, and Klaas Susan a book sells.

to something like:

*18a. Ik geloof dat Jan Marie ø geeft, en Klaas Susan een boek verkoopt.
I believe that Jan Marie ø gives, and Klaas Sisan a book sells.

We can conclude, therefore , that in Dutch subordinate and main clauses the requirement that deletion target constituents must be peripheral to their immediately dominating constituents holds, for the same reasons that such a constraint holds in English.

Through the peripherality constraint, we can explain one very peculiar fact about Dutch, namely that identical direct objects in subordinate clauses cannot be deleted. In main clauses, we have already seen that identical direct objects can be deleted; a sentence like:

19. Jan bemint ø, en Piet haat Marietje.
Jan loves, and Piet hates Marietje.

is perfectly allright. However, as soon as we make it into a subordinate clause, we can no longer delete the direct object: sentence 19a

*19a. Ik geloof dat Jan ø bemint, en Piet Marietje haat.
I believe that Jan ø loves, and Piet Marietje hates.

is totally unacceptable. If this is the consequence of the direct object not being peripheral, this means that we should be able to delete the direct object along with one of the peripheral constituents, in the case of (19), along with either the subject or the verb, if these have identical counterparts in the coordinated clause, because we are then deleting a peripheral sequence. As will be clear from sentence (19b) on the handout, deletion of the direct object along with

the verb is possible:

19b. Ik geloof dat honden en katten vlees lusten.
I believe that dogs and cats meat like.

as a reduction of

19c. Ik geloof dat honden vlees lusten en katten vlees lusten.
I believe that dogs meat like and cats meat like.

is perfectly acceptable. Likewise, 19d

19d. Ik geloof dat autohandelaren auto's kopen en verkopen.
I believe that car dealers cars buy and sell.

is grammatical reduction of:

19e. Ik geloof dat autohandelaren auto's kopen en dat autohandelaren
I believe that car delaers cars buy and that car dealers auto's verkopen.
cars sell.

What this means for the constituent structure of Dutch subordinated clauses is that the VP of a subordinated clause cannot be the VP of a Dutch main clause with verb and object inverted, since we then have no explanation for the deletion facts observed above: verbs in main clauses and direct objects in subordinate clauses do not occupy the same positions in the structure of the clause. Rather, these facts strongly suggest that subject verb and object in subordinate clauses are sister-constituents.

Let us just sum up the contents of this paper. First of all, we have attempted to demonstrate that a number of facts about deletion in coordinated structures in English can be explained if we assume the Peripherality constraint: deletion target constituents must be peripheral to their immediately dominating nodes. We have then demonstrated that the same constraint on peripherality holds both in Dutch main clauses and in Dutch subordinate clauses, and we have, by means of one example, demonstrated how differences in application of coordinate deletion in main and subordinate clauses can serve to show up differences in constituent structure between these two types of clause.

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METHODS AND GOALS OF COMPARATIVE SYSTEMATICS*

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Psychomechanics of language is the theory which was initiated by the French linguist Gustave Guillaume (1883—1960); his main books were published respectively in 1919, 1929, 1945 and posthumously in 1964 (see list of references). Admittedly, Guillaume himself mainly worked on the French language; but by no means ignored other languages. Let me quote some of them:

— Latin and Greek, in *L'architectonique du temps dans les langues classiques*;
— English: for instance "Cours sur le verbe anglais, 1950—51" or "Mémoire sur les auxiliaires anglais", both unpublished.
— Russian, in an article on the theory of aspect, "Immanence et transcendance dans la catégorie du verbe; esquisse d'une théorie psychologique de l'aspect", in *Langage et science du langage*.
— Chinese, Basque and Arabic: for the theory of the word, for instance in *Leçons de linguistique 1948—1949*, Psycho-systématique du langage, Principes, méthodes et applications.[1]

This is only to say that Guillaume was preoccupied to a certain extent with contrastivism and that his aims were of a general scope; in this respect he may very well be compared to Chomsky; the latter's works are mainly based on

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[1] Furthermore, Guillaume's followers have undertaken a number of studies of particular languages. A recent volume, *Langage et psychomécanique du langage* (Joly and Hirtle (eds)., 1980), has studies on 14 different languages, including African — gbaya buli — and American — Algonkian — ones.

English but he nevertheless intends to build a general theory of language. Likewise, the French scholar intended to extrapolate from specific and particular languages to the general phenomenon of human language.

The usual label of the theory is clear enough. psychomechanics of language (henceforth PML) definitely implies a mentalistic conception of language. I would like, in this introduction, to point out three principles upon which the theory is based.

The first one is the principle of meaning or better, *meaningfulness*. For Guillaumians, meaningfulness is the *sine qua non* condition of the very existence of language; no linguistic item can exist without at least some element of signification even though it might be very light and therefore all the more difficult to be correctly and convincingly described. PML has often been reproached with a kind of limination in its approach to language; it has been said to be preoccupied only with morphology, that is, in the traditional sense of the term, with problems of the *word*. There is some element of truth in this remark but it has to be qualified at once; first, it will not be true much longer for a treatise on syntax, presented from a psychomechanical point of view by Roch Valin, is forthcoming. Then, far more important, it should be emphasised that the chronological order of studying first morphology and secondly sytax is theoretically founded. Morphology is the conditioning factor of syntax and, as such, should be analysed first. Schematically we may say that the internal structure of the word conditions, and thus exists before, the structure of the sentence. In other words, sentence mechanisms — for instance, the relations, within the simple sentence, between verb and subject, verb and object, or within the noun phrase, e.g. between substantive and adjective — exist potentially within the word itself.

The word is considered as the product of a mental process of genesis. Any word is a synthesis of two elements: a *sign* and a *significate*. This is an analysis slightly different from Saussure's; for us what is traditionally called a word is a *significant* and the relationships linking the three notions may be put into an equation:

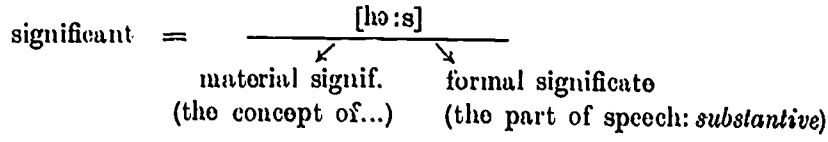
$$\text{SIGNIFICANT} = \left| \frac{\text{SIGN}}{\text{SIGNIFICATE}} \right|$$

The sign is the phonic — or graphic — shape, the physical aspect of the word. Thus, Guillaume gives back to the word *sign* its original and common meaning; it may be noticed that Saussure himself, the initiator of the terminology, was not unaware of this semantic distortion:

> Nous appelons *signe* la combinaison du concept et de l'image acoustique: mais dans l'usage courant ce terme désigne généralement l'image acoustique seule (...).[1]

[1] For further examples in the *Cours de linguistique générale*, see the critical edition by T. de Mauro, note 155.

A deeper analysis leads one to divide the significate into two components, a *material* significate, corresponding to the Saussurean concept and a *formal* significate, that is the part of speech to which the word belongs. Let me take a simple illustration: the word *HORSE* may be analysed as follows:[3]

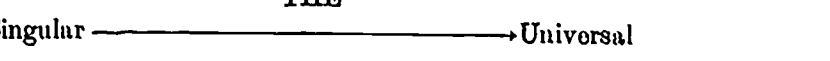


This analysis seems to raise no major problem in the case of such lexical words as substantives or, more generally, what we call predicative parts of speech (including substantive, adjective, verb and adverb).[4] On the other hand, some grammatical words (or non-predicative parts of speech) do raise problems of representation. The best example is perhaps the article. What can one say of the "material significate" of such a word as Eng. *the*? The answer, into the details of which I cannot go, would proceed along the following lines:

— the material significate of the article belongs to the formal field.

— the significate of the article is but an abstract movement of thought.

To be somewhat more concrete let us examine an example. The so-called *definite* article in English represents a movement which leads the speaker's thought from particular (or singular) to general (or universal):



This explains why *the* may be, according to the context, either of universal value (what Quirk calls "generic reference"):

The tiger is a dangerous animal.

or of singular value (corresponding to Quirk's "specific reference"; in this case, *the* is either anaphoric or cataphoric.):

The tiger I saw yesterday at the zoo...

We may also notice at this general level of analysis that the English definite article behaves exactly like the French one; we could translate without any difficulty and obtain the same discourse meanings: *le* tigre in both sentences.[5]

This theoretical starting-point explains why PML refuses such descriptions as the well-known: "DO auxiliary is a meaningless word." (see Joos 1964: 59ff). For us, either a word is meaningful or it is not a word; it may be for instance an element of word-construction, or an affix.

[3] A more detailed analysis of the genesis of the word is to be found in Hirtle (1967).

[4] A recent book, Moignet 1981, has a chapter on "Le système des parties de la langue" (pp. 1—26).

[5] For an analysis of the relationships between article and noun see, for instance for French Valin, R. (ed.). 1973: 208—217; for English Howson, J. 1972.

The same problem, that is to say the relation conditioner/conditioned between morphology and syntax may be stated in the following way: any language has the syntax of its morphology. In fact this allows me to mention the second theoretical principle of PML. We postulate a fundamental dichotomy between what is called tongue on the one hand, and discourse on the other hand.[6] Both are successive aspects of a unique, or unified phenomenon which is language. So we have:

Language=Tongue+Discourse.

Tongue is language in potency or potential language, it is altogether of a mental nature and therefore not directly observable. Discourse is language in effect or effective language; it is what we may observe. Though not visible, the existence of tongue is conceivable and moreover it has to be postulated: otherwise we should be obliged to admit the *creation* of our language anew every time we start speaking. This relationship is of the same nature as the one linking an instrument and the effective use of it; this comparison suggests an obvious remark: the instrument must necessarily pre-exist.

The PML formula is parallel, but not completely equivalent, to Saussure's: Langage=langue+parole. It has been shown that there are many important distinctions to be made between the two dichotomies, to quote but one, the term *parole* is restrictive, whereas discourse refers to written as well as to spoken language.[7] The above formula, appearing to be static, is to be considered only as a first approach to the reality of things.

A further step in the analysis will require the mention of the third fundamental principle which may be stated, clumsily at the beginning, as follows:

[6] Here is a problem of technical terminology. The words *langue* and *discours* were first used by Guillaume, who showed the differences that should be taken into account between his analysis and Saussure's *langue* – *parole*. Valin (1954.32) proposes the following definitions:

"(la)LANGUE (est) ce grâce à quoi nous est continûment offerte la possibilité d'exprimer en language articulé soit à l'usage d'autrui (language extérieur), soit à notre propre et exclusif usage (language intérieur) – ce que momentanément nous concevons (...)

(le)DISCOURS (est) ce qui est ainsi, grace à cette possibilité *permanente*, *momentanément* exprimé".

Hirtle (1967. 7–8) currently uses the English equivalents: *tongue* and *discourse*.

"Language as a potential, offering an unlimited number of possibilities to the speaker, will be called *tongue*. Language when considered as an actualization, as what we hear and see, or more generally perceive, will be called *discourse*".

The terminology raises no major problem, insofar as the meaning of the words is stated with sufficient precision. I shall therefore use tongue/discourse from now on, with their psychomechanical meanings.

[7] The comparison between the two dichotomies is analysed at length in Valin 1971b, *passim*.

everything in language implies time. This is by no means a recent discovery and no linguist today doubts that the relationships between language and time are numerous and complex. In other words, what was said before of the English definite article should be extrapolated. From:

— the definite article represents a movement of thought,

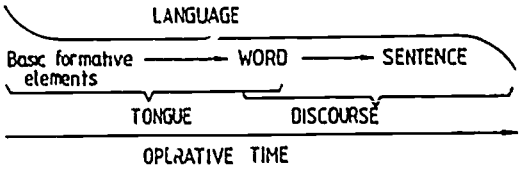
we have:

— every word represents a movement of thought,

and, more generally,

— any linguistic fact *is* a movement of thought.

This movement of thought — or perhaps better movement of *thinking* — obviously demands a certain amount of time to develop even if this amount is quite small. This is why we postulate that any linguistic fact implies time, that time, always and everywhere, underlies the activity of the speaker. It is called *operative time*.[8] The recognition of all-pervading time leads us to the following representation of the relationships between tongue and discourse, a representation which is no longer static:



This dynamic analysis of the language phenomenon also provides us with some elements of the method of investigation. Obviously enough, the starting-point lies at the level of discourse; obviously because only here do we find the observable facts. But discourse facts are mere consequences of something else, they are conditioned by something different, they do not explain each other. To try to find an explanation, to try to find the organisation principles, the linguist has to get to the level of tongue, which is the field of the *systems*. Linguistic systems are of course not directly observable, since they are never actualised as such, they have to be re-constructed. Hence, two main points:

— 1 — the definition of what we are used to calling "linguistic fact" should be clearly stated: it is by no means limited to the observable at discourse level but does include the underlying causes, at tongue level. In other words, the definition is twofold: at discourse level, there are facts *to be explained*. At tongue level, *explaining* facts.

— 2 — the search for an explanation at tongue level naturally bears the name of systematics. Hence, for instance between English and French, we

[8] For a general and detailed presentation of "operative time", see the "Introduction" to Valin 1971a.

have *comparative systematics*. This particular line of research is not, as far as I can see, very different from what is elsewhere called "theoretical contrastive analysis".

This is of course too general an introduction to PML. It all the same allows me to say that:

1. I do agree with Tadeusz Zabrocki (1980 : 44) when he writes:

> "Thus the explanations that contrastivists search can be easily, almost mechanically, constructed assuming that the researcher has at his disposal full and adequate grammars of the compared languages and a general theory of language".

I would only like to add, but it is perhaps too obvious to need stating, that the "grammars" in question should be based upon the "theory of language" alluded to.

2. I think that we are today in such a position. The general theory of language we have at our disposal is PML. It shares with TG at least two qualities stated by Maria Lipińska (1980:129) as follows:

"1. it makes psychological claims, i.e., claims that the organisation of grammar reveals some aspects of the organisation of the human mind.
2. it gives one common theoretical vocabulary for the analysis of all languages."

Further, descriptions of English and French, if not completed, are well-advanced in such fields as the verbal and the nominal systems. We may well rely upon these descriptions to try now comparative systematics.

For a while, I intended to give this paper the following title: "Contrastive Analysis: WHAT is to be contrasted?". It is to this question, which has both theoretical and methodological implications, I shall now try to propose some elements of answer, taking an example in the verbal systems of French and English.

My (very limited) corpus is an excerpt from Chapter V, *May and November*, Nathaniel Hawthorne, *The House of the Seven Gables*, 1851. I shall deal with the first three paragraphs of this chapter, pp. 66—67 of the Everyman edition. Here is a French translation of the passage:

MAI ET NOVEMBRE

Phoebe Pyncheon dormit, la nuit de son arrivée, dans une chambre qui donnait sur le jardin de la vieille maison. Elle était orientée à l'est, de sorte que, au bon moment, une lueur envahissait la chambre et baignait de ses reflets le plafond et les tentures ternes et sales. Le lit de Phoebe, entouré de rideaux, était surmonté d'un antique baldaquin sombre et de festons pesants, faits d'une étoffe qui avait été, en son temps, riche et même luxueuse; à présent, cela planait au-dessus de la jeune fille comme un nuage mena-

çant et maintenait l'obscurité dans ce coin-là alors qu'ailleurs il commençait à faire jour. Cependant, la lumière matinale s'infiltra bientôt entre les rideaux fanés qui pendaient au pied du lit. Trouvant là ce nouvel hôte, dont les joues s'ornaient d'un éclat comparable à celui du matin et qui remuait doucement à mesure que le sommeil la quittait, comme le feuillage qu'anime la brise matinale, l'aube lui déposa un baiser sur le front. C'était la caresse qu'une vierge de rosée – ce qu'est l'aube, à jamais – fait à sa sœur endormie, en partie poussée par une irrésistable tendresse, en partie pour suggérer délicatement qu'il est temps maintenant d'ouvrir les yeux.

Lorsqu'elle sentit ces lèvres de lumière, Phœbe s'éveilla paisiblement et, pendant un moment, se demanda où elle était et pourquoi ces lourds rideaux l'entouraient de leurs festons. En réalité rien ne lui paraissait absolument clair, hormis le fait qu'il était tôt et que, quoi qu'il arrivât ensuite, il fallait d'abord se lever et dire ses prières. Elle était d'autant plus encline à la dévotion que la chambre et son mobilier, surtout les chaises à dossier haut et raide, lui paraissaient sinistres; une de ces chaises était tout prés de son lit et il lui semblait que quelque personnage du passé y était resté assis toute la nuit pour ne s'évanouir qu'au moment d'être découvert.

Lorsque Phœbe fut habillée, elle jeta un coup d'œil par la fenêtre et aperçut un rosier dans le jardin. Comme il était très grand, très touffu, il avait été appuyé contre le mur de la maison et il était littéralement couvert de roses blanches d'une espèce rare et très belle. Elles étaient pour la plupart, la jeune fille le découvrit par la suite, profondément atteintes par la rouille et la nielle; mais, vu d'assez loin, le rosier semblait être venu tout droit d'Eden cet été-là ainsi que le terreau où il poussait. Pourtant la vérité est qu'il avait été planté par Alice Pynchcon – l'arrière-arrière-grand-tante de Phœbe – dans un sol qui, compte tenu du fait qu'on ne l'avait jamais utilisé que comme plate-bande, était devenu onctueux grâce à deux cents ans de pourriture végétale. Toutefois, poussant comme elles le faisaient dans cette terre vénérable, les fleurs continuaient d'encenser leur Créateur d'un parfum doux et frais; cette offrande était d'autant plus pure et agréable que s'y mêlait la jeune haleine de Phœbe, comme le parfum flottait devant la fenêtre. Elle descendit en hâte l'escalier aux marches nues et craquantes, trouva la porte du jardin, cueillit quelques unes des plus belles roses et les rapporta dans sa chambre.

The verbal forms of the text are easily classified. First, we find 4 present tense forms, for instance:

... as when an early breeze moves the foliage ... (16–17. Line numbers refer to the Everyman edition mentioned above)

Since I intend to concentrate upon past tense forms, I shall deal very briefly with the present tense. Those instances are currently described as *gnomic*, that is expressions of general truths; they state things which are true at the moment of speaking, which were true before and which are supposed to go on being true afterwards. Unsurprisingly they correspond to French *présents*. All the other verbal forms are *post tense forms*. I shall deal separately with:

... whatever *might* happen next ... (28)

because of the modal auxiliary, which is the only occurrence in the text. It does not seem to raise any difficult question. The micro-context, that is to say the proposition including the modal, is of a virtual nature, this virtuality being expressed through different means: wha*tever*, the adverbial *next* which

obviously refers to a moment posterior to the one which is occupied in time by the subject (Phoebe), and of course the modal auxiliary itself. The past form *might* is due to the general narrative frame of the passage; if we had direct speech, Phoebe could say: "...whatever *may* happen next, it is proper to get up and say my prayers." From a contrastive point of view, I shall only notice that French and English use here different means to express the same meaning, i.e. virtuality: whereas English has a lexico-syntactic means — the meaning of the modal plus the catenative construction with the bare infinitive of the lexical verb —, French has a mere morphological means, i.e. the subjunctive mode: ...quoi qu'il *arrivât*... I shall not say anything of the verbal forms which illustrate the transcendent aspect (the structure of which is: auxiliary *have*+ past participle of the lexical verb) and the so-called "progressive form", limiting my study to what constitutes the majority of finite verbs in this text, that is to say the *simple past tense* forms, illustrated by the very first verbal occurrence:

... Phœbe *slept*, on the night of her arrival ... (1)

These forms raise the most interesting problem when we compare them with their French equivalents. The first obvious remark is that out of 37 such forms, 11 are translated by a French *passé défini*, 26 by a French *imparfait*. For instance:

— *passé défini*:
  — *slept* (1)=dormit. *stole* (12)=s'infiltra. *kissed* (17)=déposa un baiser.
— *imparfait*:
  — *looked down* (2)=donnait. *fronted* (3)=était orientée. *came flooding* (4—5)=envahissait.

We therefore have to try to answer the question of the underlying causes of this observable fact.

We must notice first that there are two different situations; some verbs allow the alternative translation, others do not. Among the first ones, I would like to deal with:

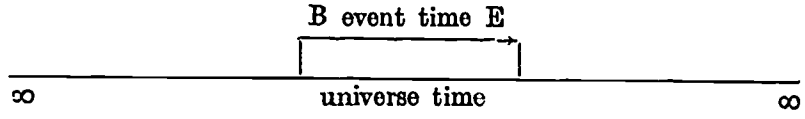
... a glow of crimson light *came flooding* through the window ...

The translator's choice between the two French tense forms will depend upon his intuitive analysis of the source text which may be said to be ambiguous. On the one hand, since the "fronting towards the east" is a permanent feature of the chamber, one may infer that the "coming" of the light is also permanent: this meaning of permanency in the past is usually expressed by the *imparfait*. On the other hand, one may understand the sentence as referring only to that very morning when Phoebe for the first time awoke in the chamber; in this case, we shall have the *passé défini*. In other words the possible choice lies upon the difference of representation between a habit and a unique event.

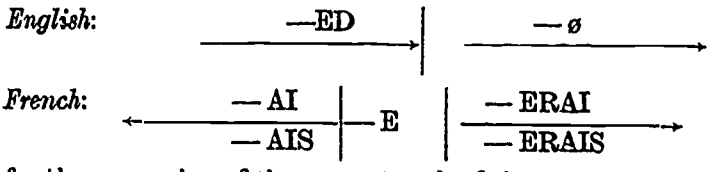
In order to propose an explanation for the "compulsory equivalence", that is to explain why there may occur cases for which there is only one pos-

sible translation, it is necessary at least to sketch an analysis of the verbal systems in both languages.

Roughly speaking, a verbal system is basically a means by which a language gives itself a representation of time. A distinction is to be made between *universe time* — the infinite stretch of time, the largest that one can imagine, which contains all the events taking place in the universe — and *event time* —the time necessary for any event to be accomplished. This time is contained within the event, limited at both sides, beginning and end. In a figure:



Concentrating upon the indicative mode, we clearly see the main difference between English and French: English has only two tenses — past, *loved* vs. non-past, *love* -- whereas French has five (*aime, aimai, aimais, aimerai, aimerais*). From this semiological evidence we postulate the following representation of time, at tongue level:



So, for the expression of the same stretch of time, *past*, to the English unique form correspond two French ones. What are the criteria of the translator's choice? It appears that there are two main ones. First of all, we must bear in mind the fundamental values of the French tenses, what is called their *tongue values*. The *passé défini* provides a homogeneous view of the event expressed by the lexical verb; whatever the real duration of the event, it allows the speaker's mind to go through it, in an instant, from beginning to end. This explains why the *passé défini* can be used for an "instantaneous" event: Il *entra*, as well as for quite a long one: Les grands reptiles *vécurent* sur terre pendant des millions d'années.[9] Again, what is taken into account is not the

[9] In the narow frame of an article, it is impossible to take a fairly complete view of the problem of French tenses, aspects and voices. It is clear that these sentences could have *passé composé*:

— il *est entré*

— Les grands reptiles *ont vécu* sur terre pendant des millions d'années.

