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CONTRASTIVE ANALYSIS AND THE NOUN PHRASE

1.0. The comparison of languages is probably as old as the contacts between people using different languages. With time, amateurish and accidental observations concerning the comparison of two or more languages led to more systematic studies which in the nineteenth century, resulted in such monographs as those written by Franz Bopp (1916) and Rasmus Rask (1918). The importance of a systematic and scientific approach towards the problem of language comparison was recognized by many linguists who started classifying languages into genetic families, each descending from a single precursor, and tracing such developments through time. The result is called “comparative linguistics”. More recently, another aspect of the comparison of languages has been generally recognized and appreciated.

“Contrastive linguistics” may be thought to be of even greater importance for the science of languages and also for language teaching, since it aims to chart the outstanding differences and similarities among languages. The aims and methods of Contrastive Analysis were not defined until quite recently. In the beginning, the primary if not the only aim of Contrastive Analysis was its application in foreign language teaching. Foreign language teaching was closely connected with the problem of the study of bilingualism. In Languages in contact Uriel Weinreich (1953) described the ways in which languages in contact, i.e., when used by a bilingual speaker, influence each other in all levels of language structure. The negative influence of one language on another in a bilingual situation was described by Weinreich as “interference”, now one of the fundamental notions of language teaching. Another important work, addressed particularly to teachers of foreign languages, is Robert Lado’s Linguistics across cultures (1957) with the subtitle Applied linguistics for language teachers. In 1960 Paul Schachter’s dissertation A contrastive analysis of English and Pangasinan started a series of contrastive studies of various languages in the United States and in Europe.

Contrastive Analysis grew out of the need to improve language teaching and learning. As Lee (1968) observed, the justification for Contrastive Analysis was initially believed to be based on the following assumptions:

“1. that the prime cause, or even the sole cause of difficulty and error in foreign-language learning is interference coming from the learners’ native language:
2. that the difficulties are chiefly, or wholly, due to the differences between the two languages;
3. that the greater these differences are, the more acute the learning difficulties will be;
4. that the results of a comparison between the two languages are needed to predict the difficulties and errors which will occur in learning the foreign language;
5. that what there is to teach can best be found by comparing the two languages and then subtracting what is common to them, so that what the student has to learn equals the sum of the differences established by the contrastive analysis (Valdman 1966:27)” (Lee 1968:168).

In the course of time these assumptions were criticized for not being fully adequate, and consequently Contrastive Analysis itself was strongly criticized for its narrow approach towards the problem of languages in contact. Critics held that it was impossible to make use of Contrastive Analysis in everyday teaching practice (Hamp 1968, Lee 1968 and Newmark 1970). Their opinions were not, however, shared by everyone. Marton (1973) argued that “CA has a great pedagogical value precisely in day-to-day teaching in the classroom, as a useful technique for presenting language materials to the learner and as one of the characteristic aspects of the method of teaching” (15). One of his main assumptions, shared by a number of linguists, is “that the native language of the learner is a powerful factor in second language acquisition and one which cannot be eliminated from the process of learning” (16). This, he felt, was true especially at schools and language courses where the situation is other than that of “learning a language in the country where it is spoken, or learning it in a very intensive course of total immersion” (16). Marton quotes Borger and Seaborne (1966:156) to support his argument, and refers to experimental data presented by Lambert, Gardner and Tunstall (1967) which show that “in a very intensive language course taught by a direct method, those students who kept their two languages functionally separated throughout the course did not do as well in their work as those who permitted the semantic features of their two languages to interact” (Marton 1973:20–21).

Marton also outlined how Contrastive Analysis could be used in the classroom: “First of all, I think it should be based on semantics: that is the teacher should show how certain meanings (...) are realized syntactically (...), and not merely point out the differences between language forms”. He finally advises that the teacher presenting a particular problem should (1) show the similarities and differences in usage in the two languages, (2) set up limits for drawing analogies, and (3) warn about the areas of possible negative transfer and confusion (21).

Marton’s paper from which the above quotations have been taken is of significance, since it shows that the strength of Contrastive Analysis lies not simply in discovering problems of learning and teaching, but rather in making it possible to provide a linguistic account of the problems, to explain the cause of the difficulties and to attempt to solve them.

