

The Norse influence on Scottish Gaelic, 85 years on

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

Forum for Research on the Languages of Scotland and Ulster
University of Glasgow
23rd August 2018

1 Introduction

1.1 The background

- Scottish Gaelic shows extensive lexical and toponymic influence from West Norse
- Several phonological features of Gaelic have been hypothesized to show Norse influence
 - Preaspiration of /p t k/
 - Voicelessness of /b d g/
 - Tonal phenomena
- The supposed vector of borrowing is language shift from Norse to Gaelic after the end of the Viking Era
- Could preaspiration be an internal development instead?
- These questions matter for the history of Gaelic, but also for the history of the speakers

1.2 The argument: focus on preaspiration

- Preaspiration as a phonetic rule is a common (northern) Gaelic innovation
- Dialect geography and the life cycle model of phonological processes confirm:
 - Preaspiration historically all over Gaelic Scotland
 - Centre of innovation in West Perthshire and North Argyll
- Neither of these is compatible with either possible scenario for Norse influence
 - Rapid shift by interference with L2 speaker agency
 - Long-term convergence in bilingual communities with L1 speaker agency
- There is no compelling evidence pointing towards a Norse source

2 Norse influence on Scottish Gaelic

2.1 Carl Marstrander

- *Bidrag til det norske sprogs historie i Irland* (1915), on Norse material in Old Gaelic:
- «Materialet viser en række sproglige eiendommeligheder som ikke alene er fuldt avgjørende for sprogets norske karakter men som endog tillater os at bestemme det som *et typisk sydvestnorsk maalføre, nær beslægtet med de norske dialekter paa de skotske øer, Færøerne, Jæren og Agder.*»
- *Okklusiver og substrater* (1932), on Norse substrate influence:
- «det gelisk som de norske masser i Skottland talte har til alle tider vært et gelisk som har vært sterkt farvet av norsk artikulasjon [...] dette norskstemplede gelisk endte med å erobre hele det gelisktalende Skottland»

2.2 Carl Borgstrøm

- *On the influence of Norse on Scottish Gaelic* (1974): '[T]he Norsemen in the North of Scotland transmitted two features of their Norse dialect to Gaelic [...] the features served to *maintain phonemic distinctions in Gaelic*; preaspiration was instrumental in upholding the distinction between *tenues* and *mediae*'

2.3 Gunnar Ólafur Hansson

- Gunnar Ólafur Hansson (2001, p. 170), on preaspiration in North Germanic:
- 'The theory that preaspiration in Gaelic is due to Norse influence [...] remains the most convincing explanation to date'

3 Questioning the Norse influence

3.1 Compensatory accounts

- Ó Baoill (1980): preaspiration is an internal development to preserve syllable quantity
- Ní Chasaide (1986) offers a detailed critique of both Marstrander/Borgstrøm and Ó Baoill, and argues it is an internal development to maintain *consonant* length

3.2 Systemic accounts

- Some accounts rely at least partly on contrast preservation
- Ó Murchú (1985): [197], on the diversity of laryngeal contrasts in Gaelic: 'if one postulates that the devoicing of /b d g/ began in, or near, the region which has now merged the older oppositions, the evolution of modern variants would quite straightforwardly involve the progressive spread from south-east to the north-west [...] of the new phonetics, with the more westerly varieties remaining conservative and reinforcing the older opposition by a compensatory intensification of pre-aspiration'

- Ó Maolalaigh (2010, p. 392): ‘[W]e are not yet at a stage — and it is possible that we will never be — when we can say definitively whether preaspiration in Scottish Gaelic is a thoroughly Norse inheritance, although in some dialects, especially Lewis, it is difficult to deny a Norse connection’

