

An echoing tone

Pitch accent parallels in Scandinavia and Scotland

Pavel Iosad
University of Edinburgh
pavel.iosad@ed.ac.uk

Nordic Research Network University of Edinburgh 19th February 2015

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’, [ˈanden] ‘the duck’
 - ☞ No [ˈvɑn:] ‘water’, [ˈvɑn:ə] ‘the water’
 - Accent 2 (‘grave’): some polysyllables
 - ☞ Sw [ˈanden] ‘the spirit’
 - ☞ No [ˈvɑn:ə] ‘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:
 - Proto-Nordic (Riad 1992, 1998, 2003)
 - Mediæval period (Oftedal 1952, Elstad 1980, Bye 2004)
- Which accent 2 is archaic?
 - Double peak (Kock 1885, d'Alquen & R. Brown 1992, Riad 1992, 1998, 2000, 2003, 2005)
 - Single peak (Elstad 1980, Bye 2004, 2011, Hognestad 2012)

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 *['fo:)tiz] 'feet', *['herði)(jo:z)] 'shepherds'
 - Post-syncope: *['fø:)tiz], *['her)(,ð̥a:z)]
 - MNo ¹føtter, ²hyrder
- Explanandum: why did the single-peaked systems lose their initial high tones?
- Explanation: in a H*LHL] 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 ['akr] 'field', ['dayr (inn)] '(that) day' with earlier peak
 - ON ['gata] 'way' with later peak
 - ['akr] ⇒ MNo ¹aker (early peak remains)
 - ['dayr inn] ⇒ MNo ¹dagen (early peak remains)
 - ['gata] ⇒ 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!* ['føl] vs. *følge* ['føl:]
 - *omvend!* [ʌm'veŋʔ] vs. *omvende* [ʌm'veŋ:]
 - When words do not end in a sonorant, the main distinction is *pitch*
 - *hop!* is ['hʌb] with a high-toned stressed syllable
 - *hoppe* is ['hʌb] 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
- See Dahlstedt (1962), Liberman (1975), Apalset (1978), Elstad (1979), Dalen (1985), Kristoffersen (1992, 2011), Almberg (2001), Lorentz (2008)
- In some varieties, the distinction is not neutralized by the introduction of a different pitch accent in apocopated words
- Skogn (Dalen 1985): (*et*) ¹*kast* ≠ (*å*) *kâst*

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 2011)
 - Segments go away, but tones remain: another pitch accent born of syllable structure changes

Interim summary

- The mediæval 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
- (Oftedal 1956, Ternes 1980, 2006, MacAulay 1993, Ladefoged et al. 1998, Ladefoged 2003, M. Brown 2009)

- *fitheach* ‘debt’ [1¹fiɔx] vs. *fiach* ‘raven’ [2²fiɔx]
- *adha* ‘liver’ [1¹a:] vs. *àth* ‘ford’ [2²a:]
- *balach* ‘boy’ [1¹palʋax] vs. *balg* ‘bellows’ [2²palʋak]

- 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
- (Holmer 1938, 1954, 1962, Ternes 1980, Smith 1999, Jones 2000, 2006, 2010)

- Arran *fitheach* [1¹fiʔax] vs. *fiach* [1¹fiax]

- 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 mediæval 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

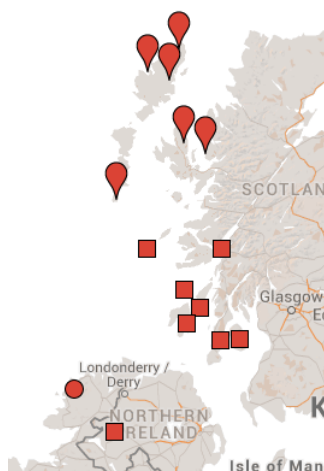
- The glottal stop in Argyll must come from an abrupt fall
- ☞ Similar proposals for Danish stød in Itô & Mester (1997), Riad (2000), Hognestad (2007)
- ☞ Stød is also found in East Ulster (Tyrone; Stockman & Wagner 1965, Hughes 1994) and further afield in Ireland
- Why would there be a fall?
- There 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 Riata?)
- 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