For me, at this point of analysis, "passé composé" is an unfortunate label because it mingles semantics (*passé*) with morphology (*composé*). This verbal form should be analysed in two stages, at least: first, from a mere morphological point of view it is the transcendent aspect of the present tense: the opposition *il entre/il est entré*, without taking into account the shift of auxiliary, is exactly the same as *il chante/il a chanté*. Then, from a semantic point of view, within the field of the category of aspect, the analysis would include the elements of *past meaning* of the form.

real duration of the event, but the fact that it is mentally gone through from one end to the other. Now the *imparfait* does not say anything of the real duration of the event either; it provides a heterogeneous view of the event: at the point of reference in time, explicit or not, part of the event is already accomplished, part of it is still to be accomplished.[10]

The second criterion is the difference usually made between *stative* verbs and *dynamic* verbs. Here is the way Hirtle (1967:25) puts it:

> "A state suggests something which involves no material change, no progression whatsoever, except the perpetuating of its existence throughout a more or less extended period of universe time. An event represented as a state is one whose every instant involves the same lexical content so that it is seen as complete no matter how long or short a time it lasts".

This is certainly the reason why a state cannot be expressed with a progressive form, the progressive implying that the event is not totally accomplished.[11] Hirtle goes on (ibid:26):

> "An action suggests some change, some development so that an event represented as an action is one whose lexical content is open to variation from instant to instant and requires a certain stretch of time to be complete. (...) the whole of an action implies the sum of its instants and can be represented only if its total duration is represented".

The conclusion we can draw as regards the limited question of the simple past tense forms of our text is double:

— simple past tense forms, expressing events considered as *states* correspond to the French *imparfait*.
— simple past tense forms, expressing events considered as *complete actions* correspond to the French *passé défini*.

Comparative systematics thus appears to have two main typical features which again may lead one to think it is not very far away from theoretical contrastive analysis. Firstly it is the direct application of a linguistic theory to a particular study, namely the similarities and differences between the underlying organisations of two grammars. Its ultimate goal is the discovery of the systems which make a language at the level of tongue. We might here

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[10] An extensive study of the French *imparfait* is to be found in Valin 1964.

[11] Again, as was said above, it is not possible to include here a careful and detailed analysis of the progressive form. Nevertheless, is *sleep* to be considered as an action, since we have: *he is sleeping*, is an interesting question. Obviously, from a mere extra-linguistic (should I say "reality"?) point of view, *sleep*, as well as the other verbs of attitude, such as *lie*, *stand*, does not seem to imply much activity on the part of the subject. But the very meaning of *sleep* logically implies, under normal circumstances, a final limit of the phenomenon. It may be this impression of non completion, of prospective potential development which dictates the progressive form. What is underlined by the progressive *is* the temporary character of the event, which is to end at some future time.

remember Saussure's lesson, followed to a certain extent by Gustave Guillaume (1964: 238): "La langue est un système systèmes." Secondly, thanks to a kind of feedback movement, comparative systematics may give new insights into that general theory; it may help to understand better the phenomenon of human language, the only way of improving our knowledge of which being the study of particular languages.

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COLOR WORDS IN ENGLISH AND PORTUGUESE: A CONTRASTIVE SEMANTIC ANALYSIS

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1. Duczmal's (1979) excellent study of color adjectives in Polish and English is the inspiration and basic motivation for a similar study contrasting English and Portuguese.[1] The methodology employed by Duczmal in contrasting color terms in two languages and his basic organization will be used in this paper.

2. I consider contrastive studies of lexical systems of different languages of extreme importance not only for those who work with contrastive analysis but also those who work in the field of translation. Contrastive studies of lexical systems can also be of value to students in culture courses. After all, it was Lado (1957) who laid the groundwork for the scientific comparison of two vocabulary systems and of two cultures. With respect to color, Croft (1972: 431) observes:

> "Color categories provide a good illustration of how people throughout the world divide the color spectrum variously, and they provide further examples of taxonomic arrangement".

Leech (1974: 28) makes the following remarks about color words:

> "Although much of present-day thinking which is common to all human language, common observation shows that languages differ in the way they classify experience. A classic instance of this is the semantics of colour words."

3. Following Duczmal, I shall consider in English and Portuguese the three structures he examined:

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[1] The following dictionaries have been consulted for this paper: Ferreira (1975), Houaiss and Avery (1964), and Morris (1970).

(1) Adj.+Noun, 'white wine'
(2) Verb+Adj., 'to see red'
(3) Compound, 'greenhouse'

I shall, however, add some patterns to Duczmal's list such as the following:
(4) Adj.+Prep. Phrase, 'blue in the face'
(5) Verb+Det.+ Noun+Adj. 'to paint the town red'

I intend to include in this paper patterns in which color adjectives are used as nouns as in the following:
(6) Prep. Phrase+Prep.+Noun, 'in the pink of health'
(7) Det.+Noun+Prep. Phrase, 'a bolt from the blue'

Idiomatic expressions involving color adjectives (or nouns used as adjectives) will also be included in this study. Duczmal reports in his study cases of full isomorphism, that is, a one-to-one correspondence in both languages, as in Polish and English examples:
(8) 'białe wino' — 'white wine'

Numerous examples of full isomorphism abound in English and Portuguese. Consider the following:

(9) Adj.+Noun	Noun+Adj.
white wine	vinho branco
blue blood	sangue azul
yellow fever	febre amarela

Particularly important for the contrastive analysis of English and Portuguese is Lyons' (1968) observation cited by Duczmal. According to Lyons, some languages select different color terms for a different range of color terms in the spectrum (c.f. Duczmal 1979:182). Compare, for example, the adjective 'brown' in English with its Portuguese counterparts:

brown eggs
brown sugar
brown rice

(a) lack of isomorphism: different color chosen:

brown eggs	ovos vermelhos
	'red eggs'

(b) lack of isomorphism: different equivalent

brown sugar	mascavo

(c) lack isomorphism: descriptive translation/different adj.

brown rice	arroz integral, arroz não polido

Additional cases of the lack of isomorphism of color words in English and

Portuguese indicate important cultural contrasts which are essential for teachers and students of English or Portuguese as foreign languages, translators, and writers of pedagogical contrastive grammars, similar to the Fisiak *et. al.* (1978) *English-Polish contrastive grammar*. Consider, for example, the following in Portuguese:

(10) sorriso amarelo

which translated literally means 'yellow laugh' but in fact means a forced smile due to jealousy or envy. In English, the color 'green' is associated with envy; in Portuguese, however, the corresponding color is 'roxo', that is 'purple' in English. Observe the following examples:

(11) John became green with envy.
'João ficou roxo de inveja.'

The adjective 'green', that is 'verde' in Portuguese appears, however. in the idiomatic expression involving hunger, fear or anger

(12) (a) João ficou verde/roxo de fome.
'John became very hungry.'
(b) Mário ficou verde/branco de susto.
'Mario became frightened.'
(c) Paula ficou verde/vermelha de raiva
'Paula became red with rage.'

In some cases, however, in one of the languages a color term is present while in the other it is not present. Note, for example, the Portuguese:

(13) cheiro verde

contains the noun 'cheiro' which means 'smell, fragrance or odor' and the color adjective 'verde'. Cheiro verde in Portuguese consists of two herbs — 'salsinha' and 'cebolinha', that is 'parsley' and 'spring onion' respectively.

The opposite occurs also when, for example, the English item contains the color term while the Portuguese one does not. Compare the following:

(14)

English	*Portuguese*
black pepper	pimenta do reino
blackmail	chantagem
greenhouse	estufa
red tape	burocracia, papelada

Another difference between the two languages can be observed from the contrast in meaning of the color 'blue' and corresponding 'azul' in Portuguese. In English 'blue' is associated with a state of sadness, as in "He's blue today". In Portuguese, however, 'azul' is associated with a completely different state of affairs. The expression "Tudo azul? (literally, 'all blue') would be best translated in English as "Is everything O. K.?" or "Is everything in order?" Some other differences between English 'blue' and Portuguese 'azul' follow:

(15)

bilhete azul	pink slip, walking papers,
'blue ticket'	'the sack'

Portuguese 'zona azul' (lit., 'blue zone') refers to a designated number of streets in certain Brazilian cities where parking of automobiles is permitted provided a form is filled in with date and time of arrival, license plate number, and placed on the rear-view mirror. These examples are specific to the culture and I believe they may be of use in the preparation of teaching materials for Portuguese as a foreign language. The color 'blue' in English, in the following idiomatic expressions would have different translations in Portuguese, and the color 'azul' ('blue') would not obtain:

(16)

to be blue	estar triste
to have the blues	estar deprimido, estar numa fossa
once in a blue moon	raramente
a bolt from the blue	inesperadamente, do nada
out of the blue	" "
till one is blue in the face	até estiver cansado, exausto

With respect to the differences in color terms between two languages, Lyons (1978:56) writes:

> "It is an established fact that the colour-terms of particular languages cannot always be brought into one-to-one correspondence with one another: for example, the English word *brown* has no equivalent (it would be translated as *brun*, *marron* or even *jaune*, according to the particular shade and the kind of noun it qualifies);....."

4. I have followed Duczmal's novel presentation of color terms with a triple subdivision, full isomorphism in both languages in the center of each chart, non-isomorphic above (color terms in English) and below (color terms in Portuguese). The colors examined in this paper are the following:

(17)

white	branco
black	negro/preto
red	vermelho
green	verde
blue	azul
pink/rose	cor de rosa
purple	roxo
yellow	amarelo
gray	cinza
brown	pardo/marrom

In Portuguese there are two words for 'black' — 'preto' and 'negro', and two words for 'brown' — 'marrom' and 'pardo'.

The charts below reveal some important contrasts that I feel may be of interest to students in contrastive analysis, culture and translation courses. For speakers of Portuguese as a L_1 learning English as an L_2, it would be useful to know that the Portuguese *imprensa marrom*, (lit. 'brown press') has the equivalents *yellow journalism* and *yellow press* in English. For Portuguese

speaking students, *repolho roxo* (lit. 'purple cabbage') would be *red cabbage* in English. Portuguese *ver tudo azul* (lit. 'to see everything blue') for the Anglophone would be *to look (at everything) through rose-colored glasses.* For the English-speaking student who is learning Portuguese as a foreign language, awareness of the following contrasts would contribute to deepening his/her knowledge of the language and the culture. For example, Portuguese 'vinho verde' (lit. 'green wine') is actually wine from unripe grapes and the color of the wine may be white or even red.[2] Portuguese *estar tudo azul* (lit. 'to be all blue') is in English *to be in the pink of health, to be fine.* Portuguese *carne verde* (lit. 'green meat') is *fresh meat,* that is unfrozen meat, in English. Many of the color terms in English as *greenhouse, red-tape,* and *red-carpet* as in *red carpet treatment* do not have corresponding color terms in Portuguese.

A — White-branco	
1. white lie	mentirinha
2. white collar worker	funcionário de escritório
3. white wash (n.)	cal
(to_____)	caiar, encobrir, esconder (EUA)
4. white caps	onda de crista espumosa, carneirinho
5. the white of an egg	a clara do ovo
6. to bleed somebody white	esfolar alguém, sugar
7. to show the white feather	comportar-se como covarde
8. white livered	pálido, covarde
9. white coffee	café com leite (ou creme)
10. white potato	batata inglesa
11. white with fury	vermelho de raiva
12. white bait	filhote de arenque usado como isca
13. white sale	venda de lençois

14. white ant	1.	formiga branca
15. white wine	2.	vinho branco
16. white book	3.	livro branco
17. white elephant	4.	elefante branco
18. white corpuscle	5.	glóbulo branco
19. white flag	6.	bandeira branca
20. white gold	7.	ouro branco
21. white magic	8.	magia branca
22. white matter (of the brain)	9.	substância branca
23. white meat	10.	carne branca
24. white metal	11.	metal branco
25. white pepper	12.	pimenta branca
26. white sauce	13.	molho branco
27. white slave	14.	escrava branca

[2] According to the *Grande Enciclopédia Delta Larousse* (1977:7041), vol. 15, 'vinho verde' in Portugal is a bitter wine with a low alcoholic content. In France, this wine is made from unripe grapes.

28. white tie	15.	gravata branca
29. Snow White	16.	Branca de Neve
30. carte blanche (loanword)	17.	carta branca
31. to put it in black and white	18.	por preto no branco
___ the white of the eyes_____	19.	o branco dos olhos
	20.	bilhete branco 'losing ticket'
	21.	arma branca 'small dagger', knife
	22.	roupa branca underwear
	23.	verso branco blank verse.
	24.	em branco not filled in, incomplete
	25.	ficar branco de susto to become pale with fear
	26.	branquinha white rum
	27.	dia de branco working day
	28.	dar um branco to forget something
	29.	passar em bran cas nuvens to come to nothing

B — Black negro/preto	
1. blackmail	chantagem
(_____er)	chantagista
2. in the black	com saldo credor, sem dívidas
3. to black out	perder consciência
4. black and blue	coloração azulada ou arroxada
5. to blackball	votar contra, rejeitar alguém
6. blackbird	melro
7. black-eyed peas	feijão fradinho
8. black-eyed Susan	margarida amarela
9. blackguard	patife, vilão
10. black mark	nota má
11. black hole	cárcere
12. blackhead	cravo
13. blacksmith	ferreiro, ferrador
14. black pudding	morcela
15. black bile	atrabile, atrabílis
16. blackjack	canecão, copo grande para beber cerveja, bandeira de pirata porrete com cabo flexível jogo de cartas
17. black pepper	pimenta do reino

18. black and white (to put it in_____)	1.	por branco no preto 'to put it in writing'
19. black ink	2.	tinta preta
20. black gold	3.	ouro preto
21. black bread	4.	pão preto
22. black pepper	5.	pimenta preta
23. black 'mammy'	6.	mãe preta
24. black beans	7.	feijão preto
25. black tea	8.	chá preto
26. black market	9.	mercado negro

27. blackboard	10. quadro negro
28. black sheep	11. ovelha negra
29. black widow spider	12. viúva negra
30. black list	13. lista negra
(to_____)	por na lista negra
31. black book	livro negro
to be in one's	estar na lista negra de alguém
32. Black Power	15. poder negro
33. Black Pope	16. Papa Negro
34. Black Panther	17. Pantera Negra
35. Black Mass	18. Missa Negra
36. black flag	19. bandeira preta
37. black magic	20. magia negra
38. black beans	21. feijão preto
39. black tea	22. chá preto
40. blackout	23. blecaute (loan word)
	defesa anti-aérea, apagamento de luzes
41. black plague	24. peste negra
42. black tie	25. gravata preta tipo borboleta de *smoking*
43. blackberry	26. amora preta
44. black bread	27. pão preto
45. Black Florest	28. Floresta Negra
46. black diamond	29. diamante negro
	30. cambio negro ilegal exchange of money

C — Red-vermelho

1. red ant	formiga açucareira
2. red-blooded	vigoroso, fogoso
3. red-cap	carregador de malas (EUA)
	pintassilgo
4. red cent	
(not to give a_____)	não dar a mínima importância
5. red coat	soldado inglês
6. red-haired, red-head	ruivo
7. red-handed	
(to be caught)	em flagrante
8. red-hat	cardeal, chapeu cardinalício
9. red-herring	arenque defumado; algo usado para despistar
10. red-lead	zarcão
11. red-light district	zona de prostituição, 'boca do lixo'
12. red letter	
red letter day	memorável, feliz
13. red-hot	candeante, aquecido, algo recente
14. red tape	burocracia, papelada
15. red carpet	
(to roll out the_____)	acolher bem
(_____treatment)	acolhida boa
16. to see red	ficar bravo

17. (to paint the town_____)		pintar o sete, farrear
18. red-brick college		universidade provinciana na Inglaterra
19. red wine		vinho tinto
20. red-cabbage		repolho roxo
21. Red Cross	1.	Cruz Vermelha
22. red flag	2.	bandeira vermelha
23. red fox	3.	raposa vermelha
24. red squirrel	4.	esquilo vermelho
25. red pepper	5.	pimenta vermelha
26. Little Red Ridinghood	6.	Chapeuzinho Vermelho
27. redskin	7.	pele vermelha
28. red alert	8.	alerta vermelho
29. to become red in the face	9.	ficar vermelho, embaraçado
30. red with rage	10.	vermelho de raiva
31. red corpuscles	11.	glóbulos vermelhos
32. red to be in the_____.	12.	estar no vermelho

D — green-verde

1. green thumb		boa mão para o plantio
2. greenhorn		novato
3. green with envy		invejoso
4. greenhouse		estufa
5. greenback		papel moeda norteamericano
6. green beans		vagens
7. green room		sala de espera e de lazer num teatro para os atores
8. greenbrier		salsaparilha, zarza
9. greensword		relvado, gramado
10. green dragon		dragantéia, serpentário
11. a bowling green		gramado para o jogo de bolicho
a golf green		gramado para o golf
12. Tavern on the Green		Restaurante no Central Park, N.Y.,
13. The Green		Parque no centro da cidade de New Haven EUA.
14. green lasagne	1.	lasanha verde
15. green belt	2.	cinturão verde
16. green (inexperienced)	3.	verde (sem experiência)
17. green (unripe)	4.	verde (não maduro)
18. green grapes	5.	uvas verdes
19. green tea	6.	chá verde
20. green wood	7.	madeira verde
21. Green Hell (Amazon Jungle)	8.	Inferno Verde (Amazonas)
22. green light (to give someone the_____)	9.	sinal verde (dar alguém o_____)
23. green table	10.	pano verde
24. green pepper	11.	pimenta verde
25. green apples (cooking apples)	12.	maçãs verdes
26. greenery	13.	verde, folhagem

27. green-eyed	14.	de olhos verdes
28. greengrocer (Britain)	15.	verdureiro, quitandeiro
	16.	verdes anos 'youth' 'salad days'
	17.	caldo verde potato 'soup weith chopped cabbage leaves'
	18.	carne verde, 'fresh meat'
	19.	cair no verde 'hide in the country'
	20.	jogar verde, plantar verde para colher maduro to ask leading questions, bait somebody
	21.	ouro verde 'coffee'
	22.	casar na igreja verde 'common law marriage'
	23.	vinho verde 'wine from young grapes'
	24.	barriga verde 'inhabitant of the State of Espirito Santo
	25.	área verde 'park or garden with trees, flowers in a Brazilian city'
	26.	cheiro verde parsley
		salsinha shallot
	27.	verde de susto 'very pale, sick'
	28.	passarinho verde something that doesn't exist
		ver_____to be happy, euphoric

E — Blue-azul	
1. blue collar worker	operário de fábrica
2. blue grass	capim do campo (EUA)
the *Blue Grass* (State)	o Estado de Kentucky, EUA.
3. blue jay	gaio
4. blue laws	leis puritanas
5. blue ointment	ungüento mercurial
6. blue plate	prato principal do dia(de cor azul)
(_____special)	
7. bluestocking (pejorative)	mulher literata ou de gosto intelectual
8. blue chesse (bleu cheese)	tipo de queijo parecido com Roquefort
9. blueprint	plano ou desenho de um edifício
10. Blue Monday	segunda-feira que precede a Quaresma
11. blue devils	depressão melancólica
12. blue ribbon jury	juri especial e selecionado
13. blues	estado de melancolia, canção triste
14. bluestreak	relâmpago, qualquer coisa que anda
(to talk a_____)	rapidamente
	falar pelos cotovelos
15. bluefish	pomotono (peixe)
16. bluepoint olams	tipo de ostra (EUA)
17. blue stories, jokes	estórias, piadas indecentes
18. to be blue, to have the blues	estar deprimido
19. out of the blue	inesperadamente

20. once in a blue moon		raramente
21. to be blue in the face		estar exausto, cansado
22. into the blue		distante, fora da vista
23. Bluebook		publicação oficial (de orgão governamental caderno de exame nos EUA, registro de pessoas de sociedade
24. bluing		anil
25. blue-eyed boy		menino 'dos olhos, favorito
26. blue blood	1.	sangue azul
27. blue baby	2.	criança azul, cianótico
28. Blue Beard	3.	Barba Azul
29. Blue Chip stocks	4.	'Blue chip' títulos, ações de primeira ordem
30. Bluebird	5.	azulão americano
31. blue (to turn_____)	6.	azular
32. blue lead	7.	chumbo azul
33. blue fox	8.	raposa azul
34. bluestone, blue vitriol	9.	vitríolo azul
35. cordon bleu	10.	fita azul, emblema de alta distinção
	11.	zona azul designated street areas in Brazilian cities where parking is permitted
	12.	bilhete azul — walking papers, discharge, 'pink slip'
	13.	ver tudo azul — see everything through rose colored glasses tudo azul! — everything is fine!
	14.	Faixa Azul — Brand name of a Parmessan cheese made in Brazil
	15.	azular — to disappear, to 'scram'
	16.	azulejo — decorative tile azulejista — tile installer

F — pink/rose — cor de rosa	
1. pink	
to be in the_____ of health	estar com boa saúde
to be the_____	estar tudo azul, tudo ótimo
to be the_____ (naked, nude)	estar nú
2. pinkeye	conjuntivite
3. pink tea	reunião social frívola de mulheres
4. pink lady	uma bebida alcoólica feita de gin, aguardente, limao
5. rose-colored glasses	gema de ovo e grenadina
to look through_____	ver tudo azul, estar confiante
6. rosy	
everything is_____	tudo azul_____
7. under the rose	secretamente, confidencialmente

8. pink panther	1.	pantera cor de rosa
9. pink elephant	2.	elefante cor de rosa
G — *Purple-roxo*		
1. purple prose		estilo elaborado e florido
2. Purple Heart		Medalha dada aos feridos em ação de guerra pelas Forças Armadas dos EUA
3. born to the purple		ser de sangue azul
	1.	ficar roxo de inveja become green with envy
		de fome extremely hungry
	2.	repolho roxo red cabbage
	3.	paixão roxa intense passion, love affair
	4.	estar roxo para resolver uma situação to be very desirous to solve a problem
	5.	terra roxa red earth
	6.	corintiano roxo-fanatical fan of the Corinthians Football Club
H — Yellow — amerelo		
1. to be yellow		ser covarde
2. yellow bellied		covarde
3. yellow livered		covarde
4. yellow journalism (yellow press)		imprensa marrom, sensacionalismo
5. yellow dog		operário que se compromete a não afiliar-se com um sindicato
6. yellow dog contract		contrato assinado por esses operários
7. yellow streak		covarde
8. yellow jacket		tipo de vespa
9. yellow fever	1.	febre amarela
10. yellow peril	2.	perigo amarelo
11. yellow race	3.	raça amarela
12. yellow pages	4.	páginas amarelas
13. yellow card	5.	cartão amarelo
	6.	sorriso amarelo forced or wry smile
I — Gray—cinza (gris-)		
1. graybeard		ancião, velho
2. Gray Friar		franciscano
3. graylag		ganso selvagem
4. grayling		timalo
5. greyhound		galgo, transatlântico de grande velocidade
6. Greyhound		onibus interestadual (EUA)
7. to be gray		estar triste, deprimido

8. gray matter	1.	massa cinzenta
9. gray-headed	2.	grisalho
10. Gray squirrel	3.	esquilo cinzento
J — Brown pardo/marrom		
1. to do up brown (slang)		fazer com perfeição
2. to brown, to _____ the meat		queimar ao ou do dol, dourar e carne
3. Brown Betty		espécie de pudim de maçã e i rinha de rosca
4. brown bread		pão de centeio
5. brown coal		lignite
6. brown-eyed		de olhos castanhos
7. Brownie		duende benfazejo, fadinha, menina escoteira, bolinho de chocolate com amêndoas
8. brown rice		arroz não polido, arroz integral
9. brown sugar		açucar mascavo
10. brown study		concentração profunda devaneio
11. to brown nose (slang, vulgar)		badalar alguém
12. brownout		blackout parcial
13. brown eggs		ovos vermelhos
14. brown bear	1.	urso pardo
15. brown paper	2.	papel pardo
16. brown shirt	3.	camisa parda, nazista
	4.	pardo homem mulatto, dark-skinned individual
	5.	eminência parda an individual influencing or controlling policy 'behind the scence' without being in a position of power. Indirect exercise of power.
	6.	imprensa marrom type of journalism that exploits crime, violence and sexual transgressions

Although some rather striking differences between English and Portuguese can be observed in the contrastive charts, the data points to a great deal of agreement, especially as far as *black-negro/preto*, *white-branco*, and to a lesser extent, *green-verde* are concerned. Sampson (1978:186) reports on the work of McNeil (1972) who disputes the famous Berlin and Kay (1969) study of semantic universals in the area of color terminology. Collier *et. al.* (1976) have provided further evidence to support color category universals. Bolinger (1980:141) makes the following point:

> "There are certain 'best' colors for the human visual system; these are noted first, and all languages are found to have names for them in proportion to how good the human eye is in perceiving them. Other colors may or may not be named, depending

on how important color is in the culture — an when named, the names tend to be by comparison with those basic colors — a *light* yellow, a *deep* green, a *greenish* blue".

