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The phonology of Shetland Norn

Preaspiration and vowel length in Jakobsen's *Etymological Dictionary*

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1 Introduction

Scandinavian Shetland is a theme that runs through the work of Brian Smith and many of the contributions to this *Festschrift*. While Shetland politically became Scottish in the events of 1468–1472 (Crawford, 1969, 1983), this of course did not mean that culture and identity followed course immediately. Trade connections between Shetland and Norway continued to thrive for some time until the mid-17th century (Smith, 1990) and the population only became more Scottish through substantial migration from the Scottish mainland in the 16th century.

Few aspects of Shetland's Scandinavian past tickle the imagination as much as its now-extinct language, Shetland Norn. Much of the language is shrouded in mystery. The few sources of any meaningful size were recorded after the language had already gone out of use as a medium of regular communication, so that we know little for sure about its phonology and syntax. Michael Barnes's (1998) book-length treatment of the language is a mere 50 pages long, over half of which is historical context. The rest consists of annotated source material, where the annotations often underline the uncertainty of our

interpretations. The only area in which we know more about Shetland Norn is its lexicon, due to the many loanwords that have survived in especially older Shetland Scots. Melchers (1981, p. 261) claimed that her informants knew exactly which dialect words were of Scandinavian origin, suggesting the importance of this cultural heritage for Shetland speakers.

At this point, it is important to note that Shetland's Scandinavian connection is an easy vehicle through which islanders can highlight an identity different from the mainland, and there is a danger of romanticising these elements in Shetland's language and culture (Millar, 2007, p. 132). This [\[p. 139\]](#) is especially salient now that the use of Shetland dialect is rapidly declining among younger generations (Smith & Durham, 2011, 2012). As an example of such romanticisation, we can mention the etymology added to the placename sign for Lerwick: it comes from Old Norse *Leirvík* 'muddy bay'.¹ Similarly, the motto of the Shetland coat of arms, granted in 1975, is Old Norse *Með lögum skal land byggja* 'By law shall the land be built up'. There even is a fringe revivalist movement attempting to promote *Nynorn* 'New Norn', but given how little we know about Shetland Norn, this is nothing more than an Old Norse- and Faroese-inspired conlang. If it were ever to be successful, it

¹ Note that the etymology provided is one in Old Norse, not in Shetland Norn. Perhaps the intention is to highlight a Scandinavian connection further back in time, or perhaps the reason is more pragmatic: we simply do not know for sure what the Shetland Norn form for 'Lerwick' was. Not many places in Shetland have an etymology added to the placename sign.

would be invented tradition on a par with Up Helly Aa.

This paper focuses on what we do know about Shetland Norn. It aims to provide an overview of some details of Shetland Norn that have come to light over the past decade or so in a re-investigation of one of the chief sources of the language, Jakobsen's *Dictionary*. An analysis of two aspects of phonetic detail in the transcriptions in the *Dictionary*, preaspiration and vowel length, shows that these include a great deal of systematicity. These systematic patterns are consistent with what we find in other West Scandinavian languages, especially when we take into account the long-term and intensive language contact with Scots. Together, they add to our understanding of the phonology of Shetland Norn.

2 Shetland Norn and language reconstruction

2.1 The life and death of Shetland Norn

Shetland and Orkney were settled from Scandinavia around the year 800. The Scandinavian settlers brought with them their language, Old Norse, or as they called it, *norvæna* — hence the name for the Shetland and Orkney vernaculars, Norn. When exactly Norn developed into a language different from other West Scandinavian languages (Norwegian, Icelandic, and Faroese) is unclear. The few surviving documents contain some features that may indicate specific Shetland and/or Orkney developments, but it is uncertain what this should mean. It is not certain that these documents were written by Shetlanders or Orkneymen, and even if they were, they most certainly remained within a Norway-centred writing tradition (Barnes, 1998, p. 11–16).

A key event in the islands' history was their pledging by the Danish king in 1468 (Orkney) and 1469 (Shetland) to King James III of Scotland, as pawn for the agreed-upon dowry for his daughter Margaret of Denmark (Crawford, 1969, 1983). The islands had been incorporated into the Scottish administrative system by 1472 (Thomson, 1987, p. 125). Such an administrative change need not have direct effects on the ground, but it appears that it did in Shetland: the first [\[p. 140\]](#) Scots-language document from Shetland is from 1525 (Barnes, 1991, p. 447) and almost all Scandinavian-language documents since then appear

to have been written in mainland Scandinavia (Smith, 1990, p. 29).