- Almberg, Jørn. 2001. The circumflex tone in a Norwegian dialect. In Wim van Dommelen & Thorstein Fretheim (eds.), *Nordic Prosody: Proceedings of the VIIIth conference, Trondheim 2000*, 19–28. Frankfurt: Peter Lang.
- Andersen, Poul. 1958. *Fonemsystemet i østfynsk. På grundlag af dialekten i Revninge sogn* (Udvalg for folkemaals publikationer. Serie A 14). København: J. H. Schultz forlag.
- Apalset, Asbjørg. 1978. Apokope og circumfleks i Leksvikmålet. In Ingeborg Hoff (ed.), *På leit etter ord: Heidersskrift til Inger Frøyset*, 11–26. Oslo, Bergen, Tromsø: Universitetsforlaget.
- Basbøll, Hans. 2005. *The phonology of Danish*. Oxford: Oxford University Press.
- Borgstrøm, Carl Hjalmar. 1974. On the influence of Norse on Scottish Gaelic. *Lochlann* 6. 91–107.
- Brown, Morag. 2009. *An investigation into prosodic patterns in the Ness dialect of Scottish Gaelic*. Edinburgh: University of Edinburgh MA (Hons) dissertation.
- Bye, Patrik. 2004. Evolutionary typology and Scandinavian pitch accent. MS., University of Tromsø.
- Bye, Patrik. 2011. Mapping innovations in North Germanic using GIS. *Oslo Studies in Language* 3(2): *Language variation infrastructure*. Janne Bondi Johannessen (ed.). 5–29.
- Dahlstedt, Karl-Hampus. 1962. *Det svenska vilhelminamålet: Språkgeografiska studier över ett norrländskt nybyggarmål och dess grannndialekter. Del 2: Kvantitet. Apokope* (Skrifter utgivna genom Landsmåls- och folkminnearkivet i Uppsala. A: Folkmål 7.2). Uppsala: Almqvist & Wiksell.
- Dalen, Arnold. 1985. *Skognamålet: Ein fonologisk analyse*. Oslo: Novus.
- d'Alquen, Kevin & Richard Brown. 1992. The origin of Scandinavian accents I and II. In Irmengard Rauch, Gerald F. Carr & Robert L. Kyes (eds.), *On Germanic linguistics: Issues and methods* (Trends in Linguistics: Studies and Monographs 68), 61–80. Berlin & New York: Walter de Gruyter.
- Dalton, Martha & Ailbhe Ní Chasaide. 2005. Tonal alignment in Irish dialects. *Language and Speech* 48(4). 441–464.
- Dalton, Martha & Ailbhe Ní Chasaide. 2007. Nuclear accents in four Irish (Gaelic) dialects. In, *Proceedings of ICPhS XVI*, 965–968. Saarbrücken. <http://www.icphs2007.de/conference/Papers/1640/1640.pdf>.
- Ejlskjær, Inger. 1967. *Kortvokalstødet i sjællandsk* (Udvalg for folkemaals publikationer. Serie A 22). København: Akademisk forlag.
- Ejlskjær, Inger. 1970. *Fonemsystemet i østsjællandsk. På grundlag af dialekten i Strøby sogn* (Udvalg for folkemaals publikationer. Serie A 24). København: Akademisk forlag.
- Ejlskjær, Inger. 1990. Stød and pitch accents in the Danish dialects. *Acta Linguistica Hafniensia* 22(1). 49–75.
- Ejlskjær, Inger. 2006. Glottal stop (stød, parasitic plosive) and (distinctive) tonal accents in the Danish dialects. In Michiel de Vaan (ed.), *Germanic tone accents: Proceedings of the First International Workshop on Franconian Tone Accents, Leiden, 13–14 June 2003* (Beihefte zur Zeitschrift für Dialektologie und Linguistik 131), 15–24. Stuttgart: Franz Steiner Verlag.
- Elstad, Kåre. 1979. Det nordnorske circumflekstønet. In Eva Gårding, Gösta Bruce & Robert Bannert (eds.), *Nordic prosody* (Travaux de l'Institut de linguistique de Lund 13), 165–174. Lund: Gleerup.
- Elstad, Kåre. 1980. Some remarks on Scandinavian tonogenesis. *Nordlyd* 3. 62–77.
- Hansen, Aage. 1962. *Den lydlige udviklingen i dansk fra ca. 1300 til nutiden*. Vol. 1: Vokalismen. København: G. E. C. Gads forlag.
- Hognestad, Jan K. 2007. Tonelag i Flekkefjord bymål. *Norsk lingvistisk tidsskrift* 25(1). 57–88.
- Hognestad, Jan K. 2012. *Tonelagsvariasjon i norsk*. Kristiansand: University of Agder PhD thesis.
- Holmer, Nils M. 1938. *Studies on Argyllshire Gaelic* (Skrifter utgivna av Kungliga Humanistiska Vetenskaps-samfundet i Uppsala 31). Uppsala: Almqvist & Wiksell.
- Holmer, Nils M. 1954. *The Gaelic of Arran*. Dublin: Dublin Institute for Advanced Studies.
- Holmer, Nils M. 1962. *The Gaelic of Kintyre*. Dublin: Dublin Institute for Advanced Studies.