Bolinger (1980:101) also points out that in the case of speakers of English, women tend to have a different color vocabulary than men. Women, for example, tend to use *azure* and *turquoise*. Men, on the other hand, tend, according to Bolinger, to avoid *mauve* or *magenta*, but would use the color words *cobalt* and *ultramarine*. Bolinger views language as a 'loaded weapon' armed with its users' racial and social prejudices. Some sex-biased color terms in the data for English are 'bluestocking' and 'pink tea', for example.

Contrastive studies of color words, similar to Duczmal's would certainly be useful for an understanding of the different ways in which color and color objects are employed in different languages owing to, of course, the differences in color patterns of the physical environment, for example between Asia and America, Europe and Africa, Australia and Oceania. Studies similar to Duczmal's between a Semitic and an Indo-European language, on one hand, and between an American-Indian language and an African one, on the other, would be indeed invaluable projects for cross-cultural contrastive studies.

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THOSE RELATIVES THAT SHOULD STACK THAT DON'T

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1.0. The so called *stacked* relative clauses are those 'in which there is a relative clause attached to a head that itself has a relative clause', i.e. in which the second relative modifies the head NP which had already been modified by the first one (Bach 1974:269, cf. also Stockwell et al. 1973:442).

1.1. In transformational grammars of English stacked relatives have been most frequently discussed in relation to the problem of relative clause formation: their occurrence was quoted as an argument against one of the three alternative hypotheses that were put forward to account for the derivation of restrictive relatives, and which are known as the Det-S, the NP-S and the NOM-S analyses. While the Det-S analysis (which treats relative clauses as sentence embedded in the Det constituent of the NP) does not allow for stacking unless some additional specific rules are posited, both the NP-S analysis (where the clause follows the head NP) and the NOM-S analysis (in which an additional category NOM is introduced to contain the head NP minus determiner) do account for stacking, and in fact both would require introducing additional rules in order to get rid of them. However, problems involved in an adequate description of relative clause formation in English (or in Polish) are not the main concern of this paper. The purpose of the present discussion is an attempt at finding an answer to the question that must be asked prior to any syntactic considerations: if it is to be assumed that any adequate grammatical description of English should account for stacking of relatives, then it must also be assumed that their interpretation differs from that of a mere conjunction of two relatives on the same head NP (cf. Bach 1974:269). Does such a difference really exist?

1.2. In their analysis of stacked relatives Stockwell et al. (1973:442 ff) admit that differences in semantic interpretation between stacked relatives and conjoined relatives on the same head NP are not clear: they conclude their discussion with a vague statement that the reference of nouns modified by one

or the other of the two alternative structures is the same while 'the meaning is different' (444). They admit that native speakers are often reluctant in accepting stacked constructions and — unable to explain the fact that some stacked relatives are more readily accepted than others — they ascribe the difference in opinion, although rather unwillingly, to some deep-rooted discrepancies between idio- or dialects (443). On the other hand, when arguing for the need to account for stacked relatives in a description of relative clause formation in English, Bach (1974:271—2) considers the difference in the interpretation of the two alternative structures as that of different presuppositions concerning the 'existence of entities of which the description given in the relative clause is not true'. It is this claim that has inspired the following analysis, which I consider as one of numerous contributions towards the theory of relative clauses, but also as one of even more numerous arguments which have been put forward in favour of semantically based grammar.

1.3. While stacking of prenominal adjectives occurs frequently both in English and in Polish, postnominal stacking of non-reduced relatives is practically nonexistent in Polish and fairly rare in English. My choice to ignore the former and concentrate on the latter of those two types of structure is justified in view of certain generalizations, which I hope might result from the analysis.

In terms of frequency of occurrence, stacking must be considered as a structure marginal in both languages discussed. However, it should be noted that — from the semantic point of view and because of the nature of variables in natural languages — every sentence with a common noun functioning as a constituent of a head NP of a relative clause might be considered as a case of 'stacking', with the first (deleted) relative restricting the range of the bound variable. Thus a sentence like

(1) A girl who wears a size eighteen dress is large

can be interpreted as

(1.1) An x such that x is a girl that wears a size eighteen dress is large,

an interpretation posited by those authors who argue for an abstract 'logical' deep structure of natural language sentences (cf. eg. Bach 1968, McCawley 1968, Keenan 1972). However trivial, this aspect of natural language semantics must be borne in mind when attempting an analysis of stacked relatics.

2.1. Accepting the hypothesis that the presence of absence of stacked constructions in various dialects of native speakers of English might result from some deeply rooted dialectal differentiations, Stockwell et al. (1973:445 ff) admit that particular instances of stacking differ as to the degree of acceptability, ie. some are more readily accepted than others. Attempts at formulating possible constraints have been traditionally based upon the dichotomous

division of relativesin to restrictive and nonrestrictive. Thus Smith (1969; cf. also Hawkins 1978:286) observes that a nonrestrictive relative cannot be followed by a stacked relative within the same sentence, and Carlson (1977:520) claims that nonrestrictives do not stack: they 'may cooccur on the same head only if they are conjoined'. However, no explanation is offered why, eg.

(2) The tiger that I saw that I wanted to buy was five weeks old (from Carlson 1977:520)

is worse than, eg.

(3) Many men who died who were Americans were shipped back to the States (from Stockwell et al. 1973:444),

and (3) is worse than, eg.

(4) Those of the many men that died that were Americans were shipped back to the States (from Stockwell et al. 1973:443) or

(5) It's a kids' movie that adults will go to that kids will like (*Newsweek*, Dec. 20, 1977),

even though all these examples represent the restrictive relative — plus — restrictive relative pattern, considered as a legitimate part of the English grammar.

2.2. We shall begin by discussing example (3) above, where the restrictive relatives modify a plural indefinite head NP. It refers to entities such that are 'men', and it asserts that there are (many) men such that died and that were Americans. For the sake of convenience let us represent the set of entities whose members in a world can be referred to as 'men' as X, the predicate of the first relative as a propositional function f such that $f(x)$, and the second relative as a propositional function g such that $g(x)$. The predicate of the main clause will be ignored, as not immediately relevant at this point of the discussion. Let us further symbolize the class of all x's such that $f(x)$ and the class of all x's such that $g(x)$ as, respectively, F and G. The assertion of the 'relative part' of (3) can be then represented as

(3.1) There are x's such that [$\mathbf{x} \in \mathrm{X}$ and ($f(\mathbf{x})$ and $g(\mathbf{x})$)].

Notice that — apart from the trivial presuppcsition concerning the existence in the world of entities that are not 'men' — (3) presupposes the existence of men such that did not die, as well as the existence of men such that died and were not Americans, or

(3.2) There are x's such that [$\mathbf{x} \in \mathrm{X}$ and ($\mathrm{f}(\mathbf{x})$ and $\sim g(\mathbf{x})$)].

No presupposition is made concerning the existence of men such that did not die and were not Americans, and so the presuppcsitions of (3) can be symbolically represented as the alternative between *set inclusion* with G included in F or *set intersection* of these two sets.

Let us now consider

(3.3) Many men who died and who were Americans were shipped back to the States,

where stacking has been replaced with conjunction of two relatives. The assertion part of (3.3) is the same as that of (3), ie. (3.1).

However — again apart from the trivial presupposition that the universe of discourse includes entities other than those referred to as 'men' — (3.3) presupposes only that either there exist men such that did not die, or that there exist men such that were not Americans. Symbolically

(3.4) There are x's such that [$x \in X$ and ($\sim f(x)$ or $\sim g(x)$)].

The truth conditions of (3.4) require that the alternative constituent be interpreted as

(3.5) ($\sim f(x)$ and $g(x)$) or ($f(x)$ and $\sim g(x)$) or ($\sim f(x)$ and $\sim g(x)$).

From the first constituent of the alternative (3.5) it becomes clear that — unlike (3) — (3.3) does not preclude presupposing that all men who died were Americans, ie. the relation of *set inclusion* of F in G. All in all, the alternative in (3.5) is that of three possible relations between sets F and G: inclusion of F in G, inclusion of G in F, and intersection of F and G. Thus in a sense (3) means 'more' than (3.3) as it carries more specific presuppositions.
Finally,

(3.6) Many men who died, (and) who were Americans, were shipped back to the States,

which calls for nonrestrictive interpretation of the second relative, with the conjunction retained or deleted from the surface (according to standard views concerning nonrestrictive relative formation, I consider nonrestrictive relatives as cases of (deep) conjunction), while again asserting (3.1), presupposes only the existence of men such that did not die, ie. admits an alternative of all possible relations between sets F and G, including the case when F equals G.

Thus the intuitive feeling that stacked and conjoined relatives differ in meaning while the reference remains the same is explained by the fact that while in types of structure reference is made to the *common class* $F \wedge G$, they differ as to existential presuppositions concerning the *joint class* $F \vee G$. Such interpretaton makes it possible to explain some other doubts traditionally raised in connection with stacking.

2.3. Stockwell et al. (1973 : 443) claim that sentences like (4), which they call 'the clearest cases of what appears to be stacking', are most acceptable for the native speakers of English. In such sentences the head NP determiner bears contrastive stress, implying what the authors vaguely refer to as 'some alternative' (443, cf. also Annear 1968, Appendix). Indeed, what (4) implies is a statement contrary to that of the main clause in (4), and made in reference to men who died but who were *not* Americans, which is seen from a possible continuation of (4):

(4.1) Those of the many men that died that were Americans were shipped back to the States, while the rest were buried at the battlefield.

Thus (4) implies that the statement 'were shipped back to the States' is *not* true in relation to members of some non-empty set of men such that died and that were not Americans, whose existence is presupposed in (4). This 'negative' implication is compatible only with the presupposition characteristic of stacked, but not conjoined, interpretation, thus providing semantic justification for stacking.

This also explains why

(6) The students who followed the march who evaded the police caused the trouble (from Stockwell et al. (1973:444))

is found difficult to accept, while it 'approaches acceptability' when supplemented in a way that imposes contrastive reading:

(6.1) The students who followed the march who evaded the police caused the trouble, though the ones that the police had caught might have participated, had they had the chance (from Stockwell et al., ibid).

2.4. Predictably, stacked relatives on definite singular heads range lowest as far as their acceptability is concerned. It is so because the higher of the two relatives constitutes a definite description requiring unique reference (cf. Russell's theory of definite descriptions (1919)). Semantically, a unique term cannot enter into the relation of either inclusion or intersection of extensions with any other name (cf. eg. the discussion on relations of extensions in Kraszewski (1977:49)), which, as we have shown, constitutes existential presuppositions characteristic of the 'stacked' interpretation. Thus

(2) The tiger that I saw that I wanted to buy was five weeks old

can be accepted only if we assume that there were at least two tigers such that I saw. Neither the syntax nor the semantics of (2) enhance such an assumption, which accounts for its low acceptability. However, sentences of this type are more readily accepted if they entail existence of other entities to which the definite description could potentially refer. Such an entailment can result from eg. the presence of superlatives or ordinal numerals as head NP premodifiers, the case that according to Stockwell et al. 'would suggest that stacking is necessary in the grammar' (1973:445): their semantics implies potential non-unique reference. Indeed, sentences like

(7) The first book that I read that really amused me was *Alice in Wonderland* (from Stockwell et al. 1973:445),

which presupposes

(7.1) There are more than one books such that I read them

are readily accepted by most speakers. Such potential non-unique reference can be also presupposed in a purely pragmatic way, like in

(8) The only man that I know who could do it is Bob Fosse (*Time*, March 10,1980),

which pragmatically presupposes

(8.1) There are more than one men such that I know them.

2.5. Predictably again, stacked relatives on indefinite singular heads are considered as 'better': the single entity referred to is an unidentified member of a non-unique set *F*, delimited in terms of the property *f* expressed by the first relative constituent. It will be noticed that both the assertion and the presuppositions of

(5) It's a kids' movie that adults will go to that kids will like

are identical to those of its plural equivalent, ie. (3). (The prenominal restrictive modifier 'kids'' is ignored, as not directly relevant to the present discussion).

3.1. In Polish, stacked relatives are practically nonexistent, and sentences like

(9) Wywiad z murarzem M. Krajewskim, jaki zamieściłem w *Trybunie Ludu*, który Bratny tak zręcznie uhonorował (...), był pierwszym wetem, jakie postawiono Wajdzie w tej sprawie (*Życie Warszawy*, April 2—3, 1977; The interview with the bricklayer M. Krajewski which I had published in *Trybuna Ludu*, which Bratny has honoured in such a clever way, was the first veto that was put against Wajda concerning this matter)

are not mentioned among what is in Polish grammars referred to as 'zdania wielokrotnie złożone' (multiplex sentences). However, interestingly enough, the 'hierarchy of acceptability' of Polish translation equivalents of examples (2)—(8) is found to correspond to that established for the English data:

(2A)* Tygrys, którego widziałem, którego chciałem kupić, miał pięć tygodni

(3A)* Wielu ludzi, którzy polegli, którzy byli Amerykanami, odwieziono z powrotem do Stanów

(4A) ?TYCH spośród wielu ludzi, którzy polegli, którzy byli Amerykanami, odwieziono z powrotem do Stanów

(5A) ?Jest to film dla dzieci, na który pójdą dorośli, który spodoba się dzieciom

(7A) Pierwszą książką, jaką przeczytałem, która mnie naprawdę ubawiła, była *Alicja w krainie czarów*

(8A) Jedynym człowiekiem, jakiego znam, który potrafiłby to zrobić, jest Bob Fosse

The acceptability of (7A) and (8A) may be additionally accounted for by the use of the relative pronoun *jaki* in the first relative: it makes it possible to avoid lexical repetition, which — especially if morphophonemic rules call for total phonetic identity — is considered in Polish as bad style (cf. e.g Wierzbicka 1970:90). The semantically based rule governing the distribution of *który* and *jaki* in Polish relatives cannot be discussed at this place.

What is relevant for the present discussion, however, is the fact that in all the above examples most native speakers of Polish would still prefer con-

junction to stacking. Are we then to assume that the semantic difference between the two alternative constructions is irrelevant in Polish? In the following sections we shall try to prove that this is not the case.

3.2. Two relatives on the same head can be in Polish conjoined by one of two coordinate conjunctions. the semantically neutral *i* or the contrasting ('przeciwstawny') *a*. The ambiguity of the latter has been discussed by numerous grammarians. Jodłowski (1976:192) claims that it can function as either contrasting or connective ('łączny') conjunction. Doroszewski (1968:222) states that 'while connecting words, at the same time it contrasts them to a certain extent' (Translation from Polish — ET). Bąk (1977:166) defines *a* as a conjunction that expreses 'differences in quality, state or actions of objects and persons' (Translation from Polish — ET). From the point of view of formal semantics — ie. in terms of truth-values — both conjunctions are of course equivalent, but the analysis of data shows that while *i* is reserved for 'conjunctive' interpretation of two relatives modifying a common head, *a* tends to corespond to the 'stacked' reading. *i* is used in cases in which the 'stacked' interpretation is ruled out for semantic reasons; like in English, this category comprises definite descriptions:

(10) Nie mogli oni jednak zapobiec wypadkowi, któremu uległ chłopak, i który to wypadek mógł skończyć się tragicznie (*Kobieta i Życie*, August 15, 1976) However, they could not prevent the accident that the boy met with and which could have ended in a tragic way).

With unique reference, *i* is chosen even when the semantic contents of the sentence calls for contrast, thus making *a* a plausible alternative:

(11) Nie spał już (...) od czasu, jak otrzymał tajemniczą depesza od jakiegoś Charlesa, którego nie znał i który mimo to chciał się z nim spotkać (Choromański, *Memuary*, 66; He has not slept (...) since he got a mysterious telegram from some Charles, whom he did not know and who still wanted to meet him).

Because of semantic contrast between eg. the meanings of two verbs (like in (11)) the clash between rules governing the choice of the conjunction in a given utterance can blur the *i/a* distinction and thus cause ambiguity. Any discussion of this problem would go beyond the limits of this paper; for clarity, we shall concentrate on some clearcut cases.

When there are no intervening semantic constraints, *i* can be replaced with *a*, with the predictable change of meaning:

(12) Jedną książkę spośród wszystkich, które kiedyś pożyczyłem innym i których nigdy mi nie zwrócono, chciałbym odzyskać najbardziej (*Przekrój*, April 16, 1978; Out of all books that I had at one time lent to others and that were never given back to me, one I would like to get back most).

(12) presupposes only that there exist books such that I did not lend to others or such that were given back to me (cf. (3.3)), while

(12.1) Jedną książkę spośród wszystkich, które kiedyś pożyczyłem innym, a której mi nigdy nie zwrócono, chciałbym odzyskać najbardziej (Out of all books that I had at one time lent to others that were never given back to me one I would like to get back most)

presupposes that there are books such that I lent to others and that were given back to me.

3.3. Pragmatic consequences of such subtle differences in meaning might not seem particularly significant. one might claim, for instance, that (12.1) — as different from (12) – expresses, or elicits in the listener, a more favourable attitude towards lending one's books to others. Let us, however, consider

(13) Zdajemy sobie sprawę ze strat, jakie poniósł nasz kraj i które mogłyby się jeszcze pogłębić (*Trybuna Ludu*, March 26, 1981; We are aware of the losses that our country has suffered and that could become even more intense).

By imposing the 'conjunctive' rather than the 'stacked' interpretation the speaker avoids limiting the presupposition so that the sentence might imply that there are losses such that the country has suffered and that would *not* become more intense, thus emphasising his conviction that the pending general strike (which is the topic of the discourse) would indeed be an economical catastrophe.

On the other hand, semantically 'stacked' reduced relatives in

(14) ... dotychczas dostępne, a nie kwestionowane, informacje wskazują, że zajścia te spowodowane zostały nieodpowiedzialnymi (...) postawami... (*Echo Krakowa*, March 27, 1981,... the information (that is) presently available (that is) not questionable proves that the events were caused by irresponsible attitudes...)

presuppose the existence of information such that is available but questionable - the moot point of the animated press debate concerning reports on an event that gave rise to some recent developments in Poland.

3.4. The choice of *a*, rather than *i*, can also be conditioned by pragmatic presuppositions or semantic entailment concerning the existence of entities that can act as potential referents of the definite description constituted by the head NP modified by the first relative:

(15) Był to jedyny bodajże człowiek na ziemi, którego znałem, a który nigdy od nikogo nic nie pożyczał (Chromański, *Memuary*, 69; He was probably the only man in this world that I know who never borrowed anything from anyone),

which pragmatically presupposes

(15.1) There are more than one men such that I know them (cf. (8), (8.1)), compare

(15.2) ?Był to jedyny bodajże człowiek na ziemi, którego znałem i który nigdy nic od nikogo nie pożyczał.

While (15.2) only presupposes that there are men such that I do not know them or such that do borrow things from people, (15) promotes the presuppo sition that there exist men such that I know them and that borrow things from people — ie. that of the 'stacked' interpretation.

3.5. Predictably, relatives on head NP's marked for contrast employ *a* rather than *i* (cf. (4)):

(16) Ci studenci, którzy się zgłosili a nie mogą czekać, proszeni są o przyjście w piątek (notice on a university noticeboard; Those students who have come who cannot wait are requested to come on Friday).

While replacing *a* with *i* would produce a neutral 'conjunctive' construction, *a* induces the presupposition of existence of such students that have come and that can wait, implying that those would not be asked to come again on Friday.

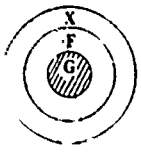
4.1. It was shown that the division of English relatives into 'stackable' and 'non-stackable' is made on semantic grounds. only such relatives can stack whose head NP's semantically are compatible with existential pre suppositions characteristic of the 'stacked' interpretation. Stacked construc tions can be transformed into conjunctions of two relatives on the same head, with the resulting change of meaning, involving less specific presuppositions concerning the existence of entities of which the description given in the first and/or the second relative is not true. The 'non-stackables' can be inter preted only in the 'conjunctive' way.

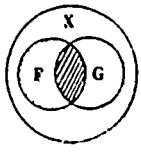
While stacked relatives practically do not occur in Polish, analogous semantic constraints are reflected in the choice of the coordinate conjuction. while 'non-stackables' can only employ the neutral *i*, the 'stackables' prefer *a*; when it becomes replaced with *i*, the resulting structure is interpreted 'conjunctively'.

Thus semantic interpertation is shown to depend — at least to some degree — on the surface structure, and close semantic affiliation is found to exist between structures that a presupposition free syntactic analysis might classify as not comparable.

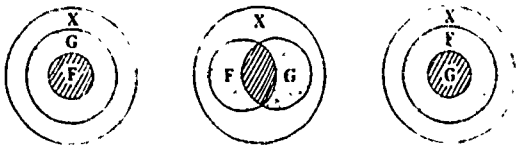
APPENDIX

1. *Stacking*
assertion: there is/are x(s) such that $f(x)$ and $g(x)$
presupposition: there are x's such that $f(x)$ and $\sim g(x)$

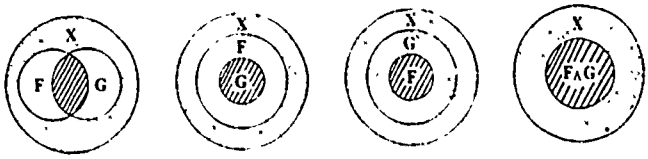




2. *Conjunction*
assertion: there is/are x(s) such that f(x) and g(x)
presupposition: there are x's such that ~ (x) or ~g(x)



3. *Conjunction with second relative nonrestrictive*
assertion: there is/are x(s) such that f(x) and g(x)
presupposition: there are x's such that ~f(x)



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TOWARDS A PEDAGOGICAL GRAMMAR OF DETERMINERS· A CONTRASTIVE APPROACH

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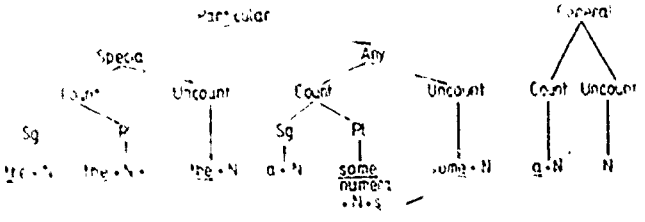
1. INTRODUCTION

1.1. The English article system is one of the notorious problem areas that foreign learners of the language are faced with. From an analysis of errors produced by native speakers of Dutch[1] it appears that about one fifth of the errors in their speech and writing have to do with the article system.