Although some scholars have suggested that Scottish authorities prohibited the use of Norn as they did Scottish Gaelic (Wiggen, 2002, p. 62; Jakobsen, 1957, p. 20), there is no actual evidence to that effect (Donaldson, 1958, p. 76; Smith, 1990, p. 32). Rather, the demise of Norn appears to have been a direct effect of substantial migration to Shetland from the Scottish mainland in the 16th century. Donaldson (1983) has argued, based on personal name evidence, that approximately a third of the islands' population just after 1600 had Scots origins. That proportion alone may be enough to promote a language shift from Norn to Scots, but the same evidence also shows substantial intermarriage between people with Scottish and Scandinavian names, which further increased the demographic pressure on the language (Knooihuizen, 2008b).

When exactly Norn eventually died is a matter of dispute. Contemporary comments (see Stewart, 1964) are contradictory and imprecise, and may not be entirely reliable. Although some scholars see the language survive much longer (Rendboe, 1984), most believe the language to have died in the early 18th century (Barnes, 1984, p. 355; Smith, 1996, p. 33). The fact that the list of common Scandinavian words collected in 1774 was likely part of Shetland fishermen's taboo language suggests that by that time, the language must no longer have been used for regular communication (Knooihuizen, 2008a). This is usually what is seen as language death (Sasse, 1992).

But Shetland Norn did not simply disappear. Rather, at least by the late 19th century, many lexical traces of it remained in the Shetland Scots dialect that replaced it: Jakobsen collected more than 10,000 of them for his *Dictionary*. It is likely that Shetland Scots originated through intense dialect contact between the varieties of Scots spoken by immigrants to Shetland from the Scottish mainland (Millar, 2008). But another variety played a role in this new-dialect formation: the second-language variety of Scots spoken by those who had Shetland Norn as their first language. Historical and linguistic evidence support such a reading of how elements of Shetland Norn appeared in Shetland Scots (Knooihuizen, 2009): while some elements such as the vowel system are fairly clearly Scots, the influence of Shetland

Norn can be seen in features such as *th*-stopping (pronouncing the fricatives /θ/ and /ð/ as stops /t/ and /d/, respectively) and *hw*-confusion (the merger of /hw/ and /kw/, so that, e.g., *what* can be pronounced as either /mɔt/ or /kwɔt/). Understanding how varieties in contact mix to form a new dialect (Trudgill, 2004) can perhaps help us reconstruct what these original varieties were like.

2.2 Linguistic sources for Shetland Norn

There are extremely few reliable linguistic sources for Shetland Norn from when it was still a living language. A few medieval documents survive, but even though these can be localised to Shetland, they fall under a Norwegian writing tradition (Barnes, 1998, p. 11–16). The first sizeable source dates from 1774, most [\[p. 141\]](#) likely after the language died, and consists of some fragments collected by Orkney minister, George Low (1879). These fragments include a version of the Lord’s Prayer (Rendboe, 1989, 1990), the *Hildina Ballad* (Hægstad, 1900), and a list of thirty words with English translations (Rendboe, 1987; Knooihuizen, 2008a). These texts have given us a reasonable view of the structure of Shetland Norn in its latest stages, but as Low had no knowledge of Scandinavian languages or linguistics and his informant does not appear to have had a full grasp of the language, the material is difficult to assess and there is a clear risk of over-interpretation (as in, e.g., Rendboe, 1984, 1987).

Notwithstanding the work of Lindqvist (2015) on the basis of the medieval material, most of what we can tell about the lexicon and phonology of Shetland Norn comes from Jakob Jakobsen’s *An etymological dictionary of the Norn language in Shetland* (Jakobsen, 1908–1921, 1928–1932). Jakobsen, a native speaker of Faroese and a trained phonologist with a background in Scandinavian linguistics, did the fieldwork on which the dictionary is based in 1893. This was at least well over a century after Shetland Norn language death, which raises a host of questions about the reliability of the material, but the sheer size of the corpus and the level of detail provided — Jakobsen provides precise phonetic transcriptions, localisations and etymologies — makes it the most important source for the historical study of the language.

2.3 Can Shetland Norn be reconstructed?

With so few sources of Shetland Norn surviving, and what survives being filtered through at least one century of Shetland Scots speech, attempting to analyse smaller details in the phonological system seems like an impossible endeavour. Of course the data may sometimes show clear positive evidence of a Scandinavian feature, but it is more likely that we need to assess what influence the Scots filter may have had on what we see. If the filter language is less complex than the filtered language, so if Scots had fewer phonemic oppositions or a system with less complicated rules than Shetland Norn, we may not be able to identify the original Shetland Norn (cf. Lehiste, 1965).