1.1. The contribution of Contrastive Analysis towards the solution of teaching and
learning problems has become quite obvious through its application in teaching. But it has been clear for some time that Contrastive Analysis, besides its practical applications, may also contribute to the two fundamental goals of linguistics: the general theory of language and the description of particular languages. Thus, in the general theory of language, by comparing two or more languages in detail, we may discover the underlying similarities and distinguish them from the superficial similarities and differences which give each language its distinctive character. In this way the claim of the universal semantic structure has received substantial support from contrastive studies (cf. Krzeszowski 1974b). As has been mentioned, Contrastive Analysis may also contribute to the description of a particular language. An example of such a contribution may be found in Szwedek (1975), where the author, working on the assumption that reference is a linguistic universal, demonstrates that Polish, traditionally treated as a free-order language, has a well defined, fixed order of sentence elements.

Any Contrastive Analysis must be based on some theory of language. It can only be performed satisfactorily if the relevant parts of the confronted languages are described within the framework of the same theory, with one set of theoretical concepts used in reference to linguistic elements of these languages. The criteria concerning the cross-linguistic comparability of the structures under contrastive investigation also have to be specified.

Contrastive works have been done within almost all significant linguistic schools. Using structural principles, lists of similarities and differences were produced where formalizations, if any, only concerned surface structures. This limited approach was due to the belief that “The only useful generalizations about language are inductive generalizations” (Bloomfield 1933:20).

The taxonomic theories ignored the creative character of language, the ability of the learner to understand and produce new sentences. Underlying the explanation of this ability is the assumption, put forward by transformational generative theory, that there is a part of each language grammar that is universal. This would mean, in terms of language learning, that even before the student starts his first lesson of a foreign language, he has some knowledge of it, because of his knowledge of his own language.

The development of TG grammar (cf.: e.g., Chomsky 1957, 1965) with the introduction of deep structure and deep-to-surface structure derivations makes it possible to compare not only surface structures but also the strings underlying them and the rules operating at various levels of the two languages. Applications of the TG model of language have demonstrated that deep structures display fewer differences across languages than surface structures, and may even be identical at some fundamental points. Based on the TG model of language, theoretical semantic–syntactic contrastive studies should be semantically based, in the sense that they should be able to explain how the given types of universal semantic categories are realized in the two contrasted languages. They should also determine how the elements of the two languages are comparable, and specify the criteria concerning the comparability of the structures under investigation. To provide the criteria, such notions as ‘equivalence’ and ‘congruence’ have to be clearly defined.

“Contextual translation equivalent was worked out by Halliday et al. (1964) in
order to decide which parts of the two languages are to be compared. It was defined somewhat loosely in the sentence that reads: “If the items are not at least sometimes (contextually) equivalent in translation, they are not worth comparing” (115). The concept of ‘equivalence’ was later refined by Marton (1968a) and Krzeszowski (1971). Since deep structure in Krzeszowski’s current theory is synonymous with semantic representation (Krzeszowski 1974:107), termed “input structure”, he modifies his 1971 definition of ‘equivalence’ saying: “Equivalent sentences (and constructions) have identical input (semantic) structure, even if on the surface these sentences (constructions) are markedly different” (107). He then adds that “The identity of semantic structures of equivalent sentences in any two languages explains, at least in part the bilingual informant’s intuitions concerning the decisions as to which two sentences in two languages are equivalent and which are not” (107).

For the contrastive comparisons of English and Polish structures we can adopt the basic theoretical concepts characterizing contrastive generative grammar (CGG) as specified in Krzeszowski (1974). Thus, it can be assumed that sentences (also structures and elements) referred to as “equivalent’ or ‘transformationally equivalent’) i.e. equal in meaning in English and Polish have identical ‘input structures’ i.e. underlying semantic representations. Consequently, “all equivalent sentences have to be congruent at some stage of their derivation, their congruence at the level of the semantic representation being guaranteed by the definition of equivalence itself” (Krzeszowski 1974:12). It is further understood that the ability to recognize equivalent sentences (constructions) in two languages constitutes a part of a bilingual person’s competence, and that bilingual informant’s intuitions concerning the decisions as to which two sentences or phrases in two languages are equivalent and which are not can be partially explained by the conception of a universal semantic representation, which implies the identity of input structures, or equivalent structures in any two languages.

