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An echoing tone
Pitch accent parallels in Scandinavia and Scotland

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Plan for today

• North Germanic pitch accent
  – Standard systems: ‘accent 1’ and ‘accent 2’
  – Extended systems: tone and apocope in Danish, Central Scandinavian circumflex
• The origins of North Germanic accents
• Parallel (?) developments in Scottish Gaelic
• Contact explanations?

1 North Germanic pitch accent

1.1 Standard systems

The pitch accent contrast

• Most varieties of Norwegian and Swedish show a pitch accent contrast in (main-)stressed syllables
  •Traditionally:
    – Accent 1 (‘acute’): monosyllables, some polysyllables
      ❧ Sw [ˈand] ‘duck’, [ˈiandes] ‘the duck’
      ❧ No [ˈʋaŋː] ‘water’, [ˈiʋaŋːa] ‘the water’
    – Accent 2 (‘grave’): some polysyllables
      ❧ Sw [ˈiandes] ‘the spirit’
      ❧ No [ˈiʋaŋːa] ‘to water’
Some properties

- No contrast in monosyllables
- Accent 1: ‘high tone’ dialects (e.g. Northern Norway) vs. ‘low tone’ dialects (e.g. Eastern Norway)
- Accent 2: ‘single peak’ dialects (Eastern, Northern Norway, Southern Sweden) vs. ‘double peak’ dialects (Central Sweden, Trøndelag, Rogaland)

Some controversies

- Age of the accent:
- Which accent 2 is archaic?

The origin of accent 2: Proto-Nordic hypothesis

- Basic insight: accent 2 is found in words that have undergone syncope
- Basic claim: the two peaks of accent 2 reflect a stress clash brought about by syncope
  - PN *('[fɔː]tiz) ‘feet’, *[('hɛrdi)(ˈjʊz)] ‘shepherds’
  - Post-syncope: *('[fɔː]tiz], *[('hɛr)(ˈdæːz)]
  - MNo 1føtter, 2hyrder
- Explanandum: why did the single-peaked systems lose their initial high tones?
- Explanation: in a H*HHL accent, the second H drifts leftward and ousts the first H

The origin of accent 2: mediæval hypothesis

- Basic insight: accent 2 appears in words that are polysyllabic in Old Scandinavian
- Basic claim
  - Accent 2 appears in disyllabic words because the peak drifts rightward by peak delay
  - When new disyllabic words arise from cliticization and epenthesis, there is a contrast
- For example
  - ON [ˈakr] ‘field’, [ˈdayr (inn)] ‘(that) day’ with earlier peak
  - ON [ˈɡata] ‘way’ with later peak
  - [ˈakr] ⇒ MNo 1aker (early peak remains)
  - [ˈdayr inn] ⇒ MNo 1dagen (early peak remains)
  - [ˈɡata] ⇒ MNo 2gate (late peak becomes accent 2)
- Explananda: two-peaked accent 2, low tone in accent 1
- Explanation: rightward drift of the peak frees up space in the initial syllable, onglides get reinterpreted as L and then H tones
Questions for the mediæval hypothesis

• Riad (2005) presents some challenges to the mediæval hypothesis

1. Geographical distribution: Central Scandinavia cannot be an innovating area due to difficulties in communication, single-peak accent spreads by sea

Bye (2011) argues against this

2. If single-peak accent is original, there is no account of Danish stød

Hognestad (2007) presents an analysis

3. ‘Vowel balance’ depends on double-peaked accent and it is attested too early for double-peaked accent to have developed

See Hognestad (2012) for some reflections

Height-dissimilation phenomena similar to vowel balance are attested in languages with no double-peaked tonal accent (Russian, Irish, Welsh, Kera)

The typological argument

• Another question:
  "Det har visserligen demonstrerats att tajmningen av en given intonation kan variera beroende på ordlängd [...], men man undrar varför denna typ av tonala kontraster inte uppstår oftare ur stavelseantalsskillnader." Riad 2005, p. 4

• Which takes us to today

1.2 Non-standard systems

Tone and stød in Danish

• Instead of tonal accents, Danish has stød

• Some varieties (notably Funen; Andersen 1958) are described as having stød in ‘free variation’ with some sort of tonal accent

• See Ejskjær (1990, 2006) for discussion

• These tones must be connected to the common North Germanic ones

• Here, I focus on apocope in Zealand Danish (Ringgaard 1960, Ejskjær 1967, 1970, Larsen 1976)

Apocope

• In many varieties of Danish, final [ə] in words like hoppe, masse is deleted (Hansen 1962, pp. 243–246)
  – Variable deletion: Funen (Andersen 1958), Standard Danish (Basbøll 2005)
  – Obligatory deletion: Jutland (Ringgaard 1960), Zealand (Larsen 1976)

• Basbøll 2005: [ˈmas] masse is not distinguishable from [ˈmas] Mads

• Not so in Zealand
Incomplete neutralization

Based on Ejskjær (1967), Larsen (1976)

- A final [ə]-like portion might be present, but not at all frequently (not obvious this is an actual segment)
- Contrast well preserved in sonorant-final words
  - følg! [ˈføl] vs. følge [ˈfølː]
  - omvend! [ˈʌmˌvɛn̥ˀ] vs. omvende [ˈʌmˌvɛn̬ːˀ]
- When words do not end in a sonorant, the main distinction is pitch
  - hop! is [ˈhʌb̥] with a high-toned stressed syllable
  - hoppe is [ˈhʌb̥] with a ‘smoother and later rise’ („jævnere og senere rejsning“)
- The pitch difference is also found in the sonorant-final case

A new contrast?