4 The geography of preaspiration

4.1 Preaspiration in Scotland

4.2 Dialect geography

- The ‘central’ zone has oralized preaspiration [xp xt xk]
- ‘Peripheral’ zones have weak preaspiration [^hp ^ht ^hk] or lose it altogether [p t (x)k]
- Dialect geography suggests ‘peripheral’ zones are archaic, ‘central’ zones are innovative
- If the development is [^hp ^ht ^hk] > [hp ht hk] > [xp xt xk], then the presumed scenario is (Borgstrøm 1974):
 - Genesis of preaspiration in the north-west
 - Spread towards the south and east
 - Innovation in the central zone

4.3 Other scenarios of origin

- Ó Murchú (1985): the development of preaspiration is triggered by the devoicing of /b d g/, which is an eastern phenomenon, so the development is east-to-west
- Ó Maolalaigh (2010) assumes [hp ht hk] is older, links oralization to the loss of postvocalic [h]

5 Dialect geography and the life cycle

5.1 The proposal

- My argument today: the development of preaspiration in Gaelic is best explained in the context of the *life cycle of phonological processes*
- See Bermúdez-Otero (2007, 2015), Bermúdez-Otero & Trousdale (2012) on the model itself and Ramsammy (2015) on diatopic implications
- Sound change proceeds along a trajectory
 - Automatic phonetic phenomena
 - Controlled phonetic rules
 - Phonological rules
 - Lexicalization

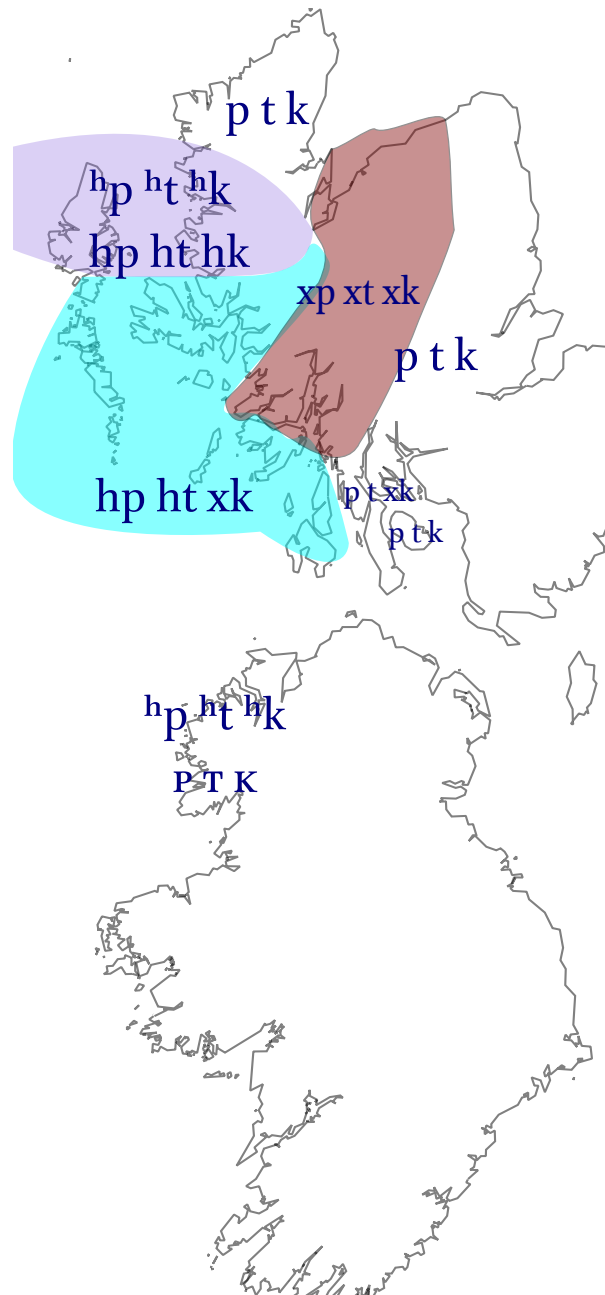


Figure 1: Fortis stops in Scotland and Ireland

- Progression along the life cycle coexists with other processes such as rule generalization (Vennemann 1972a), rule inversion (Vennemann 1972b), or rule telescoping (Bach & Harms 1972)