Congruent sentences and constructions are those which are formally identical, i.e., at a certain level of derivation, they have same number of equivalent formations arranged in the same order. The surface representation of sentences or constructions in the two languages may differ considerably, depending on how early in the derivation a given diversification between constructions occurs. The later it takes place, the more similar is the surface representation of sentences and constructions. (Krzeszowski 1974).

In a sentence: Martha is right.
Marta ma rację.

the diversification occurs quite early, i.e., at the stage where categories such as Nouns, Verbs and Adjectives are assigned.

In: She can swim fast.
Ona potrafi szybko pływać.

it takes place at the stage where word order position of a category Adverb is assigned.

And in: Martha likes summer.
Marta lubi lato.
the diversification may be said to take place very late, i.e., at the level of lexical insertion in English and Polish.

At the surface level, when discussing corresponding constructions in two languages, some writers of contrastive studies distinguish between "counterparts", translation items performing a different syntactic function in the sentence, and "equivalents", forms which are syntactically equivalent.

1.2. As has been said in the previous section, even before the student starts his first lesson of a foreign language, he may have some knowledge of those constructions in the foreign language which, in certain respects, are identical to the parallel parts of his own language. In case of English and Polish, after some practice, he can recognize and understand those parallel sentences and smaller constructions, such as noun phrases, without too much difficulty, and he may know, or at least guess, whether the two noun phrases under scrutiny are equivalent or not. The difficulty arises, however, when these equivalent noun phrases are not congruent on the surface, that is, when, for instance, an English nominal compound is equivalent to a Polish noun phrase composed of a noun and an adjective or a noun and a prepositional phrase; a English gerund to an infinitival phrase in Polish or vice versa or, when the Polish snoun phrase seems to be lacking some element which is present in the equivalent English noun phrase, as is the case with articles.

The noun phrase in a TG grammar is a major category of a sentence which can dominate the category Noun. Accordingly, Noun, in this grammar, is understood as (1) the obligatory category in a noun phrase: NP → (DET) N (S), (2) the single word replacement for the N category, as in N → color, idea, etc., and (3) a lexical entry marked (+ N) (Chomsky 1965:84). The noun phrase is rewritten variously as: determiner + noun (Katz and Postal 1964:104); (DET) N + N° (S) (Thomas 1965:146); (DET) N (S) (Chomsky 1965:129); (ART) N (S), or NP + S (Jacobs and Rosenbaum 1968:47).

In semantic-based versions of transformational grammar, the noun phrase (NP) is one of the major categories of the case category to the proposition of a sentence. It is rewritten as Prep (DET) (S) N (Fillmore 1966:367) or NP + Case (Fillmore 1968:83). In another version of semantic-based TG, it is one of the arguments of a sentence, S → Pred + NP (NP) (NP), as opposed to the predicate (Langendoen 1969:152).

Regardless of the version of TG taken into consideration, it becomes clear that noun phrases, along with the verb phrases, have been postulated by most transformational linguists as the basic constituents of a sentence. Various transformational tests have been used to isolate these basic constituents. In the standard transformational-generative theory (ST), noun phrases in English are recognized by the application of a series of noun phrase identifying tests: a) passive transformation, b) interrogative transformation, c) reflexive transformation, and d) cleft sentence transformation. (cf. Jacobs and Rosenbaum 1968:38–40)

Evaluating the potential of these tests for identifying noun phrase constituents in Polish, it may be concluded that only the passive can prove immediately useful, since it can be used to demonstrate that a Noun + adjective string in structures with adjective complements (as discussed in Piskarkowa 1965), is not a noun phrase, e.g.,
Będę ojca zdrowego → Ojciec zdrowy jest budzony przeze mnie.

Cleft sentences are highly unnatural in Polish, so a test based on a cleft-transformation will be of no value. Since Polish interrogative and reflexive transformations operate under different conditions, they cannot be applied for noun phrase testing purposes without serious restrictions.

