

Phonological Drift and Language Contact

Several language families of northern Europe – Germanic, Celtic, and Uralic – share phonetic and phonological patterns that are typologically unusual. This book demonstrates how we can better understand these convergences: they exemplify the phenomenon of drift. Using the latest advances in theoretical linguistics, the study of sound change, and language variation, it offers insights into the development of these features and what they tell us about past cultural and linguistic contacts. Although the languages are not closely related, an understanding of drift grounded in the theory of the life cycle of phonological patterns reveals the workings of convergent developments. Covering a wide range of vernacular varieties, this book shows how phonological microvariation is illuminated by an approach grounded in the theory of the life cycle and historical sociolinguistics. It is essential reading for historical and theoretical linguists, and anyone with an interest in the cultural and linguistic contacts across northern Europe.

PAVEL IOSAD is Professor of Synchronic and Diachronic Phonology at the University of Edinburgh. His work spans theoretical phonology and historical linguistics, with a focus on Celtic, Germanic, Romance, and Slavic languages. His notable publications include *A Substance-Free Framework for Phonology* (2017).



Phonological Drift and Language Contact

The Northwest European Phonological Area

Pavel Iosad

The University of Edinburgh







Shaftesbury Road, Cambridge CB2 8EA, United Kingdom

One Liberty Plaza, 20th Floor, New York, NY 10006, USA

477 Williamstown Road, Port Melbourne, VIC 3207, Australia

314–321, 3rd Floor, Plot 3, Splendor Forum, Jasola District Centre, New Delhi – 110025, India

103 Penang Road, #05-06/07, Visioncrest Commercial, Singapore 238467

Cambridge University Press is part of Cambridge University Press & Assessment, a department of the University of Cambridge.

We share the University's mission to contribute to society through the pursuit of education, learning and research at the highest international levels of excellence.

www.cambridge.org

Information on this title: www.cambridge.org/9781108497381

DOI: 10.1017/9781108608855

© Pavel Iosad 2025

This publication is in copyright. Subject to statutory exception and to the provisions of relevant collective licensing agreements, no reproduction of any part may take place without the written permission of Cambridge University Press & Assessment.

When citing this work, please include a reference to the DOI 10.1017/9781108608855

First published 2025

A catalogue record for this publication is available from the British Library

A Cataloging-in-Publication data record for this book is available from the Library of Congress

ISBN 978-1-108-49738-1 Hardback

Additional resources for this publication at http://www.cambridge.org/losad

Cambridge University Press & Assessment has no responsibility for the persistence or accuracy of URLs for external or third-party internet websites referred to in this publication and does not guarantee that any content on such websites is, or will remain, accurate or appropriate.



Contents

Li	st of T	Tables	page viii
Li	st of F	igures	X
Li	st of A	bbreviations	xi
Li	st of C	Glosses	xii
Li	st of C	Conventions	xiii
Ac	cknow	ledgements	xiv
In	troduc	ction	xvii
1	Setting the Scene		1
	1.1	Phonological Features of the Northern European	
		Area	1
	1.2	Historical Background of the Languages and	
		Speakers	3
	1.3	Summary of Argument	13
2	Research Context		15
	2.1	Substrates in Europe	15
	2.2	Early Linguistic Typology	17
	2.3	The Eurasianists: Trubetzkoy and Jakobson on	
		Sprachbünde	18
	2.4	The Celtic Scholars on Language Contact	21
	2.5	Nordeuropäische Lautgeographie: Heinrich Wagner	23
	2.6	Growing, and Shrinking, the Phonological Area	25
	2.7	Bilateral Contacts Revisited	27
	2.8	Areal Phonology in Northern Europe: The State	
		of the Art	28
3	Theoretical Background		31
	3.1	Phonological Architecture and the Division	
		of Labour	31
	3.2	Areality and Convergence in Phonology	34