Alternatively, what we may find could be a distortion in the filter: a pattern that is not quite what we would expect from Scots. In such cases, we can use our knowledge of the languages in contact and our theoretical knowledge of language contact to reconstruct what input may have resulted in the observed patterns. Older Scots is a fairly well-known quantity (Johnston, 1997a), and for all the mystery that surrounds the linguistic structure of Shetland Norn, we have extensive contemporary and historical descriptions of closely related languages, in particular Faroese (Thráinsson et al., 2004; Lindqvist, 2003), to assist us in this comparative work on language reconstruction.

3 Norn phonology in Jakobsen’s Dictionary

Although the data was collected up to two centuries after the death of the language, Jakobsen’s *Dictionary* is by quite some distance the best source for an [\[p. 142\]](#) investigation of the phonology of Shetland Norn. His phonetic transcriptions of Norn words surviving in 1890s Shetland Scots dialect have been characterised as “phonetics run riot” (Stewart, 1964, p. 172), or in other words, as being *too* precise, but as the case studies in this section will show, a investigation of patterns in the *Dictionary* transcriptions reveals a clear underlying sound system. With the caveat that our view is filtered through Shetland Scots, we may identify this sound system as the phonology of Shetland Norn.

3.1 Preaspiration

The first case study concerns *preaspiration*.² Preaspiration can be described as a period of voicelessness, an *h*-like sound, before a voiceless stop, as in Faroese *nátt* ‘night’ [nɔ̥ʰt:]. Another way of viewing this phenomenon is as the spreading of voicelessness from the stop to a preceding vowel. If the preceding sound is a nasal or a liquid, voicelessness may also spread there, resulting in, e.g., Faroese *gult* ‘yellow (NEUT.)’ [kʊ̥ʰt]. Although both these phenomena fall under the umbrella term “preaspiration”, they are more properly distinguished as “stop preaspiration” and “sonorant devoicing”, respectively (Hansson, 2001, p. 157).

Preaspiration is an areal feature in the North Atlantic. It occurs in Icelandic and Faroese (Helgason, 2002; Thráinsson et al., 2004), in Scottish Gaelic (Clement, 1984; Oftedal, 1956), and to some extent also in Scottish Gaelic-influenced Hebridean English (Shuken, 1984, 1985). It appears never to have been a feature of Scots dialects, be it in the Older Scots period of the first large-scale Scottish migration to Shetland (Johnston, 1997a), or in the 20th century (Mather & Speitel, 1986; Johnston, 1997b). Recent phonetic investigations of Shetland speech do not show it even in older, conservative speakers (Scobbie, 2005, 2006; Sundkvist, 2007). From a contact-linguistic perspective, this suggests that any preaspiration that is found in Jakobsen’s *Dictionary* transcriptions must have come from Shetland Norn, and any patterns in the occurrence of the feature indicative of Shetland Norn phonology.

For the analysis, all transcriptions were collected of words from the H, I, and J sections of the *Dictionary* where preaspiration could be expected to occur based on the constraints on the feature in Scandinavian and Scottish Gaelic. This applied to just over 500 lemmas in this part of the *Dictionary*. Taking into account that there may be multiple phonetic transcriptions of a word, and that Jakobsen often added transcriptions for different regions within Shetland, the analysis is based on many more individual tokens than that. Each token was coded for the presence or absence of preaspiration, and for the relevant subtype of preaspiration.

² A more in-depth discussion of this study appears in Knooihuizen (2013).

Region	stop preasp.		son. devoicing	
	%	N	%	N
Central Mainland	0%	0	100%	2
Foula	9%	11	91%	44
Northern Mainland	0%	13	94%	36
Northern Isles	11%	159	90%	250
Northmavine	5%	42	94%	62
Southern Mainland	17%	41	98%	41
Westside	7%	14	95%	65
Total (<i>incl. no location</i>)	11%	349	92%	613

Table 1 Occurrence of stop preaspiration and sonorant devoicing in Shetland Norn, by region.

An overview of the results is given in Table 1. What is immediately clear is that stop preaspiration is a very rare occurrence in the data. Only 11% of the tokens where stop preaspiration could occur were actually pronounced that way. On the other hand, sonorant devoicing is extremely common, as it was [p. 143] found in 92% of possible cases. Geographical variation was not statistically significant for either type of preaspiration.