Patricia McEldowney (1977) sees four types of grammatical information in English noun phrases: i) general or particular, ii) any or special, iii) countable or uncountable, iv) singular or plural. She represents English article usage in the following tree diagram:



She claims that clear definitions of the basic distinctions are needed. Definite reference is thus defined as indicating 'the special one(s)', indefinite reference as indicating 'any one(s)', and generic reference as 'ones in general'. I shall

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[1] Cf. Robberecht, P., Ph. D. dissertation, in progress.

[2] McEldowney's examples also include 'Cats are animals', "The cat is an animal', and even 'The cats are animals', an example which is perhaps rather too marginal for a teaching grammar.

come back to these distinctions in section 2 below. McEldowney notes a number of what she claims to be universal errors and which should be remedied by means of these definitions. Some of her examples are:

Put book on table.
He has three book.
He lives in the Manchester.
He bought a big oranges.
The metres are the units of length. (in a general context)

It is possible that errors such as these occur in the performance of speakers of various languages, provided that these languages have little formal correspondence with English. The Dutch article system is to a large degree parallel with that of English, and the errors above would be untypical of our students. They know the basic distinctions — definite, indefinite, generic, non-generic — automatically, since they are identical in both languages. With related languages like Dutch and English, it is normal that errors occur especially where the systems are not parallel. Jürgen Esser (1980) has the same criticism of McEldowney's paper with regard to German learners of English:

> It is clear that this particular kind of concept formation is of no help to a German student of English because the article is similar in the two languages; but it may be useful to students whose native language has no articles. For a German student of English it is, however, difficult to understand and therefore to learn why it is e.g. *play the piano* versus *Klavier spielen* and *Hyde Park* versus *der Rheinpark*. This suggests that we not do need only one (universal) teaching grammar of English but as many as there are languages which are contrasted with English; (p. 185)

1.2. Dutch-speaking learners of English, as soon as they are past the elementary stage, will produce errors that are more like the ones that Esser has in mind than McEldowney's list. The following is a typical sample from my own error analysis.[3]
Wrong *the*:

But don't you think that the people like a change from time to time?
(Correction: ø people)
I think that the women are the first victims of this crisis.
(Correction: ø women)
It really destroys a great part of the family life, I think.
(Correction: ø family life)
Nowadays the sexual aspect of the marriage is more important
(Correction: ø marriage)

[3] The sentences have been edited so that only errors against article usage remain.

You can find more facilities in the town.
(Correction: ø towns)

Wrong *a*:

It's necessary to have an objective information.
(Correction: ø objective information)
He used it as a proof to say that living in the country is better.
(Correction: as ø proof)
There isn't a personal contact.
(Correction: any personal contact)

Wrong ø:

Not if you're always listening to BBC.
(Correction: the BBC)
That would mean six hours in train a day.
(Correction: in the train)
I think you're allowed to smoke when others agree.
(Correction: the others)
My sister stayed as au pair.
(Correction: as an au pair)
In ordinary school you had to study things you didn't like.
(Correction: an ordinary school)
Working in group is very good for social contacts.
(Correction: in a group, in groups)

These problems often lie in the areas where English and Dutch vary, rather than in a lack of ability to distinguish McEldowney's basic concepts. In order to systematize English article usage for our students, it is clearly necessary to go much further than McEldowney.

In the following section I shall try to elaborate a synthesis of the distinctions made in standard grammars of English, and more theoretical linguistic work.

2. THE ENGLISH ARTICLE SYSTEM RE-VISITED

2.1. I shall concern myself with the determiners *the, a, ø, sm*. The latter is the unstressed form of *some*. The stressed form *some* has either quantificational or intensifying value, and cannot be considered as playing a role in the article system of English. The weak form *sm* can be seen as part of the article system, as is done by for instance Yotsukura (1970:50ff) and Werth (1980).

2.2. Standard grammars and many syllabuses for teaching English as a

foreign language draw a distinction generic versus particular.[4] Particular reference can either be definite or indefinite. A clear definition of these two concepts is given by Winkelmann (1980:298):

> Indefinite noun phrases serve to introduce new referents into the universe of discourse which are not supposed to be known by the hearer. On the contrary, definite referring noun phrases presuppose previous knowledge about their referents on the part of the hearer. The previous information about a referent can be localised in the linguistic or extra-linguistic context.

The definite article *the* is always associated with definite reference. Indefinite noun phrases take *a* when singular countable, *ø* or *sm* when plural or singular uncountable.

The *Grammar of Contemporary English* points out that for generic reference, only the zero article is possible with mass nouns (e.g. Music is beautiful). The authors also claim: "With generic reference, the distinctions for number and definiteness are neutralized with count nouns". (Quirk et al., 1972 : 150). There would thus be no difference in meaning between

The tiger is beautiful.
A tiger is beautiful.
and *Tigers are beautiful.*

Although the use of the articles to denote genericness is almost identical in English and Dutch and would not normally give rise to difficulties for the learner as far as countables are concerned, this statement is an oversimplification that may confuse the learner rather than help him. Leech and Svartvik (1975.54) attempt to be more accurate and point out that generic *The tiger* refers to the species as a whole, whereas generic *a tiger* refers to any member of the species. Hence the ungrammaticalness of **A tiger is in danger of becoming extinct* (as opposed to the grammatical: *The tiger is in danger of becoming extinct*).

Recent linguistic theory on determiners has elaborated this distinction and provides a better insight into generic reference. Winkelmann (1980) distinguishes between generic noun phrases with divided reference and generic noun phrases with cumulative reference. His examples of the first type are

(1) *Une baleine est un mammifère.*
(2) *La baleine est un mammifère.*

Both these sentences can be paraphrased by

[4] I use this term instead of 'specific' to avoid confusion with another distinction below.

Toutes Les baleines sont des mammifères.
or *Toute baleine est un mammifère.*

These paraphrases are an indication that the general statement concerns every single representative of the species. In such cases the lefinite and indefinite article are equivalent. The second type of generic reference can also be called 'typical'. Winkelmann's example is

(3) *L'automobile est dans la crise.*

In this example the general statement concerns the motor-car as such, and a paraphrase with *tout* would be ungrammatical. Winkelmann's distinction is basically equivalent to Leech and Svartvik's remark above.

A more detailed distinction is the one made by Paul Werth (1980),[5] who also deals with examples containing the zero-article + plural. For Werth, the general sense of generic NPs is the set denoted by the NP: his examples

(4) *The horse is a noble beast.*
(5) *Horses are noble beasts.*
(6) *A horse is a noble beast.*

all have a 'totality' feature, meaning 'all of (set)'. The precise sense is then 'fine-tuned' by the determiner: *the* in example (4) has the meaning 'the set as a whole', *ø* in (5) indicates 'every member of the set', and *a* in (6) means 'one member of the set'. Werth claims that the third example is not a true generic, but has the same semantic representation as a non-specific (see below), but I shall not go into this matter here.

It should be noted that whereas Werth's distinctions are based on the characteristics of the noun phrase itself, i.e. the way in which their general sense of totality, or in other words, their universal quantification, is adjusted by the determiner, the distinctions made by Winkelmann have more to do with the genericness of the statement as a whole. His sentence

L'automobile est dans la crise

and Leech and Svartvik's

(7) *The tiger is in danger of becoming extinct*

are predicated of the whole class, whereas

Une baleine est un mammifère.
La baleine est un mammifère.
Toutes les baleines sont des mammifères.

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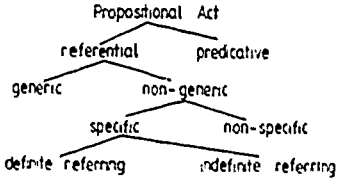
[5] C.f. especially pp. 252–53.

and also sentences (4), (5), and (6) are predicated of each individual representative. N. V. Smith (1975) has made a parallel distinction for generalising predicates.[6] His two classes of generic are. the individuated (examples (1), (2), (4), (5), (6)) versus the class-referring (examples (3), (7)). It should be borne in mind then, that Winkelmann's and Werth's nuances of genericness are situated in completely different fields. whereas Werth deals with the characteristics of the NPs as such, Winkelmann deals with the type of predication and the influence that it has on the subject noun phrase.

2.3. Apart from a further elaboration of the notion of genericness, linguistic research also makes other distinctions. Winkelmann for example sees various types of noun phrases for French, which can be summarized in the following tree diagram:



Predicative NPs for Winkelmann are non-referential. they state a property of an object or an individual which has already been referred to by another NP. Winkelmann's examples are:

Paris est la plus belle ville du monde.
Paris est une ville élégante.

The first example — with the definite article — has unique predication, whereas the second — with the indefinite article — has multiple predication: the predicate is also true of other referents.

The distinction between specific and non-specific noun phrases, which is often made in theoretical linguistics, has nothing in common with the 'specific' mentioned in *A Grammar of Contemporary English* (Quirk et al., 1972:147) or in derived grammars like Leech and Svartvik's *A Communicative Grammar of English*. The latter's 'specific' is equivalent to 'non generic' in Winkelmann's scheme, or to 'particular' in McEldowney's. The distinction specific v. non-specific made by Winkelmann and other linguists rests on the stipulation of existence made by specific NPs, non specific NPs do not necessarily presuppose the existence of a referent. In the sentence

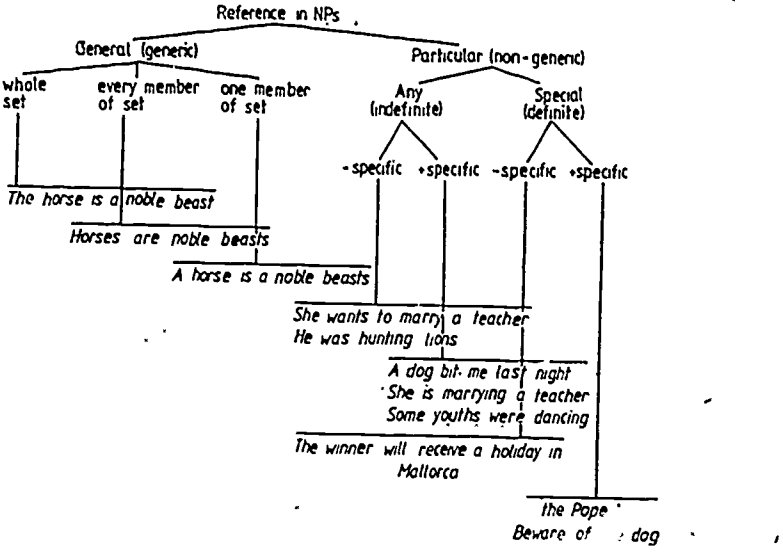
[6] As mentioned in Werth's paper.

Mary wants to marry a teacher

the direct object NP is ambiguous with regard to specificness. The specific reading implies that the person she wants to marry exists and is a teacher, the non-specific reading implies that she has not yet found the teacher she wants to marry and that perhaps she never will find one. The following example contains a non-specific noun phrase with the definite article:

The winner will receive a holiday in Mallorca.

2.4. It seems possible now to complete and adapt McEldowney's scheme (cf. p. 61) to the findings of theoretical linguistics by introducing further distinctions of genericness and by adding the notions 'specific' and 'non-specific'. As far as predicative noun phrases are concerned, considering these as a separate class would probably be a burden on the learner. The distinction is valid in linguistics, but in a pedagogical grammar unique and multiple predication can also be described in terms of definiteness and indefiniteness. Furthermore, in Winkelmann's scheme the notion [± definite] is dominated by [specific] in the tree diagram. I claim that [± definite] is a more basic concept than [± specific]; the difference between specific and non-specific NPs often passes unnoticed. Therefore I would make [± definite] the dominant nodes in the tree diagram, keeping the distinction [± specific] for completeness' sake, while recognizing that it is of minor importance to the language learner. The new tree diagram would then be as follows:



The distinctions singular-plural and countable-uncountable have been left out of this diagram for reasons of space.
The only difference in surface structure with regard to [± specific] appears in the possible use of *sm* with specific indefinites, whereas it cannot occur with non-specific indefinites: '*He was hunting lions*' is non-specific, but in '*He was hunting sm lions*' the direct object noun phrase can only be given a specific interpretation: the existence of the lions is presupposed by the speaker.

2.5. A few more remarks are necessary about *sm*. Its use varies with specific indefinite NPs. The occurrence of *sm* is an explicit indicator of indefiniteness and also has a hint of quantification, whereas ø with indefinite NPs seems to make them veer towards a kind of 'genericness', in the sense that the characteristics of the set of referents are stressed, though the totality feature that Werth sees as typical of generic NPs is missing. Compare:

Some weeks had gone by before he was able to see her again.
with *Weeks had gone by before he was able to see her again.*
or also:

There are some people waiting outside.
with *There are people waiting outside, you know!*

Consequently, *sm* can act as a sort of downtoner. In certain contexts this downtoning effect even seems necessary, as for example in the following offers and requests:

Have some biscuits	v.	*?Have biscuits.*
Have some tea	v.	*?Have tea.*
Give me some sugar	v.	*?Give me sugar.*

Dutch 'wat' has the same role in such sentences. without it they would sound rude.

2.6. Leech and Svartvik (1975:54—55) note that English tends to treat mass nouns, especially abstract mass nouns, as generic when they are premodified, though not when they are postmodified (particularly by an *of* phrase). English has ø in such cases of generic reference, cf.

Chinese history (generic) v. *the history of China* (definite).

McEldowney, Werth and Winkelmann do not mention this feature of English, viz. that abstract mass nouns cannot be partitively quantified[7], and that hence

[7] An example like 'I have *sm* history to do tonight' would be an instance of class hopping: the feature [abstract] gives way to the feature [−count], and the noun becomes quantifiable.

they automatically contain the totality feature that characterizes generic reference, even in statements that do not generalize. In other words, abstract mass nouns are inherently generic in English and have the zero article.

Dutch treats abstract mass nouns differently, and with less consistency[8] E.g.:

Hij houdt van ø muziek	(*He likes music*)
(De)*liefde is als een roos.*	(*Love is like a rose*)
De *natuur verdient onze bescherming*	(*Nature deserves our protection*)
Een gevaar voor de *maatschappij*	(*A danger to society*)
De *inflatie is gestegen*	(*Inflation has gone up*)

In quite a number of cases, Dutch prefers the definite article, viz. its 'unique' use as in English the *sun*, the *Queen*, the *world*, etc. This difference between English and Dutch caused a number of the errors listed on pp. 62—63, and the fact that English abstract nouns take ø should clearly receive more prominence in a pedagogical grammar for native speakers of Dutch.

2.7. A category of noun phrases that is variously enumerated in grammars as 'common nouns without article', 'idioms', etc. can in fact be linked together with the preceding class. They are nouns that can also be used as countables but that are used in an 'abstract' and consequently 'generic' sense: the referent is not seen in a particularizing light, but only the characteristics of the entire set are thought of. Leech and Svartvik's (1975:206—207) list of such cases includes the following:

A. 'Institutions' etc.

e.g. *to go to school*	v.	*to go into the school*
to be in hospital	v.	*to look for the hospital*
to be in bed	v.	*to lie down on the bed*

B. Means of transport

e.g. *to come by car* v. *to sleep in the car*

C. Times of day and night

e.g. *they met at night* v. *to wake up in the night*

D. Meals

e.g. *We'll stay for lunch* v. *Were you at the lunch for the chairman?*

E. Parallel phrases

They walked arm in arm v. *He took her by the arm.*

---

[8] McEldowney bypasses abstract nouns completely. All but one of her examples of uncountables are concrete mass nouns.

All the examples in the left-hand column are used in an abstract way and therefore take the zero article. By taking this factor into account it is possible to present these items in a systematic way rather than as a heterogeneous list of idioms.

2.8. Another problem area for Dutch learners that can be linked together with genericness is illustrated by the following examples:

Prices have risen sharply.
Matters have gone from bad to worse.
Circumstances are always changing.
Appearances can be deceptive.

Quirk et al. (1972:153) call such nouns 'not unambiguously generic'. In fact the last example seems a clear case of generic reference to me. it is a generalizing predicate and the subject noun phrase contains the totality feature, the universal quantification that Werth sees as characteristic of generic reference. In the other examples it remains unclear whether we have universal or partitive quantification: *all prices* or *some prices? all matters* or *some matters?* The quantification of these NPs is vague. I shall call such instances *quasi-generic*. The predication is clearly not generic.

Dutch tends to use the definite article in these cases:

De prijzen zijn fel gestegen.
De toestand is van kwaad tot erger geëvolueerd
(De) omstandigheden veranderen steeds.

A generic interpretation of these Dutch sentences is unlikely. This contrast between Dutch and English is also an important source of errors in article usage. A typical error is the first example on p. 62.

3. A CONTRASTIVE SURVEY OF ENGLISH ARTICLE USAGE

In this section I shall try to apply the findings of the preceding paragraphs to a more systematic outline of English article usage. The survey will take the intended meaning of the noun phrase as a starting point, and then list the articles (*the, a, sm, o*) that fit into the pattern. The basic meanings for a pedagogical grammar are: definite, indefinite, and various shades of generic.

3.1. Definite: as a rule, both English and Dutch take the definite article.
3.1.1. The NP is unique or unique in context.
E.g. *The Pope, the earth, the town hall, the youngest.*

Note: Unique reference in proper names (streets, buildings, etc.) often takes ø. Dutch takes the definite article.

Oxford street	v.	*de Veldstraat*
Trafalgar Square	v.	*het Sint-Pietersplein*
Westminster Bridge	v.	*de Sint-Michielsbrug*

A number of proper names have *the*. Dutch usage is parallel.
E.g. *the Tate, the North Sea, the Hebrides.*

3.1.2. The NP refers to an institution shared by (a subsection of) the community.
This section is connected with 3.1.1. Examples are:

He took the train.
What's in the papers?
What's on the radio?
What's on the television?

In the last example, 'television' can also be used in a more abstract way, and then takes ø. Cf. section 3.3. below.

3.1.3. The NP is made definite by an earlier mention or by a postmodifier. Examples:

He bought a book and a record in that shop yesterday, but he returned **the** *record since it was warped.*
The record he had bought.
The history of China.
The wines of France.

3.2. Indefinite
The choice of the article with indefinite noun phrases is determined by whether the NP is countable or not.

3.2.1. The indefinite NP is [+countable] singular: *a*

E.g. *He bought a radio yesterday.*
We won a splendid victory.
He couldn't walk without a stick.

Dutch uses the parallel *een*, but after certain prepositions it can also take ø, as in the translation of the third example:

Zonder ø stok kon hij niet gaan.

3.2.2. The indefinite NP is [+ countable] plural: *ø, sm*

E.g. *There were ø people waiting outside.*
There were sm people waiting outside.
Have sm biscuits.
Have you seen ø elephants yet? (in general)
Have you seen any elephants yet? (on this trip)
ø IRA members have been demonstrating in Belfast.

Note that *sm* changes to *any* in negative and interrogative contexts. The difference between *sm* and *ø* was dealt with in section 2.5. above. Dutch has a parallel distinction between *wat* (or another quantifier) and *ø*. In some contexts however, like the sentences about elephants, Dutch uses adverbials to render the same distinction. The first sentence would be translated as

Heb je (ooit) al (eens) olifanten gezien?

The translation equivalent of the second sentence is

Heb je al olifanten gezien?

3.2.3. The indefinite NP is [—countable]: *ø, sm.*
This subsection is concerned with concrete mass nouns only. Abstract mass nouns will be dealt with under 3.3. The distribution of *ø* and *sm* is determined by the same factors as in 3.2.2.

E.g. *I had sm porridge for breakfast.*
I had porridge for breakfast.

3.3. Generic

3.3.1. Generic NPs that indicate the set as a whole take *the.*

E.g. *The tiger is almost extinct.*
The aeroplane has revolutionized travel.

This is parallel with Dutch: *de, het.*

The only exceptions in English are *ø man* and *ø woman*, which take the zero article:

Man has conquered the moon. (Dutch: *de mens*).

3.3.2. Generic NPs that indicate any one member of the set take *a*

A horse is a noble beast. (Dutch: *een paard*).

3.3.3. Generic NPs that indicate every member of the set take ø+plural.

Horses are noble beasts. (Dutch: *paarden*).

Plural de-adjectival nouns however take *the:*

the English, the poor.

3.3.4. Concrete mass nouns used generically take ø, as in Dutch:

Silver is a metal.
I like porridge.

3.3.5. Abstract mass nouns are inherently generic and take ø;

ø Inflation is the scourge of the poor	(ø inflatie)
ø Inflation has gone up again.	(de inflatie)
He teaches ø science.	(ø wetenschap)
This book is particularly valuable for English linguistics.	(de Engelse taalkunde)

It is only when the abstract noun is modified by an *of*-phrase or another definitizing postmodifier that it loses its generic status, as in:

History is the science that deals with the past.

Dutch is less consistent than English in using ø: the definite article also occurs in a number of translation equivalents. It would seem that Dutch uses ø in generalizing predicates only, and has the definite article (its 'unique' use) in the other cases. On a number of occasions, the use of the definite article in Dutch is lexically determined: '*ø society*' is always '*de samenleving*'.

3.3.6. Nouns that can be countable, but that are used in an 'abstract' and hence 'generic' sense take ø. Examples were given in section 2.7. of this paper. Again Dutch usage is less consistent than English, cf.:

naar ø school gaan
in het hospitaal liggen
in ø bed liggen
per ø auto
met de wagen etc.

Although English is much more regular than Dutch, it also has a number of exceptions to the use of ø in such cases, viz.:

a) When reference is made to musical instruments, e.g.:

to play **the** *piano*	(*ø piano spelen*)
to play **the** *flute*	(*ø fluit spelen*)

b) Cases like:

In **the** *evening I usually go out*	(*'s avonds*)
In **the** *morning etc.*	(*'s morgens*)

c) Instances like:

Sold by **the** *box*	(*per ø doos*)
Paid by **the** *hour*	(*per ø uur*)
Seven apples to **the** *kilo*	(*per ø kilo*)

d) *to have* a *fever* (*ø koorts hebben*)
to have a *temperature, etc.*

e) Cases where the NP has the function of complement to the subject or to the direct object can also be regarded as belonging to this category:

She stayed as an *au pair*	(*als ø au pair*)
He is a *teacher*	(*ø leraar*)
He is an *excellent teacher*	(*een uitstekend leraar*)
She thought him a *genius*	(*een genie*)
He played **the** *saint*	(*hing de heilige uit*)

Dutch uses *ø* with names of professions when the emphasis is on the function they indicate, i.e. when they are used in an 'abstract' manner; *een* is used when the referent is seen as a concrete, particular person.
This category could also be considered as belonging to definite or indefinite reference rather than as exceptions to *ø* in generic reference.
After the verbs *to turn* and *to go* English uses *ø*:

to turn traitor
to go socialist.