vi		Contents	
	3.3	Phonology and Language Contact in the Past	44
	3.4	Explaining Convergence as Phonological Drift	48
4	The S	Synchrony and Diachrony of Preaspiration	59
	4.1	The Phonetics and Phonology of Laryngeal Contrast	59
	4.2	Defining Preaspiration	64
	4.3	The Life Cycle of Preaspiration	70
	4.4	Preaspiration and Quantity	74
	4.5	Other Related Phenomena	77
	4.6	Diagnosing Preaspiration	78
5	North	n Germanic	80
	5.1	Key Preliminaries	80
	5.2	Preaspiration in Insular Nordic	84
	5.3	Preaspiration in Mainland West Nordic	89
	5.4	Preaspiration in East Nordic	98
	5.5	Absence of Preaspiration and its Status	102
	5.6	Philological Evidence for Preaspiration	
		and its Dating	104
	5.7	Evidence for Preaspiration in Proto-Nordic	108
	5.8	Preaspiration as a Late Development	111
	5.9	The Life Cycle of Preaspiration in North Germanic	119
	5.10	The Life Cycle of North Germanic Preaspiration:	
		Summary	150
6	Celtic		152
	6.1	General Preliminaries	152
	6.2	Preaspiration in the Gaelic Languages	154
	6.3	Preaspiration in Brythonic: Welsh	161
	6.4	Historical Preliminarieis	161
	6.5	The Life Cycle of Preaspiration in Celtic	165
	6.6	The Origin of Preaspiration in Celtic and Consonant	
		Quantity	179
7	The Sámi Languages		184
	7.1	General Preliminaries	184
	7.2	Preaspiration in the Sámi Languages	189
	7.3	The Development and Life Cycle of Preaspiration	
		in Sámi	204
	7.4	Summary	218



		Contents	vii
8	Prea	spiration and Language Contact	220
	8.1	Preaspiration and Contact-Induced Change	220
	8.2	Sámi Preaspiration and Language Contact	225
	8.3	North Germanic Preaspiration and Language Contact	229
	8.4	Celtic Preaspiration and Language Contact	237
	8.5	Summary: Contact Explanations and Phonological	
		Drift	250
	8.6	Preaspiration as an Areal Feature	252
9	Conclusion		255
	9.1	Parallel Changes: Drift and Contact	255
	9.2	Looking for Phonological Areality	257
	9.3	Phonological Areas in Northern Europe: Sprachlandschaft	
		After All?	259
R	eferen	ces	263
Index of Topics		307	
In	Index of Persons		313
In	dex of	Languages	316



Tables

3.1	Possible scenarios for contact-induced change in phonology	page 49
4.1	Cross-linguistic variation in stop systems	61
5.1	Stops and fricatives in Proto-Nordic	81
5.2	Reflexes of quantitative distinctions in present-day North	
	Germanic	83
5.3	Relative chronology of preaspiration and quantity shift in	
	Härjedalen	115
5.4	Lenition and preaspiration in North Germanic after	
	Steblin-Kamenskij (1974)	116
5.5	The development of neutralizing lenition	135
5.6	Variation in Faroese stops after a long vowel	136
5.7	Foot-sensitive lenition in Norwegian	139
5.8	Lenition in Danish dialects	143
6.1	Postvocalic stops in Celtic	164
6.2	Examples of quantity-sensitive preaspiration distributions	176
6.3	Proposed reconstruction of lenition and preaspiration oralization	n
	in Scottish Gaelic	177
7.1	Proto-Uralic consonant inventory	185
7.2	Rhythmic and syllabic gradation	186
7.3	Rhythmic gradation in Northern Sámi	186
7.4	Three degrees of quantity in Northern Sámi	187
7.5	Consonant gradation after closed syllables in Sámi	188
7.6	Consonant gradation in Kola Sámi	193
7.7	Stop gradation in Kildin Sámi after E. Itkonen (1946)	194
7.8	Consonant gradation in Sámi stops	203
7.9	The four-way distinction in Northern Tärna Ume Sámi	206
7.10	Preaspiration and ternary contrasts in Common Sámi (Bye 2001) 209
7.11	Analysis of the four-way distinction in Northern Tärna Ume Sám	ni 216

viii



	List of Tables	ix
7.12	Preaspiration of strong-grade singletons and the Q2 merger	
	in stops	216
7.13	Preaspiration and quantitative developments across the Sámi	
	languages	217
8.1	Larvngeal contrast in selected Turkic languages	253



