

## Dialectal variation and constancy in Swedish word accent patterns

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On the basis of E.A. Meyer's data (1937, 1954) on Swedish word accent  $F_0$  patterns in isolated two-syllable words, E. Gårding (1970) has made a typology of the Swedish word accents, dividing them into four types according to the number and time location of  $F_0$  maxima within the words. Choosing two informants from each of four Swedish dialects representing these four types, namely the Stockholm, Scanian, Gotland, and Västergötland dialects, E. Gårding and the present author have made an acoustic investigation of a number of one, two, three, and four-syllable words, pronounced both in isolation and within a sentence frame. The whole material was pronounced as neutral and emphatic statements, and neutral and emphatic questions. Mingograms have been made of the whole material, spectrograms of part of it.

In a first report (1973), we give data on the time and frequency positions of  $F_0$  maxima and minima in isolated words for the four dialects. Further, on the basis of these data, we give a fairly formalised description of the  $F_0$  contours for each of the dialects. The description is given as a number of rules, each generating the  $F_0$  curve for part of the given test words. The frequency dimension is quantified into four pitch levels. The rules apply in a strict order and are subject to the principle that a later rule does not change the output of an earlier one. As concerns their function, there are three types of rules. First, there is a rule that caters for the terminating sentence intonation - the words are isolated, as you may remember. Secondly there are rules that take care of the accent distinction by allocating  $F_0$  maxima and minima to specific time positions and pitch levels. Thirdly, there is a rule that connects by the shortest way the parts of the  $F_0$  shape of the word

generated by earlier rules.

For all the four investigated dialects these types of rule are used, applied in the same order. As concerns the contents of the rules, the dialects differ.

In the main, the  $F_0$  contours of the two speakers of each special dialect may be generated by the same formulation of the rules.

For all the investigated dialects, the  $F_0$  contour of a grave accent word may be regarded as a contracted  $F_0$  contour of a minimally contrasting acute word plus an additional initial  $F_0$  segment, called the pre-contour. This interdependence between the acute and grave accent seems to be an interdialectal constancy in the Swedish word accent opposition. Another constancy in the realization of the opposition found in our material can be formulated thus:

The grave accent is contrasted to the acute either in having two  $F_0$  peaks - acute has always one peak only - or in having a single peak later in the word than the acute accent.

#### References

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