5.2 The life cycle: phonetic precursors

- Phonological preaspiration must have developed from a non-controlled occasional mistiming of laryngeal opening relative to stop closure (cf. Hejné 2015)
- This may be more common than previously acknowledged
 - Cf. Welsh (Morris 2010, Morris & Hejné forthcoming, Iosad 2017)
- Preaspiration is described for Ulster Irish by Ní Chasaide & Ó Dochartaigh (1984); Ní Chasaide (1986) (also reported by MacInnes (1992), unless he is referring to Ní Chasaide's work)
- Could the 'fortis'/'lenis' distinction in stops made for Ulster Irish by scholars such as Wagner (1959) involve some preaspiration?
- In view of the Irish evidence, the existence of the phonetic precursor to phonological preaspiration seems assured

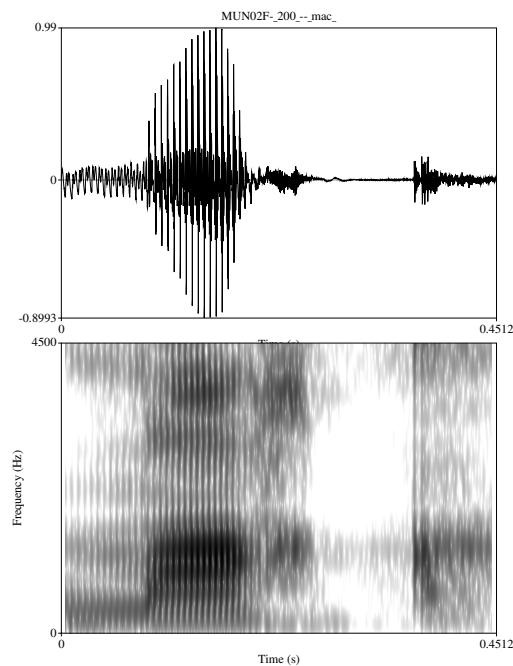


Figure 2: Preaspiration in a Munster Irish speaker: *mac*

5.3 The life cycle: phonologization

- Introduction of a language-specific, phonetic rule
 - Lewis [ʰp ʰt ʰk] (Ladefoged et al. 1998, Clayton 2010, Nance & Stuart-Smith 2013)
 - Likely also Donegal Irish (Ní Chasaide 1986)

5.4 The life cycle: stabilization

- In some dialects, there is strong evidence for a *phonological* rule
- South Argyll (Jones 2006, Iosad, Ramsammy & Honeybone 2015, Scouller 2017): preaspiration contributes to syllable weight, because it blocks glottal stop insertion
- *tapaidh* [tʰa(*ʔ)hpi] and *bailtean* [pa(*ʔ)lʲən] vs. *radan* [Raʔtan], *balaich* [paʔlʲiç]

5.5 Further changes: preaffrication

- Oralization in [hk] > [xk] to produce the [hp ht xk] system
- Ó Maolalaigh (2010, p. 380): ‘While a number of scholars have derived the “maximum intensity” form of preaspiration [xp xt xk] from one of the weaker forms [ʰp ʰt ʰk] [hp ht hk], no one has yet put forward a convincing explanation for why [x] developed as the sole marker of preaspiration’
- There are good phonetic reasons why pre-affrication targets [k] first: glottal preaspiration is longest and most frequent before [k] (Ní Chasaide 1986, Clayton 2010, Nance & Stuart-Smith 2013)
- [hk] → [xk] is a synchronic rule: [xk] from /k/ shows distinct behaviour from underlying /xk/ in slenderization
- *muice* can be [muçki] but no Gaelic dialect has **nas boichde*

5.6 Further changes: rule generalization

- At the previous stage, the rule is /h/ → [x] / __[dorsal fortis stop]
- Rule generalization: /h/ → [x] / __[fortis stop]
- This produces the [xp xt xk] system of much of the mainland and North Argyll (e.g. Lisimore, Ardnamurchan)
- This may well be in response to the rise of the constraint against postvocalic [h] (Ó Maolalaigh 2010)