- Hughes, Art J. 1994. A phonetic glossary of Tyrone Irish. *Zeitschrift für celtische Philologie* 36. 119–163.
- Itô, Junko & Armin Mester. 1997. Stø[?]det i dansk. Handout, Scandinavian Summer School in Generative Phonology, Hvalfjarðarströnd.
- Jones, George. 2000. Beagan mu'n stad ghlotasach ann an Gàidhlig Ceann a Deas Earraghaidheil. *Scottish Gaelic Studies* 20. 201–211.
- Jones, George. 2006. Cunntas air an stad ghlotasach ann an Gàidhlig Ceann a Deas Earra Ghàidheal. In Wilson McLeod, James E. Fraser & Anja Gunderloch (eds.), *Cànan & Cultar / Language & Culture: Rannsachadh na Gàidhlig* 3, 193–202. Edinburgh: Dunedin Academic Press.
- Jones, George. 2010. *The Gaelic of Jura: A description*. Aberystwyth: Aberystwyth University PhD thesis.
- Kock, Axel. 1885. *Språkhistoriska undersökningar om svensk accent*. Vol. 2. Lund: J. W. Gleerup.
- Kristoffersen, Gjert. 1992. Cirkumflekstonelaget i norske dialekter, med særlig vekt på nordnorsk. *Maal og Minne* 1992(1). 37–61.
- Kristoffersen, Gjert. 2011. Cirkumflekstonelaget i Oppdal. *Norsk lingvistisk tidsskrift* 29(2). 221–262.
- Ladefoged, Peter. 2003. Commentary: some thoughts on syllables — an old-fashioned interlude. In John Local, Richard Ogden & Rosalind A. M. Temple (eds.), *Papers in laboratory phonology VI*, 269–276. Cambridge: Cambridge University Press.
- Ladefoged, Peter, Jenny Ladefoged, Alice Turk, Kevin Hind & St. John Skilton. 1998. Phonetic structures of Scottish Gaelic. *Journal of the International Phonetic Association* 28(1). 1–41.
- Larsen, Jørgen. 1976. Det sjællandske »tostavelsesord«. In Kristian Hald, Christian Lisse & John Kousgård Sørensen (eds.), *Studier i dansk dialektologi og sproghistorie tilegnede Poul Andersen*, 193–206. København: Akademisk forlag.
- Lieberman, Anatoly. 1975. Scandinavian circumflexes. *Norsk tidsskrift for sprogvidenskap* 29. 169–197.
- Lorentz, Ove. 2008. Tonelagsbasis i norsk. *Maal og Minne* 2008(1). 50–68.
- MacAulay, Donald. 1993. The Scottish Gaelic language. In Donald Macaulay (ed.), *The Celtic languages* (Cambridge Language Surveys), 137–248. Cambridge: Cambridge University Press.
- Oftedal, Magne. 1952. On the origin of the Scandinavian tone distinction. *Norsk tidsskrift for sprogvidenskap* 16. 201–225.
- Oftedal, Magne. 1956. *The Gaelic of Leurbost, Isle of Lewis* (A linguistic survey of the Gaelic dialects of Scotland 3). Oslo: W. Aschehoug & Co.
- Riad, Tomas. 1992. *Structures in Germanic prosody*. Stockholm: Stockholm University PhD thesis.
- Riad, Tomas. 1998. The origin of Scandinavian tone accent. *Diachronica* 15(1). 63–98.
- Riad, Tomas. 2000. The origin of Danish *stød*. In Aditi Lahiri (ed.), *Analogy, leveling, markedness*, 261–300. Berlin, New York: Mouton de Gruyter.
- Riad, Tomas. 2003. Diachrony of the Scandinavian accent typology. In Paula Fikkert & Haike Jacobs (eds.), *Development in prosodic systems* (Studies in Generative Grammar 58), 91–144. Berlin: Mouton de Gruyter.
- Riad, Tomas. 2005. Historien om tonaccenten. *Studier i svensk språkhistoria* 8. 1–27.
- Ringgaard, Kristen. 1960. The apocope of disyllables. *Phonetica* 10(3–4). 222–230.
- Smith, Norval. 1999. A preliminary account of some aspects of Leurbost Gaelic syllable structure. In Harry van der Hulst & Nancy Ritter (eds.), *The syllable: Views and facts* (Studies in Generative Grammar 45), 577–630. Berlin: Mouton de Gruyter.
- Stockman, Gerald & Heinrich Wagner. 1965. Contributions towards a study of Tyrone Irish. *Lochlann* 3. 43–236.
- Ternes, Elmar. 1980. Scottish Gaelic phonemics viewed in a typological perspective. *Lingua* 52(1–2). 73–88.
- Ternes, Elmar. 2006. *The phonemic analysis of Scottish Gaelic, based on the dialect of Applecross, Ross-shire*. 3rd revised. Dublin: Dublin Institute for Advanced Studies.