Figures

1.1	Map of key locations in north-western Europe	page 3
3.1	The life cycle of phonological processes	50
4.1	Preaspiration and breathy voice: South Uist Gaelic	66
4.2	Duration of breathy-voiced and voiceless preaspiration by stop	
	quantity in Northern Norwegian	68
5.1	Preaspiration patterns in Härjedalen	113
5.2	Duration of preaspiration in Northern Norwegian	125
5.3	Locations with lenition in Trøndelag and Helgeland	129
5.4	Preaspiration in Southern Helgeland Norwegian	130
6.1	Preaspiration patterns in Scottish Gaelic	156
6.2	The diachronic typology of preaspiration in the Gaelic	
	languages	173
6.3	Preaspiration after long vowels in selected varieties of Scottish	Ĺ
	Gaelic	175
7.1	Traditional territories of the Sámi languages, and locations	
	mentioned	190
7.2	The diachronic typology of preaspiration in the Sámi languages	213
8.1	Map of locations in the Gaelic-speaking world mentioned	
	in the text	240

X



Abbreviations

Da Danish **Fi** Finnish

LSS(G) Linguistic Survey of Scotland (Gaelic) ME Middle English

MLG Middle Low German ODa Old Danish

OE Old English
OHG Old High German

Olf Old Irish
ON Old Norse

OSw Old Swedish

PCelt Proto-Celtic PGmc Proto-Germanic PSaa Proto-Sámi PSI Proto-Slavic Ru Russian s. v. sub voce

SaaI Aanaar (Inari) Sámi

SaaK Kildin Sámi SaaL Lule Sámi SaaN Northern Sámi SaaP Pite Sámi SaaS Southern Sámi

SaaSk Skolt Sámi SaaU Ume Sámi

SED Survey of English Dialects (Orton & Dieth 1962–1971)

SGDS Survey of the Gaelic Dialects of Scotland (Ó Dochartaigh 1994–1997)



Glosses

1 first person INF infinitive
2 second person LOC locative
3 third person M masculine
ACC accusative N neuter

CAUS causative

COMP complementizer

NOM nominative

DAT dative

PART partitive

DEF definite

PL plural

DIM diminutive POSS possessive SS essive POT potential FUT future PRS present GEN genitive PST past

ILL illative PTCP participle IMP imperative SG singular

xii



Conventions

/slashes/ phonological underlying representations [square brackets] phonological surface representations

[white brackets] phonetic representations |pipes| featural representations <angle brackets> orthographic representations

I use <angle brackets> when the spelling itself is at issue, for instance where the precise interpretation is not obvious or the subject of discussion. I follow the normal convention of *italics* 'gloss' when citing forms in standardized spellings, and forms in spelling-derived dialect alphabets such as Norvegia. When citing Norwegian forms without further qualification, I follow the current *nynorsk* standard. Cyrillic spellings are given unaltered; the bibliography follows British Standard 2979:1958 to transliterate Cyrillic.

xiii



Acknowledgements

The gestation of this book has been a long process stretching over multiple moves, new jobs, administrative roles, strikes, a global pandemic, and a war of invasion. I am grateful to many colleagues and friends who have made this project possible.