Although for many linguists, the arguments concerning the constituent structure of a sentence are still far from conclusive, the phrase structure rules and noun phrase identifying tests, like those presented above, caused much less controversy than did the problem of nominalization in transformation linguistics. This controversy has arisen because of conflicting data on derivational phenomena in English syntax. In particular, certain linguists have argued that verbal elements are basic in deep structure while nouns and noun phrases are derived. In their opinion the places where nouns turn up in surface structures are, in deep structures, occupied by variables. In Bach (1968) we can read: “I have argued on the basis of many pieces of evidence that it is reasonable to suppose that all nouns come from relative clauses based on the predicate nominal constituent. Further, I have proposed that the referential indices assumed to occur with nouns in current theory be replaced by a system of operators and variables much like those used in logic but clearly different in detail, and that these elements rather than actual pronouns or the like be used to tie together the sentences underlying a single complex utterance. I have tried to show that the distinctions between such parts of speech as nouns, adjectives and verbs have not direct representation as such in the base, but the result of transformational developments in one or another language”. (121)

In other words, it was suggested that the deep structure elements are syntactically neutral and are given syntactic status through the application of lexical rules. These rules would convert some stems to nouns, some to verbs, some to both, and so forth. In the past, certain kinds of noun phrases had been related to sentence structures bearing the same kind of syntactic relations by means of transformations which moved strings from a deep structure through a series of derivations, to a surface structure noun phrase. In the course of this, verbs for example, were converted into nouns. (Thomas 1965: 76, 106; Jacobs and Rosenbaum 1968: 226) In Chomsky (1970), the author argues that there is no a priori way of knowing whether the noun forms underlie the verbs or vice versa. Instead of relating alternative forms through transformations, the base rules should be extended to accommodate the alternative forms directly. This is the lexicalist position. However, the lexicalist position, as presented by Chomsky, does not exclude transformational solutions. The base component is an enriched component in which base forms are not specified as nouns, verbs or adjectives, but have certain stated potentials for becoming one or more of these in the surface structure. Chomsky ends up with a model still looking rather like that of Aspects (1965) but so modified as to be more comprehensive.

1.3. In Chapter 2 of Aspects of the theory of syntax, Chomsky points out the essentially relational nature of such grammatical concepts as subject (of a sentence) and object (of a verb, or of a predicate phrase) as opposed to the categorial nature of such notions as verb or noun phrase. The important distinction is drawn between grammatical re-
lations or grammatical functions, on the one hand, and grammatical categories on the other hand. The distinction between the two can be captured in formal grammars, according to Chomsky, by introducing category symbols as constituent labels in the phrase structure rules of the base component, and by defining the grammatical relations as in fact relations among category symbols within the underlying phrase-markers provided by the base. Thus, sentence, noun phrase, and verb phrase, for example, are provided as category symbols by the base, while the notion subject is defined as a relation between a noun phrase and an immediately dominating sentence, the term object as a relation between a noun phrase and an immediately dominating verb phrase.

In both English and Polish noun phrases may by approached in two ways: from the point of view of function and form. As far as form is concerned they differ considerably, while their syntactic functions are very much alike. There is a fixed set of functions that noun phrases may have in a sentence in English and Polish. In both languages, a noun phrase can be a subject of a sentence, its direct or indirect object. It may function as an adjective complement, nominal attribute or an adverbial. When preceded by preposition, a noun phrase may occur in a sentence as an adverbial prepositional phrase or prepositional object.

It is clear that the place of the noun phrase in a grammar of language when it is given a mere syntagmatic interpretation creates no problems. Problems arise, however, when the noun phrase is to be considered as an abstract unit, i.e., when it is to be given a paradigmatic interpretation. The first and foremost of these problems is the definition of the notion 'constitutive member of the noun phrase'.

We may attempt to interpret the notion 'constitutive member of the noun phrase' as conceived within the framework of Kuryłowicz's (1948) general definition of syntactic group. First, we can observe that it is not clear from Kuryłowicz's definition whether the noun phrase is given a syntagmatic interpretation or whether it is understood as an abstract unit, i.e., as paradigmatic invariant with contextually triggered syntagmatic realizations, and then, on the basis of Polish material (cf. Topolińska 1975:156), we may choose to defend the latter interpretation. Here are some examples of noun phrases (with different quantifiers):

1. Jedna książka... (...tak ci znów nie obciąży walizki.)

2. Pięć książek... (...tak ci znów nie obciąży walizki.)

3. Jakiś urzędnik... (...musi ich oczekiwać na miejscu.)

4. Któryś z urzędników... (...musi ich oczekiwać tu na miejscu.)

5. My... (...śmy byli świadkami tego dialogu.)

6. Niektórzy z nas... (...byli świadkami tego dialogu.)

7. Dwaj spośród nas... (...byli świadkami tego dialogu.)

etc.