If we generalise over these results, it is fair to say that the Shetland Norn as it was recorded in Jakobsen’s *Dictionary* did not have stop preaspiration as a normative feature in its phonology, but that it did have sonorant devoicing. Of course there was variation, but also here we see clear patterns. The majority of occurrences of stop preaspiration involve the vowel [oɪ] followed by a [t] — stemming from Old Norse *-átt-* or *-ótt-* — and of the tokens that lacked sonorant devoicing, most contain an [n]. Sonorant devoicing is also uncommon when the sonorant and the triggering stop occur across a morpheme boundary in a compound word. As these are exceptions to a very strong pattern, and token counts are low, we may afford to see this variation as noise.

The occurrence of sonorant devoicing but not stop preaspiration in Shetland Norn is somewhat surprising, as Faroese, the language thought to be most similar to Norn, has both. On the other hand, the Shetland pattern is found in some dialects of Norwegian (Kristoffersen, 2000), so it is not unheard of even in a Scandinavian context. It is possible, however, to explain the Shetland pattern as a result of language contact between Scandinavian and Scots. In Scandinavian languages with preaspiration (e.g., Faroese),

stop preaspiration is one of the cues involved in distinguishing meaning, while sonorant devoicing is simply a by-effect of having a sonorant followed by a voiceless stop. This means that speakers have a different awareness of the two types of preaspiration. When speakers learned Scots, a language without preaspiration, they were able to ‘switch off’ the stop preaspiration that they were aware of, but not the sonorant devoicing they were not aware of. Sonorant devoicing therefore continued to exist even after the language shift to Scots (Knoolhuizen, 2013, p. 66). Sonorant [p. 144] devoicing eventually also disappeared as a result of migration patterns and increased dialect contact in the late 19th century.

3.2 Vowel length

The second case study revolves around patterns of *vowel length* in Shetland Norn.³ A well-known feature of Shetland Scots is that consonant and vowel duration are inversely correlated: a long vowel is typically followed by a consonant of shorter duration, and a short vowel by a consonant of longer duration. As this pattern also occurs in many Scandinavian varieties, it is often thought that it is a substrate remainder of Shetland Norn (van Leyden, 2004; Sundkvist & Gao, 2015). However, this claim has never been properly scrutinised.

In spite of the potentially Scandinavian-influenced production of vowel and consonant duration in modern Shetland Scots, the phonological system appears fairly unambiguously Scots. That is to say, whether a vowel is pronounced as long or short (and the following consonant, subsequently, as short or long) is determined by the Scottish Vowel Length Rule (SVLR; Aitken, 1981). This is a somewhat complicated system stemming from the 16th century (Aitken, 2002) in which lax vowels are always short, while tense vowels are short *unless* they are followed by a morpheme boundary, a voiced fricative /v ð z ʒ/, or /r/. The system as it appears in the Shetland data for the *Linguistic Atlas of Scotland* (Mather & Speitel, 1986) follows Aitken’s generalisation with only few exceptions (Knoolhuizen, 2009). Of course, this Scotland-

³ This section is based on ongoing work in collaboration with Dr Pavel Iosad of the University of Edinburgh. The discussion here presents only the larger patterns; an in-depth analysis is in preparation for publication in another venue.

wide survey did not include Shetland words of Norn origin, so it may not tell us anything about the vowel length system of Shetland Norn.

In Shetland Norn’s ancestor language, Old Norse, vowel length was not constrained by any rules. Syllables could have a short vowel and a short consonant (as in *kyn* ‘kin’), a long vowel and a short consonant (*kýr* ‘cows’), a short vowel and a long consonant (*kyrr* ‘quiet’), or a long vowel and a long consonant (*kýll* ‘bag’) (Árnason, 1980). This system underwent a radical language change, the “Great Quantity Shift”, in most varieties of Scandinavian. After the shift, only two syllable types were allowed: with a long vowel and a short consonant or with a short vowel and a long consonant — the Shetland pattern that is seen as so typically Scandinavian. The other two syllable types changed mostly by altering their vowel length as appropriate; the weight of phonemic distinctions was now carried by vowel quality instead (Küspert, 1988). Importantly, however, Lindqvist (2003) dates the completion of the Great Quantity Shift in Faroese to around 1600. If the timing in Shetland Norn was anything similar, this would be after the transfer of the islands to Scotland, and concurrent with a large-scale immigration of Scots speakers from the mainland.