3.3.7. Finally, the zero article with plural nouns is used for what I have termed quasi-generic reference (cf. 2.8.):

E.g. *ø Prices have risen sharply.*
ø Human rights have often been violated in that country.

Dutch has the definite article here.

On the whole Dutch is less consistent than English in its use of the articles. Lexical and syntactic factors, such as the use of articles after certain prepositions, appear to play a more important role than in English.

4. TOWARDS A TEACHING GRAMMAR OF THE ARTICLE SYSTEM

The survey of article usage that was outlined in the preceding section could be used as a basis to teach the English article system at an intermediate to advanced level. I do not claim that English should be contrasted with the students' mother tongue in the classroom, but the teacher should bear the contrasts in mind to know the sort of difficulties that lie ahead and for which extra efforts on his part will be needed.

At a more elementary level, it may be wiser not to mention genericness, which is a difficult concept for the learner to grasp and might become a compli cating factor rather than a help. The information about articles that these learners need can be summarized in the following block diagram:

the (definite)	*a* (indefinite)	*ø* (indefinite)
Referring to a definite NP, +or—count, singular or plural E.g. *the Pope* *the men in the corner* *the history of Africa*	Referring to an indefinite NP, +count, singular E.g. *I saw a tiger.* *A tiger is a beautiful animal.*	— Referring to an indef inite NP, + count, plural E.g. *There are people waiting* *Cats like fish.* — Referring to an indefinite NP, -count E.g. *Silver is a metal.* *Time is money.* *He was eating porridge.*

Only the concepts of difinitenss and indefiniteness will then have to be explained. The difference between ø and *sm* is left out until a later stage. In a pedagogical grammar, *sm* could even be introduced as part of the system of quantifiers: a weak form of the quantifier *some*.

The information in the block diagram will have to be clarified and supplemented by means of two notes:

Note 1:

- *The* can be used with singular countable nouns to refer to a class as a whole.

  E.g. *The tiger is almost extinct.*

— Exceptions to this use of *the*: *ø man, ø woman*
— *The* is also used with plural de-adjectival nouns
the English, the poor, etc.

Note 2:

— Indefinite NPs can also refer to a class.

E.g. *A tiger is a beautiful animal.*

Tigers are dangerous.
Silver is a metal.

— This is especially the case with abstract uncountable nouns: they then always take the zero article:

I don't like geography.
History is on our side.

– By extension, countable nouns used in a more or less abstract sense take the zero article:

To go to school.
To have breakfast.
He became President.

It will be clear to the reader that the preceding lines do not prescribe a specific teaching method: only the information that should be presented to the learner is outlined. The teacher remains free as to how he will do this. There is no such thing as a 'contrastive' methodology.

5. CONCLUSION

It is clear from the errors on pp. 62—63 of this paper that a teaching grammar of the articles cannot aim at an international audience: the problems vary from one group of learners to another, according to their mother tongue. Clear definitions of the basic concepts, such as definiteness and indefiniteness, are not sufficient. There are items in the article system which should receive special prominence in a teaching grammar, and contrastive analysis of the two languages involved is useful to determine what these items are and to order them in a systematic way. Learners of English who are native speakers of Dutch will have problems especially with the use of the zero article before abstract nouns.

The survey of article usage that was outlined in section 3 of this paper is only sketchy, partly for reasons of space and partly because more research needs to be done on article usage in English, and especially, Dutch. Ideally, one should go further than an analysis of the article systems in the two languages, and also take statistical material, based on corpus studies, into account. That would be the 'quantitative contrastive analysis' presented by Krzeszowski (1981) at the AILA 81 congress in Lund, and illustrated at the same congress in a paper by Johannson and Dahl.[9] A contrastive analysis project like the one that is currently running at the university of Ghent offers more scope for such research than this brief paper.

[9] An abstract of Johnnson's and Dahl's paper was published in Sigurd, B. and Svartvik, J. (eds). 1981., Tomasz P. Krzeszowski's lecture was published in *AILA 81: Proceedings 2.*

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SOME DIFFERENCES BETWEEN ARABIC AND ENGLISH COMPARATIVE STRUCTURES

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In most Arabic teaching grammars, the comparative form is defined notionally as "a noun of preference" (e.g. El-Jarem (1970) and Rida (1974)) which is derived on the pattern (?af9al)[1] from a sub-class of verbs that permit exclamatory conversion,[2] e.g. *nafa9* → *?anfa9* 'more useful', *Hasan* → *?aHsan* 'better', *kabur* → *?akbar* 'bigger', *mahur* → *?amhar*, etc.

It is pointed out that the comparative form is used when comparison is made between two or more persons, objects, or properties that are in some respects unequal (cf. El-Jarem 1970).

If the base form of the tri-lateral verb form from which the comparative form is derived does not satisfy conditions of exclamatory conversion, the invariable comparative forms *?akthar/?aqall/?ashadd* are introduced before adjectival forms used for comparison, e.g. *izdaHam* → *?akthar izdiHaman* 'more crowded', *ihtamm* → *?aqall ihtimaaman* 'less concerned', *istaqarr* → *?akthar istiqraaran* 'more stabilised'.

Unfortunately, the notional approach led to much confusion, and although

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[1] Brief reading conventions used for the letters of Arabic words are as follows:
9: voiced pharyngeal fricative
H: voiceless pharyngeal fricative
q: voiceless uvular plosive
T: voiceless denti-alveolar plosive
th: voiceless dental fricative
th: voiced dental fricative
sh: voiceless palato-alveolar fricative
d3: voiced palato-alveolar fricative.

[2] Arabic exclamatory sentences are marked formally by the initial particle ma+ comparative adjectival, e.g.
maa+?ad3mal 'How beautiful!', *maa ?arxas* 'how cheap'.

most grammarians distinguish the two main types of comparison, viz. the derivable comparative form on the pattern *?af9al* and the invariable correlative sequence *?akthar...min* 'more...than', *?aqall...min*, 'less than', they never indicate clearly what syntactic relationships there are between the comparative types so distinguished. Nor is there any reference to the relationships between the comparative adjectival forms and the closely related phonologically homophonous forms which occur in exclamatory sentences.

Apart from confusing terminology, e.g. the definition of the comparative adjectival as a "Noun of Preference", their approach lacks clarity. There is no explanation, for example, of how comparative forms such as *?axTar*, 'more dangerous', *?ahamm*, 'more important', *?athka* 'more intelligent', could possibly be said to be derived from tri-consonantal roots of verb-forms. There are no attested verbs from which these comparative forms could be related.

It needs to be stressed here that Arabic comparative forms are more satisfactorily described and analysed formally by reference to structural patterns in which they regularly appear. These patterns are of two main types and distinguished by:

(i) formal variation of the comparative adjectival,
(ii) modification by amplifying intensifiers, and
(iii) co-occurrence in situation.

Formal distinction is primarily based on the kind of 'comparative' adjectival in the structure of each type: according to whether the adjectival is a tri-lateral (*?af9al*) or according to whether the adjectival used for comparison belongs to a sub-class of adjectives, in which case the forms regularly occur with *?akthar/ashadd/?aqall*.

Marks of definiteness, viz. the association of the comparative form with the Definite Article *-al* serves to distinguish in part between comparative and superlative degrees of comparison.

The comparative form is formally defined as adjectival on the grounds of its regular association with the amplifying intensifier *bikathir* 'much' or the downtoner *naw9an ma*, 'rather'.

The two types and sub-types are shown below, in which a comparative adjectival is doubly underlined:

Type I:

(A): *Tariq ?aTwal min samiir* 'Tariq is taller than Samiir'
?al-Hariir ?an9am min il-quTn 'Silk is softer than cotton'

(B)· *?almadiina ?akthar izdiHaaman min al-qarya* 'The city is more crowded than the village'

Type II:

(A) *?alwalad il-?akbar thaki* 'The eldest boy is intelligent'
?alkitaab il-aSGar thamiin 'the smallest book is dear'

(B) *lilkitaab ?akbar ilathar/?athar* 'the book has the greatest impact'.

Type I- A has an analogue with a construction in which the comparative adjectival is converted into an (abstract) Nominal. The comparison is made explicit by interpolation, viz. the derivable comparative form intervenes the correlative sequence *ʔakthar ... min/ʔaqall ... min.*

Correspondence between the comparative construction Type—A and its parallel analogue may be illustrated as follows:

kaanuun ʔbrad min tashriin → kaanuun ʔakthar buruuda min tashriin.
'January is colder than November'.

ʔal-qiTaar ʔasraʕ min al-sayyaara → ʔal-qiTaar akthar surʕatan min al-sayyaara
'The train is faster than the car'.

The generalized structures for these types are as follows.

$$N+Comp._{Adj}+min+N \rightarrow ʔakthar ʔ/aqall+N_{(Abstract)}$$

Type II—B structures are characterised by constructs in which the first juxtaposed form is a comparative form and the following form is a Nominal (Definite or Idefinite), e.g. *ʔanthaf ilGuraf → ʔanthaf Gurfa* 'the cleanest (of all) rooms', 'the cleanest room'. This construction type has an analogue with a construction in which the first juxtaposed form is *ʔakthar/ʔaqall* and the following form is a Nominal (Definite/Plural) followed by an Abstract Noun derivable from the adjectival form used for comparison, e.g.

Hadiiqati ʔadʒmal Haddiqa → Hadiiqati ʔakthar il-Hadaaʔiq dʒamaalan
'My garden is the most beautiful (of all the gardens').

Mustafa ʔaqwa radʒul → Mustafa ʔaqwa il-rridʒaal → Mustafa ʔakthar irridʒaal quwwa 'Mustafa is the strongest (of all men').

Comparative construction-types so far distinguished are characterised by th ollowing syntactic features:

Type I—A. Constructions are differentiating and marked by a comparative adjectival invariably derived from a tri consonantal root, e.g. *kariim → ʔakram* 'more generous', *baxiil → ʔabxal* 'stingier', *latiif → ʔaltaf* 'nicer', *sahl → ʔashal* 'easier'.

Type I--B. constructions are characterised by the inclusion in comparable contexts of the comparative elements *ʔakthar ... min ʔaqall ... min.* Both elements are in complementary distribution with the comparative form of the adjectival only when the adjectival used for comparison is derivable from non-lateral roots. Otherwise the comparative elements are in free variation. (cf. Analogue types set out above).

Type II constructions are distinguished by the following features.

(i) *Definiteness.* Both the objec being compared and the comparative adjectival form are associated with the Def. Article *-al* (e.g. *al-walad al-aSGar* 'the youngest boy'.

(ii) Differentiation for Gender and Number:

Both nominals and adjectivals in Type II—A are explicitly differentiated

for gender-cum-number, e.g. *al-bint il-kubraa thakiyya.* 'The eldest girl is intelligent'.

al-ʔawlaad il-kibaar ʔathkiyaa? 'The eldest boys are intelligent'

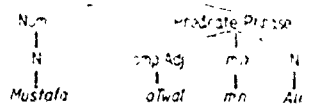
Sentences of Type II—B are situationally marked off when the situation requires a more emphatic speech, when there is an extremely strong preference in contexts of situation where the choice depends on greater intensity or prominence signalled by (Definite Article+Comp. Adjectival+N_{Plural} e.g.

Mohammad ʔashd3a9 irrid3aaal 'Mohammad is the bravest (of all men)'

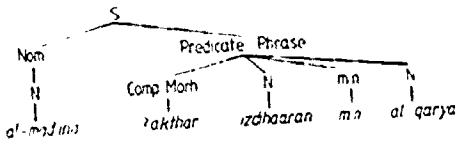
Shish kabaab ʔaTyab Ta9aam 'Shish kebaab is the best (of all food)'.

Diagrammatically, the generalised structures of the types may be illustrated as follows:

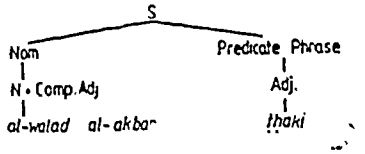
Type I-A



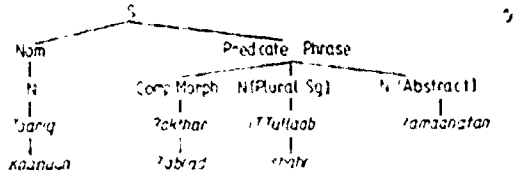
Type I-A: (ANALOGUE)



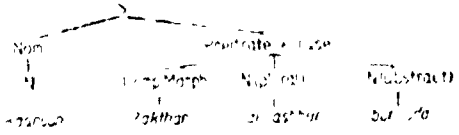
Type II-A



Type II-B



Type II-B: (ANALOGUE)



Considering the tri-lateral root of the adjective as the unmarked term in the comparison system, it is possible to establish a three-term system of comparison. The exponents of the terms are as follows:

(1) Absolute: e.g. *faqiir*, 'poor', *kariim* 'generous', *ba9iid* 'far'
(2) Comparative: e.g. *?aqrab*/*?akthar qaraaba* 'closer'/'much closer'
(3) Superlative: e.g. *il-?asra9* 'the fastest', *il-?ashal*, 'the easiest'

The English comparative morphemes identify the comparison as equational or differentiating. The correlative equational morphemes as ... as or the differentiating less ... than/more ... than ... er are exponents of the comparative term.

It is noticeable that Arabic and English make use of parallel syntactic contrasts of terms of comparison, but the terms in each system are not co-extensive as between the two languages. Correspondence and/or variance between the terms is shown below:

English	*Arabic*
Type I—A	Type I—A
-er ... than	*?af9al ... min*/or *?akthar*/*?aqall ...*
but not *more ... than*	min
less ... than	
Type I—B:	Type I—B
more ... than	*?akthar ... min*
less ... than	*?aqall ... min*
Type II—A:	Type II—A:
... -est	*?af9al* (Def.)
Type II—B:	Type II—B:
... most	*?af9al* or *?akthar*/*?aqall ... min*
but not *-est*	

Specifically, Arabic permits a comparative differentiating structure in which simple adjectives are modified for comparison by either of the following processes:

(i) conversion of simple tri lateral adjectival forms into the pattern ?af9al, which is deemed to be equivalent to English comparative morpheme -er.
(ii) interpolation:

Abstract Nouns derivable from tri-lateral roots of the simple adjective are inserted between the correlative comparative sequence *?agall*/*?akthor...min* English, on the other hand, imposes restrictions on the addition of the comparative morpheme *-er*, and, unlike Arabic is not freely variant with more than/less than.

Since the terms in the comparative system are at variance Arab students of English tend to produce such attested errors as:

— High sounds give out more shorter waves.
— Britain is more colder than Jordan.
— The dollar rose to a much more higher value.
— We work more longer hours.

On similar grounds, the use of the superlative (Type II—B) *ʔaf9al* is freely variant with the periphrastic forms *al-ʔakthar...al-aqall*. This accounts for the following attested errors:

— August is the most hot month.
— This is the most easy lesson.
— It is the most high mountain in the country.

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SOME REMARKS ABOUT TRANSLATION AND STYLE

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In this paper, I will outline how a translator's activities may provide some answers to stylistic questions. Fundamentally, I will argue that translation, stylistic phenomena, and many other aspects of language, should be viewed in a semiotic framework. It is also my hope that studies along these lines may eventually bring us closer to answering Niels Enkvist's question: "If we knew precisely how patterns are learned, stored and generated in the brain, we could say a great deal more about why languages work and change the way they do." (1979:10).

To do this, I will here concentrate on the first phase of the translator's work, viz. the reading phase, and show how signs can be perceived, and then produced in another language. I will give examples which show that a translator, from a given text, has to elaborate a text whose signs can conjure up the same or closely related *associations* and lead to the same hypotheses and inferences as the original text. I will distinguish between *explicit* and *implicit functions*, and show that the *roles* and *relevancies* of the signs that constitute a *global sign*, i.e. a text, depend on the global function of the text. Other explanations and distinctions will be given later. I will then discuss the issues these ideas lead to. For the sake of illustration of this point, I shall here use simple examples which can be evaluated without a comprehensive analysis of a textual universe, since the latter would require far too much space.

My remarks are based upon twenty-five years of translation, mostly from Danish into French, of extremely varied contemporary texts (scientific texts, plays, poems, folders, a novel etc.), and on nine years of teaching translation and interpretation. I should perhaps also add that I am often characterized as a total bilingual.

These remarks will apply to all kinds of texts and not just to "literary texts", for as Simone Delesalle and Alain Rey put it "nobody is equal to the

task of defining this adjective", i.e. literary (1976.16, translation mine). And further, it is my experience that it can be fruitful to confront the uses of signs that have been made in different texts.

This, because what is often studied from a "purely" esthetic viewpoint in stylistics and rhetorics, viz. metaphors, metonymies, chiasma, synthesia, phonesthemes, etc., are actually to be found in most texts. Such suggestive, catchy or manipulative figures, I shall lump together as *plays on language* (in French "jeux *sur* la langue"; Martinet, A., 1967:1291). I here take this term to be neutral in relation to levels of consciousness.

Among the wide range of phenomena subsumed under this category, the following two examples may suffice to illustrate what I have in mind. Take 1) the following advertisement for a French yoghurt mixed with bits of fruits "Y'a du carnaval dans le yaghourt" (lit.: there is carnival in the yoghurt); the poster showed a smiling woman wearing a crown of fruit and branches, evidently inspired by Boticelli's paintings. And 2) what Plato has Socrates say in the *Apology*, specially in the opening sentences of the first section; Socrates remarks that, in listening to his accusers' "persuasive" speeches, he has forgotten who he is himself, but he adds that they have not said one single true word.

Finally, my remarks will not apply to the activities of interpreters (in German "Dolmetscher"). The problems with which they are confronted during their oral work being different from those met by the translator, they require separate analysis. It might however be of some interest for linguistics and semiotics to note, in passing, that one of the reasons why these problems cannot be examined here, is the fact that they do not always, as translators, have a global sign at their disposal. They might thus not always be in a position to rectify erroneous hypotheses or inferences since they have to do with what I would call *volatile* "texts", which is not the case for translators, who work on *non-volatile* texts.

Another reason for excluding these problems, here, is that interpreters are of course exposed to paralinguistic phenomena such as intonations, gestures, mimicry, etc., which may influence their interpretation, though the importance of this fact is not generally recognized.

I shall first briefly outline the activities of the translator.

A translator is in the peculiar linguistic situation of being at one and the same time, but successively, reader of text A (the text to be translated), and writer of text A' (the text to be constituted on the basis of text A). The "writer" is here to be understood as any person who writes.

This means that the translator is involved in two different processes, two different semioses, i.e. a semiosis during which s/he, as a "member" of Culture *x*, tries to perceive the roles played by the signs found in text A, the perception phase, and then, a semiosis during which s/he, as a "member" of Culture

β, produces signs in text A', the production phase. It is, as mentioned above, the first semiosis I will concentrate on here.

A *sign*, I view as "everything which can be taken as significantly substituting for something else" (Eco 1979.7). Eco adds to this Peircian definition of the sign that "This something else does not necessarily have to exist or to actually be somewhere at the moment in which a sign stands in for it." (*ibid.* 7).

A *semiosis*, is a process. I take it to be "an action, an influence, which is, or involves, a cooperation of *three* subjects, such as a sign, its object and its interpretant" (Peirce 5484, quoted from Eco 1979:15).

Before giving examples which should show how signs can be interpreted during reading, of how hypotheses and inferences are introduced, I will show that the *global function* of a text, i.e. the purpose it serves, is decisive when it comes to an analysis of the varying *roles* particular signs may play in the text, and when it comes to establishing their *relevancy* within it.

As mentioned above, I shall distinguish between two main categories of texts, that is, those which have an *explicit function*, and those which have an *implicit function*, viz. between A. *explicit texts* and B. *implicit texts*, and briefly describe them:

A. *Explicit texts* are those whose purpose(s) are explicitly indicated in titles and subtitles.

Generally speaking, the purpose(s) of these texts are to give people concrete knowledge in explicit formulations: to indicate (prices, tariffs, etc), to explicate (how to use an appliance, a machine), and the like. That is what is found in directions for use, some recipes, etc.

The characteristic of these texts is that they do not contain plays on language, and that their content is "clear-cut". Further categorization can be made on the basis of global functions.

B. *Implicit texts* are those whose purpose(s) are not explicitly indicated in titles, etc. Rather are their titles suggestive, catchy, etc.

Generally speaking, one could say that their global function is to "faire dans l'esprit des autres une petite incision où l'on met une idée à soi", as Victor Hugo expressed it surgically. That is, to impinge on our associative processes in order to make us discover new aspects of the world, of life, to change our attitudes, beliefs, etc., to make us laugh, feel pity, buy, obey, etc., and to reorganize our sets of connotations. I have shown elsewhere how this was done with proper names in a novel (Martinet, H., 1982). That is what is found in poems, novels, legends, scientific texts, advertisements, and the like, as shown above.

The characteristic of these texts is that they contain plays on language, and, of course, by the fact that they do not abide restricted grammatical, syntactical and lexical rules.

Further categorization can again be made on the basis of global functions. But in my experience, it can be as precarious to name these functions as it can be to disclosing and describing them, also because one single text might have manifold functions.

These problems of further categorization are too vast to be discussed here at length. I want however to stress that partitions like "technical" vs "scientific" vs "law" texts or a categorization into genres like "poetics", "essays", ordinary language vs. language for special purposes, might lead to erroneous interpretations, and thus to erroneous translations.

To base classification on only six functions (Jakobson 1960), might also lead to errors. This for two reasons. First, because it involves the tacit assumption that the addressee, in all instances, understands the addresser correctly. Second, because it means entering the text without asking first what is its global function, a fact that might swerve interpretation: a lie for example, cannot be said to be a lie *per se*, but must be considered in relation to a truth (a truth not being truth *per se* either) — a fact that should be borne in mind with the use of "truth conditions" in semantic analyses (Leech 1969) and speech act theory (Searle 1969).

I will now pass on to the examples.

To illustrate my point I could have chosen to quote and analyse passages from two or three texts showing how different manners of writing can impinge on readers' minds. This procedure, however, not being very suitable within the framework of an article, I have instead, as already mentioned, chosen the French syntagm *installer une coupure omnipolaire*. This I will imagine used in different texts. A *coupure omnipolaire* is an electric switch which controls several switches.

It might be found used in the instruction for installing an electric device of some kind, or in a novel.

In the instruction for installing an electric device (example A) — whose explicit function is to give details about how to make a device work — the role of the sign *installer une coupure omnipolaire* is that of designating a precise technical device. It should lead the reader to precise associations with the device itself, and to its installation. The sign must here be *understood* and not interpreted, i.e. the reader must "know" what the device is in order to act appropriately.

In the novel — whose function is implicit — the role of the sign is not that of leading the reader to install the device. In this case, and even if the reader does not "know" the device, the sign might conjure up varying associations hypotheses, and then inferences, because of the associations which *coupure*, *omni-* and *polaire* can conjure up. It must be *interpreted*.

In one passage it could be found designating the given electric installation which, say, causes a fire (example B). The context of "fire" is there enough

to tell the reader who does not know the device, that it is "something which can cause fire". To the reader who knows the device, the associations and hypotheses can be similar to those mentioned above, but it is still something that can pr· ·ke fire.

In another passage, it might be used metaphorically to suggest, say, a violent rupture between two lovers (example C). The reader's associations and hypotheses should then be different from the previous ones. Some readers might be disconcerted by the metaphor. But the fact that *coupure* suggests "brutal rupture", "cutting off", and the like, that *omni-* might suggest "all" (at least to people who have studied Latin in school), that *polaire* suggests "direction", "level" and might also suggest "coldness", that *coupure omnipolaire* might lead to associations with a "shocking incident", secures the perception of the metaphor.