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The terms 'déterminé' and 'déterminant' (English 'determined' and 'determining') are used in Kuryłowicz’s definition to mean grammatical (formal) government and grammatical (formal) subordination, respectively. Since, according to the same definition, the constitutive member of the noun phrase is the member grammatically governing other components of the phrase, the following lexemes should be pointed out as constitutive members of the noun phrases quoted above:
(1) ...książka, (2) Pięć..., (3) ...urzędnik..., (4) Który..., (5) My..., (6) Niektórzy..., (7) Dwaj..., . If the notion 'noun phrase'has only been given a syntagmatic interpretation, then no further complications arise. Since, however, the paradigmatic interpretation is being defended, we are faced with the following problem: does the paradigmatic variability go as far as to change the constitutive member from one realization of the phrase to another, or rather is the constitutive an invariant, and then: can it be, in some realizations of the phrase, devoid of its grammatically governing function?

We know that the noun phrase, conceived of as a paradigmatic unit, is defined through its paradigms for case, for definiteness, and for number. Let us, therefore, concentrate on the lexical exponents of the two latter referential categories (the paradigm for case being left out since its exponents are of morphological order).

Among the lexical exponents of the category of number the first are numerals, the so called cardinals. Examples in (1) and (2) illustrate that as far as case is concerned, in phrases like jedna książka, dwie książki, trzy książki, the numeral is governed by the substantive, while in phrases like pięć książek, sześć książek, etc., the substantive is governed by the numeral. The concord for number, however, in both cases is implied by the numeral. Since the same is true for the majority of Slavic languages (except e.g., Macedonian and Bulgarian which have done away with synthetical declension) we are obliged to draw the conclusion that in most noun phrases containing the numeral as the catorial exponent of number, it is this numeral which is the grammatically determined member of the phrase. In other words, in the paradigm of the noun phrase for number we observe variability as to which member of the phrase is its grammatically determined member.

There are similar problems connected with certain lexical exponents of definiteness (which in Polish are represented primarily by pronouns and secondarily by numerals). These problems are illustrated by examples (3) to (7). Noun phrase (3) refers to an indefinite element of a generic set, noun phrases (4), (6) and (7) refer to indefinite elements of definite (sub) sets. The latter type of reference implies double, semantically opposite, information on definiteness, i.e., on the type of markedness of the set and on the type of markedness of the element(s) in question. Consequently, this markedness implies a surface structure founded on the relation of government in a narrower sense – the lexical exponent of definiteness of the object(s) to which the text directly refers governs the determining phrase which contains the exponent of definiteness of the set to which the referred object(s) belong(s), and results in such phrases as niektórzy z (tych) urzędników, dwaj spośród nas, etc. Hence, in the paradigm for definiteness of a noun phrase, there is variability as to which member of the phrase is its grammatically determined member.
So far we have discussed the grammatical determination between the lexical invariant of a noun phrase and the lexical exponents of its categorial characteristics for number and for definiteness. It can be observed, however, that there are phrases (e.g., personal pronouns or general names used generically with zero as categorial exponent) where the respective double information is lexicalized in one element, and phrases whose “lexical invariant” takes the form of complicated descriptions including several lexemes, e.g., *mlody czlowiek, ktorego poznałem na ulopie, or dziecko bawiące się na klombie przed domem*, etc., and that it is on those complicated descriptions that the categorial exponents operate. Topolińska (1975:160) proposes to call this invariant, categorically non-marked, abstract part of a noun phrase a “nuclear phrase”.

The introduction of the notion “nuclear phrase” allows us to formulate a definition of the constitutive member of a noun phrase conceived as a paradigmatic unit. According to such a definition “the constitutive member of a noun phrase would be the grammatically determined member of the respective nuclear phrase”. The procedure leading to the identification of the constitutive member of the noun phrase would involve: (1) the conversion of the textually given noun phrase into the respective nuclear phrase, and (2) the finding of the grammatically determined member of the nuclear phrase.

