

## NOMINALS IN CONTRASTIVE STUDIES

English nominal compounds and their Polish equivalents

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### 0.1.

This paper belongs to the domain of lexico-semantic studies. I shall discuss here certain aspects of the relationship between English and Polish nominals, taking English nominal compounds and their Polish equivalents as the starting point for my discussion. The choice has been dictated by two factors:

a) nominal compounds are present in both languages, the two constructions being often congruent<sup>1</sup>,

b) sentential origin of English compounds seems to be well established (cf. Lees 1960, 1970a, 1970b), while any attempt at making other types of nominals our point of departure would lead into a number of controversial issues (e.g. cf. Chomsky 1970 and references there; in case derived nominals are taken into consideration).

Since I am interested in nominals from the viewpoint of primarily lexical studies, nothing will be said here about such extra-lexical formations as relative clauses, gerundives, infinitives, complements and quotative material of various provenance.

<sup>1</sup> A list of congruent constructions would include:

a) loan translations and borrowings: e.g.: *redskin* "czerwonoskóry", *blockhouse* "blokhauz (through German, but cf. OED "apparently earlier in English"); *motorcycle* "motocykl", *blooddonor* "krwiodawca (probably common origin). *Bluebeard* "Sinobrody", etc.

b) forms of which no common origin could be ascertained: e.g.: *longterm* "długoterminowy", *longhair* "długowłosy", *half-circle* "półkole" *selfportrait* "autoportret", *selflove* "samolubstwo", *unipolar* "jednobiegunowy", *watertight* "wodoszczelny", *waterfall* "wodospad", *gasmeter* "gazomierz", *woodcut* "drzeworyt".

In this paper I would like to suggest that contrastive lexical studies<sup>2</sup> might be considerably facilitated if the following four hypotheses were correct. The hypotheses are:

1. ALL NOMINALS at some level of representation are structurally complex items and may be thought of as reflexes of underlying structures consisting of predicates and arguments;

2. ALL NOMINALS are preformed in the course of the nominalization process BEFORE they are inserted into trees;

3. native speakers' knowledge of nominals includes among others their knowledge of two types of properties which they are able to ascribe to both the ready-made (=generated) nominals and to referential indices (in the underlying structures of complex nominals; cf. hyp. 1 above); these properties are: a) field properties (operating in terms of generality-specificity markings), b) "role" properties;

4. in addition to nominalization transformations there should be posited in the lexicon a set of (probably) universal lexical redundancy rules, i.e., operations which specify: a. role recategorization range, and b. field recategorization range. The two operations are comparable to what has been known as "metaphorization processes" (in the broadest possible sense of the term "metaphor").

### 1.1.

To elaborate and illustrate what is meant by the above hypotheses it will be most convenient to start with hyp. 3. It has been assumed that native speakers are capable of attaching to the indexical argument the derived nominal (and possibly to some of the semantic primitives from which the nominals are derived) specific semanto-functional "roles", so that each nominal has one PRIMARY role and may have (to be specified by the role-recategorization rules) one or more secondary roles having, however, never more than one role for one derivation<sup>3</sup>. Thus, it seems that native speakers would mark nominals like e.g.: *fork, pistol, shotgun, lighter, or washing machine* etc., as primarily +Instrumental; *time, day, afternoon, Middle Ages* would be marked as +Temporal; *field, assembly plant, doctor's office, hermitage, brewery* +Locative; *boy, teacher, servant, brewster, car thief, poet, and pickpocket* would be primarily +Agentive. It is also possible that +Objective, as well

<sup>2</sup> Contrastive lexical studies may be of two types: a. semantotaxic studies, b. investigation of field properties. This paper deals exclusively with a-type studies. A very good example of b-type analysis is Hartmann (1973).

<sup>3</sup> Thus, I have implicitly accepted here Weinreich's notion of lexical item, i.e., one form — one meaning unit (cf. also McCawley 1968).

as +Source and +Goal might be included among the primary roles—the first to account for such forms as E. *draftee, employee*, or P. *odlamek* "bit, fragment", *jadlo* "foodstuff (lit. "smth. to be eaten")", *najmimorda* "counsel for the defence", or *lakocie* "sweets". The two other roles could be assigned to forms like *Church, Heaven, school* (+Goal), and *mine, tree, well* (+Source). It seems that both +Source and +Goal may be reinterpreted as +Locative and (as all other roles) as +Neutral—the latter being an unmarked role different from +Objective.