That is to say, that to detect the role of the sign in the two last cases, one must detect its *relations* to other signs in the text, to "fire" and to "broken love", and to weigh the relevancy of the metaphor.

As far as the translation of the sign goes, in the first case, it must, of course, be translated into the corresponding technical sign in another language.

In the second case, it can be translated into the corresponding sign, but it might not be a *sine qua non*. Another electrical device that can provoke a fire might very well do.

In the third case, the metaphor could be transferred as it is in some languages, or by another metaphor suggesting "brutal rupture, electric violence or coldness".

I hope these examples, among other things, have shown (1) that associations, hypotheses, and inferences can vary according to different texts, (2) that the roles and relevancies of signs depend on the global function of a text.

I will now discuss the issues these ideas lead to.

To view reading as a semiosis leads to the drawing of distinctions. I have already distinguished the two semioses the translator is involved in.

This leads me now to distinguish four phases in all:

A) The *production phase 1*, i.e. the phase during which a writer produces a text A, i.e. when involved in the semiosis of choosing and structuring signs to constitute a global sign in order to convey his/her ideas. In example B and C, the writer could have chosen or created other signs. B) The *perception phase 2*, i.e. the phase during which a reader perceives this text. When it comes to translation, two new phases should be added: C) The *production phase 3*, i.e. the phase during which a translator produces a text A' on the basis of text A, and D) The *perception phase 4*, i.e. the phase during which a reader perceives text A'.

To view reading as a semiosis leads to an awareness of the fact that the process of reading and comprehending a text is not, as already suggested above,

a true mirror image of the creative process underlying the text production, a fact which for translators at least, is important.

Firstly, it means that they might become aware of the impact signs and plays on language have on them, of how signs impinge on their "mental processes". It should then become possible to describe these processes, to compare them and perhaps to classify them. I have shown elsewhere how a writer can "play on proper names" and give the reader a possibility of building up associations on them; also how networks of connotations can be reorganized in the reader's mind, how proper names can become connotated within a given culture, and how some of the problems were resolved in the translation (Martinet, H., 1982).

Secondly, it means that they might become aware of the fact that what they infer in a global sign, and in the signs it contains, might not always correspond to what a writer formulating a text wanted the reader to infer in it.

The many reinterpretations (which are not always of a philological nature) of, say, Shakespeare or Montaigne, only prove that the relation between expression and its comprehension is not always congruent. I cannot, within the scope of this paper, enter into the theoretical issues which this fact raises. I have only briefly outlined them.

It is of course also a matter of conduct, to weigh the values, the functions and the relevancies of signs in a text, and to decide which interpretation is *the* only valid one. But we — and specially translators who often transfer ideas should not forget that this weighing (and the decision that follows) is grounded on the impact signs have on them, i.e., as shown above, on the associations that are conjured up during the perception process, and on the hypotheses and inferences signs lead them to introduce in a specific text.

We should not forget either that associations, hypotheses and inferences may vary from person to person, and thus, from writer to translator — because our "knowledge of the world" varies. This is what Umberto Eco (1979. 96ff) calls *encyclopedic knowledge*. And he stresses that this "knowledge" is not identical to the knowledge we, today, can get from dictionaries or encyclopedia alone — examples A, B, and C illustrated this difference. In passing, I might add that this is the reason why translators should perhaps not translate texts which conflict too much with their own ideas.

To this fact should be added the well-known observation that we might not always be alert enough to perceive all the nuances that are conveyed by signs. And also the fact that translators very often have to work under such hasty circumstances that they, regrettably, simply do not have time to dwell on nuances.

For the translator, and even for others perhaps, it is thus fundamental to endeavour to try to perceive the impact a writer, consciously or unconsciously, may wish to bring about when choosing and structuring signs.

In this context, I wish to recall what Edward Sapir wrote: "One must learn to read between the lines, even when they are not written on a sheet of paper" (1972:71). To which I would add that not only have some lines to be more read between than others, but that the problem is to elucidate how.

The solution to this problem, if at all feasible, would obviously require a consideration of the text in question in its globality, as well as the total "universe" it reflects.

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ON THE RELATIONSHIP BETWEEN COMMUNICATION STRATEGIES AND LEARNING STRATEGIES

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In his influential paper on interlanguage, Selinker lists five "central processes" which influence the nature of the learner's interlanguage. These processes — as Selinker calls them — include "strategies of second-language learning" and "strategies of second-language communication" (1972:215). Having pointed out that "Concerning the notion 'strategy' little is known in psychology about what constitutes a strategy" (p. 219), he goes on to state that "Even less is known about strategies which learners of a second language use in their attempt to master a target language and express meaning in it" (p. 219).[1] The aim of the present paper is to discuss the notions "communication strategy" and "learning strategy" and to illustrate by means of examples the relationship between them.

When a language learner is faced with the problem of having to pass on, i.e. communicate, precise information in spite of an inadequate command of the target-language vocabulary, he can — consciously or unconsciously[2] — choose either of two fundamentally different "macrostrategies" (Corder 1978a, Faerch and Kasper 1980). He can avoid the problem by changing his communicative goal, for example by totally avoiding topics for which the vocabulary is not known ("topic avoidance"; Tarone 1977), by stopping in mid-sentence when running into difficulty with a target-language word ("message-abandonment"; Váradi 1980, Tarone, Cohen and Dumas 1976), or, by deliberately using vague or very general terms and expressions ("meaning replacement", "semantic avoidance", "message reduction"; Váradi 1980, Tarone, Frauenfelder and Selinker 1976, Tarone, Cohen and Dumas 1976).

On the other hand, he can tackle the problem by developing alternative

[1] For a discussion of some terminological problems involving the terms "process" and "strategy", see e.g. Brown 1976a, Tarone, Frauenfelder and Selinker 1976, and Jordens 1977.

[2] For a discussion of whether strategies involve consciousness on the part of the learner, see e.g. Kellerman 1977, Kleinmann 1977, and Faerch and Kasper 1980.

plans to reach his communicative goal, for example by switching to his mother tongue or another foreign language he knows ("language switch", "code switching", Tarone 1977, Corder 1978a), by "foreignizing" a native-language word (Bialystok and Fröhlich 1980; where English is the target language the strategy has been termed "anglification", Ringbom 1978) or by translating it literally ("literal translation", Váradi 1980), by inventing new words ("word coinage", Váradi 1980), by using words which may or may not share some semantic elements with the target-language word he wants to communicate ("lexical substitution", Tarone, Frauenfelder and Selinker 1976), by using paraphrases such as description and circumlocutions (Váradi 1980, Tarone 1977), by imitating the sound possibly produced by the target concept ("sound imitation", Faerch and Kasper 1980), or, finally, by using extra-linguistic devices such as gestures and facial expressions ("mime", Tarone 1977). Strategies of the first type, i.e. those governed by avoidance behaviour, have been termed "reduction strategies", those of the second type, i.e. those governed by achievement behaviour, have been termed "achievement strategies" (Faerch and Kasper 1980:84).

Faerch and Kasper define strategies as "potentially conscious plans... for solving what to the individual presents itself as a problem in reaching a particular goal" (1980.60). However, in order to underline the important fact that in everyday life communication normally involves two or more interlocutors, Tarone proposes an expanded definition of communication strategies. According to her, a communication strategy should be seen as a "mutual attempt of two interlocutors to agree on a meaning in situations where requisite meaning structures do not seem to be shared" (1980:419).

Faerch and Kasper, however, do not find the definition suggested by Tarone appropriate, for the following reason. When the interlocutor facing communication problems decides not to try to solve his problem alone and therefore signals to his interlocutor that he is experiencing a communicative problem, only then, they suggest, does it become a "shared" problem. These signals, or, as Faerch and Kasper call them, "cooperative strategies" (which, conforming to the distinction made earlier, fall under the category of achievement strategies), may be either direct or indirect (Faerch and Kasper 1980:97); in the former case "appeals for assistance" (Tarone 1977); in the latter case "admissions of ignorance" (Palmberg 1978, 1979a). Also, hesitations and pauses on the part of one interlocutor may occasionally be interpreted by the other as signals for help.

Learning strategies, on the other hand, have been defined as attempts by the learner "to develop linguistic and sociolinguistic competence in the target language" (Tarone 1980.420). According to Tarone such strategies include memorization, repetition with the purpose of remembering, mnemonics, inferencing, and spelling.

Most of the research done in the fields of communication strategies and learning strategies has concentrated on the former. Various test types have been used, ranging from written fill-in forms and translations (e.g. Ickenroth 1975, Ringbom 1978) to different story-telling tasks (e.g. Palmberg, Ringbom and Lethonen 1979) and the elicitation of spontaneous speech through e.g. interviews (Tarone 1977). Apart from studies aimed at the identification and classification of communication strategies there have been attempts to map out the factors that influence the choice of strategy. One such factor, it has been suggested, is personality (Tarone 1977, Corder 1978b). According to this view certain personality characteristics could be strongly tied to a preference for, say, reduction strategies, rather than, say, paraphrases. Other factors claimed to affect the choice of strategy are the learner's age and his level of proficiency in the target language (e.g. Rubin 1975, Ickenroth 1975), as well as the elicitation technique used (Sjöholm 1979).

An important area which has not been dealt with in the literature until very recently is the relationship between communication strategies and learning strategies. As Tarone suggests and exemplifies (1977, 1980), it is obvious that communication strategies and learning strategies occasionally overlap. Not all communication strategies, however, are at the same time learning strategies (this is true e.g. for reduction strategies), although learning may result from the employment of communication strategies. In an attempt to classify communication strategies according to their potential learning effect, Faerch and Kasper suggest that whereas e.g. word coinage seems to promote learning, language switch and mime clearly do not (1980:103). Since there is also the possibility of learning strategies being employed by the learner independently of his use of communication strategies, Tarone (1980) suggests that the question of precisely how communication strategies promote or inhibit learning should be resolved by research, not by speculation.

Judging from the data available from two different communicative tasks, there seem to be four possibilities as to the relationship between communication strategies and learning strategies. These possibilities, which at the same time reveal the learner's approach to or attitude towards his communicative goal, are illustrated in samples A, B, C, and D.[3]

SAMPLE A: LEARNER: "There's some footprints outside a ... some rocks ... and there's a man coming out fr ... and then he's jumping ...".

[3] Samples A, B, and C originate from an experiment disigned to elicit and classify the communication strategies that Finns and Swedish-speaking Finns at an intermediate level of English proficiency adopt when, communicating in English, they lack the appropriate vocabulary. The learners were given a series of pictures comprising a story, and they were asked to retell the story twice, first in their mother tongue, then in English.

In Sample A the learner wants to communicate the target item "cave". Since he does not know the word, he employs reduction strategies twice, first message reduction, then message abandonment. He continues his narrative, without having learnt the word.

SAMPLE B:

LEARNER: "Well there's a cave in ... er ...in the mountain and ... a man c... comes out from the ... cave ... and then there are two small animals ... What are they called? I don't know".
EXPERIMENTER: "Ants".
LEARNER: "Ants ... on the way".
(deleted sequence)
LEARNER: "The apple falls down from his head ... and the two ... animals are there".

In Sample B the learner experiences a communicative problem with the target item "ants". She appeals for assitance, is told the correct word by her interlocutor, and then uses the word correctly. Later, however, when she needs the word again, she has forgotten it and decides to use a message-reduction strategy instead, producing "animals" for "ants". Here, as in Sample A, the use of a communication strategy did not result in learning.

SAMPLE C:

LEARNER: "I see a man who's coming out from the cave and ... two small I don't know what they are called ...". (pause)
EXPERIMENTER: "What would you call them if you had to?"
LEARNER: "If I had to? ... er ... I can't think of anything".
EXPERIMENTER: "They are ants".

The experimenter was told not to help the learners unless he was asked for help. For a full description of the design and results of the experiment, see Palmberg (1979a).

Sample D originates from a "shared" problem solving task. An intermediate-level Swedish speaking learner of English was given a piece of paper showing five different figures involving squares, triangles, arrows, curved lines etc. Her task was to give instructions concerning these figures to her interlocutor, who was a native American-English speaker. The problem of the Swedish speaker was that her instructions were to be clear enough for the American speaker to be able to reproduce, to draw, these figures on another piece of paper. The two testees could see one another, but they were not able to see one another's papers. Also, they were allowed to speak freely. The results of this experiment have not been published.

LEARNER: "Ants oh yeah ants ... two ants".
(deleted sequence)
LEARNER: "He's got something to shoot with anyway ... and two ants ... there are two ants in the picture".

In Sample C the learner has the same communicative problem. She does not know the word for "ants", so she appeals indirectly for assistance, admitting that she does not "know what they are called". Having been told the correct word, she uses it correctly. Later in her narrative, when she needs the word again, she remembers the word. Learning, in other words, has taken place.

SAMPLE D:

SWEDISH SPEAKER: "... and in both upper corners there are black circles ... little black circles".
AMERICAN SPEAKER: "Right in the very corner or ...?"
SWEDISH SPEAKER: "No a little bit from the corner".
AMERICAN SPEAKER: "Little circles?"
SWEDISH SPEAKER: "Yeah all black".
AMERICAN SPEAKER: "OK".
SWEDISH SPEAKER: "And then there's one in the down left corner too".
AMERICAN SPEAKER: "OK".
SWEDISH SPEAKER: "Then there's an arrow going from the left upper circle to the right upper".
AMERICAN SPEAKER: "Just to the upper circle ... not the bottom one?"
SWEDISH SPEAKER: 'Yeah from the left upper to the right upper circle ... and then one from right upper to left bottom".
AMERICAN SPEAKER: "OK".

The Swedish-speaking learner in Sample D, finally, made a frequent use of paraphrases and appeals-for-assistance throughout the task. And judging by her ability to reproduce the needed words when they reappeared, her learning strategies were very efficient. In addition to this, she very often picked up words and expressions from the American speaker's comments. The purpose of the extract in Sample D (which represents only the end conversation of a fairly time-consuming task) is to show how the learner adopted the expression "left bottom" from the American speaker's speech, having said "down left" earlier.

To sum up, there are communication strategies which cannot lead to learning (Sample A), communication strategies which may (Sample C) or may not (Sample B) lead to learning, and, finally, there is learning through communi-

cation which takes place independently of the use of communication strategies (Sample D).

Although communicative tasks involving "shared" problems (and there are, of course, many varieties) can be successfully used in order to elicit communication strategies, the situation is much more complicated when we are dealing with learning strategies. As for communication strategies, these can be fairly reliably identified (cf., however, Palmberg forthcoming) since is possible through interviews and mother-tongue versions to compare what the learner produced with what he actually wanted to produce, i.e. his "optimal meaning" (Váradi 1980). For learning strategies, however, we need an elicitation instrument which controls not only the data which the learner is exposed to ("the input"; Corder 1967, 1978b), but also what the learner learns of the data he has been exposed to ("the intake") and what he uses of what he has learnt ("the output").

Communicative tasks, it is true, may be used to show when learning has taken place (provided that it is possible to reliably distinguish actual learning and a mere recollection of something previously learnt on the part of the learner; Sample C, for example, may pose such a problem). At the same time they reveal whether the presumed learning activity has been promoted by the use of a communication strategy and by what communication strategy, if any at all. But before communicative tasks can be used to elicit and identify learning strategies satisfactorily enough (i.e. the process as opposed to the product), a variety of factors must be accounted for, including the learner's short-term and long-term memory, temporary and permanent learning, etc.

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COMPARING SOUND PATTERNS[1]

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> "[T]his approach will emphasize the close relations of phonology to phonetics. Phonology is concerned with the *linguistic* aspects of *sound* structure and articulatory and perceptual *behavior*, or, if you will, speaker-listener's knowledge about the language-specific use of sound signals. If phonology is *language-specific phonetics*, it should account for all those rules which have to do with the sound structure of what is regarded as phonologically and grammatically correct or acceptable idiomatic speech. Such a phonology must, in principle, be able to specify all those phonetic details – all 'extrinsic allophones' – that contribute to defining idiomatic pronunciations." (Linell 1979:31)

By the term 'sound pattern' I will mean the totality of language-specific factors that either determine or constitute the idiomatic pronunciation of a given language.[2] This definition, while excluding the effects of universal factors from the sound patterns of individual languages (the universal factors would be stated, ultimately, in a general account of human sound patterns), includes both any covert factors (structural, psychological, social, situational etc.) that can be shown to influence pronunciation, in whatever way or degree, and the more directly observable physical phonetic factors (to the extent that both sets of factors can be shown to be language-specific). The former set of factors can be conceived of as a part of a speaker's communicative competence while the latter set is a physical manifestation of that competence. Actual performance, of course, always exhibits properties in addition to those relatable to the factors mentioned above but they have to be sorted out by appropriate (e.g. statistical) methods.

[1] Paper read at the 17th International Conference on Polish-English Contrastive Linguistics at Błażojewko/Poznań, December 3—5, 1981.

[2] For reasons of simplicity of exposition the many kinds of linguistic variation (dialectal, social etc.) will not be considered in this paper. The existence of such variation must, however, be taken into account in any actual comparison of sound patterns.

The present paper is concerned with the ways of obtaining and presenting adequate descriptions of the set of factors physically constituting sound patterns, adequacy being estimated in terms of success in capturing cross language differences and similarities. I believe that a careful observation of surface phonetic regularities is necessary for the elucidation of *all* sorts of component factors of sound patterns and for contrastive studies of sound patterns.

1

> "Contrastive studies can be roughly defined as the systematic study of two or more languages, specifying all the differences and similarities holding between those languages in all the language components." (Fisiak *et al.* 1978:9)

Sound pattern, as defined above, is clearly included among "all the language components". Therefore, I accept it as an axiom that contrastive linguistics, in order to attain full observational adequacy (in the sense of Chomsky 1964: 62ff.), must procure or have at its disposal a full account of the sound patterns of the languages selected for comparison. Since an exhaustive account is never possible the differences and similarities must be stated in terms of a set of premises, a theory, and "it seems obvious that the theory which is most adequate for the description of a particular language should also be most adequate for contrastive purposes" (Fisiak 1975.345).[3] In many current contrastive studies of sound patterns generative phonology is the theory employed.[4] Thus Fisiak, for example, "assuming that generative phonology (...), in spite of its numerous weaknesses and constant modifications, is the most adequate phonological theory currently available and offers the best insight into the structure of language (...)" claims that "there is no other alternative than accepting it for contrastive purposes both theoretical and applied. It should be pointed out here, however, that the acceptance of the generative theory (...) includes the possibility of modifications of the standard theory in so far as it fails to explain contrastive facts" (Fisiak 1975: 346).[5]

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[3] I accept this claim here just for the sake of argument. The claim ignores the fact that theories in linguistics tend to be rather language specific (i.e., to put it very briefly, traditional grammar is based on (and best suited for the description of) Latin, TG grammar on English, Dependenz-Grammatik on German etc.). This may be in conflict with the requirement in contrastive linguistics that the compared languages be described in the same theoretical framework.

[4] In what follows I will assume, perhaps unfairly, that the contrastive studies referred to would not disagree with what I consider to be the goal of contrastive studies of sound patterns.

[5] I assume, quite bluntly, that it falls within the purview of phonological theories to account for the kind of phenomena referred to in the above definition of sound pattern. Otherwise such phenomena would have to be excluded from linguistics altogether, and this would seem to be an unmotivated delimitation.

It is my intention to show that generative phonology (or at least the standard generative practice) fails precisely in this respect since it even fails to adequately *describe* contrastive facts of sound patterns. I hope that the inadequacy will be recognized and that this will result in a serious search for alternative methodological approaches.[6]

The explicit exploitation of an allegedly universal, finite and phonetically-based set of distinctive features as the prime entities of description is one of the distinguishing characteristics of generative phonology. The features are used, in principle, in two different functions, viz. classificatory and phonetic. In the former function (on the "systematic phonological level") the features are invariably binary (which, for example, provides a means for stating gross cross-language patterns for typological purposes). In the phonetic function the features are, again in principle, scalar or multivalued, offering the possibility of e.g. stating phonetic differences between structurally similar segments in different languages (for sketches of such statements, noted in passing but not elaborated on, see e.g. at Trampe and Viberg (1972:305—307) and Schane (1973:95– 96)). However, in spite of this built-in possibility of achieving at least a somewhat closer (if not anything approaching hi-fi) representation of spoken language, it remains true that "a *systematic phonetic* representation is, in theory, one in which the features are specified with integer values. Although, ideally, all derivations should end with precise phonetic specifications, (...) those appearing in all published generative descriptions stop far short of this detail. This is because generative phonology has concentrated primarily on the nature of underlying representations (...). Interestingly, those derived representations are amazingly similar to taxonomic phonemic representations" (Schane 1973:97—98; emphasis in the original). As for contrastive investigations, I am not aware of a single study which, while using the distinctive feature framework, would make explicit use of scalar values. This is hardly a credit to contrastive phonologists working in the generative theory.

A set of distinctive features adequate for contrastive purposes would have to make explicit all systematic phonetic differences and similarities between the languages compared whether the differences serve to distinguish meanings in any of the languages or not. Defining such features as "properties which differentiate all and only the sounds consistently produced and perceived by speakers of all the world's languages" Fromkin (1979:326—327) aptly goes

[6] Generative phonologists often take the proposition that alternative methodological approaches should be chosen to mean a plea for a return to some form of classical phonemic theory. This was also obvious in some of the comments raised during the conference. Let me therefore state quite explicitly that this is not the intention of the present paper. At the same time, it seems that some traditional concepts have been too hastily dispensed with by generative phonology.

on to say that "such a set is clearly larger than any set of features yet proposed. In principle it is still finite. In practice it is hard to see the end of the road". The current sets of distinctive features, with at most twenty-odd segmental features, are clearly too broad in their scope, and therefore, instead of capturing cross-language differences (which a descriptive framework employed for contrastive purposes should do) they effectively obliterate any such differences. Hence, an acceptance of any set of distinctive features currently available as the sole basis of description involves a commitment to ignore all but too obvious cross-language differences. Given the provisional nature of these sets any attempt to force the sound pattern of a language into such predetermined categories will necessarily be a Procrustean activity.

I shall attempt to substantiate the above claims in the next section.