The vowel length system of Shetland Norn itself has never been surveyed in detail. Hægstad (1900, p. 72–73) sees “many exceptions”, and Barnes (1991, p. 437) [p. 145] laments that the inverse correlation of vowel and consonant duration in Shetland “never seems to have been observed by Jakobsen”. The latter claim is true to the extent that Jakobsen’s transcriptions in the *Dictionary* are only marked for vowel length, whereas the transcriptions of Faroese he made a few years earlier for Hammershaimb’s *Færøsk Anthologi* (1891, p. 439–460) also mark length on consonants. Nevertheless, by investigating the Shetland Norn transcriptions at hand in combination with Old Norse etymologies and the constraints of the SVLR, it is in fact possible to uncover some of the systematicity of vowel length in Shetland Norn.

The data for our analysis consists of all transcriptions from the *Dictionary* lemmas starting with G and H, provided that Jakobsen offers a (putative) Old Norse etymology. This amounts to a total of over 1500 tokens, which we coded for vowel quality and vowel length in Shetland Norn and Old Norse, following

ON syllable type			short vowel		long vowel	
			%	N	%	N
A	short V, short C	e.g., <i>kyn</i>	68%	238	32%	112
B	long V, short C	e.g., <i>kýr</i>	47%	173	53%	199
C	short V, long C	e.g., <i>kýrr</i>	91%	647	9%	65
D	long V, long C	e.g., <i>kýll</i>	69%	125	31%	55
			73%	1183	27%	431

Table 2 Occurrence of short and long vowels in Shetland Norn, by Old Norse syllable type.

consonant in Shetland Norn and Old Norse (to investigate the effect of the SVLR), and syllable type in Old Norse. In order to ease interpretation, some of Jakobsen's idiosyncratic vowel transcriptions were collapsed into a single vowel, while maintaining long/short and tense/lax distinctions.

As a first check on the reliability of the transcriptions, we can see evidence in Jakobsen's transcriptions of some common West Scandinavian developments. Old Norse *á*, whether long or short, appears in the data as [o] or some other rounded vowel. This is parallel to what we find in continental Scandinavian languages (*å*, pronounced short [ɔ] or long [ɔ:]) and Faroese (*á*, pronounced short [ɔ] or long [ɔa:]). Old Norse *ó* predominantly appears as short [ø] or long [u:]. The short development is nearly identical to what we find in Faroese; the long development in continental Scandinavian (e.g., *sol* 'sun' [su:l]). Finally, also in line with other Scandinavian languages, Old Norse *i* is often lax and lowered when it turns up as a short vowel. These findings were recorded already by Hægstad (1900) and by Jakobsen (1928-1932) himself. That we find them so clearly in our data suggests that our sample and method are reliable, and moreover, that Jakobsen's transcriptions are systematic enough to attempt to analyse the historical development of vowel length in Shetland Norn.

A cross-tabulation of vowel length in Shetland Norn by syllable type in Old Norse is given in Table 2. If Shetland Norn were a well-behaved Scandinavian language undergoing the Great Quantity Shift, we would expect long vowels in syllable types A (through lengthening) and B (original), and short vowels in syllable types C (original) and D (through shortening). Even allowing for some exceptions, the distribution of vowel length in Shetland Norn is very different from this expectation. We find a much higher proportion

		short vowel		long vowel	
		%	N	%	N
lax	SVLR-long	99%	122	1%	1
	SVLR-short	98%	628	2%	12
tense	SVLR-long	35%	60	65%	110
	SVLR-short	62%	371	38%	229

Table 3 Occurrence of short and long vowels in Shetland Norn, by tenseness and SVLR context.

of short vowels in syllable types A and B, and a much higher proportion of long vowels in syllable type D. The system of vowel length in Shetland Norn, therefore, was not a straightforward development from Old Norse.

An alternative scenario could be that Shetland Norn vocabulary was fully incorporated into Shetland Scots at the time of Jakobsen's fieldwork, so that his *Dictionary* transcriptions simply reflect a Scots vowel length system. In such a scenario, we would expect a vowel to be long only when it is tense *and* when it [p. 146] occurs before one of a specific set of consonants. As can be seen from Table 3, lax vowels are indeed (almost) always short. For tense vowels, phonological context matters, but only to some extent: the prediction based on the SVLR is borne out in just under two-thirds of cases. This means that the Shetland Norn vowel length system did not straightforwardly carry over from Scots, either.

The Shetland Norn vowel length system as it appears in Jakobsen's *Dictionary*, then, contains clear traces of both Scandinavian influence — Old Norse syllable type and the Great Quantity Shift — and Scottish influence — the effect of tenseness and SVLR context — but cannot be fully explained by either in isolation. It is likely, therefore, that both influences interact with each other. As an illustration, Table 4 gives the distribution of short and long vowels in Shetland Norn by Old Norse syllable type and SVLR context. (The table only shows the data for tense vowels, as lax vowels show negligible variation.) It is clear that the highest percentages of long vowels are found when both syllable type (A and B) and SVLR context (long) favour long vowels; the highest percentages of short vowels are found when both (C and D; short) favour short vowels.