#### 1.1.1.

The proposal put forth is similar to Fillmore's Case Grammar in the sense that roles discussed above are also meant "to identify the underlying syntactic-semantic relationship (...) whether through affixation, suppletion, use of clitic particles, or constraints on word order" (Fillmore 1968:21). It differs from Fillmore's grammar in that I do not think that "cases" are assignable ONLY IF a given specific verb requires them in its frame. Roles seem to be both predicate-determiners AND predicate-determined with various degrees of susceptibility to the determinative function. +Neuter (by definition), +Objective and +Agentive (in this order) seem to come closest to the typical predicate-dependent role, which becomes evident as soon as nominals marked primarily with these cases are inserted into larger constructions (phrases, clauses, sentences). And yet in view of the fact that ALL roles may be recategorized and often no (surface) sentence frame is necessary for the native speaker to predict such recategorization, claim 1 below seems as plausible as the rival claim 2:

1: given a predicate with its case frame, the native speaker is capable of assigning to the predicate the proper arguments (role unmarked arguments are listed in a Dictionary),

2: given two (possibly more) role-specified arguments, the native speaker is capable of specifying their predicate.

It is claim 2 that will be defended here for two reasons. First, it allows a uniform treatment of both abstract and non-abstract predicates and arguments<sup>4</sup>. Secondly, one may hope to explain within a framework of this type some collocational properties of nominals (i.e., why certain nominals neces-

<sup>4</sup> Abstract arguments may be thought of as referential indices ("conceptual entities which individual speakers create in interpreting their experiences") non-abstract arguments being NP's. Abstract predicates correspond to what has been referred to as "atomic predicates" by the generative semanticists, they are often equivalent to logical predicates ("not", "be a part of", "be included in", "and", "but", etc.). Non-abstract predicates are verbs, prepositions, certain adjectives, and derivational suffixes of certain types.

sarily collocate with certain predicates, e.g. *dogs bark, horses neigh*, etc., and also why certain +Agentives cooccur with certain +Instruments).

A possibility was mentioned for speakers to be able to recategorize arguments without frame extension. Here are some examples of such redundancy rules:

a) +Locative//+Source: *mine, well, sea, spring*, etc.

b) +Temporal//+Locative: *war, battle, moon, play*, etc.

c) +Agentive//+Instrumental: *kisser, opener, sender*, etc.

d) The reification process (cf. McCawley 1968:130-132) may also be thought of as a type of case reassignment operation: e.g.

John weighs 200 pounds (+Agentive<sup>5</sup> → +Neuter)

John's dissertation is lying on the piano (+Result<sup>5</sup> → +Neuter)

In some cases the reassignment is related in as yet unclear way to the topicalization operation (in the sense: "promotion of semantic material"). Fillmore's subject formation rules seem to fall within the range of this type of phenomena.

Compare, for instance, the attested English compounds with the hypothetical ones:

Attested: (Lees 1970b)

$N_{1(+Objective)} + N_{2(+Instrument)}$

cough s/rup

fly paper

chastity belt

coke machine

water pistol

Hypothetical:

$N_2 + N_{1(+Goal)}$   
(+Source)

syrup cough

paper fly<sup>6</sup>

belt chastity

machine coke

pistol water

## 1.2.

By field properties I mean an indexical (possibly numerical) specification of nominals, so that each noun  $N_x$  in the lexicon presupposes that there is at least one noun  $N_{x+1}$  more general than  $N_x$  and at least one noun  $N_{x-1}$  more specific than  $N_x$ . Thus, it is assumed that the speaker-listener "marks", for example, the item *weapon* as more general (within a particular field) than *gun*, which in turn is more general than *firearm* and *pistol* respectively. Such

<sup>5</sup> It is assumed in this paper that Proper<sub>+human</sub> Nouns will have +Agentive as their primary role.