5.7 Further changes: loss

- Clayton (2010) argues that [p t xk] systems are produced by the loss of preaspiration from [hp ht xk] systems
- Again, this may be a response to the *Vh constraint

5.8 The life cycle: lexicalization

- At some point, preaffrication reached the end of the life cycle: there is no productive rule creating [x] before fortis stops
- MacInnes (1992): even where native *tac(an)* is [tʰaxk(an)], English *tack* is [tʰaʰk]
- Incidentally, the survival of preaspiration even after the birth of oralization supports the life cycle model, as it is an instance of *rule scattering* (Bermúdez-Otero 2015)

5.9 The life cycle: conclusion

- The development and diatopic distribution of preaspiration types in Gaelic is entirely consistent with an internal development driven by the life cycle
- The life cycle is normally unidirectional (Bermúdez-Otero 2007)
- It *can* be disrupted by contact, but we do not see this in our data
- The *starting point* for the development is variable preaspiration *all across* the Gaelic-speaking territory
- Ask me about the relationship between preaspiration and [b d g] devoicing

6 The history of preaspiration

6.1 Phonetic interference in language contact

- Current models of language contact (e.g. Thomason & Kaufman 1988, van Coetsem 2000, Winford 2005, Trudgill 2011) allow us to reconstruct aspects of the contact situation from the linguistic outcomes
- For Celtic and Germanic, see most recently Stewart (2004); Lindqvist (2015); Lewin (2017)
- Phonetic interference can have one of two sources:
 - L2 speaker agency / shift-induced interference: rapid shift of large numbers of second-language speakers to a socially dominant language
 - L1 speaker agency / convergence under long-term bilingualism
- How plausible are these scenarios in the case of Gaelic preaspiration?

6.2 Back to ‘central zones’

- Under the life cycle account, the [xp xt xk] zone in North Argyll and West Perthshire undergoes the largest number of innovations
- This is plausible given that this was the ‘centre of gravity’ of Gaelic culture before the fall of the Lordship of the Isles and the retreat towards the north-west (MacInnes 1992, Gillies 2009)
- Under this account, the spread of preaspiration bears no special affinity to the regions of heavy Norse settlement

6.3 Mechanisms of Norse influence: shift-induced interference

- The breakdown of Norse power creates an incentive for Norse speakers to shift to Gaelic
- If ‘Norse-accented’ Gaelic spread over the entire Gàidhealtachd, we expect
 - High prestige for Norse (Borgstrøm 1974); or
 - Very large numbers of speakers
- If Norse (or Norse-accented Gaelic) had high status, why would speakers shift *from* it?

6.4 Mechanisms of Norse influence: bilingual convergence

- Another possibility: preaspiration appeared in the speech of bilinguals due to long-term convergence
- Thorny issue of the population history in Norse-influenced areas
- Long recognized division between Outer Hebrides and more southerly ‘hybrid’ areas (e.g. Jennings & Kruse 2009a, Clancy 2011)
- Evidence for continuity / bilingual society, such as
 - Internal chronology in Gaelic appellative and toponymic lexicon (e.g. Oftedal 1975, Cox 2004, 2010)
 - Names and naming practices (e.g. Gammeltoft 2007)
 - Toponymic evidence (e.g. Whyte 2017)
 - Archaeological rethinking (e.g. Barrett 2003)
- Increasing recognition that Celtic-Germanic contact in the medieval and early modern period may involve less rapid shift and more prolonged coexistence:
 - Lindqvist (2015) on ‘Celticized’ West Norse
 - Lewin (2017) on Manx
 - Maguire (2018) on Ulster English
- Under this account, the central role of the Argyll / Highland Perthshire region is almost entirely unexplained
- The evidence *may* be consistent with large numbers of Norse-Gaelic bilinguals for a long enough time to effect the convergence, but likely only in the Western Isles
- For Argyll, the picture of settlement seems to be quite mixed (e.g. Jennings & Kruse 2009b, Whyte 2017), and a crucial role for the bilingual population seems difficult to justify