[p. 147] In ongoing work, we aim to chart the Shetland Norn vowel length system in more detail using more advanced statistical techniques that allow

ON syllable type	SVLR context	short vowel		long vowel		
		%	N	%	N	
A	short V, short C	SVLR-long	31%	9	69%	20
		SVLR-short	50%	67	50%	68
B	long V, short C	SVLR-long	20%	18	80%	71
		SVLR-short	44%	92	56%	118
C	short V, long C	SVLR-long	63%	33	37%	19
		SVLR-short	87%	171	13%	26
D	long V, long C	SVLR-long	—	—	—	—
		SVLR-short	71%	41	29%	17

Table 4 Occurrence of short and long vowels in Shetland Norn, by Old Norse syllable type and SVLR context; tense vowels only.

us to differentiate the influence of these factors in various combinations. For example, it is possible that SVLR context had a greater influence on vowel length in words of syllable type A, which lengthened in the Great Quantity Shift, than in words of syllable type B, which were already long before the Great Quantity Shift. It also allows us to investigate whether certain vowels developed in different ways from others, and to examine the effect of following consonant in more detail than the generic SVLR context has done in this paper.

Our working hypothesis is that the Shetland Norn vowel length system originated in a scenario of intensive language contact, potentially as early as the first large-scale migration wave from the Scottish mainland to Shetland in the late 16th century. This is a significant time, as both languages in contact were undergoing change themselves: remember that both the Scottish Vowel Length Rule and the Great Quantity Shift are dated to exactly this period. In such a situation with a lot of variation, the hypothesised outcome of contact is unclear (cf. Trudgill, 2004). It is remarkable, therefore, that such strong traces of both the Scottish and especially the Scandinavian system can be found in Jakobsen's transcriptions.

4 Conclusion

Taking together the results from these studies on preaspiration and vowel length in Shetland Norn, it is clear that the criticism of Jakobsen's *Dictionary* transcriptions as overly precise is unwarranted. In fact, they form a very clear signal of an underlying sound system: the distributions of preaspiration and [p. 148] vowel length pattern consistently by phonological context. These patterns are entirely in line with

what we would expect from a cross-linguistic Scandinavian and/or Scots perspective. They also support a story of contact-induced language change, where from prototypical Scots and Scandinavian input we would expect an output not unlike what we find in the *Dictionary*.

Naturally it is exactly this language contact scenario that stands in the way of the most important question: Are the patterns we find really representative of Shetland Norn phonology? It is unclear how much of what we find can be traced back to the Scots filter through which we are investigating Shetland Norn: ultimately, the speakers Jakobsen transcribed were first-language speakers of Shetland Scots, not Norn. Should we expect to find stop preaspiration in this data, given that Scots does not normally have preaspirated stops? And how significant is it that the strongest constraint on vowel length is whether the vowel is tense or lax — exactly the main constraint in our description of the Scottish Vowel Length Rule?

On the other hand, we have also identified patterns that can not be straightforwardly traced back to Scots. Sonorant devoicing is a clear sign of transfer from a Scandinavian language, and it is safe to interpret this to mean that Shetland Norn had the feature as well. Similarly, the influence on vowel length of Old Norse syllable type suggests that the Great Quantity Shift also applied to Shetland Norn, perhaps even with the inverse correlation of vowel and consonant duration in present-day Shetland Scots as a direct remnant. This is evidence of Shetland Norn phonological features that could be unearthed despite the Scots filter.

Jakobsen's *Dictionary* thus constitutes an important language archive for the study of Shetland Norn. The enormous amount of phonetic detail

contained within it may have kept earlier scholars from embarking on a structural analysis, although what Jakobsen himself managed to conclude on the basis of his data is exceptional. Over a century later, we have the computational power and statistical techniques available to dig deeper and to begin to chart the more complex parts of the structure of the language, but we can only do this because the material was preserved in the *Dictionary*. It will be exciting to see what the future holds for the history of Shetland Norn.