<sup>6</sup> In some cases I would assign a different role from Lees' Objectives and Instrumentals. Such decision, however, would not influence my conclusions since what I try to show here is that topicalization entails role recategorization and not that it changes any specific role into some other specific role.

specification is necessary to properly identify the set-theoretical relation of proper inclusion of the two arguments in e.g.: *pathway, palmtree, troutfish, marriage relationship*, or *foodstuff* (cf. 2.2. below). In case the condition put forth above is not fulfilled (i.e., the lexicon lacks a particular  $N_{x+1}$  or  $N_{x-1}$ ) the more general or more specific nominal will be created in the process of morpho-syntactic nominalization (*the black pistol over there*) or a field recategorization takes place (*a thing, an instrument*). With a hypothesis of this form one might try to account for the fact that items like *object, thing, stuff, instrument, person* are felt to be "related" to some other nominals, or the fact that diminutives, augmentatives and adjectival, genitival or prepositional phrases often correspond to one another. It is not clear whether referential indices could be marked with respect to their generality-specificity properties. Intuitively, one would have to reject this possibility. As a result, one would have to postulate two distinct types of operations resulting in nominals: those having ready-made nominals as their arguments (cf. 2.2.—linking processes) and those operating in terms of indices (non-linking processes). In consequence the relation of inalienable possession and such relations as "part of", "type of", "sort of" would be relations between two names and not two distinct conceptual entities. This paper leaves this question open since it bears no direct influence on what follows<sup>7</sup>.

## 1.3.

The four hypotheses entail two assumptions which seem to be acceptable within both Chomsky's 1970 framework and generative semanticists' approach. Namely, it is assumed that: a. the number of nominals is infinite, and b. that any phonologically possible word or sequence of words may be dominated by an NP node (or its equivalent S, NP-nodes, a referential index, etc.) at some point of the derivation (as a result of some nominalization transformation, the "quotation-nominal formation" included).

Evidence supporting the hypotheses has been taken from current discussions in theoretical linguistics (cf. e.g. Chomsky 1970; Bach 1968; McCawley 1968, 1970; and Karttunen 1968, 1970) as well as from studies of lexical intertranslatibility<sup>8</sup> or historical linguistics. From historical linguistics I have accepted Rozwadowski's assumption (Rozwadowski 1904) that semantic

<sup>7</sup> When the paper was presented at the 6th International Polish-English contrastive conference in Kazimierz (April 24-27, 1974) my attention has been drawn to the complexity of the problem by Dr W. Browne (of Zagreb) and T. P. Krzeszowski (of Łódź). I would like to thank them for their comments which resulted in changes made in section 1.2.

<sup>8</sup> Contrastive lexical studies of type a. (cf. note 1) have been carried out for some time as studies of lexical intertranslatibility (cf. Binnick 1970).

changes and semantic processes operating in "living" languages are subject to the same set of rules and, specifically, that every noun (in the IE family of languages) may be reduced to a binary structure if semanto-syntactic, morphological and historical aspects of the item are simultaneously taken into consideration. Furthermore, syntactic word groups, compounds, derived nominals and root formations are but stages in language history and any decision made with respect to one class of nominals (for instance, compounds) will have to crucially bear on treatment of all other classes. If a linguistic theory aims at giving accounts of typical situations and not exceptions (and for most IE languages root forms are rather exception than rule), the theory will have to take note of such facts<sup>9</sup>.

## 2.0.

Difficulties English grammarians have had with finding an unequivocal criterion for the English compound are well known, so instead of repeating various arguments of e.g. Bloomfield (1933: 227 ff.) Jespersen (1965:134-142) and Lees (1960: 113-127, 180-185) I shall limit my English examples to such items which have been accepted as bona fide compounds in one of the three above mentioned monographs.

In Polish true compounds are relatively easy to distinguish from syntactic groups but the space between the syntactic group and the compound encompasses a pair of complex units different from both compounds and groups. These are the so-called juxtapositions and concretions<sup>10</sup>. This four way split of complex nominals points to the fact that in addition to phonological and semantic criteria Polish grammarians could make much more extensive use of inflectional and word positional evidence than their English colleagues. Formally, the four units may be differentiated as follows:

A. *Compounds* consist of two units of which at least one has a morphological form different from the form it would have in isolation (in the dictionary) or in a free syntactic group. Typically, the first member of a nominal compound represents a nominal or adjectival stem extended with the vowel -o, or a verbal stem extended with -i, e.g.: *groszorb* "money-grubber", *rudobrody* "red-bearded", *golibroda* "barber". Their second member in most cases is a noun of a form identical to the one it shows in isolation, though it may also represent a deverbal or denominal stem (as in *stogłów* : *głowa* "a hundred-headed (monster)", *dlugouch* : *ucho*<sub>nom. sg.</sub> "long-eared one")

<sup>9</sup> My paper owes to Rozwadowski (1904) much more than the evidence given in the section. Basically, I follow most of the insights presented in his monograph.

<sup>10</sup> The terms have been given as equivalents of Polish: *zestawienia* and *zrosty* respectively in Gołab, Z. et al. (1968).

