

Syntactic Dispositions as a Factor in Discourse Segmentation

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1. Introduction

In the past we have voiced the hypothesis that the decisive unit in the sound-form of a continuous (read) text is, in Czech, what we called the discourse segment (Palková, 1963). It is a unit of the same order as the colon in classical metrics, and has been explicitly formulated for Czech in the works of Daneš (1957). Of the units used in the modern descriptions of other languages it probably comes closest to Trager and Smith's (1951) 'phonemic clause' as applied in Dittmann and Llewellyn's study (1967) or the 'tone unit' of Krčekel's works (1981). Our subsequent investigations have shown that the degree to which the grammatical and content properties of a text support or inhibit its division into discourse segments is what determines the ease with which a speaker reads or a hearer can perceive the text. We have described texts which conspicuously support segmentation as rhythmical. The experiments we have conducted enable us to assert that, for Czech, the major factors through which a text contributes to its own segmentation are its syntactic structure and the semantic dispositions for locating sentence stress (Palková, 1974).

Dispositions in favour of segmentation arising out of syntactic structure have so far been investigated from the point of view of the admissibility or otherwise of an intersegmental divide between individual syntagmas, under the assumption that the dimension of the excerpt favours segmentation (in Czech a length of five or six stress groups is already enough for the tendency towards segmentation to arise). Accordingly we looked at those tendencies which are linked to the 'quality' of the syntagmas verifying experimentally the types of close-knit word combinations that are unlikely to be split by an intersegmental divide (e.g. attributive adjective in agreement with noun - the *velký dům* (=big house) type).

2. Subject of Analysis

In this paper we shall be describing another way in which a text's syntactic structure affects segmentation. It stems from the speaker's need properly to maintain the hierarchy of segmental divides within a closed syntactic unit (clause or sentence).

This hierarchy comes about as a consequence of the confrontation between the linear progression of the spoken rendering and the not always linear construction of the sentence as a structured unit. Individual adjacent parts of the sentence need not always be equally strongly connected, so for example:

1. Z mohutného kopce/1 porostlého nízkými keři/2 je dobře vidět/3 i za špatného počasí/4 na blízké městečko (=lit.: From an impressive hill/overgrown with low shrubs/is easy to see/ even in bad weather/ to the nearby township).

The potential segmentation in accordance with the basic tendencies towards phrasing in Czech is indicated by slashes. However, the ties between adjacent segments at 1 and 3 are stronger than those at 2 and 4. 1 and 3 separate segments between which there is a direct syntactic relation, so that if the divide happens to be omitted a 'meaningful' formation is left. The segments divided by 2 and 4 have no such direct syntactic connection, and taken together they give no meaningful interpretation.

This mutual imbalance between consecutive potential segmental divides often works as a conditioning factor in the actual phonic realisation of certain divides. In the example, it is mostly up to the speaker to segment at 1, but if he does so he must also segment at 2, otherwise the hearer will sense something wrong in the spoken rendering. The same holds for 3 and 4. From the phonic-stylistic point of view, with all four divides being made, this hierarchy ought ideally to be preserved; i.e. between loosely joined segments the divides should be more conspicuous than between more closely connected ones. In this way a competent speaker can facilitate his hearer's orientation in the text.

3. Discussion

This effect of sentence structure on segmentation influences a large part of a text. It is most striking that wherever the structure of the text permits two interpretations, segmentation in the spoken rendering resolves the ambiguity in one or other way. If the speaker does not appreciate this consequence of phrasing, the resultant mis-phrasing can give the wrong interpretation (a common case in complex texts in radio and television journalism).

The classical instance of this is the different possible grouping of a compound sentence, as in:

2. Znovu došlo k neshodě/1 mezi mým otcem/2 a jeho přítelem Janem/3 a mou nejmladší tetou (= lit.: again there was disagreement/ between my father/ and his friend John/ and my youngest aunt).

Only the relative proportions of divides 2 and 3 determine who disagreed with whom.

In Czech, textual ambiguity may also come from different interpretations of syntagmas, which is often supported by case homonymy:

3. Informovali jsme už/1 o výsledcích nových pokusů/2 našeho dlouholetého spolupracovníka X.Y (=lit.: We have already informed/ on the results of the recent experiments/ of our long-standing colleague X.Y.).

In Czech, the ambiguity arises from the two possible evaluations of NP (*our long-standing colleague X.Y.*) in the last segment:

- a. it is a genitive and the syntagma is: the experiments of our colleague;
- b. it is an accusative and the syntagma is: we have informed our colleague.

The hearer's selection of one or other variant depends on the strength of divide 2: if it is weaker than 1, we have the a) variant.

4. Syntactic framework

It is not easy to describe systematically what we have called the 'hierarchy of segmental divides' because of the sheer variety of real sentence structures and because syntactic structure does not operate in isolation. Nevertheless analysis of large amounts of material (from television news programmes) lead us to believe that for Czech the description of inter-segmental relations as endo- or exocentric may offer at least a partial syntactic motivation for this phenomenon (Lyons 1969); this characterisation would follow from the relation of the distribution of a given pair to their distribution separately.

The point of departure here is the a priori (hypothetical) segmentation of a text in accordance with the basic established phrasing tendencies in Czech. The resultant (hypothetical) segments usually represent noun or verb phrases, most often expanded, and are often long enough to constitute segments in a genuine rendering.

Determination of the endo- and exocentric relations between these (for us elementary) units enables us to assign to the subsequence of units within the sentence a structure which is part of the overall syntactic structure of the sentence, e.g.:

4. A(Informovali jsme už)B(o výsledcích nových pokusů)/C(našeho dlouholetého spolupracovníka)

which can be interpreted either as

5. A ×(B→C)

or

6. (A→B)× C

where x and → denote exo- and endocentric relations respectively. Then in the phonic rendering the relationship between endo- and exocentric relations is represented by two degrees of divides, the exocentric being characterised by a stronger one than the endocentric. So in a real phonic rendering the ratio

7. Endo: Exo = T_i : T_j, i < j

ought to be maintained, where Endo, Exo represent endo- and exocentric relations between pairs of phrases, T is the strength of the respective intersegmental divide, and i, j denote the degree of strength; in principle i and j acquire the values i=1, j=2, or i=0, j=1. In the extreme case the difference may be eliminated (i=j), if the grammatical structure of the text does not admit two interpretations. The reverse ratio (i>j) should not arise or the hearer will sense that the rendering is wrong.

5. Conclusion

So far we have assumed a two-degree hierarchy of intersegmental divides, which is what is most commonly found in standard phonic texts, and we believe that this matches the aptitude of the average professional speaker and the perception of the average listener. How far this assumption of just a two-degree hierarchy is a generally valid constraint is the subject of further investigation.

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