Bibliography

- Aitken, A. J. (1981). The Scottish vowel-length rule. In Benskin, M. & Samuels, M. L. (eds.), *So meny people longages and tonges*, Edinburgh: Middle English Dialect Project. 131–157.
- Aitken, A. J. (2002). *The Older Scots vowels: A history of the stressed vowels of Older Scots from the beginnings to the eighteenth century*. Glasgow: Scottish Text Society.
- Árnason, K. (1980). *Quantity in historical phonology: Icelandic and related cases*. Cambridge: Cambridge University Press.
- Barnes, M. P. (1984). Orkney and Shetland Norn. In Trudgill, P. (ed.), *Language in the British Isles*, Cambridge: Cambridge University Press. 352–366.
- Barnes, M. P. (1991). Reflections on the structure and demise of Orkney and Shetland Norn. In Ureland, P. S. & Broderick, G. (eds.), *Language contact in the British Isles: proceedings of the Eighth International Symposium on Language Contact in Europe, Douglas, Isle of Man, 1988*, Tübingen: Niemeyer. 429–460.
- Barnes, M. P. (1998). *The Norn language of Orkney and Shetland*. Lerwick: Shetland Times.
- Clement, R. D. (1984). Gaelic. In Trudgill, P. (ed.), *Language in the British Isles*, Cambridge: Cambridge University Press. 318–342.
- Crawford, B. E. (1969). The pawning of Orkney and Shetland: a reconsideration of the events of 1460–9. *Scottish Historical Review* **48**. 35–53.
- Crawford, B. E. (1983). The pledging of the islands in 1469: the historical background. In Withrington, D. J. (ed.), *Shetland and the outside world 1469–1969*, Oxford: Oxford University Press. 32–48.
- Donaldson, G. (1958). *Shetland life under Earl Patrick*. Edinburgh: Oliver & Boyd.
- Donaldson, G. (1983). The Scots settlement in Shetland. In Withrington, D. J. (ed.), *Shetland and the outside world 1469–1969*, Oxford: Oxford University Press. 8–19.
- Hægstad, M. (1900). *Hildinakvadet, med utgreiding um det norske maal paa Shetland i eldre tid*. Christiania: Dybwad.
- Hammershaimb, V. U. (1891). *Færøsk Anthologi I: Tekst samt historisk og grammatisk indledning*. København: Møller.
- Hansson, G. Ó. (2001). Remains of a submerged continent: preaspiration in the languages of Northwest Europe. In Brinton, L. J. (ed.), *Historical Linguistics 1999*, Amsterdam: Benjamins. 157–173.
- Helgason, P. (2002). *Preaspiration in the Nordic languages: synchronic and diachronic aspects*. Ph.D. dissertation, Stockholms Universitet, Stockholm.
- Jakobsen, J. (1908–1921). *Etymologisk ordbog over det norrøne sprog paa Shetland*. København: Prior.
- Jakobsen, J. (1928–1932). *An etymological dictionary of the Norn language in Shetland*. London: Nutt.
- Jakobsen, J. (1957). Nøkur orð um Hetlands søgu. *Varðin* **32**. 18–27.
- Johnston, P. (1997a). Older Scots phonology and its regional variation. In Jones, C. (ed.), *The Edinburgh history of the Scots language*, Edinburgh: Edinburgh University Press. 47–111.
- Johnston, P. (1997b). Regional variation. In Jones, C. (ed.), *The Edinburgh history of the Scots language*, Edinburgh: Edinburgh University Press. 433–513.
- Knooihuizen, R. (2008a). Fishing for words: the taboo language of Shetland fishermen and the dating of Norn language death. *Transactions of the Philological Society* **106**. 100–113.
- Knooihuizen, R. (2008b). Inter-ethnic marriage patterns in late sixteenth-century Shetland. *Local Population Studies* **80**. 22–38.
- Knooihuizen, R. (2009). Shetland Scots as a new dialect: Phonetic and phonological considerations. *English Language and Linguistics* **13**. 483–501.
- Knooihuizen, R. (2013). Preaspiration in Shetland Norn. *Journal of Language Contact* **6**. 48–72.
- Kristoffersen, G. (2000). *The phonology of Norwegian*. Oxford: Oxford University Press.
- Küspert, K.-C. (1988). *Vokalsysteme im Westnordischen: Isländisch, Färöisch, westnordwegisch*. Tübingen: Niemeyer.