Various writers of transformational-generative grammar (TG) when characterizing the category noun phrase (NP) put stress on the fact that it dominated the category noun (N). In other words, they say that noun (N) is the obligatory element of an NP. This refers to the noun phrase which is an abstract unit and belongs to an abstract part of the grammar of language, and which can have different realizations on the surface structure. When understood in this sense, this abstract NP (with noun as its invariant element) can be parallel to the “nuclear phrase” (with its invariant constitutive member) also conceived of as an abstract unit. Thus, the category Noun can be assumed to be the invariant (and obligatory) element of these two notions, which in fact are one. Consequently, the differences observed between surface structure noun phrase could be understood as differences resulting from different realizations of the same abstract NP in two contrasted languages, which interpretation is in agreement with the Standard Theory of TG.

According to this same theory the identity of the phrase type is based on the identity of its primary element. For the purposes of contrastive analyses it could be assumed surface syntactic groups (realizations of deep structure categories) are named by their obligatory element (in the deep structure) or the so-called head word (in the surface construction) as noun phrases, verb phrases, and so on. The same groups, as they are used in syntax, may be given functional labels such as subject or object to indicate what function they have in syntactic usage. Further, it may be added that these phrases consist potentially of two or more words, that is, a phrase is a unit which is composed of either two or more words, or is one word which is optionally expandable, i.e., single word with optional modifiers are treated as ‘head-modifier’ phrases.
NOTES

1. Franz Bopp's Über das conjugationssystem der sanskritsprache in vergleichung mit jenem der griechischen, lateinischen, persischen und germanischen sprache, in which he compared the conjugation system of Sanskrit with other languages, and Rask's Unders/gele om det gamle nordiske sprogs oprindelse, showing the origins of the early Scandinavian and its relation to other languages.

2 English and German (Moult 1962, and Kufner 1962)
   English and Spanish (Stockwell, Bowen and Martin 1965)
   English and Italian (Agard and DiPietro 1965)
   English and Russian (Gare 1969)

More recently, in Europe, there have been several contrastive projects conducted systematically in Germany, Yugoslavia, Roumania, Hungary, Czechoslovakia and Poland. A number of articles and doctoral dissertations have been written and published.


4 In his paper (Kuryłowicz 1948:203-209), the constitutive member of the basic syntactic structures (i.e., the sentence and the syntagmatic group) is understood as: (1) the member to which the structure could be reduced without changing its syntagmatic rank and (or function in the text, and (2) the member representing the structure as a whole in its external relations with other structures in the text.

5 The head-modifier phrase is a phrase in which one of the elements is an obligatory head element (a noun, for instance) and the other elements are modifiers which are subordinate to that head element. Most modification slots are optional (e.g., adjective slots) but in a particular language, as for the determiner slot in English, one or more modifiers may be obligatory, at least some subclasses of head words (nouns).

REFERENCES

ANALIZA KONTRASTYWNA FRAZY RZECZOWNIKOWEJ

Streszczenie

Artykuł dotyczy podstawowych ustaleń metodologicznych z zakresu studiów kontrastywnych w odniesieniu do frazy nominalnej.

Część pierwsza artykułu to przedstawienie metody i pojęć Analizy Kontrastywnej a także uzasadnienie modelu, w jakim taka analiza powinna być przeprowadzona. Stwierdza się tutaj, że prace kontrastywne oparte na modelu TG powinny być zdolne wyjaśnić, w jaki sposób dane typy uniwersalnych kategorii semantycznych są realezyzowane w dwu kontrastowanych językach. W tym celu należy też ustalić, w jaki sposób elementy dwu języków są porównywalne i określić kryteria porównywalności.

Część druga to próba zdefiniowania frazy nominalnej, na ogóln charakteryzowane rozmaicie w różnych wersjach gramatyki TG. Niezależnie jednak od wersji gramatyki TG jest rzeczą oczywistą, że frazy nominalne (i werbalne) są uważane przez większość językoznawców za kategorie podstawowe a tym samym, jak sądzi autor artykułu, zarówno one jak i ich elementy są potencjalnymi obiektami analiz kontrastywnych, zaś ich zdefiniowanie może być pomocne w takich analizach.