The timing of nuclear and prenuclear Icelandic pitch accents

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Abstract

Two experimental reading studies were designed to test F0 alignment in Icelandic pitch accents with a view to establishing distinct international categories. Four conditions were tested: (i) prenuclear accents; (ii) final nuclear accents in broad focus sentences; (iii) final narrow focus; (iv) non-final narrow focus. The results are such that (i) prenuclear accents are signalled by a late rise (LH*), final nuclear accents by an early rise; (ii) peaks in prenuclear accents are aligned earlier than prenuclear peaks, but later than final nuclear peaks, suggesting a boundary in the sentence (iii) no differences emerged between accents in sentences with broad and narrow focus.

Background (previous research results)

Icelandic word stress: Stress the initial syllable of a word. Pitch accent inventory (Árnason 1998, Dehé 2009):
• two bilateral pitch accents (HL* and LH*)
• two monotonal pitch accents (H” and L”)
• T- perceptually linked to the stressed syllable
• trailing tone completed by the time the next vowel is reached, or more generally, by the end of the following syllable (Árnason 1998)
• no previous research on the exact relation between tonal targets and segmental material

Tonal distribution and intonational meaning:
• high pitch signals a primary accent and is heard as reinforcement of stress (Haugen 1958)
• stable, late H alignment in C1f (CV中式) or C2t (CVC)
• stable, early H alignment within Vt
• perceptually high (falling)
• trailing tone completed by the time the next vowel is reached, or more generally, by the end of the following syllable (Árnason 1998)
• no previous research on the exact relation between tonal targets and segmental material

What we know about Icelandic intonation is unsatisfactory, e.g.:
• no systematic previous research on the distinction between non-nuclear and nuclear pitch accents
• no systematic previous research on differences between focus accents in various positions

This paper looks at the timing and distribution of Icelandic pitch accents in the following environments:
• prenuclear accents in a broad focus context
• non-final nuclear accents (narrow focus)
• sentence-final nuclear accents (broad focus)
• sentence-final nuclear accents (narrow focus)

References


Note: A longer version of this paper, including a perceptual study and syllable-segment duration results, has recently been published as Dehé (2010). Acknowledgements: Participation at Speech Prosody 2010 funded by DAAD (Deutscher Akademischer Austauschdienst)

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