

ON CONTRASTING THE SENTENCE STRESS

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1. In view of the fact that intonation is an obligatory element of sentence structure (as an element of discourse), an element that is necessarily present in every utterance, it would hardly seem indispensable to justify studies of it. Rather it would seem natural, if not obvious, to investigate all its aspects both in the integrative and modular manner. Ignoring intonation renders any language description necessarily inadequate at best. The awareness of this fact has been expressed time and again by linguists, but as Pilch remarks: "In practice, intonation is NOT treated as an integrating part of discourse, but as an afterthought, as something added (after the event) to a text that has first been made without it. The analyst may tack it on to the text in the guise of a few extra rules if he cares, but he usually does not. This treatment may be good enough for the "well-formed" literary text which is put on paper to be available for repetition. It is certainly inadequate for the (not necessarily so well-formed) text of ordinary discourse which is unique (i.e. not available for repetition) and oral (i.e. not put on paper). Generally speaking, the text does not exist apart from its intonation — as little as it exists apart from its syntax or semantics". (1976 : 305).

This obviously correct view is further supported by the fact that syntagmatic relations, as Lyons (1969) shows on word stress, need not be linear. If there are syntagmatic relations that need not be linear (sequential), then it means that they must be simultaneous (=suprasegmental). This is exactly the nature of such phenomena as word stress and one of the most prominent elements of intonation, the sentence stress. Equally important as intonation, particularly in discourse analysis, the sentence stress has been given relatively little attention and consideration in linguistic discussions, especially it seems

2. Though the fundamental assumptions of Contrastive Analyses are well known, it seems appropriate to repeat some of them in the light of the most recent research. As Krzeszowski puts it, *tertium comparationis* is "the concept that lies at the heart of any comparison (eo ipso at the heart of CA)" (1980 : 1). It is quite natural that given the variety of levels of linguistic analysis and also the variety of models of linguistic description, we should also have a variety of types of *tertium comparationis*. Thus, as Krzeszowski correctly notes "different TCs are used for comparisons in lexicology, in phonology and in syntax" (1980 : 1). Obvious as this claim is, what remains to be determined is the specific types of *tertium comparationis*, a question that depends on more general, theoretical assumptions concerning the model of linguistic description and levels of analysis within the language. But the basic goal remains the same: to find the common denominator, the common content, the *tertium comparationis*. This of course, does not mean that form cannot or should not be the subject of comparison (cf. Krzeszowski 1980 : 4). But form is important only to the extent that it expresses (conveys) content, the ultimate goal of communication. The only question is the degree and type of equivalence. And this, it seems, can be envisaged as a scale with total equivalence (=congruence) at one end, and total unrelatedness (both formal and functional) at the other end. Thus it makes sense to talk in CA about a specific type of equivalence, depending on the goal of description. Another type of equivalence may or may not appear at the same time in a particular case as an accompanying feature, increasing or reducing similarity. The present paper is meant to be a brief and general study of the sentence stress, on the basis of more specific studies and remarks concerning the sentence stress in English, Polish and some other languages. As suggested by the general procedures of Contrastive Analysis, we will be concerned with both the form of the sentence stress and its function(s).

3. Research on the substance of stress has been quite rich in the United States, much less so in Poland. In the United States research on the phonetic correlates of accent (sentence stress) in English goes back to studies by Fry (1955, 1958), Mol and Uhlenbeck (1956) and Bolinger (1958), later summarized in Lehiste (1970). For Polish the main work was written in 1968 by Jassem, Morton and Steffen-Batóg. It has been established that in languages like English and Polish (and also a few others) the ways in which stress is realized and perceived are (with certain statistical differences, e.g. duration is more frequent as stress marker in Polish than in English): changing pitch, duration, and intensity (cf. Lehiste (1970), Hymen (1978) and a number of other studies).