I first dipped my toe into the areal phonology of northern Europe in 2012, at the 11th International Conference of Nordic and General Linguistics in Freiburg, where Sally Thomason's kindness was especially important in encouraging me to continue. I have presented various portions of this work at the Nordic Research Network Conference (Edinburgh, 2015), the 15th International Congress of Celtic Studies (Glasgow, 2015), several conferences of the Forum for Research on the Languages of Scotland and Ulster (Ayr, 2015; Glasgow, 2018; Munich/online, 2021), the Fonologi i Norden meetings (Kristiansand, 2017), two instalments of the Manchester Phonology Meeting (2017, 2023), the Forum for Germanic Language Studies (Edinburgh, 2018), the Fourth Edinburgh Symposium on Historical Phonology (2019), the Zvegintsev Conference (Moscow/online, 2020), the 12th International Conference on Nordic and General Linguistics (Oslo/online, 2021), the Dublin Institute for Advanced Studies Tionól (Dublin, 2021), the Jutland Prosody Workshop (Aarhus, 2021), the 25th International Conference on Historical Linguistics (Oxford, 2021), and the 19th Møte om norsk språk conference (Tromsø, 2022), in addition to local audiences in Manchester (2014), Moscow (2014), Edinburgh (2016), Tromsø (2016, 2022), Stirling (2019), University College London (2019), Cambridge (online, 2020), and The Ohio State University (Columbus/online, 2020). I am grateful to the organizers and audiences at these events for the invitations and productive questions and discussions.

I am grateful to my Edinburgh colleagues for all their support, friendship, free sharing of expertise, and a general willingness to listen to me going on about northern European phonology for many, many years: thanks to Patrick Honeybone, Bob Ladd, Will Lamb, Warren Maguire, Ben Molineaux, as well as to Lisa Gotthard, Caroline Heycock, James Kirby, Arne Kruse, Wilson McLeod, Peadar Ó Muircheartaigh, Michael Ramsammy, and Alice Turk. Nik Gisborne, Graeme Trousdale, and Rob Truswell have been an unfailing source

xiv



Acknowledgements

χv

of support and good company. I have crucially relied on the expertise and findings of many students who have contributed to aspects of this project: in particular, I would like to acknowledge Liradie Allen, Christopher Lewin, Jakub Musil, Jade Sandstedt, Ciarán Spooner, and David Wheatley. Special thanks also to Holly Branigan for all her help and support through the deepest, darkest times of Covid.

Outwith Edinburgh, I am especially grateful to Björn Köhnlein, Máire Ní Chiosáin, Ricardo Bermúdez-Otero, Míša Hejná, Donald Alasdair Morrison, Martin Krämer, Øystein Vangsnes, Ranjan Sen, Yonatan Goldshtein, George Walkden, Patrycja Strycharczuk, Elena Parina, Joe Salmons, David Natvig, Patrik Bye, Jan Kristian Hognestad, Tomas Riad, John Harris, Heather Newell, Natalia Kuznetsova, Rasmus Puggaard-Rode, Cormac Anderson, Erich Round, Elan Dresher, Michael Rießler, Deepthi Gopal, David Erschler, Bert Vaux, Radu Craioveanu, Mike Hammond, Dauvit Broun, Sverre Stausland Johnsen, Ove Lorentz, David Stifter, and Martin Kümmel for questions (and answers), suggestions, and general encouragement over these many years. I should also mention many, often anonymous, reviewers whose input has greatly improved both this book specifically and the work that went into it more generally.

I could not have carried out this project without my teachers. I must acknowledge in particular Elena Chekalina, who taught me the Swedish without which I would not know how to approach the North Germanic side of the project; Elena Parina and Natalia O'Shea, who gave me my start in Celtic; and Vladimir Plungian, who consistently encouraged me in pursuing an intersection of phonological and philological interests. For specialist consultations, I would like to thank Yonatan Goldshtein and Rasmus Puggaard-Rode, without whom I'd be lost in the magnificent mess that is Danish; Christopher Lewin for sharing his encyclopædic knowledge of Manx; Michael Rießler for answering multiple questions about Sámi; Máire Ní Chiosáin and Peadar Ó Muircheartaigh for help with Irish; and Warren Maguire for invaluable assistance with English and Scots. Needless to say, I alone am responsible for any mistakes and misconceptions.