2

> "For a linguist, phonetics is only a means toward an end, not a purpose in itself. The end is to provide reliable answers to linguistically relevant questions. However, for providing these answers, phonetics is indispensable. I believe firmly that true statements regarding phonological phenomena presuppose correct observation of their phonetic manifestation. A phonologist ignores phonetics at his own peril." (Lehiste 1970:vi)

The handbook by Fisiak *et al.* (1978), by virtue of its phonological part being based on generative phonology and since it "concentrated basically on the phonetic representation, only hinting at the processes at deeper levels" (p. 5), is a suitable starting point for the present section. Before proceeding to phonetic representations let us, however, pay attention to a couple of more general issues. The first one concerns the question of what can be compared. In the Introduction we can read that "the notion of *comparability* is fundamental for comparative linguistics in general and for CS (contrastive studies, KS) in particular. The question of what is identical, similar or different has to be answered before any meaningful CS can be carried out" (Fisiak 1978: 15, emphasis in the original). I have to admit that I utterly fail to see how the question mentioned above could possibly be answered *before* a contrastive study and, if it can, what the motivation (or possible results) of a contrastive study might be. However, the authors point out in the very next sentence that "the answer to these and similar questions to a large extent depends on the theory underlying our CS" (ibidem). What we can witness here is the extraordinary faith in the omnipotence of theoretical inference at the expense of empirical observation, so typical of generative grammarians. As regards the exhaustiveness of contrastive studies, we are told that "it depends both on theoretical premises and practical considerations. The most exhaustive theory will *guarantee* the most exhaustive contrastive description" (p. 14, emphasis mine, KS). It is obviously due to the same basic attitude that no reference is made in the book to experimental investigations of e.g.

the phonetic correlates of the distinctive features employed nor of the two languages described. One of the consequences of such neglect is that one may feel free to use the features rather sloppily to meet *ad hoc* needs (e.g. the feature /± advanced tongue root/ on pp. 226, 228 and 230). Moreover, the total lack of references to substantive investigations does not seem to bother the authors; instead, they complain that "the space assigned to (the phonological) component of grammar has not allowed us to go beyond mere rudiments and has forced us to abandon, among other things, *theoretical justifications*" (p. 6, emphasis mine KS).

It should not come as a surprise at this stage to learn that "features are easily comparable because they come from the universal stock, hence E(nglish) /+cor/=P(olish) /+cor/" (Fisiak et al. 1978:225). This does, admittedly, seem easy enough but are we here dealing with a genuine comparison of the sound patterns of the two languages or with just a comparison of two "descriptions", in other words is this a statement of a true similarity or a simplifying trick? As regards the very feature mentioned I have gathered that /+coronal/ consonants (at least /t/, /d/, /n/ and /l/) in Polish are, with some exceptions caused by assimilation, usually dental whereas the corresponding consonants in English are usually alveolar. However, let us go on to another feature for which direct cross-language experimental data is available.

In the handbook under discussion /ptk/ are specified as /— voice/ and /bdg/ as /+ voice/ in both Polish and English (Polish, of course, also has a palatalized set of stops which, *mutatis mutandis*, have the same specifications). Assuming that the contention that "we will have to account for both the similarities and differences at the phonetic level" (Fisiak et al. 1978:224) is to be taken seriously then the assignment of identical specifications for the feature /voice/ for the respective English and Polish sets of stops, in the absence of any other differentiating feature specifications, is a claim of similarity clearly in conflict with the facts. Thus the voice onset time (VOT) measurements by Kopczyński (1977:72—73) exhibit clear differences between the (word initial) stops of the two languages. That the differences are not insignificantly minute is shown by the fact that, in an accompanying cross-language identification task in which American English stops were identified by Polish students, AE /bdg/ were in fact more often identified with Polish /ptk/ than with Polish /bdg/, a result contrary to Kopczyński's own predictions based on a formal comparison not much different, in essence, from that of Fisiak *et al.* (for the identifications see Kopczyński (1977:75) and for the formal comparison and predictions pp. 23—27).[7]

[7] Kopczyński seems to be at a loss in the face of the discrepancy between the formally based, aprioristic predictive statements and the actual empirical findings: "The percentage of identifications of the partially devoiced AE /bdg/ (sic!) with the voiceless E(ducated) P(olish) /ptk/ is quite amazing." (p. 75). However, the identification results are

The different stops discussed above obviously occupy different positions on the voicing continuum (see Suomi 1980). The differences, after revelant experimental investigations, could be rather easily captured by scalar (e.g. integer or per cent) specifications of the feature /voice/. In other words, the employment of a device potentially available in generative phonology would come a long way towards satisfying the express demands on contrastive descriptions (even in the absence of exact quantitative information it could be pointed out that, in a way which is not clearly understood at present, the English and Polish sets of stops are different in their degree of voicing: this would explicitly reveal an area in which further work is necessary). Next, let us consider a case for which no such obvious solution exists.

In Vihanta's investigation of the production and perception of stressed vowels in French by Finnish learners (and native speakers) (Vihanta 1978) nasalization was one of the factors studied. In the case of the distinctively nasal vowels the duration of the phonetically nasal portion was assessed (for the experimental procedures see Vihanta 1978:74—85). The results indicate that, for the Finnish informants, there was a non-nasal period at the beginning and end of the vowel. A similar but shorter non-nasal period was often observed for the native French informants, too, but it was always shorter and it only occurred at the beginning of the nasal vowel, the end being invariably clearly nasalized. For the French informants, in addition, there was a rise of the intensity of nasality towards the end which Vihanta, referring to Linthorst (1973), regards as the most important one for distinctive vowel nasality in French. Thus, according to Vihanta (1978:142—152), the opposite tendency to a decrease of nasality observed in the Finnish informants may be quite a harmful error of pronunciation. The coarticulatory nasalization of (inherently oral) vowels was also investigated and it was found out that this was much more extensive for the Finnish informants as could be expected since nasality is not used to distinguish vowel phonemes in Finnish, the coarticulatory nasalization serving, perceptually, as an anticipatory cue for the following nasal consonant.

Vihanta does not attempt to codify his results in the notation of generative phonology (although he does, in the Introduction, present a generative analysis of the French vowel system in which, for example, the (possibility of a) derivation of surface nasal vowels from underlying oral ones is included). This is not surprising since, in the first place, a formalization would not by itself have added anything new to the experimental, quantitative results. In the second place, the parametric results remain there for anyone to attempt a

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amazing only in view of crude, structurally based considerations of formal equivalence: in the light of the differences in VOT they are predictabe.[There is hardly any need to make the methodological lesson explicit.

formalization. Thirdly, and this is most important in the present context, it is hard to see how a formalization in terms of the standard generative formulae could be performed without a severe loss of information in the process.

In order to formalize the above results one would, to begin with, need a framework in which it is possible to state that a feature may have more than one specification during a single segment. This is not possible in the feature system of generative phonology (but see autosegmental phonology, e.g. Goldsmith 1976). Secondly, one would probably have to be able to state that the "strength" of a feature can increase, decrease or remain the same during a segment. This, too, cannot be done in generative phonology. Thirdly, one would need to be able to specify the (at least relative) durations of the different portions of a segment. This brings us to the role of timing in speech, a factor which, having attracted the attention it deserves by phoneticians only rather recently, is hardly discussed by phonologists (and then, at best, only as a component factor of whole segments which, features or no features, are usually regarded and treated as indivisible in the time domain).[8] Let us finish our discussion of Vihanta's results by noting that they deal with clear-cut, experimentally verifiable differences of sound patterns, in this case between native speakers and learners, and that in view of the possible harmfulness of the observed differences to the learners and in the absence of conclusive evidence to the contrary it is a safe methodological policy not to just simply dismiss such observations as irrelevant for contrastive linguistics because our traditional conceptual frameworks cannot handle them.

The factor of timing is, as noted above, perhaps most easily conceived of as a characteristic of whole segments (although it is, in the form of the relative timing of different articulatory gestures, in fact a ubiquitous factor of the dynamics of speech involved, for example, in different degrees of voicing in stops). Let us, in the interest of brevity of exposition and to avoid a discussion of problems not directly relevant to the topic of this paper, make the counterfactual assumption that the status and delimitation of segments as constituents of the speech signal are unproblematic, and let us proceed to another phonetic dimension, vowel duration. Let us, again, in accordance with the research strategy being propagated, start from an observation of some regularities in actual sound patterns before attempting to fit the experimental findings into a wider theoretical framework.

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[8] Thus Hyman, for example, after discussing e.g. vowel harmony and nasalization as possible suprasegmentals, states (1975.238, footnote 19) that "while duration (vowel and consonant length) is normally treated along with stress and tone as a suprasegmental (...), this topic will not receive specific attention here, since we have already had occasion to refer to length in conjunction with other issues in phonology". Typically, the discussion has taken place in terms of /±long/ specifications (cf. below).

In Suomi (1980) a subset of data on vowel duration were obtained. Below are the mean durations, pooled across the five native (British) English informants, of the English /short/, /ae/ and /long/ vowels in monosyllabic words before word final /ptk/ and /bdg/. Also shown is the increment of duration in the /+voiced/ environment compared to the /—voiced/ one. The results for the individual informants followed, with minor deviations, a closely similar pattern (the figures given below, or rather the differences between the means, are statistically strongly significant).

Table 1. The mean durations, pooled across the five English informants, of the English /short/, /ae/ and /long/ vowels before word final /ptk/ and /bdg/, and the increment of duration in the /+voiced/ environment.

	mean vowel duration		increment of duration	
	#C_ /ptk/#	#C_ /bdg/#	msec	per cent
/short/	125	178	53	42
/ae/	155	237	82	53
/long/	186	322	136	73

It can be seen that the "shift" from the /—voiced/ environment to the /+voiced/ one causes rather complex changes in the mean durations of the three vowel classes. The increment follows no immediately obvious pattern: it is not identical for each vowel class in absolute terms, nor is there any clear relationship between the increment and the initial (or resultant) duration. In generative phonology durational differences between segments (or, to be more accurate, the subclass of durational differences that are considered to be "linguistically significant")[9] are expressed by using the feature /± long/ (while "tenseness", too, is sometimes meant to refer to some aspects of duration among a host of other, often clearly unrelated phonetic attributes).[10] Assuming, again, that a formalization must not unduely destroy regular patterns observable in the primary data it is difficult, indeed impossible to imagine how the above data could be captured in a framework employing only binary specifications. Scalar specifications would yield a better performance but, then, they would have to be given a quantitative interpretation. The latter, of course, presupposes empirical investigations of actual sound patterns. These, as I tried to show above, do not belong to the regular stock of tools in generative phonology.

The conclusion to be drawn from the above discussion is that generative phonology utterly fails in providing the means for adequately describing or representing surface phonetic regularities of sound patterns (unless we decide

[9] Notice, for example, that none of the features listed by Fisiak *et al.* (1978:225) refer, either directly or implicitly, to duration (or length).

[10] For the very questionable status of the concept of "tenseness" see e.g. Lass (1976: 39—50) and Suomi (1980: 28, 42, 155—158) and the references therein.

to be content with very rough descriptions for which a piece of paper, a pen and some time for introspective reflection is all that is needed). As stated above, this paper does not aim at an evaluation of how generative phonology has succeeded in its major occupation of describing the "deeper" levels of sound patterns (although we may notice, in passing, that generative phonologists usually bypass description and go straight to explanation). Let me emphasize, for the sake of clarity, that I do not deny the reality and existence of e.g. structural conditioning factors as an important part of sound patterns (cf. the definition given above); instead, I am suggesting that we *start* from the observable phenomena. At the same time, it would be rash and very unwise to overlook the many valuable insights of the more formally oriented distinctive feature framework which, on a more abstract level, has immensely increased our knowledge of the ways in which spoken language is structured, and of the ways in which the sound patterns of languages may differ from or resemble each other. There is, obviously, a real need for a link between formally oriented and experimental investigations of sound patterns, a need to combine traditional insight with modern methods of empirical observation. As a simple and sketchy attempt at such a unification, let me present my analysis of the vowel duration data in Table 1 above.[11]

Let us assume, in a provisional first attempt at a description of the results, that the /short/ vowels in the /—voiced/ environment represent the basic vowel duration in this particular phonotactic position in English. We can then regard any changes, either in the specifications of the vowel itself or in those of the conditioning environment, as simple additions to the basic duration. It can be seen in Table 1 that if we "move" along vertically, from the /short/ through /ae/ to /long/ vowels, an increment of about 30 msec must be added to the basic duration. Let us assume that this addition is a constant and call it the VOWEL CATEGORY INCREMENT. If, on the other hand, we move horizontally in Table 1, from the /short/ vowels in the /—voiced/ environment to the same vowels before the /+ voiced/ stops, an increment of about 50 msec has to be added to the basic duration. Let us call this addition the OBSTRUENT CATEGORY INCREMENT. How can we describe the duration of the /ae/ and /long/ vowels in the /+ voiced/ environment? A simple addition of the two increments just isolated to the basic duration would yield durations that are far shorter than the attested ones. For example, an /ae/ vowel before word final /+ voiced/ stops differs from the /short/ vowels in the /—voiced/ environment in two respects, namely by being intrinsically one step (one VOWEL CATEGORY INCREMENT) longer and occurring in an environment causing extra lengthening (an addition of OBSTRUENT CATEGORY INCREMENT).

[11] The following discussion of the vowel duration data is taken, in a slightly revised and shortened form, from Suomi (1980: 91—98).

Given the basic duration of 125 msec (as in Table 1), a VOWEL CATEGORY INCREMENT of 30 msec, and an OBSTRUENT CATEGORY INCREMENT of 50 msec, a simple summing up of the durations would yield 205 msec instead of the observed 237 msec. Nor would invariant proportional increments result in a close match. Obviously, our initial assumptions are too simple to allow a formalization that could adequately capture the observed regularities. Next, a somewhat more elaborate attempt will be made.

Let us conceptualize the formal description as a subpart of an explicit *algorithm for determining vowel duration in English.* At some level in a description of the sound pattern of English it is necessary, for reasons of e.g. statements of phonotactic restrictions and stress assignment rules, that the /short/ vowels and /ae/ can be differentiated from the /long/ vowels (including diphthongs). This could be accomplished, for example, by giving the three vowel classes the binary specifications in (1) below.

(1) /short/ vowels=/+short, —long/
/ae/ =/—short, —long/
/long/ =/—short, +long/

In this framework it can be stated, for example, that only /+long/ vowels can occur word finally in monosyllabic words. The redundancy present in the above specifications (except for the logical redundancy according to which /+long/ implies /—short/ and /+short/ implies /—long/, an obvious shortcoming of the binary principle) is motivated by the needs of the *phonetic implementation rules* (on the whole, a lot of redundancy will no doubt characterize future realistic descriptions of human sound patterns). For the purpose of determining vowel duration, the hypothetical algorithm rewrites the above binary specifications in the way shown in (2) below.

(2) /+short, —long/ → /0/
/—short, —long/ → /1/
/—short, +long/ → /2/

In other words, the binary specifications are replaced by scalar ones. The specification /0/ (=zero) implies "neutral" or "no cost" from a structural point of view; the choice of this specification for what are traditionally called /short/ vowels can be defended, for example, on the grounds that this vowel class has the least restricted distribution of the three (a detailed argument would have to involve an account of the mechanism for stress assignment and the form of lexical items etc.).

The duration of vowels (and the timing of speech in general) is determined by an interplay of a great many factors, and a complete algorith should incorporate all of tem. Here, however, we are dealing with a small subset of such factors only. Let us attempt to quantify them and regard the other, experimentally not varied factors as constants.

As a starting point of the phonetic implementation rules for vowel duration in English let us assume, quite arbitrarily and for heuristic purposes only, that there exists a universal, basic duration of vowel sounds, say 100 msec. Let us agree to abbreviate this postulate as BD. Any concrete, observable vowel duration can be regarded as a function of BD and the relevant other factors (linguistic-structural, situational, personal etc.). We have already glimpsed at the effects of two such factors on the data in Table 1, the VOWEL CATEGORY INCREMENT (VCI) and the OBSTRUENT CATEGORY INCREMENT (OCI) (of which the latter is just one of the many contextual factors). Another factor that lies behind our data is that of speech rate or tempo, a factor which was not controlled beyond the instruction to "speak in a normal, unemphatic way". This factor, on the simplifying assumption that speech rate influences all types of segment in the same way, can be thought of as a (relative) coefficient instead of an (absolute) increment. Let us denote this factor by X. Let us finally agree that the notation /n vowel/ is an abbreviatory convention in which (n) stands for (0), (1) or (2).

Now, in the modest task of generating the data in Table 1 by our algorithm let us give the factors mentioned above the following values:

(3) BD=100 msec
VCI=30 msec
OCI=50 msec
X=1.25
n=0, 1 or 2

Next, let us state the two requisite phonetic implementation rules as simply as possible in (4) and (5):

(4) /n Vowel/
DURATION=(X BD)+(n VCI)/_/ptk/#

(5) /n Vowel/
DURATION=(X BD)+(n VCI)+OCI+(n VCI)/_/bdg/#

in which the notation (Y ZZ) means "Y multiplied by ZZ" and in which the computations in parentheses must be performed first. Notice that the element (n VCI) occurs twice in rule (5): this is a formal expression of the fact that the lengthening caused by the /+voiced/ environment is sensitive to the phonological class of the vowel that is subject to the lengthening. That rule (5) is formally more complex than rule (4) is a formal expression of the fact that the extensive lengthening of vowels (and sonorants) before the word final /+voiced/ obstruents is a particular feature of English, a language-specific (and thus "costly") peculiarity. That X, the speech rate factor, only affects BD can be regarded as a descriptive simplification, and in reality it might have to influence each of the capital letter factors. Notice, further, that the the net effect of the proposed rules is that, disregarding the effect of X, the duration of the

short vowels in the /—voiced/ environment is equal to BD. This, too, is a matter of expositional convenience only.

Now, given the values shown in (3) and rules (4) and (5) durations such as those on the left hand side of Table 2 are generated, to be compared to the observed durations on the right hand side.

Table. 2. The durations of the /short/, /ae/ and /long/ vowels before word final /-voiced/ and /+voiced/ stops as generated by the postulated rules and as observed for the five English informants in Suomi (1980).

vowel class	generated by the rules		observed	
	#C_ /ptk/#	#C_ /bdg/#	#C_ /ptk/#	#C_ /bdg/#
/short/	125	175	125	178
/ae/	155	235	155	237
/long/	185	295	186	322

It can be seen from Table 2 that the match between the generated and the observed values is almost perfect except in the case of the /long/ vowels in the /+voiced/ environment. That there is such a close match is, of course, not surprising since the observed durations were used as a basis for constructing the rules in the first place. The match indicates, however, that the rule scheme does to some extent capture the observed durational patterns in so far as it gives an explicit description of some of the component factors. As regards the discrepancy just mentioned it seems that an additional increment of about 30 msec (i.e., an increment of the size of the VOWEL CATEGORY INCREMENT) would have to be added to the /long/ vowels in the /+voiced/ environment. From a functional perspective (and this brings us closer to eventual *explanations* of the differences in vowel duration) we could propose that, given that the /long/ vowels before /+voiced/ stops represent the longest possible duration in this particular context, they are made extra long in order to make it completely clear to the hearer that this is an instance in which all of the factors enhancing a long duration of vowels are present. In other words, the extra long duration could be considered a functionally motivated, hearer-oriented disambiguating device.

That the proposed rule system is not completely *ad hoc* is shown by the fact that it can be applied, with certain well definable modifications, to further data collected on the same phenomenon. First, let us consider the data in Suomi (1976). To obtain as close a match as possible between the durations generated by the rules and those observed a single modification of the rule system must be made, viz. the value of the OBSTRUENT CATEGORY INCREMENT must be changed from 50 to 70 msec. Given this change, the generated and attested durations are as shown in Table 3.

Table 3. The durations of the /short/, /ae/ and /long/ vowels before word final /–voiced/ and /+voiced/ stops as generated by the postulated rules and as observed for the five English informants in Suomi (1976).

vowel class	generated by the rules		observed	
	#C_ /ptk/#	#C_ /bdg/#	#C_ /ptk/#	#C_ /bdg/#
/short/	125	195	118	192
/ae/	155	255	156	255
/long/	185	315	186	335

The match is again almost perfect except for the /long/ vowels in the /+voiced/ environment.

Next, let us look at the data obtained by Wiik (1965:114). In this material the duration of the /short/ vowels before /—voiced/ stops in monosyllabic words was 93 msec. Let us therefore modify our rule system accordingly and specify X (the speech rate factor) as .93. In all other respects the rules remain as they were in the preceding case (i.e. OCI=70 msec). Table 4 contains the generated and observed durations.

Table 4. The durations of the /short/, /ae/ and /long/ vowels before word final /–voiced/ and /+voiced/ stops as generated by the postulated rules and as observed for the five English informants in Wiik (1965).

vowel class	generated by the rules		observed	
	#C_ /ptk/#	#C_ /bdg/#	#C_ /ptk/#	#C_ /bdg/#
/short/	93	163	93	160
/ae/	123	223	150	216
/long/	153	283	153	294

The match is very close with the exception of the /ae/ vowels in the /—voiced/ environment which are almost as long as (or, practically, equal in duration to) the /long/ vowels in the same environment. This, however, is a feature which seems to be typical of Wiik's material only, and it is thus not a very strong argument against the proposed algorithm. On the other hand, the match is now very close also in the /long/ vowels before the /+voiced/ stops.

Let me recapitulate. In applying the proposed rules to the two further sets of data two modifications to the original rule scheme were made, viz. the values of the factors X and OCI were changed. However, both of these assumed only two different values in the three sets of data, otherwise the rule system remained identical in each case. That the speech rate factor X did not remain constant in the three sets of data could, perhaps, be explained by the fact that speech tempo, as is well known, usually varies somewhat from person to person and from one communicative context to another. Similarly it could be argued that the changes in the value of the factor OCI, since it in a contextual factor, are caused by some changes in the environments in which the vowels occur. The values of OCI that gave the best match with the observed durations was 50 msec in the material of Suomi (1980) and 70 msec in the other

two materials. That there is a difference between the two sets of data gathered by myself is clear: in the 1976 material the words were spoken in isolation whereas in the 1980 one they were embedded in a constant frame sentence. This means that in the former case the word final position was, at the same time, also utterance final, and the extra lengthening may have been caused by the so-called final lengthening that affects all vowels in this position but may, perhaps, affect phonetically long vowels more than short ones (in a manner similar to the effect of the /+voiced/ nature of word final obstruents on the duration of the preceding vowel). As regards Wiik's material, the words are reported to have been spoken both in isolation and in a frame sentence (Wiik 1965:33) but it is not clear on which words the relevant measurements are based. If they are based on the ones spoken in isolation the same explanation as above could, tentatively, be suggested for the likewise longer value of the OBSTRUENT CATEGORY INCREMENT.

The rule system discussed above, since it seems to cover the particular aspect of the sound pattern of English in a sufficiently accurate way, was used in Suomi (1980) as the formal framework within which the productions of the Finnish learners of English were summarized (as an attempt at a structural description of their individual interlanguage sound patterns and their dependence on the sound patterns of the target and source languages). On the whole, the interlanguage deviations from the (experimentally determined) native and target language sound patterns were statable as precise modifications of the above rule system (e.g. changes in the values of the factors, lack of component parts of the rules or simplification, etc.). At the same time, it is obvious that the above analysis of vowel durations asks more questions than it can answer, and most of the tentative conclusions suggest further investigations. I leave open the question of whether this can be regarded as a desirable outcome of a comparison of sound patterns.

3

> "In the generative heyday it was often asserted that linguistics was overwhelmed by data, and that the most strongly felt insufficiency was the lack of explicit, adequate and interesting theories. Now there has been an enormous proliferation of new theories documented in countless books and articles published in the last one or two decades. Yet, I suppose many scholars in the field still think that the greatest progress can be expected from new theoretical works. But this is an unfortunate attitude. Certainly theoretical work is still necessary, but if really interesting and empirically well-supported theories are to be developed, there is an enormous need of *data*, especially data concerning detailed and systematic observations of actual speech performance, language acquisition, interindividual variation, errors in speech production and perception, etc." (Linell 1979:208; emphasis in the original, KS).