7 Conclusion

7.1 The development of preaspiration

- Preaspiration in Scottish Gaelic develops from a variable phonetic process found all across Gaelic varieties, probably in both Ireland and Scotland
- The phonological patterning and diatopic variation of preaspiration in Gaelic is entirely explained by the life cycle model of phonological processes

- The development of preaspiration is consistent with a centre of innovation in Argyll and Perthshire, in line with the cultural evidence
- Nothing in the development indicates a necessary, or even a plausible, role for speakers of Norse in the development of preaspiration

7.2 Why the parallels?

- The clustering of preaspiration in unrelated languages such as Gaelic, Icelandic, Norwegian, and the Sámi languages remains unexplained
- In Iosad (in preparation), I argue that the similarity is due to the life cycle model and the importance of metrical structure in these languages' phonological systems
- For an overview of the argument, see <https://keybase.pub/piosad/linguistic-circle-sprachlandschaft.pdf>
- Feedback always welcome!

References

- Bach, Emmon & Robert T. Harms. 1972. How do languages get crazy rules? In Robert P. Stockwell & Ronald K. S. Macaulay (eds.), *Linguistic change and generative theory*, 1–21. Bloomington: Indiana University Press.
- Barrett, James H. 2003. Culture contact in Viking Age Scotland. In James H. Barrett (ed.), *Contact, continuity, and collapse: The Norse colonization of the North Atlantic* (Studies in the Early Middle Ages 5), 73–112. Turnhout: Brepols.
- Bermúdez-Otero, Ricardo. 2007. Diachronic phonology. In Paul de Lacy (ed.), *The Cambridge handbook of phonology*, 497–518. Cambridge: Cambridge University Press.
- Bermúdez-Otero, Ricardo. 2015. Amphichronic explanation and the life cycle of phonological processes. In Patrick Honeybone & Joseph C. Salmons (eds.), *The Oxford handbook of historical phonology*, 374–399. Oxford: Oxford University Press.
- Bermúdez-Otero, Ricardo & Graeme Trousdale. 2012. Cycles and continua: On unidirectionality and gradualness in language change. In Terttu Nevalainen & Elizabeth Closs Traugott (eds.), *Handbook on the history of English: Rethinking approaches to the history of English*, 691–720. Oxford: Oxford University Press.
- Borgstrøm, Carl Hjalmar. 1974. On the influence of Norse on Scottish Gaelic: Preaspiration of stops and pitch patterns. *Lochlann* 6. 91–107.
- Clancy, Thomas Owen. 2011. Gaelic in medieval Scotland: Advent and expansion. *Proceedings of the British Academy* 167. 349–392.
- Clayton, Ian. 2010. *On the natural history of preaspirated stops*. Chapel Hill: University of North Carolina at Chapel Hill PhD thesis.
- Cox, Richard A. V. 2004. The Norse element in Scottish place-names. In Cathal G. Ó Háinle & Donald E. Meek (eds.), *Unity in diversity: Studies in Irish and Scottish Gaelic language, literature and history* (Léann na Tríonóide / Trinity Irish Studies 1), 37–50. Dublin: School of Irish, Trinity College Dublin.