It has also been found that phonetic correlates are the same for word

stress and for sentence stress. For example, Lehiste (1970) describes emphatic stress (on the basis of Ivić and Lehiste's (1969) research on Serbo-Croatian) in terms of a "larger than life" realization of an idealized form of the emphasized word: "a wider range of fundamental frequency, increased differences in intensity between the accented and unaccented syllables, increased duration, and a more clearly defined fundamental frequency movement" (Lehiste 1970 : 151). What is interesting about the sentence stress in its normal appearance is, as Lehiste puts it, that "it does not change the meaning of any lexical item, but it increases the relative prominence of one of the lexical items" (1970 : 150). This brings us directly (or almost directly) to the well known question of scope. No doubt more a problem of content, it has also been investigated from the phonetic point of view. Pakosz set out "to discover the ways in which native speakers [of English] signal and infer a broad and a narrow range of focus, if such delimitation of scope of focus can indeed be implemented prosodically" (1981 : 87). Given the limited nature of the data, the results of the investigation cannot be conclusive, but they seem to point out to a lack of prosodic signals delimiting the scope of focus. As Pakosz himself notes: "Coming now to the question of the possible prosodic marking of the boundary line between the contextually bound and the non-bound sentence parts, it may be said that, in general, the analysis of the data revealed the existence of definite prosodic demarcation only in a limited number of positions within the examined sentences; with some elements it was impossible to ascertain whether they fell within the scope of focus or not on the basis of phonetic cues only. One such position involved the predicate, where the prosodic behaviour of the verb was invariably ambiguous" (1981 : 90). Finally Pakosz concludes: "... essentially, the topic — focus distinction can be manifested prosodically through the differential use of the systems of tone, pitch range, tempo and loudness. The exact boundary line between the contextually bound and the non-bound (focused) parts of sentences, however, is less clearly marked, and in some positions it is virtually impossible to indicate its precise placement by means of phonetic cues only". (1981 : 92). The difficulty in the interpretation of scope is also shown in the discussions of focus by, for example, Chomsky (1971) and Jackendoff (1972). Chomsky (1971 : 200 ff.) defines focus in terms of intonation in the following way: the focus is the phrase containing the intonation center, i.e. the main stress. The phrase containing the intonation center could be any constituent which contains it, from the morpheme to the entire phrase or sentence. In other words, there are several possible foci in one sentence structure. The uncertainty as to the scope of focus expressed by Chomsky and Jackendoff shows quite clearly that sentence stress cannot be used as a signal of what is called focus (i.e. the focused section of the sentence). As Lehiste put it, it "increases the

relative prominence of one of the lexical items" (1970 : 100) only. Thus from a purely formal point of view the only clearly identifiable element of focus is the one which is stressed. With such a formally easily identifiable element it should not be difficult to determine its function.

4. One of the first mentions of the function of the sentence stress is to be found in Barsov's (1783-88) *Rossijskaja grammatika*. The phenomena involved are not explicitly described and named, but Barsov's interpretation of structures with various stress positions clearly shows that he realized what its function is (cf. Szwedek 1982a). But in the last fifty years or so, discussion of the function(s) of the sentence stress has been most intimately connected with the Prague School's Functional Sentence Perspective. Without going into details, linguists seem to agree that the sentence stress marks the new information section (cf. Daneš (1967), Halliday (1967), or Chomsky (1971) and Jackendoff (1972) quoted above, and Szwedek (1976)). One of the fundamental questions that has to be answered is what constitutes new information. The problem has not been examined in great depth yet, and no satisfactory solution has been proposed but it is possible to outline what seem to be the basic types of "newness". In the first place there is referential newness when a new referent is introduced into the world of the text. The concept of "the world of the text" is very important as distinguished from the world at large; there are cases where the referent is known (e.g. the so called unique nouns: the sun, the moon) from the real world point of view, and yet when introduced into a given text for the first time gets the newness marking of the sentence stress (cf. the discussion in Szwedek (1976 : 75 ff.)). In languages like English, this coincidence is expressed by placing the sentence stress on the element with the definite article. However, in articleless languages like Polish this kind of coincidence does not occur.

Another type of newness described in a number of works (cf. Akmajian and Jackendoff (1970), Szwedek (1980)) can be called functional newness in which referents are known from the preceding context, but their grammatical function in the sequence clause is different than in the preceding clause, as in Akmajian and Jackendoff's (1970) example

(1) John hit Bill and then George hit HIM.

where the stress signals that HIM contains new information in relation to some already given referent. Strictly speaking it signals that it is NOT the referent with the same function in the preceding context that HIM corefers with. The only interpretation that is left within the text is that HIM refers to the other referent, i.e. John and the stress signals that its function is different from the original function.

A third type of newness is connected with the so called contrastive (emphatic) stress, and could be called contrastive or emphatic newness. As

I argued elsewhere (Szwedek 1983) no matter what we call the function of emphatic stress, it does signal new information with respect to the preceding context, e.g.

(2) A. John ate a FISH yesterday.

B. No! John CAUGHT a fish yesterday.

where in A. under normal circumstances *a fish* is the new information. However, normal given/new information relations are suspended (hence *a fish* repeated in the sequence sentence) by emphatic stress until the sentence is corrected (this kind of emphasis is sometimes called corrective, cf. Enkvist 1980). Whether any further taxonomy and specification of emphatic stress is necessary or justified (cf. Enkvist's 1980 distinction of 'emphatic', 'corrective' and 'marked information' focus) is still an open question (see Szwedek 1983).