Our definition of sound pattern makes no *a priori* claims as to what should be considered linguistically relevant aspects of the speech signal. From a methodological point of view this leaves the field open to a multiplicity of

different approaches, and there is no way of foreseeing which will turn out to be the most fruitful. It seems obvious, however, that now is the time and need for careful, detailed, experimental observation of how real speaker-hearers behave when they speak, listen to or meditate on a language. There is such a need whether we are primarily interested in the factors determining sound patterns (the traditional main concern of phonologists) or in those actually, physically constituting it (the chief object of phoneticians' research). What I want to propagate, then, among many others, is a closer-than-traditional link between phonology and phonetics, both general and contrastive, a phonology that is truely anchored in phonetics, the study of the substantive basis of speech (while, it may be worth emphasizing again, I do not claim that phonetics is the *only* field relevant to phonology). I have tried to show above, using generative phonology as an example because of its still current vogue in some circles, that phonological theories operating with abstract and prematurely determined systems of entities are inadequate because, by the very restrictions imposed by the theory, they can only make use of a limited set of descriptive categories. An experimental, empirical phonology, as free from theoretical predilections as possible, would do the complexities of spoken language more justice.

The above reasoning does not entile us to abandon any attempts at explanations of observations in terms of (interim) theories. Instead, it tries to convince that any theorizing without a sound observational basis, unless we happen to be clairvoyants, will be rejected by our successors whereas if we proceed the hard way, refusing to allow deduction to compensate for the lack of data, at least our observations (to the extent that they are valid and reliable) stand the chance of having more lasting value. Theories, with the accumulation of new data, are bound to be more ephemeral.

The investigation of sound patterns is an area of linguistic research in which introspection and unaided human observation are particularly unreliable as the sole sources of information. Therefore, contrastive studies of sound patterns cannot afford to neglect other sources of information.[12] Even if optimum research resources (both intellectual and material) are available (and here we always have to be prepared for a compromise) it is clear that the demand imposed on contrastive studies of sound patterns above, a full account of the sound patterns of the compared languages, can be regarded only as a long-term goal which, in practice, will perhaps never be achieved. Nevertheless, the vision of that long-term goal, however elusive it may turn out to be,

[12] In writing this paper I have had a rather specific type of audience in mind, and I am well aware that my criticism cannot be generalized to apply to all kinds of contrastive studies. There exists a broad front of contrastive studies along the lines here propagated and I resent that I cannot give them the credit they deserve. Anyway, it is not my intention to insult even those that I find occasion to criticise.

may serve as a fruitful incentive for us to ever sharpen and question our tools of investigation. An improvement of contrastive *techniques* could lead to an enrichment of contrastive *theory* as a field of linguistic enquiry with a distinct profile of its own. Hopefully, such a shift would raise contrastive linguistics from a position in which, at present, too much energy is spent, in more or less apologetic tones of voice, in defending the separate existence of the field. It seems to me that a great deal of the past, well-known failures of constrastive linguistics (or, more specifically, of the particular brand of contrastive linguistics known as Contrastive Analysis (CA)) to stand up to its self-generated expectations[13] is a direct consequence of the inadequacy of the methodological approaches employed. Perhaps, if we proceed along lines similar to those propagated in this paper, a contrastive linguistics will emerge which results in theoretical and practical contrastive studies for which it cannot be said that their "results do not explain anything in themselves and (...) do not even provide any original explanation for contrastive facts they collect, (and which) have a useful role supplying premises for the explanations provided by other branches of science..." (Zabrocki 1976). Such a contrastive linguistics, in the area of sound patterns, should include among its long-term goals the following:

(1) A detailed quantitative description of the phonetic regularities of the compared languages. As a rough guide concerning the degree of detail we could use the famous dictum by Jakobson *et al.* (1952), "the evident fact that we speak in order to be heard in order to be understood", implying that phonetic differences clearly below the relevant perceptual thresholds may be omitted from cross-language considerations (at the same time, it should be recognized that information on such thresholds is still rather scanty at present because psychoacoustic investigations usually employ stimuli far simpler than the speech signal). As a test of the adequacy of our descriptions of the compared languages we could use (or imagine) a translation of the quantitative analytical results to commands controlling a speech synthesizer capable (as far as the hardware is concerned) of producing any sequence of sounds that the human vocal apparatus is able to produce. The goodness of our descriptions could, then, at least in principle, be assessed by appropriate listening tests, and the software (the computer program controlling the synthesizer) would have to be construed differently or similarly for each language in accordance with the observed differences and similarities of the sound patterns. A computer controlling a speech synthesizer is just a fast idiot with no linguistic intuitions of its own and this, in the present context, is a particular advantage since it requires that our descriptions (the software programs) be completely explicit.

(2) A comprehensive account of the determining factors of the sound

[13] For a discussion and extensive documentation of past contrastive studies see Fisiak (1975); for a more recent overview see Fisiak *et al.* (1978:9—19).

patterns of the compared languages. These include, *inter alia*, structural factors of the kind that have traditionally been the main (or sole) concern of phonological theories.

(3) An explanation of the sound patterns of foreign language learners' interlanguages to the extent that these sound patterns are shaped by linguistic causes. An explanation in the sense meant here consists of showing that features typical of such a language contact situation have their origin in the sound patterns of the native language of the learner, the target language, some third language known to the learner, or in the universal human sound pattern. Such cross-language influences should constitute one of the central fields of investigation in contrastive linguistics quite apart from the question of whether it is practically interested in language learning or not. Of the goals listed here this is the first one specific to contrastive linguistics alone.

(4) A set of general principles for predicting regular patterns of cross-language influences in language contact situations on the basis of information on the sound patterns of the languages involved. Such a set, if it could be determined and sufficiently constrained so as to make the predictions exceed mere triviality, would be of immense theoretical importance to constrastive linguistics. If such a set cannot be found then contrastive linguistics must draw the necessary conclusions.

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Norwegian-Turkish
Hovdhaugen 1980

Norwegian-Vietnamese
Andersen 1980, Bruland etc. 1979

General
Hansen 1980, Sagen 1967, Sletsjøe 1966

[Dec. 1981]

REVIEWS

Contrastive analysis. By Carl James. Pp. 208. Harlow, Essex: Longman, 1980.
Reviewed by Adam Jaworski, Adam Mickiewicz University, Poznań.

Without doubt Carl James' book is a valuable contribution to the development of contrastive analysis (henceforth CA). It deals with both theoretical and practical aspects of the nature and execution of CA, and provides an open-minded and stimulating discussion. However, James also makes a number of points with which not everyone might agree; these will be considered later.*

The book includes seven chapters and an appendix. The first two chapters, "What is contrastive analysis?" and "The psychological basis of contrastive analysis", provide a definition of CA, point to the linguistic and psychological background from which it is derived, relate CA to other branches of linguistics and state its goals. The next three chapters, "The linguistic components of contrastive analysis", "Microlinguistic contrastive analysis" and "Macrolinguistics and contrastive analysis" present the linguistic basis for conducting CA. In chapter three James isolates three levels of language: phonology, grammar and lexis, presents four descriptive categories of linguistics: unit, structure, class and system; and discusses some linguistic models for conducting CA: structural, transformational-generative, contrastive generative and case grammar. In chapter four he proceeds to the presentation of examples of executing CA at the above-mentioned levels of language (microlinguistic approach). In chapter five James presents a way of describing language by taking into account units larger than sentences, i.e. 'text' and 'discourse', in relation to their linguistic and non-linguistic contexts. Suggestions as to how macro linguistic CA can be executed are formulated. In chapter six, "Pedagogical exploitation of contrastive analysis", James talks of how the results of CAs can be used in the process of L2 teaching. "Some issues of contention" constitute the last chapter. Here James discusses the criteria for comparison of languages, the psychological reality of CAs, the predictive power of CAs, CA in relation to error analysis, and the scale of difficulty in L2 learning. The appendix lists CA projects carried out at various European universities.

I believe that chapters three, four and five form the most valuable part of the book. James, having said earlier (p. 1), that CA belongs to the broader field of linguistics, considers it natural to refer to a linguistic framework to execute CA. Since language has a three-level pattern and the unilingual description of a language is normally carried out at just one of the levels, it is necessary that a CA remains within the boundaries of one level (see also p. 59). Thus we can speak of contrastive grammar (syntax and morphology), contrastive phonology and contrastive lexicography. James points, however, to some cases where the levels can be mixed; for example, when the difference in meaning between two sentences in one language results from grammatical changes, while in another language the same difference is obtained through phonological changes in a sentence (section 3.1.2).

In the same chapter, following Halliday (1961), James discusses the following des

* I am grateful to Professor Jacek Fisiak for sharing with me his views on the book reviewed here, although he might not agree with some of the following opinions. I am personally responsible for them.

criptive categories of grammar, in terms of which a linguistic (and thus contrastive) description of language(s) can proceed. They are: unit, structure, class and system.

The second part of chapter three is devoted to the presentation of the advantages and drawbacks of using particular linguistic models for CA at the grammatical level For any CA to be plausible it is not enough to take into account the equivalent levels of two (or more) languages, and to describe and compare them in terms of the same grammatical categories. It is also necessary that it is done within one linguistic model. Out of the four models discussed, James attributes the greatest importance and relevance for CA to transformational-generative grammar (T GG) which, in his opinion, is the most explicit for any unilingual description, and is, therefore, the most explicit for CA. He mentiones two other advantages of T-GG in CA: "...first, it has been claimed that deep structures are 'universal' or common to all languages, so we are provided with a common point of departure for CA: the so called Universal Base Hypothesis, secondly, the transformations applied to deep structures are taken from a universal stock, which Chomsky calls the 'formal universals', so we have a second criterion for comparison or 'tertium comparationis'" (p. 42).

Examples of contrasting phonological and lexical levels of languages lead James to the conclusion that the best criterion for comparing phonological systems available now is a set of articulatory features represented in the IPA chart and vowel diagram (pp. 72, 169), since the sounds found in human languages are to some extent limited as far as their articulatory features are concerned.

In search of the criterion of comparison for phonological CA James also discusses generative phonology. He favours the taxonomic, or 'surface' model as, in his opinion, "it is more practical and concrete", while the other "is probably more powerful for 'pure' linguistic purposes" (p. 82).

As for the level of lexis, the possibly universal set of semantic components seems to lend itself best to CA as a 'tertium comparationis' (section 4. 4. 2, p. 169).

Certainly, one of the great advantages of the book is that it is based on the work carried out by all the major contrastive projects in Europe and America. Thus, James is able to develop his original ideas with the concrete findings of other scholars, while at the same time showing further directions of development for CA, one of which is macrolinguistic CA. Macrolinguistics is the study of language from a perspective broader than the decontextualized sentence. It is closely related to the notions of *communicative competence* (Hymes 1972) and the *components of speech events* (setting, purpose, key, content and channel) (Hymes 1974).

The importance for macrolinguistic CA (also called contrastive sociolinguistics by other authors) has already been stressed by some authors, but relatively little research has thus far been done (cf. Janicki 1979, Sajavaara and Lehtonen 1980, Fisiak 1981). Hopefully this area of study will continue to expand, there are already visible signs of its gaining interest (see Fisiak 1982, in press).

Concentrating his attention on the pedagogical goals of CA, James is sensitive to the problems L2 learners face in connection with the contextually appropriate usage of LS utterances. Fillmore (1973) has pointed out that not all sentences are fully analysable when deprived of their context. James follows this idea and argues (p. 102) that a sentence must be *formally* (i.e. grammatically) appropriate, as well as *functionally* appropriate in that it has to follow the rules of textual organization and social interaction. Thus, there is a need for macrolinguistic CA in order to systematize the relations between functionally equivalent units of two (or more) languages (see also Janicki 1980, 1981).

James sees two possible approaches to macrolinguistic CA. *contrastive text analysis* and *contrastive discourse analysis*. The former refers to the study of differences and similarities of "formal devices which signal the exact nature of the relationships holding

between successive sentences. These devices can be grammatical, lexical, or, in speech, intonational. For CA we need to identify constants and variables, and I suggest that it is the formal *devices* which differ from language to language, while the *relationships* that can obtain between sentences are very probably universals: intersentential relationship types, therefore, will serve as the *tertium comparationis*" (pp. 103–104). The latter puts more emphasis on the study of the functional aspects of language use in a contrastive perspective. The following are just a few examples of broader topics awaiting closer examination in this area: the influence of presumed shared knowledge in various communities (cultures) on speakers' interpretations of utterances, ways of performing particular speech acts, rules for conversational interaction and realizations of the components of conversation. James' significant contribution is a convincing presentation of these topics for CA.

At the beginning of his work, James says that "this book is concerned with 'applied' CA and not with its 'pure' [i.e. theoretical – A. J.] counterpart" (p. 8). In response to this I have to say first of all that I do not think one can speak about applied and theoretical CAs as counterparts. Applied CA draws heavily on the findings of theoretical CA (with which James agrees as methodologically appropriate (p. 142)) so applied CA is a kind of 'extension' to theoretical CA, not its counterpart. It is not possible to talk about applied CA without theoretical CA, as the former is based on the latter. James himself cannot avoid this. When grammatical CA is discussed (section 4. 2) he gives an example of executing theoretical CA and then concludes: "At this point with the explicit statement of interlingual contrast, the CA *proper* [italics mine – A.J.] is complete. Further processing involves the pedagogic exploitation of the CA" (p. 71). CA 'proper' seems to be what otherwise in the book is called 'pure' or 'theoretical' CA. Another problem emerges when James discusses the best possible criteria for comparing grammatical patterns of languages. In chapter three it is said: "There are seemingly advantages in conducting CAs within a T-G model" (p. 50). In chapter seven, however, James says that it has never been claimed that 'deep structures' should be taught to L2 learners and the applications of 'deep' CA in language pedagogy are limited (p. 1974). Instead, James proposes that *translation equivalence* should be the 'tertium comparations' for grammars of two languages with the compared forms semantically and pragmatically equivalent (p. 178). I think that many readers of the book may become confused over this point, and this might have been avoided if James had decided to accept the division of CAs into theoretical and applied. He might then have suggested that one linguistic model was better for theoretically orientated CA while the other was more appropriate for pedagogically orientated CA. Marton (1979) says that theoretical CA which has been concerned with establishing "correspondencies at the deep structure level" and comparing "corresponding transformational derivations [...] is rather less important to the learner than the comparison of surface structure differences and similarities" (Marton 1979:38).

All this is not to say that James does not recognize the difference between theoretical and applied CAs. Obviously, he is aware of it, but unfortunately, mentions the distinction only very briefly towards the end of the book. (pp. 142 - 143, see also section 7. 2 for the discussion of 'bilingual competence grammars').

Another point over which I tend not to agree with James is in connection with what he says about the necessary limits of CA. According to the author of the book under review: "The principle is that doing CAs of a global and exhaustive nature is neither feasible nor desirable. Such CAs are infeasible simply because linguistics is not yet in a position to describe a language 'in toto', so there are no pairs of total descriptions for input to CA. They are undesirable because it is inconceivable that a learner could get access to, or be exposed to, the whole of the L2 in an instant" (p. 61). In fact we are not yet in a position to give global accounts of one or two languages, and probably we never

will. I wonder, however, if James also includes here contrastive grammars of pairs of languages, of sensibly limited scope, which, in my opinion, should crown the efforts of linguists' long work on separate contrastive problems. It is also clear that no L2 learner will get access to L2 in an instant even if such grammars were written, but they would surely become widely appreciated reference books for both learners and teachers. As Fisiak says on this matter: "...that contrastive studies account for only fragments of language structure has no theoretical relevance. It is a methodological step towards achieving as complete a description as possible at the present stage of the development of linguistic theory" (Fisiak et al. 1978:14–15).

Finally, I would like to mention a couple of errors that do not have any bearing on the merits of the book but are just mere oversights on the part of the publisher, which may be corrected in the next editions of the book. Firstly, the references (p. 195) are referred to in the table of contents as "bibliography". Secondly, there are no reference entries for four of the works quoted in the text. These are: Levelt 1970 (p. 66), Lipińska 1974 (p. 95), Corder 1978 (p. 144) and Sharwood-Smith 1977 (p. 156).

Contrastive analysis is an important book for everyone interested in the theory of language and particularly for L2 teachers. The book demonstrates that CA still has a role to play in the L2 teaching/learning process and that it provides a useful (if not the only) method for establishing language universals.

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Gramatyka angielska dla Polaków. By Tomasz P. Krzeszowski. Pp. 447. Warszawa: PWN, 1980.

Reviewed by Jerzy Zybert, University of Warsaw.

In the introduction to his *Gramatyka angielska dla Polaków* (*An English Grammar for Poles*) the author says that his book is a pedagogic grammar for intermediate and advanced learners. Applied linguists have often expressed varied opinions on what pedagogic grammar is or should be; nevertheless it is generally claimed to be "language descriptions geared to the demands of teaching... [shaped]... according to the priorities of a given teaching situation or a set of situations" (Sharwood-Smith 1974:8), or a methodologically and linguistically motivated selection of some rules of the "whole" grammar underlying the native speaker's competence: a selection adequate to the learner's needs in acquiring a certain level of competence in L_2 (see Komorowska 1975); it is generally agreed, too, that it "must deal not only with the grammaticality and acceptability of sentences but the pragmatics of language use" (Candlin 1973; 1979:75). Moreover, a pedagogical grammar for advanced learners should present fresh and stimulating material to the student providing him with information relevant to his needs (see Allen and Widdowson 1974).

As a linguist with long-standing pedagogical practice Professor Krzeszowski could not have possibly disregarded such opinions as those quoted above when he set himself to writing the book. Moreover, owing to his extensive research into the field of contrastive linguistics, both theoretical and applied, he would not miss an opportunity to apply its findings.

The book comprises five parts, an introduction, a selected bibliography, an index of grammatical terms, and an index of notions.

In part I, "A survey of the most important structural differences between Polish and English" (9 pages), the author emphasises the inflexional wealth of Polish versus the relative poverty of English in this respect and stresses the importance of word order in English.

Part II, "English and Polish speech-sounds. Spelling. Rhythm and intonation. Punctuation" (34 pages), gives a brief presentation of English sounds in terms of approximating them to Polish sounds. This is not a contrastive study, however; the author relates English sounds to Polish sounds describing the differences and similarities in pronunciation between them. Next, he gives detailed information on how English sounds are rendered in English orthography. Rhythm and intonation are dealt with very briefly, and the chapter closes with a discussion on the most important differences in punctuation (nb. the variety of English Krzeszowski describes is the Standard British English).

Part III, "Semantico-grammatical categories" (136 pages), is a systematic and extensive treatment of how the notions that the learner needs to communicate are expressed by grammatical means in English as compared with Polish. Since the learner must acquire new grammatical means to express notions known to him it follows that the semantico-grammatical categories decide about the grammatical content of language teaching and learning. This, rightly, is a concern of pedagogical grammar too, and not only of methodology.

Part IV, "Categories of communication function" (74 pages), deals with those notions which are not systematically related to grammatical categories but which can be expressed by various grammatical constructions. Since equivalent constructions in the two languages are rather rarely congruent the Polish student has to master a host of completely new constructions (on equivalence and congruence see Krzeszowski (1967; 1971); Marton (1968)).

Part V, "Peculiarities of English syntax" (154 pages), follows on from the above considerations. It focuses on those English syntactic constructions which are rather unlikely in Polish. The abundant information on the structural differences between English and Polish follows the assumption that cognition of both differences and similarities facilitates and accelerates foreign language learning.

Krzeszowski's consistency in presenting English grammar from the contrastive stance is observed throughout the book (on the value of contrastive studies for foreign language teaching see, eg., Fisiak 1981). Hence frequent predictions of errors and warnings against erroneous forms due to interference from Polish. The differences between the two languages do not always, however, get the attention which they deserve: for example, it should not suffice just to state dryly that duration in English can be expressed by means of the preposition *for* and say that contrary to English the equivalent preposition *przez* is not obligatory in Polish. The trouble is that Polish speakers of English persistently omit *for*, and the quoted sentence will often be realized as **She sang two hours* (p. 74). Likewise, it seems insufficient to inform the reader only that the pronoun *which* in non-restrictive relative clauses is most often substituted in Polish by *co* (p. 375) since, as is well known, Poles commonly use *what* instead of *which* in such clauses (see Muskat Tabakowska 1976). One might wish that the commonest and most systematic errors made by Poles were specially highlighted in a pedagogical grammar.

The book is not free from some other shortcomings. For example, English diphthongs are all said to be falling (p. 34), /ɔə/ is almost extinct in present-day English being normally substituted by /ɔ:/; thus exemplifying this diphthong in such common words as *four* [fɔə], *more* [mɔə] in a pedagogical grammar seems unjustified. It is stressed (pp. 35–37) that consonants like /b/, /d/, /g/, etc. are voiced in the final position (before a pause?); this is not so, however, since in English lenis consonants are devoiced (fully or partially) in that position (see, e.g, Krzeszowski (1970:46)). Krzeszowski's claim that the English glottal fricative /h/ is voiced ("głoska /h/ jest na ogół dźwięczna" p. 37) is simply not true as it is always voiceless (see, eg., Gimson 1970:191). Other slips are so scarce and insignificant indeed that they need not be mentioned.

The real value of the book is its pedagogic approach. Though it is not a language learning manual it can often facilitate learning tasks. The inclusion of notional categories will be of special help. The personal needs of the individual learner will direct him to the particular notions that are the most important for him at a given stage of learning. One can imagine a learner who, at a given time, is not interested in learning, for example, how to express hope or surprise, but who needs to know how to express dissatisfaction or disappointment. The non-conventional organization of material in the book is to the student's advantage, and the index of notions and of grammatical terms should be helpful.

In the descriptive portions of the book Krzeszowski does not confine himself to a mere presentation of grammatical structures that appear in English; he also considers rules and their restrictions for transforming given structures into others (eg. when dealing with cleft sentences or extraposition; see pp. 390–4).

The author pays considerable attention to sociolinguistic aspects of language use, we do not only find sets of notional expressions but also get information on the degree of their formality, on their appropriateness or inadmissibility in various situations (see, for example, greetings, pp. 265–8).

Thus Krzeszowski is not only concerned with the grammatical forms of English (the only concern of traditional descriptive grammars) but he moves also to the functioning, ie. to the use of language in performing acts of communication. It is often stressed nowadays that language learning is not principally a question of acquiring structures and that the knowledge of how sentences are constructed does not involve the knowledge

of how to put them to use in communication. It follows that modern language teaching and learning requires a reorientation of approach from the grammatical to the communicative properties of language. Therefore the turn towards the teaching of communicating entails the inclusion of notional categories (see Wilkins 1972). Krzeszowski follows this line but does not go to extremes, his approach being eclectic.

The book is an excellent survey of grammatical material on which to base teaching and learning. Both the teacher and the learner can refer profitably to the book in expanding the learner's competence. As a pedagogical grammar it is pragmatic indeed: it provides the learner with a language he may use to express himself in the situations he is likely to participate (i.e. provides categories which should meet his communicative needs).

Language teaching does not always lead to satisfactory results in acquiring communicative skill. The blame is often put on teaching materials and syllabuses since they frequently present an analysis of language rather than of communication. It is the task of methodology and didactics to develop the learner's capacity of generating new sentences to fulfil his communicative needs, yet, a pedagogic grammar can contribute to developing this capacity tremendously. Krzeszowski's grammar meets this postulate not only in formulating general rules for sentence formation but also gives a lot of valuable information on the pragmatics of language use relevant to the communicative needs of the Polish learner of English.

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