- Cox, Richard A. V. 2010. Faclan-iasaid às an Lochlannais ann an Gàidhlig na h-Albann. In Gillian Munro & Richard A. V. Cox (eds.), *Cànan & Cultar / Language & Culture: Rannsachadh na Gàidhlig* 4, 1–6. Edinburgh: Dunedin Academic Press.
- Gammeltoft, Peder. 2007. Scandinavian naming-systems in the Hebrides: A way of understanding how the Scandinavians were in contact with Gaels and Picts? In Beverley Ballin Smith, Simon Taylor & Gareth Williams (eds.), *West over sea: Studies in Scandinavian sea-borne expansion and settlement before 1300*. A Festschrift in honour of Dr Barbara E. Crawford (The Northern World 31), 479–496. Leiden & Boston: Brill.
- Gillies, William. 2009. Scottish Gaelic. In Martin J. Ball & Nicole Müller (eds.), *The Celtic languages*, 2nd edn. (Routledge Language Family Series), 230–304. London & New York: Routledge.
- Gunnar Ólafur Hansson. 2001. Remains of a submerged continent: Preaspiration in the languages of Northwest Europe. In Laurel J. Brinton (ed.), *Historical linguistics 1999: Selected papers from the 14th International Conference on Historical Linguistics, Vancouver, 9–13 August 1999* (Current Issues in Linguistic Theory 215), 157–173. Amsterdam: John Benjamins.
- Hejná, Michaela. 2015. *Pre-aspiration in Welsh English: A case study of Aberystwyth*. Manchester: University of Manchester PhD thesis.
- Iosad, Pavel. In preparation. *Phonological drift and language contact: The northern European phonological area*. Under contract to Cambridge University Press.
- Iosad, Pavel. 2017. The ATR/Laryngeal connection and emergent features. In Bert Botma & Marc van Oostendorp (eds.), *Primitives of phonological structure*. Oxford: Oxford University Press. Forthcoming.
- Iosad, Pavel, Michael Ramsammy & Patrick Honeybone. 2015. *Preaspiration in North Argyll Gaelic and its contribution to prosodic structure*. Presentation at the Forum for Research on the Languages of Scotland and Ulster, University of the West of Scotland, Ayr. <http://edin.ac/2uMNbON> (28 July, 2017).
- Jennings, Andrew & Arne Kruse. 2009a. From Dál Riata to the Gall-Ghàidheil. *Viking and Medieval Scandinavia* 5, 123–149.
- Jennings, Andrew & Arne Kruse. 2009b. One coast — three peoples: Names and ethnicity in the Scottish west during the early Viking period. In Alex Woolf (ed.), *Scandinavian Scotland – twenty years after: Proceedings of a day conference held on 19 February 2007* (St John's House Papers 12), 75–102. St Andrews: University of St Andrews Committee for Dark Age Studies.
- Jones, George. 2006. Cunntas air an stad ghlotasach ann an Gàidhlig Ceann a Deas Earra Ghàidheil. In Wilson McLeod, James E. Fraser & Anja Gunderloch (eds.), *Cànan & Cultar / Language & Culture: Rannsachadh na Gàidhlig* 3, 193–202. Edinburgh: Dunedin Academic Press.
- Ladefoged, Peter et al. 1998. Phonetic structures of Scottish Gaelic. *Journal of the International Phonetic Association* 28(1), 1–41.
- Lewin, Christopher. 2017. 'Manx hardly deserved to live': Perspectives on language contact and language shift. *Zeitschrift für celtische Philologie* 64(1), 141–206.
- Lindqvist, Christer. 2015. *Norn im keltischen Kontext*. Amsterdam: John Benjamins.