Writing a book like this is not possible without academic libraries: I have benefitted in particular from access to Edinburgh University Library, the National Library of Scotland, and the Humanities and Social Sciences Library at the University of Tromsø, in addition to Glasgow University Library, Ulster University Library, the McClay Library at Queen's University Belfast, and St Andrews University Library. Special acknowledgement must go to the National Library of Norway for facilitating online access to its collections, which has made working on this book so much easier.

At Cambridge University Press, thanks to Helen Barton and Isabel Collins for their endless patience and support with shepherding the book through the process.



xvi Acknowledgements

The biggest thanks go to my family, who have unfailingly carried me through difficult, and often outright dark times: my brother Alexander, my mother Nadezhda, and Rina, Dina, and Úna: thank you for everything.



Introduction

In 1929, Nikolai Trubetzkoy—widely considered one of the founding fathers of modern Western phonology—formulated his 'Proposition 16' at the International Congress of Linguists, introducing the concept of a *language area*. It is worth revisiting the quote in detail:

Gruppen, bestehend aus Sprachen, die eine grosse Ähnlichkeit in syntaktischer Hinsicht, eine Ähnlichkeit in den Grundsätzen des morphologischen Baus aufweisen, und eine grosse Anzahl gemeinsamer Kulturwörter bieten, *manchmal auch äussere Ähnlichkeit im Bestande der Lautsysteme*, – dabei aber keine gemeinsame Elementarwörter besitzen – solche Sprachgrupper nennen wir Sprachbünde¹ (Trubetzkoy 1930)

Whilst Trubetzkoy downgraded phonological criteria in the identification of language areas, Roman Jakobson soon proposed that they could also be diagnostic for *Sprachbünde*. He had discussed this possibility previously in his foundational study of Slavic historical phonology (Jakobson 1929). In later works devoted specifically to 'phonological language areas' (Jakobson 1931a,1931b) he suggested several (quite large) language areas on the basis of phonological properties. Jakobson especially pinpointed two phonological phenomena: 'tonality' (*Polytonie*, as opposed to *Monotonie*) and the presence of secondary articulations ('timbre differences') on consonants (*Eigentonkorrelation*). The focus here is on the Eurasian *Sprachbund* (unsurprisingly, given Jakobson's and Trubetzkoy's involvement with the ideology of 'Eurasianism'), but Jakobson also lists some areas defined by the presence of tone: South-East Asia, sub-Saharan Africa, and parts of the Americas. He then goes on to say:

Ebenso bilden die Sprachen des Baltikums einen Sprachbund, den die Polytonie kennzeichnet; hierher gehören: das Schwedische, das Norwegische mit Ausnahme der nordwestlichen Mundarten, die meisten dänischen Dialekte, einige norddeutsche Mundarten,

Groups consisting of languages that show substantial syntactical similarity and fundamental similarities of a morphological nature, as well as share a large portion of cultural vocabulary – and sometimes a superficial similarity in the make-up of their sound system – without, however, sharing core vocabulary, are called language areas [Sprachbünde].' This translation and all translations in footnotes are mine.

xvii



xviii Introduction

das Nordkaschubische, das Litauische und Lettische, das Livische und Estnische. In den meisten Sprachen und Mundarten dieses Bundes ist die Tonverlaufkorrelation und in den übrigen ihre Abänderung, die Tonbruchkorrelation, vorhanden. *In allen Sprachen des baltischen Bundes, mit Ausnahme der litauisch-lettischen Familie, ist die Polytonie eine Neubildung*² (Jakobson 1931b)

The idea of a 'Eurasian' phonological *Sprachbund* never gained much traction. By contrast, many scholars since then have discussed phonological features shared by languages spoken in the north-west of the European continent. Apart from the use of tone to implement lexical contrasts, they include preaspiration, various kinds of 'consonant gradation', 'excrescent' ('svarabhakti') vowels in sonorant-consonant clusters, and initial 'dynamic' stress.

