

A NOTE ON STRESS ASSIGNMENT IN POLISH NOUN PHRASES

ROLAND SUSSEX

Monash University, Clayton, Australia

In a recent paper on the order of attributive adjectives in Polish (Sussex 1974) I proposed that the placing of the adjective in pre- or post-nominal position, and the order of attributive adjectives, are basically similar in nature to the rules operating in pre-modifying languages like English, German and Russian. These rules employ a syntactic-semantic subclassification of adjectives, based on their prenominal slots:

$$(1) \text{NP}(A_x \dots A_y + N)_{\text{NP}}$$

where x and y are slot indices, and $x > y$

Polish differs from pre-nominally modifying languages in that adjectives of certain subclasses usually follow the noun — notably most of the “relational” (*otnositel'nye*) adjectives of traditional Russian grammars:

(2a) maszyna elektryczna

(2b) gramatyka opisowa

(2c) pytanie ideologiczne

cf.

(3a) dobra maszyna

(3b) pełna gramatyka

(3c) trudne pytanie

The remainder of the relational adjectives and qualitative adjectives (*kačestvennyye prilagatel'nye*) may follow the noun in the contrastive construction

(4a) dziennik dzisiejszy

(4b) obywatel tutejszy

and contrast also accompanies the pre-nominal placing of normally post-nominal adjectives:

- (5a) elektryczna maszyna
 (5b) opisowa gramatyka
 (5c) ideologiczne pytanie

I assumed, in other words, that Polish Noun Phrases consisting of an adjective and a noun obey a rule similar to the Chomsky & Halle Nuclear Stress Rule (1968), which assigns rightmost stress within the phrase under non-emphatic conditions. In principle, any constituent of such a Noun Phrase may be contrastively stressed. When the adjective and noun are normally ordered, in the sense defined above, the $NP(2-1)$ ¹ stress pattern is non-emphatic. When the adjective and noun are abnormally ordered, the stress pattern $NP(2-1)$ is itself emphatic, and the emphasis can only be reversed by strong emphasis on the first constituent, which we may describe as $NP(1+ -1)$, the "+" indicating extra stress (see (4) and (5)).

Thanks to Wayles Browne, who has brought to my attention Maciej Pakosz's paper "Stress contours of compound words and phrases in Polish and in English", I now believe that the above description, although still fundamentally correct, is an oversimplification. Pakosz outlines three accentual classes of word+word combinations:

- A. Word+word=word group, stressed 2-1
 e.g., nowozbudowany, roboczoźniówka
 nóż żelazny
- B. Word+word=word group, stressed 1-2
 e.g., gazetka ścienna, nóż kuchenny
- C. Word+word=new word with different stress from its components
 e.g., Wielkanoc
 samochód

It is examples like *nóż kuchenny* in the "B" group which show the fallacy of my earlier analysis in accepting the "A" type pattern for non-emphatic Noun Phrases, and the "B" type for emphatic ones. So why is *nóż kuchenny* stressed $NP(1-2)$?

There is, to begin with, nothing intrinsically special about *nóż* that attracts stress, nor about *kuchenny* that rejects it: compare

- (6a) nóż żelazny
 (6b) okno kuchenne

¹ I shall use "1" and "2" informally to refer to major and minor stress; capitals in the text indicate major stress. Although certainly not delicate enough for larger syntactic contexts, this arrangement is adequate for our present purposes.

both of which are stressed orthodoxly $NP(2-1)$. There must, then, be something in the collocation of *nóż* and *kuchenny* which causes the stress to shift, just as there must be "something between" the nouns and adjectives in the following sample of 1-2 stressed N+ADJ examples:

- | | |
|--------------------|-------------------|
| (7) afisz sklepowy | koło zapasowe |
| brama klasztorna | młyn wodny |
| dziennik polski | mundur wojskowy |
| gazeta niedzielna | odznaka harcerska |
| panna sklepowa | siła napędowa |
| papier toaletowy | sztab wojskowy |
| płyta gramofonowa | ucho dębowe |
| podręcznik fachowy | Unia Lubelska |
| ropa naftowa | widelec kuchenny |
| rura samochodowa | wyż demograficzny |
| rura wydechowa | zakład fryzjerski |
| statek parowy | zawody piłkarskie |
| stróż nocny | zegar ścienny |
| sieć rybacka | |

This list is puzzling, because it is always possible to replace the noun or the adjective in these phrases with other nouns and adjectives which give a normal 2-1 stress pattern. The clue to the puzzle, however, cannot be phonological in nature. Not only is there no correlation of segment sequences and stress patterns; but there is also no correlation between stress and length. Considering the influence of French syntax on Polish, especially during the eighteenth and nineteenth centuries, it might not surprise us to find some reflex of the situation in French, where a monosyllabic noun precedes a polysyllabic adjective:

- (8a) un bref entretien
 (8b) ? un entretien bref
 (9a) un entretien ennuyeux
 (9b) un ennuyeux entretien (stylistically marked)

But this will not do for Polish, as the above examples show. We must therefore turn to syntactic and semantic factors for a possible explanation.