- Lehiste, I. (1965). A poem in *Halbdeutsch* and some questions concerning substratum. *Word* **21**. 55–69.
- Lindqvist, C. (2003). Thesen zur Kausalität und Chronologie einiger färöischer Lautgesetze. *Arkiv för nordisk filologi* **118**. 89–178.
- Lindqvist, C. (2015). *Norn im keltischen Kontext*. Amsterdam: Benjamins.
- Low, G. (1879). *A tour through the islands of Orkney and Schetland containing hints relative to their ancient, modern and natural history, collected in 1774*. Kirkwall: Peace.
- Mather, J. Y. & Speitel, H. H. (eds.) (1986). *The Linguistic Atlas of Scotland. Volume III: Phonology*. London: Croom Helm.
- Melchers, G. (1981). The Norn element in Shetland today: a case of “never-accepted” language death. In Ejerhed, E. & Henrysson, I. (eds.), *Tvåspråkighet*, Umeå: n.p. 254–261.
- Millar, R. M. (2007). *Northern and Insular Scots*. Edinburgh: Edinburgh University Press.
- Millar, R. M. (2008). The origins and development of Shetland dialect in light of dialect contact theories. *English World-Wide* **29**. 237–267.
- Oftedal, M. (1956). *The Gaelic of Leurbost, Isle of Lewis*. Oslo: Aschehoug.
- Rendboe, L. (1984). How “worn-out” or “corrupted” was Shetland Norn in its final stages? *NOWELE* **3**. 53–88.
- Rendboe, L. (1987). *Det gamle shetlandske sprog*. Odense: Odense Universitetsforlag.
- Rendboe, L. (1989). The Lord’s Prayer in Orkney and Shetland Norn (1). *NOWELE* **14**. 77–112.
- Rendboe, L. (1990). The Lord’s Prayer in Orkney and Shetland Norn (2). *NOWELE* **15**. 49–111.
- Sasse, H.-J. (1992). Theory of language death. In Brenzinger, M. (ed.), *Language death: Factual and theoretical explorations with special reference to East Africa*, Berlin, New York: Mouton de Gruyter. 7–30.
- Scobbie, J. M. (2005). Interspeaker variation among Shetland Islanders as the long term outcome of dialectally varied input: speech production evidence for fine-grained linguistic plasticity. *QMU Speech Science Research Centre Working Paper* **2**.
- Scobbie, J. M. (2006). Flexibility in the face of incompatible English VOT systems. In Goldstein, L., Whalen, D. H. & Best, C. T. (eds.), *Laboratory Phonology* **8**, Berlin: Mouton de Gruyter. 367–392.
- Shuken, C. R. (1984). Highland and Island English. In Trudgill, P. (ed.), *Language in the British Isles*, Cambridge: Cambridge University Press. 152–166.
- Shuken, C. R. (1985). Variation in Hebridean English. In Görlach, M. (ed.), *Focus on Scotland*, Amsterdam: Benjamins. 145–158.
- Smith, B. (1990). Shetland, Scandinavia, Scotland, 1300–1700: the changing nature of contact. In Simpson, G. G. (ed.), *Scotland and Scandinavia 800–1800*, Edinburgh: Donald. 25–37.
- Smith, B. (1996). The development of the spoken and written Shetland dialect: a historian’s view. In Waugh, D. J. (ed.), *Shetland’s Northern links: language & history*, Edinburgh: Scottish Society for Northern Studies. 30–43.
- Smith, J. & Durham, M. (2011). A tipping point in dialect obsolescence? Change across the generations in Lerwick, Shetland. *Journal of Sociolinguistics* **15**. 197–225.
- Smith, J. & Durham, M. (2012). Bidialectism or dialect death? Explaining generational change in the Shetland Islands, Scotland. *American Speech* **87**. 57–88.
- Stewart, J. (1964). Norn in Shetland. *Fróðskaparrit* **13**. 158–175.
- Sundkvist, P. (2007). The pronunciation of Scottish Standard English in Lerwick, Shetland. *English World-wide* **28**. 1–21.
- Sundkvist, P. & Gao, M. (2015). A regional survey of the relationship between vowel and consonant duration in Shetland Scots. *Folia Linguistica* **49**. 57–83.
- Thomson, W. P. L. (1987). *History of Orkney*. Edinburgh: Mercat.
- Thráinsson, H., Petersen, H. P., Jacobsen, J. í. & Hansen, Z. S. (2004). *Faroese: an overview and reference grammar*. Tórshavn: Føroya Fróðskaparfelag.
- Trudgill, P. (2004). *New-dialect formation: The inevitability of colonial Englishes*. Edinburgh: Edinburgh University Press.
- van Leyden, K. (2004). *Prosodic characteristics of Orkney and Shetland dialects: an experimental approach*. Utrecht: Landelijke Onderzoekschool Taalwetenschap.
- Wiggen, G. (2002). *Norns død, især skolens rolle: kommentarer til en disputt om nedgangen for det nordiske språket på Orknøyene og Shetland*. Oslo: Novus.