Tantalizingly, some of these features are fairly rare in the European context, and indeed in a wider cross-linguistic pespective. Even more tantalizingly, the languages in question—Germanic, Celtic, Baltic, and Uralic—are either unrelated, or related at a time depth too great to allow the possibility of common inheritance. Moreover, in many cases the rise of the shared features clearly postdates the break-up of the languages' common ancestors. With inheritance seemingly ruled out, how could one explain these similarities?

This book addresses the nature and history of this northern European *Sprachlandschaft*, or 'philological province' (Tolkien 1963). We will trace the ebb and flow of explanations of these tantalizing similarities in their sound patterns, from grand theories positing large-scale 'landscapes' and unknown substrates, the pendulum swung towards relative oblivion, and then back to an emphasis on language contact, in light of the renewed interest in contact-driven change.

Much recent work has reaffirmed the importance of language contact. It is a necessary corrective to an over-emphasis on endogenous explanations for language change, which all too often plays on tropes of purity and contamination that obscure the past and present of the languages and their users. Still, we must be able to convincingly place contact-based accounts in an appropriate context, reconciling 'internal' (structural) and 'external' (sociohistorical) evidence. My focus in this book is in developing a more sophisticated approach to the structural analysis of phonological phenomena that incorporates current understandings in both theoretical phonology and historical sociolinguistics.

A theoretically informed approach will allow us to better understand if the phenomena are as unusual and as uniform as previously thought, and to develop better reconstructions of their historical development. My chief contention is

Also the languages of the Baltic form a language area characterized by tonality. The following languages belong to it: Swedish, Norwegian with the exception of north-western dialects, most dialects of Danish, some northern German dialects, northern Kashubian, Latvian and Lithuanian, Livonian and Estonian. In most languages and dialects of this area we find a tone trajectory contrast, and in the other we find its further development, a tonal break contrast. In all languages of the Baltic area, except the Latvian-Lithuanian group, the tonality is an innovation.' [translation and emphasis mine]



Introduction xix

that an understanding of phonological change as arising from the pool of variation within a community, now standard in accounts of actuation of sound change, also holds the key to the study of parallel and convergent developments. In particular, a more realistic view of the systems that were in contact in the past must hold that systematic variation was part of the contact situation, not least in the kind of settler or diaspora scenario common in the linguistic history of northern Europe. It is to the nature of this variation and its consequences for future developments that we must turn in order to understand areal developments in phonology.

I use this approach to re-evaluate the case for contact and conclude that the case for contact-induced genesis of many relevant sound changes, whilst difficult to conclusively reject, is significantly weaker than previously considered. The body of the book concentrates on preaspiration of 'voiceless' stops; the extra chapter, available online, offers a shorter case study of the 'preocclusion' of sonorant consonants. In both cases, I argue that the observed convergences are caused by the confluence of two independent factors. The first is pre-existing similarities in the languages' phonologies, and in particular the prominent role of metrical structure, especially moraic trochaic feet. The second is the regular course of phonological change, which I frame within the model of the *life cycle of phonological processes*. I argue that, given similar initial states, the life cycle creates a kind of 'path dependency', which accounts for convergent developments. The overall effect is reminiscent of 'drift' in the sense of Sapir (1921), even though it occurs in unrelated languages.

In Chapter 1 I present some potentially areal phenomena in northern European phonological systems and discuss the sociohistorical background, highlighting the history of contact. Chapter 2 contains a survey of earlier work on language contact and areality in northern Europe, with a focus on phonology. I then describe the theoretical and conceptual background to the study in Chapter 3.

An extended study of stop preaspiration makes up Part II. Chapter 4 offers a detailed discussion of this phenomenon, which has often been considered something of a northern European 'specialty'. Chapters 5 to 7 contain the detailed case studies of preaspiration in the North Germanic, Celtic, and Sámi languages, and Chapter 8 evaluates the arguments for its contact-based origins. Chapter 9 offers a brief conclusion and some prospects. Finally, chapter O1, available online, considers a different phenomenon—the 'preocclusion' or 'prestopping' of sonorant consonants—in the same theoretical framework.