- This is not described by the sources as a tonal accent contrast
- But that is what it essentially is: pitch reflects syllable count pre-apocope
- Just as under the mediæval hypothesis pitch reflects syllable count pre-epenthesis
- The difference in the placement of the high tone is the same: the peak is later in longer words

The circumflex accent

- The Zealand accent shows a hallmark of tonal behaviour: stability
- The segments go away, but the prosodic structure supporting the tone remains in place
- Another example of this is the so-called circumflex accent
- In a large area of Central Scandinavia (Trøndelag, Norrland, Österbotten, parts of Nordland), CVCV words undergo apocope, especially if the initial syllable was heavy in Old Scandinavian
- In some varieties, the distinction is not neutralized by the introduction of a different pitch accent in apocopated words
- Skogn (Dalen 1985): (et) kast ̸= (å) kåst

Tone and stability

- In some cases, the ‘circumflex’ looks essentially like a truncated accent 2: some of the tones associated with accent 2 fail to surface
- Salten, Lofoten (Lorentz 2008)
- In others, the entire melody is pressed into the single stressed syllable
- Oppdal (Kristoffersen 2001)
- Segments go away, but tones remain: another pitch accent born of syllable structure changes
Interim summary

- The medieval hypothesis for the origin North Germanic tonal accents (implicitly) predicts that changes in syllable structure may give rise to new tonal accent systems
- This prediction is correct within North Germanic
- A key mechanism is tonal stability: tonal changes lag behind changes in the segmental underpinnings of prosodic structure

2 Scottish parallels

2.1 Tonal accents in Scottish Gaelic

Tonal accents in Gaelic

- Many dialects of Gaelic show (near-)minimal pairs apparently distinguished by pitch alone
    - fitheach 'debt' \([1^{\text{fi\text{x}}}x]\) vs. fiach 'raven' \([2^{\text{fi\text{x}}}x]\)
    - adha 'liver' \([1^{\text{ar}}:]\) vs. àth 'ford' \([2^{\text{ar}}:]\)
    - balach 'boy' \([1^{\text{pal\text{\'a}}}x]\) vs. balg 'bellows' \([2^{\text{pal\text{\'a}}}k]\)
- This is sometimes seen as an example of Norse influence on Gaelic (Borgstrøm 1974)

More parallels

- Instead of a tonal contrast, varieties in Argyll show a sort of glottalization similar to Danish stød
    - Arran fitheach \([\text{fi\text{n}ax}]\) vs. fiach \([\text{fi\text{x}}ax]\)
- Usually not seen as a borrowing per se but agreed to be a further development of the tonal system

Where does it come from?

- Accent 1 is associated with words that were disyllabic in Old Irish (or Norse): fitheach, adha, balach
- Accent 2 is associated with words that used to be monosyllabic: fiach, àth, balg

Have we heard this before?
How does it work?

- For Lewis dialects, accent 1 is commonly described as a rise-fall and accent 2 as a rise throughout.
- Ladefoged (2003): a single melody L*H+L associated to different numbers of syllables (truncation of the trailing L in monosyllables)

Have we heard this before?

- M. Brown (2009) nuances this picture, but it is basically correct
  - The basic distinction between accent 1 and 2 is not in terms of different melodies
  - Instead, we have similar melodies placed differently within the same domain
  - Changes in segmental make-up (fricative deletion, epenthesis) do not affect tone placement
- This is exactly parallel to North Germanic under the mediaeval hypothesis
  - Single melody gives different tunes because of domain differences
  - Tonal stability

2.2 Tones and contact

Is it a contact parallel?

- The parallels between the development of tonal accents in Scandinavia and Scotland are striking
- In the proposed reconstruction, the developments are typologically unremarkable and do not require contact
- This is even truer if we consider peak delay

The story of stød

- The glottal stop in Argyll must come from an abrupt fall
  - Stød is also found in East Ulster (Tyrone; Stockman & Wagner 1965, Hughes 1994) and further afield in Ireland
- Why would there be a fall?
- There must have been a high tone at the right edge of the stressed syllable
- Lewis (M. Brown 2009): stressed syllables have L* accent, any high tones are realized after the stress

A proposal

- The patterns of tonal contrasts in the Gaelic languages may have developed along the following lines:
  - (Stage 0): H accent everywhere (Connacht, Munster; Dalton & Ní Chasaide 2007)
– Stage 1: H drifts rightward by peak delay: declarative rises (West Ulster; Dalton & Ní Chasaide 2005)
– Stage 2: H leaves the stressed syllable, L* accent on stressed syllables (Lewis; M. Brown 2009)
– Stage 2a: H runs into a low tone to the right, the fall produces stød (Argyll, East Ulster)

Mapping the proposal

- From an appropriately pan-Gaelic perspective, we find the expected picture of archaism at the periphery
- The most innovative area is the Argyll–East Ulster nexus across the North Channel (Dál Ríata?)
- This makes historical sense!
- The tonal varieties on Lewis are not particularly innovative, so recourse to contact is not really necessary

Conclusion

- The mediæval hypothesis for the origin of North Germanic tonal accents is attractive both empirically and theoretically
- The use of pitch to prevent neutralization of syllable count contrasts is found both in North Germanic and Gaelic

Further questions

1. Given the existence of language contact in Scotland, has there really been no role for it in the appearance of tone?
2. Why is this type of tonal accent contrast so frequent in northern Europe but rare outside it?
References


