

TERMINALITY AND COMPLETION
IN DANISH, SWEDISH AND GERMAN

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ABSTRACT

Analysis of six regional Danish varieties, two Swedish and two German ones reveals striking differences in cues to the terminal or non-terminal function of the utterance, differences which are coupled with the absence or presence of separate signals to utterance completion.

1. INTRODUCTION

- This is a presentation of one part only of a comprehensive study involving also sentence accents, stress group patterns and final lengthening. It is further restricted to a display of only five (exemplary) varieties of the ten investigated. Even so, the presentation will of necessity reduce to a summary of the results and the ensuing discussion. A full account can be found in <1>. To save space, the figures are highly compressed.

2. RESULTS

2.1 Global versus local

- The criteria for categorizing signals to terminal and non-terminal intonation, respectively, as local versus global, are as follows:
- **Local cues:** (1) the last stress group is qualitatively or quantitatively different from preceding ones, ceteris paribus. The differ-

ence may reside within the stressed syllable (a change in the magnitude of its Fo movement and/or in the direction of movement) and/or in the course of the post-tonic syllables. (2) The last stress group is positioned outside the range envelopping the preceding part of the utterance. -- (1) and (2) are not mutually exclusive. -- (3) The contour prior to the final event shows no principled variation with either utterance length or terminality. See (a).

- **Global cues:** (1) The final stress group does not deviate in any principled way from preceding ones. (2) It forms the termination of one smooth overall course whose slope varies with utterance length (less steep in longer utterances, ceteris paribus) and with terminal vs. non-terminal intonation (less steep when non-terminal, ceteris paribus). See (b).

- Local and global signals may co-exist if final cues are preceded by significant global differences.

- Varieties with **global cues** to terminality (Copenhagen, Næstved, Aalborg, Tønder (Danish) and Malmö (Skanian)) do not have default accents, and signal focus by stress reduction rather than by sentence accents proper. It is also void to postulate

any 'final lowering' gesture for Copenhagen (and the other 'globals').

- The local varieties are Bornholm, Sønderborg, Flensburg, North German, and Stockholm. (Sønderborg is not exposed here.) I have counted North German among the local types, but it seems in fact to constitute a hybrid between global and local: prelude slopes in long vs. short terminals and in terminals versus non-terminals do differ.

2.2 Is terminality coincident with completion?

(a) Utterances with final (or no) accent

- Final falls in **Stockholm** are uncontroversially separate completion signals, tagged on to the sentence accent rise. The terminal vs. non-terminal cue lies in the preceding accented syllable, which is higher in non-terminals, cf. (c: broken vs. solid line). Lowering finally seems to be the only option for completion in Stockholm.

- In **Bornholm**, terminal and non-terminal contours are different only by the movement through the last post-tonic in the final stress group, cf. (d, e). Thus, final falls signal terminality as well as completion, and final rises likewise simultaneously signal both non-terminality and completion. However, final falls and rises reach the same low or high offset value, irrespective of their onset level (which is a matter of accentuation), which indicates that a separate completion command is involved.
- The two **German** non-terminals in (f: solid line, g) share an overall slope which is less steep than in terminal utterances of comparable length and (g) further-

more has a final post-tonic rise, whereas in (f) the utterance ends with a 'low'.
- German non-terminals, when the latter are succeeded by a completion 'low' provide us with a somewhat counter-intuitive situation where non-terminals have larger final falls than terminals. This ambiguity is resolved when (1) the final low, and thus the descent is assigned to utterance completion and (2) the level of the last stressed syllable, which determines the magnitude of the fall, cues prosodic terminality. The level of this last stressed syllable follows from differences in global slopes.

(b) Utterances with non-final accent

- If the highs and lows described above are indeed separate completion signals they must stay in place, at the end of the utterance, even if sentence accents and terminality cues move back. They should then be reached either progressively through or via a discontinuity in the preceding Fo course.
- **Stockholm** has only low completion cues and maintains an unmistakable low in final position: The post-accidental course can be regarded as a smooth interpolation between the early accent peak and the utterance final low, with diminished word accents superposed, cf. (h).

- In **Bornholm**, the final point in terminals constitutes the end of a generally smooth fall from the early accent, cf. (i). The fall from the high accented syllable in the non-terminal is not as deep and further movement is suspended until the final rise, cf. (j).
- In **German**, like in Bornholm, the initial accent is

succeeded by a fall, which must be considered part of the accent command. In non-terminals, further movement is suspended, until the very final gesture, which may be either rising or falling, to the completion high or low, respectively, cf. (k, l). In terminals, the fall is continuous through the post-accented syllables until the slight skip up at the end to punctuate the final low, cf. (f: broken line). The same situation thus holds as for final accents, apparently. I.e., non-terminals may be doubly cued, partly by the higher course of the post-accentual tail, partly by the final completion rise, or merely by a higher post-accentual stretch, which magnifies the final fall to the completion low.

3. CONCLUSION

- Insofar as the acoustic cues to terminal or non-terminal and to utterance completion may be separate in time (located in different places in the utterance) they must have separate representations in the prosodic system. This existence of two separate commands is supposedly maintained if and when

terminality and completion pile up in the same location, as they do in utterances with final (or no) sentence accent.
 - Separation of terminality and completion is unambiguous in Stockholm. The completion is always low, and the cue to terminality is always associated with the sentence accent rise, independent of its location.
 - In Bornholm terminality is bipartite. There is a cue at the very end, in the movement of the last syllable, the completion cue. But there is also a difference in the magnitude of the fall from an early accent, which is deeper in terminals than in non-terminals.
 - German operates in a similar fashion to Bornholm except for the interesting fact that non-terminal and terminal is not inextricably connected with high vs. low completion: The low completion does not unambiguously also cue terminality.

<1> Grønnum, N. (in print), "Prosodic parameters in a variety of Danish Standard languages, with a view towards Swedish and German", *Phonetica*.