One line of approach is to describe the 1-2 structures as single words or as referring to a single or unique object, or objects of a "special type". Such semantic definitions are notoriously fraught with difficulties. Why, it may reasonably be asked, does a *nóż kuchenny* (1-2) qualify as an object of a "special type", whereas a *książka kuchenna* (2-1) apparently does not? There is, however, some help to be had from place names, especially the names of towns,

which do clearly refer to unique objects. Thus we have

- (10) Gorzów Wielkopolski
Ostrów Wielkopolski
Gostyń Poznański

with the 1-2 pattern. Indeed, the only situation in which 2-1 can occur is when there is a second (etc.) Gorzów, Ostrów or Gostyń. In this case the contrastive nature of the stress is clear. A good example is a pair of villages in Poznańskie called Lutol Suchy and Lutol Mokry, both with 2-1 stress patterns. Again, the Kraków Wawel is unique, in both name and nature. If it were not usually referred to as the Zamek Krakowski (2-1) — there being many castles in Poland — it would be called the Wawel Krakowski (1-2). This general analysis is borne out by the fact that a speaker may, if he believes that there is only one Gorzów (etc.), reasonably respond to a 2-1 pattern: "Oh, but I thought there was only one". Note, however, that this 2-1 contrastive pattern does not apply to N+N sequences, even when the N+N designates a unique object like a football team: thus Górnik Zabrze and the prewar Ruch Katowice (2-1). English, of course, right-stresses all place names, except when it is necessary to avoid a possible confusion: the adjacent villages Over Wallop, Middle Wallop and Nether Wallop in Hampshire, for instance, are stressed 1-2.

This deals satisfactorily with unique referents like towns — and, for that matter, with unique events like the Unia Lubelska. It does not deal with kitchen knives, which are not unique. We can, I think, profitably compare the situation in Polish with that in English, where some compound and complex expressions function as single phonological words:

- | | |
|--------------------|----------------|
| (11) KITCHEN knife | TABLE leg |
| ARMchair | STEERING wheel |
| WHEELbarrow | GRAVEstone |
| CLOTHES brush | FIREguard |

Note that some of these examples can be stressed as two phonological words, with a change of meaning:

- (12) WHEEL BARROW: a barrow for a wheel
GRAVE STONE: a sad stone; a stone on a grave
STEERING WHEEL: wheel which steers (not necessarily a STEERING wheel).
FIRE GUARD: a man who guards (for/the) fires, etc.

What, then, happens to the 1-2 N+ADJ Polish sequences when we switch the stress pattern? As I have shown, the emphatic reading is available:

- (13) zegar ŚCIENNY—i.e., not a table clock

but there is also a non-emphatic reading which reflects a new semantic relationship between the adjective and the noun, and one which is on the lines of "normal" noun-adjective collocations. Under this interpretation, the 2-1 pattern contrasts semantically with 1-2 pattern in the following way:

- 1-2: a type of clock whose shape, size and function are fixed by convention and general usage as belonging to this object; it can be so called whether or not it is actually hanging on a wall.
2-1: a clock of any type which is hung on the wall and therefore functions—by virtue of its being on the wall—as a 1-2 *zegar ścienny*, although its shape, size and so on may be different; when no longer hanging on the wall, it ceases to qualify for the attribute *ścienny*.

Similar arguments can be applied to many, though not all, of the examples of 1-2 stress contours listed in (7). A 1-2 *stróż nocny*, for example, is so called and accented whether you speak to him on the job or at midday; but a man working part-time at this job could be stressed 2-1 or 1-2; when he ceases to work, the 2-1 option lapses.

This parallelism of phonological and semantic factors also has some reflexes on the grammatical level, although here the evidence is more equivocal. The 1-2 sequences do obey the traditional criteria for the grammatical word: they cannot be permuted or interrupted. The situation here is complicated by the fact that parenthetical elements are the only ones which could conceivably interrupt a N+ADJ structure; other possibilities are ruled out on grammatical grounds. But parenthetical expressions serve our purpose: interruption is only possible with 2-1 sequences:

- (14) nóż—powiedzmy—kuchenny
(*1...2)

which underlines the status of 1-2 sequences as lexical nominals. There is, however, an important difficulty. If 1-2 sequences are dominated by N, they should behave like regular nouns with regard to the embedding of adjectives from relative clauses. Instead, they behave like N+ADJ *Noun Phrases*:

- (15) *nóż kuchenny żelazny (1-2...)
żelazny nóż kuchenny (3-1-2)

This makes *kuchenny* a regular case of a postnominal attributive adjective, which makes $T_{ADJ-FRONTING}$ obligatory for the embedding of further adjectives. Consequently, the future 1-2 sequences must be $N(N+ADJ)$ for the phonological rules, and $NP(N+ADJ)$ for the grammatical rules. It would

be possible, but costly, to mark *nóż kuchenny* lexically with some trigger for stress assignment. The only other feasible alternative seems to be to make $T_{\text{ADJ-FRONTING}}$ capable of peeking into the structure of complex nominals. This is unfortunate and not a little *ad hoc*, but seems to be necessary.