*ludojad* : *jadać*<sub>inf</sub> "man-easter"). The first member of the true compound is indeclinable.

- B. *Concretions* like compounds are united by a penultimate stress (strong) and specified (cf. Jespersen 1965) meanings, but unlike the former show government and agreement typical of syntactic groups. Permutation of their members (meaning preserved) is possible, in which case there is no morphological modification of their structure though the new formation is stressed like a syntactic group. Declination of both members is highly irregular and there seems to be a marked tendency to make the first member indeclinable. Examples: *sztukamięs(a)* "boiled beef" (indeclin.), *wniebowzięcie* "Assumption", *Wielkanoc* "Easter", *widzimię* "whim" (indecl.), *psiakrew* "scoundrel" (both members may be declined).
- C. *Juxtapositions* are united by highly specialized meaning and reference. Normally no permutation of their members is possible. Both members are declinable and both are fully stressed. E.g.: *Boże Narodzenie* "Christmas", *Bolesław Chrobry* "B. the Brave", *maszyna do szycia* "sewing machine".
- D. *Free syntactic groups* are word groups which show no characteristic features of A, B, and C.

## 2.1.

When I said that compounds may be congruent in the two languages, I meant congruent in the sense of Marton (1968:56), i.e.

If a Polish sentence or phrase consists of A, B, C, in this order and the English equivalent sentence or phrase consists of A', B', C' in this order, then they are congruent if each of the pairs A : A', B : B', C : C' consists of equivalent items belonging to the same word class and having the same syntactic function in each of the sentences.

On closer examination, however, one has to come to the conclusion that over 90% of English compounds and a very large number of nominal phrases which are not compounded will not be considered congruent to their Polish equivalents. Thus, English nominal compounds have their equivalents in:

a) **Polish adjectival phrases** (adjectives are invariably denominal):

millstone : *kamień młyński*  
 wood alcohol : *alkohol drzewny*  
 gunpowder : *proch armatni*  
 car mechanic : *mechanik samochodowy*  
 milk bar : *bar mleczny*  
 police dog : *pies policyjny*

b) **Polish genitival phrases**

earthquake :: trzęsienie ziemi  
 car thief :: złodziej samochodów  
 mad house :: dom wariatów  
 Iron Age :: epoka żelaza  
 heart failure :: zawał serca

**c) Polish prepositional phrases**

chewing gum :: guma do żucia  
 washing machine :: maszyna do prania (=pralka, pralnicza)  
 nosebleed :: krwawienie z nosa  
 baking powder :: proszek do pieczenia  
 shaving cream :: krem do golenia

**d) Polish derived nominals**

rattlesnake :: grzechotnik  
 chimneysweep :: kominiarz  
 windmill :: wiatrak  
 darkroom :: ciemnia  
 silkworm :: jedwabnik  
 air rifle :: wiatrówka

Now, in view of these data and given the fact that nominal phrases are crucial in case contrastive studies are to have practical applications, one has to modify the notion of congruence by restricting the demand for the identity of word order. The demand has to be modified NOT because Polish is a "free word order language" (it is not!) but because there is an overriding principle which might be tentatively formulated in the following way: whenever two nominals (two "nouns" or their equivalents) form a syntactic group (are not compounds), a corresponding compound will have the two nominals permuted; whenever a compound corresponds to a derivative its second element is replacable by a suffix.

Similarly, the demand for the word-class identity seems to be inoperative if an equivalent phrase includes two or more referential indices. This revision, however, would need more of the theoretical apparatus which has been presented in sect. 1 above.

An alternative would be to say that examples under a—d contain only equivalent but not congruent constructions. Yet this solution would force one to make intuitively implausible claims to the effect that a competent bilingual sees no difference between relations subsumed under a—d above and those listed as e—g below:

**e) Polish root-nouns**

arrowhead :: grot  
 saw dust :: trociny  
 blackmail :: szantaż  
 crosseye :: zez

sleepwalker :: lunatyk  
 redwing :: drozd (rdzawoboczny)  
 bull ring :: arena  
 limestone :: wapień  
 blackbird :: kos

and most of other behavrihi compounds.

**f) Polish sentence- equivalent descriptions:**

eyespot :: oko w kształcie plamki barwnikowej, prymitywny organ wzroku u niższych gatunków zwierząt,  
 impregnated-tape metal-arc welding :: spawanie łukowe elektrodą metalową owiniętą taśmą izolacyjną  
 and a vast number of other scientific and technical terms.