5. Research discussed in section 3 of the present paper clearly shows that normally only one element in the sentence is identifiable as bearing the sentence stress, and no prosodic cues indicate the range over which the meaning signalled by it extends. The indeterminacy of the scope of focus is also shown in the various possibilities of interpretation of Jackendoff's (1972) example (which he quotes after Chomsky 1971):

(3) (6.13) Was it an ex-convict with a red SHIRT that he was warned to look out for?

where focus can be chosen as any of the following phrases:

(an) ex-convict with a red shirt,
with a red shirt,
a red shirt,
shirt

As Jackendoff (1972) notes: "Corresponding to these choices of focus are the following "natural" responses:

(4) (6.17) No, it was an AUTOMOBILE salesman...

(5) (6.31) No, it was an ex-convict wearing DUNGEEES...

(6) (6.32) No, it was an ex-convict with a CARNATION...

(7) (6.18) No, it was an ex-convict with a red TIE..."

Information focus, as Quirk et al. (1972 : 940) note, may extend beyond a phrase, as their example clearly shows:

(8) [What's on today?] $\overbrace{\text{We're going to the RACES.}}^{\text{NEW}}$ [5]

(9) [What are we doing today?] $\overbrace{\text{We're going to the RACES.}}^{\text{NEW}}$ [6]

(10) [Where are we going today?] $\overbrace{\text{We're going to the RACES.}}^{\text{NEW}}$ [7]

We could add that similar interpretation can be applied for Polish. For example

- | | |
|-----------------------------|---------------------|
| | NEW |
| (11) [Co dziś w programie?] | Idziemy na wyścigi. |
| (What today in program) | (Go-we on races) |
| | NEW |
| (12) [Co dziś robimy?] | Idziemy na wyścigi. |
| (What today do-we) | (Go-we on races) |
| | NEW |
| (13) [Dokąd dziś idziemy?] | Idziemy na wyścigi. |
| (Where today go-we) | (Go-we on races) |

The lack of difference between (11) and (12) can be explained by the lack of the subject pronouns. On the other hand, however, (8) and (9) are open to another interpretation, I think. The question in (8) is clearly addressed to the people who answer the question as "we". The question does not mean "What's on in the cinemas today?" or "What's on in the theatres today?" or "What's on in the world today?" but is clearly, in the given situation, directed to the addressee. Therefore, I would interpret the questions in (8) and (9) and their respective answers as equivalent.

6. What we eventually arrive at can be summarized for both English and Polish as follows:

- a) the sentence stress signals that the element on which it falls contains new information,
- b) being new, this piece of information is context independent,
- c) the element under the sentence stress is the only marked unit in the sentence,
- d) the interpretation of the rest of the sentence in terms of given/new information depends on the context (=unmarked),
- e) thus the thematic structure (distribution of given/new information) can be diagrammatically presented as follows:

FORM	unmarked (context dependent)		marked by stress (context independent)
MEANING	given (recoverable)	new (nonrecoverable)	new

The only stable elements are unmarked-given and marked-new. As examples (10) and (13) show the unmarked-new element is not a necessary part of sentence structure.

7. If the form and the meaning of the sentence stress seem to be the same, or at the worst similar in the languages compared, we have to ask then whether

there is anything else left for comparison that would relate to the sentence stress.

It has to be kept in mind, and it has I think too often escaped linguists' attention, that sentence stress like word stress enters into syntagmatic relations (cf. Lyons 1969: 76) with elements of the segmental structure. Since sentence stress is a text forming (cohesive) element, then naturally the primary objective of linguistic investigation should be its interrelation and interaction with other text forming elements, such as, for example, word order, definitization (including pronominalization) and ellipsis. It is obvious that a change in those relations and interactions will necessarily change the relation of this particular sentence within a given context. A question to be answered is whether a change of one of these elements will make the sentence only less acceptable in the given context, or whether, without necessarily breaking communication, it will also change the meaning of the text. In the former case we might perhaps arrive at a scale of textual fit (to use Enkvist's 1980 term). In the latter case we would have to conclude that a text is determined to the extent that a change of any of its elements mentioned here brings about a change in meaning; which in turn brings us back to the question of meaning, the fundamental question of any linguistic studies, more theoretical like Contrastive Analysis, or more practical like translation.

But the complexity of the problem, the complexity of the structure of texts with their numerous elements and relations, does not promise an easy and early solution.

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