- MacInnes, John. 1992. The Scottish Gaelic language. In Glanville Price (ed.), *The Celtic connection*, 101–130. Gerrards Cross: Colin Smythe. Reprinted in Michael Newton (ed.). 2010. *Dùthchas nan Gàidheal: Collected essays of John MacInnes*. Edinburgh: Birlinn, 2010.
- Maguire, Warren. 2018. The origins of epenthesis in liquid + sonorant clusters in Mid-Ulster English. *Transactions of the Philological Society*. Forthcoming.
- Marstrander, Carl J. S. 1915. *Bidrag til det norske sprogs historie i Irland* (Videnskabs-Selskabets skrifter. II. Hist.-Filos. Klasse 5). Kristiania: I kommission hos Jacob Dybwad. ARK: 13960/t1rf63b49.
- Marstrander, Carl J. S. 1932. Okklusiver og substrater. *Norsk tidsskrift for sprogvidenskap* 5. 258–304.
- Morris, Jonathan. 2010. Phonetic variation in North Wales: preaspiration. In *Proceedings of the Second Summer School on Sociolinguistics, University of Edinburgh*. <http://www.lel.ed.ac.uk/ssocio/proceedings/Jon.pdf>.
- Morris, Jonathan & Michaela Hejná. Forthcoming. Pre-aspiration in Bethesda Welsh: A socio-phonetic analysis. *Journal of the International Phonetic Association* ().
- Nance, Claire & Jane Stuart-Smith. 2013. Pre-aspiration and post-aspiration in Scottish Gaelic stop consonants. *Journal of the International Phonetic Association* 43(2). 129–152.
- Ní Chasaide, Ailbhe. 1986. *Preaspiration in phonological stop contrasts: An instrumental phonetic study*. Bangor: University College of North Wales PhD thesis.
- Ní Chasaide, Ailbhe & Cathair Ó Dochartaigh. 1984. Some durational aspects of preaspiration. In Jo-Ann Higgs & Robin Thelwall (eds.), *Topics in linguistic phonetics: in honour of E. T. Uldall* (Occasional Papers in Linguistics and Language Learning 9), 141–157. Coleraine: The New University of Ulster.
- Ó Baoill, Dónall P. 1980. Preaspiration, epenthesis and vowel lengthening: Interrelated and of similar origin? *Celtica* 13. 79–108.
- Ó Maolalaigh, Roibeard. 2010. The sound of silence: Some structural observations on preaspiration in Scottish Gaelic. In Wilson McLeod et al. (eds.), *Bile ós chrannaibh: A Festschrift for William Gillies*, 365–404. Ceann Drochaid: Clann Tuirc.
- Ó Murchú, Máirtín. 1985. Varia VIII: Devoicing and pre-aspiration in varieties of Scots Gaelic. *Ériu* 36. 195–198. JSTOR: 30007809.
- Oftedal, Magne. 1975. Norse place-names in Celtic Scotland. In Brian Ó Cuív (ed.), *The impact of the Scandinavian invasions on the Celtic-speaking peoples c. 800–1100 AD: Introductory papers read at plenary sessions of the International Congress of Celtic Studies, held in Dublin, 6–10 July, 1959*, 43–50. Dublin: Dublin Institute for Advanced Studies.
- Ramsammy, Michael. 2015. The life cycle of phonological processes: Accounting for dialectal microtypologies. *Language and Linguistics Compass* 9(1). 33–54.
- Scouller, Alastair MacNeill. 2017. *The Gaelic dialect of Colonsay*. Edinburgh: University of Edinburgh PhD thesis.
- Stewart Thomas W., Jr. 2004. Lexical imposition: Old Norse vocabulary in Scottish Gaelic. *Diachronica* 21(2). 393–420.
- Thomason, Sarah G. & Terrence Kaufman. 1988. *Language contact, creolization, and genetic linguistics*. Berkeley: University of California Press.

- Trudgill, Peter. 2011. *Sociolinguistic typology: Social determinants of linguistic complexity*. Oxford: Oxford University Press.
- Van Coetsem, Frans. 2000. *A general and unified theory of the transmission process in language contact*. Heidelberg: Winter Verlag.
- Vennemann, Theo. 1972a. Phonetic analogy and conceptual analogy. In Theo Vennemann & Terence H. Wilbur (eds.), *Schuchardt, the Neogrammarians, and the transformational theory of phonological change*, 181–204. Frankfurt: Athenäum Verlag.
- Vennemann, Theo. 1972b. Rule inversion. *Lingua* 29. 209–242.
- Wagner, Heinrich. 1959. *Gaeilge Theilinn: Foghraidheacht, gramadach, téacsanna*. Dublin: Dublin Institute for Advanced Studies.
- Whyte, Alasdair C. 2017. *Settlement names and society: Analysis of the medieval districts of Forsa and Moloros in the parish of Torosay, Mull*. Glasgow: University of Glasgow PhD thesis.
- Winford, Donald. 2005. Contact-induced changes: Classification and processes. *Diachronica* 22(2). 373–427.