The argument has, of course, one significant and at the moment insurmountable weakness: why is it that *nóż żelazny* acquires the status of a lexical nominal, whereas *nóż żelazny* and *książka kuchenna* do not? This is the point at which grammar, semantics and phonology intersect with linguistic pragmatics and factors of culture and the context of language use. There are, for example, instructive cases of similar problems in American and British English, where an Englishman in the USA may be misunderstood if he says *WHITE HOUSE* rather than *WHITE house*, and *HOT DOG* rather than *HOT dog*. The simple answer is that adjective+noun collocations in frequent use, and referring to common everyday objects, may acquire 1-2 stress and the status of a lexical nominal. The explanation of this phenomenon is anything but simple. It is likely to be semantico-pragmatic in nature, and I am not aware so far of any criterion which would help sort out the potential 1-2 cases from the 2-1 cases. People in the United Kingdom do, after all, talk of the White House and eat hot dogs², and quite frequently at that. Nor can I see why some of the 1-2 N+ADJ sequences in Polish seem not to have 2-1 parallels in the non-contrastive sense. It presumably has something to do with the number of semantic relations which can be reasonably thought to exist between certain nouns and adjectives. Diachronically, I suspect that 1-2 sequences are derived from 2-1 sequences that become particularly common in everyday use. Synchronically I can see no obvious solution.

Nevertheless, this analysis does allow us to state some aspects of the problem more clearly. We can specify the general characteristics of the grammatical distinction between Polish 2-1 and 1-2 N+ADJ collocations, and the lines along which we would describe the semantic differences between them. We can point to the very considerable grammatical and semantic similarities between Polish N+ADJ and English ADJ+N collocations — similarities which again follow the phonological criteria of 2-1 or 1-2 stress. And we can show, with reference to Chomsky & Halle's Nuclear Stress Rule, the essential difference between Polish and English. English assigns rightmost stress to constituents in phrases, and leftmost stress to constituents inside phonological words. Any violation of this rule results in contrastive stress.

² Over the last 6 months or so the BBC has begun saying *WHITE House* with increasing frequency — although it is impossible to say whether this is a matter of frequency of usage, or of interference from American English. *HOT DOGS* remain.

Polish, on the other hand, stresses Noun Phrases consisting of a noun and an adjective 2-1; this is non-contrastive except when the normal word order is reversed. Furthermore, Polish stresses lexical nominals (consisting of a noun and an adjective) 1-2. It is usually possible to stress the same N+ADJ sequence 2-1, in which case the semantic relations between the noun and the adjective undergo a change parallel to normal ADJ+N Noun Phrases. As far as I know, all such complex lexical nominals (N+ADJ) have a postnominal adjective: pre-nominal adjectives, mainly the "qualitative" adjectives like *good* and *heavy*, are not the sort of adjectives which collocate with a noun to form a referent of a special or frequent type; rather, they add attributes to a nominal. This again takes us into the area of semantic pragmatics, and I shall sidestep the question here.

A generative grammar would handle these matters in the following way. The "standard model" of *Aspects* (Chomsky 1965), or its lexicalist-interpretive offspring, would simply enter the complex nominals as nominals in the lexicon. This raises three problems. First, concord rules must be able to peek inside the nominal, which is still morphologically structured as N+ADJ; second, $T_{\text{ADJ-FRONTING}}$ must also peek inside the complex nominal if it is to operate correctly; and third, this solution has the semantically unilluminating result of showing no similarity at all between 1-2 *nóż kuchenny*, a lexical nominal, and 2-1 *nóż kuchenny*, which is a Noun Phrase resulting from the embedding of an adjective out of some kind of relative clause. The generative semantic model can show semantic distinctions and connexions between complex nominals and N+ADJ Noun Phrases, but only at some cost. With *nóż kuchenny*, the 1-2 version is derived from something like "N₁ of a type associated with N₂", and the 2-1 version from, say, "N₁ which is now in use in N₂". The product of these lexical transformations may be either a complex segment dominated by N, or a Noun Phrase. If the 1-2 version is a Nominal, the stress-assigning rules can automatically distinguish it from the Noun Phrase, but the transformations deriving the nominal and the Noun Phrase must somehow be adjusted to produce the correct output. At the moment, I do not see a means of doing this in a way which is not *ad hoc*. Alternatively, the prelexical rules may have Noun Phrases as their output, in which case we need global rules to ensure that the future 1-2 version is correctly stressed. Notice, however, that this solution does deal naturally with the difficulties of $T_{\text{ADJ-FRONTING}}$, since the global rules can trigger the fronting rule at little additional cost. Nevertheless, the relation between the 1-2 and 2-1 versions is presumably of a semantico-pragmatic nature, and the underlying sources of 1-2 complex nominals are very confused. In view of these difficulties, it is probably wiser to decide in favour of the standard model — at least for the time being.

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