**g) Polish translation equivalents (phrases of different referential source):**

nutcracker :: dziadek do orzechów (lit. "grandfather + for + nuts gen. pl.")  
 ladybird :: boża krówka ("God's little cow dimin.")  
 waterwheel :: młyn wodny ("water mill"—Adj. phrase)  
 watertower :: wieża ciśień (pressure gen. pl. tower"—Gen. phrase)

2.2.

If contrastive language studies aim at constructing a Contrastive Generative Grammar, one might expect that CGG would predict the inter-language lexical equivalence, or, in other words, CGG will be able to explain why certain classes of compounds correspond to derivatives and others to syntactic phrases (in case a class of a particular type does not exist, CGG should account for this fact).

In the present section I shall try to re-classify English compounds and look whenever possible for any regularities among their Polish equivalents.

In accordance with what has been said in section 1.1., compounds will be viewed as sets of indexical arguments "in search of their predicates". This could lead to classifying all compounds into two basic types:

- A. surface reflection of underlying LINKING<sup>11</sup> processes,
- B. surface reflection of underlying NON-LINKING processes.

Type A comprises all compounds whose members may be thought of as indices which do not have to be specified with respect to roles and which will have to be specified with respect to generality - specificity properties (but cf. 1.1.3. Predicates here are of the abstract character similar to those known from class logic. Linking compounds are of two types:

<sup>11</sup> By linking and non-linking processes I mean processes presented in Weinreich (1966).

A-1. PATHWAY: arguments are linked with the help of an abstract predicate identical to the one which specifies the operation of class inclusion; of the two arguments the more specific one is topicalized. E.g.: *codfish, palmtree, foodstuff, troutfish, marriage relationship*. Polish equivalents of compounds which belong here are usually root words or derivatives (unless stylistically marked). In both cases second member tends to be disregarded.

A-2. comprises a number of subtypes each of which represents a less abstract (more language-specific) predicate due to the operation of the determiner topicalization redundancy rule;

A-2.1. HAMMER-AX abstract predicate corresponding to the AX-HAMMER logical class intersection operator, topicalization is determined by extralinguistic factors.

E.g.: *fighter-bomber, director-composer, girl child, girlfriend, servant girl, man servant, etc.*

Since a corresponding class of Polish compounds (e.g. *statek baza, klubo-ka-wiarnia, meblościanka, trawler-przetwórnia*) are of relatively recent origin, Polish equivalents of A-2.1. will be simplexes (root words and derivatives) or adjectival descriptive phrases.

A-2.2. QUICKSILVER: one argument compounds, predicate topicalized.

E.g.: *deafmute, darkroom, dry dock, short cut, White House, white meat*. In most cases Polish equivalents are adjectival phrases or compounds. In both cases the same topicalization pattern holds. Exocentric compounds seem to have no predictable equivalents unless borrowed from English: *paleface, redskin, longhair, bluebeard*.

Type B comprises compounds whose members are indices specified with respect to roles which do not have to be specified with respect to generality-specificity markings. Predicates here are those required by a given case-frame. Non-linking compounds may represent two general types:

B-1. none of the two arguments has been preformed before the composition process (i.e., none of the two arguments is a deverbal derivative or a deadjectival derivative),

B-2. one of the arguments is a deverbal derivative.

In Polish most nominal compounds represent type B-2 while in English both types seem equally productive.

To arrive at any valid generalizations it seems necessary to investigate the correspondences between all possible collocations of cases, plus their topicalization patterns and note the influence a given case-frame and topicalization has upon the type of equivalent offered in Polish. For instance, it seems that for the pattern: F( $x_{+Locative} + y_{+Objective}$ ) represented by e.g. *field mouse*, a most plausible equivalent would be the Polish adjectival phrase

of the  $y+x$  order, while with a different topicalization pattern (e.g. *hen house*) one expects derived nominals as equivalent constructions. A similar pattern representing B-2 type (e.g. *cinema going*) would be related to equivalent prepositional phrases in Polish.

This part of the paper was rather a report on work in progress and the observations made cannot be accepted yet with any degree of certainty. It seems, however, that within this framework it would be possible to predict some of the student's "avoidance techniques" (i.e., to explain why they say "Then John entered the building where automobiles were put together", rather than "Then John entered the automobile assembly plant") and to prepare a set of exercises for practising correspondences between English compounds and Polish phrases and derivatives, or vice versa.

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