# Meter, prosody and performance: evidence from the Faroese ballads

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# 1 Introduction

In this paper, <sup>1</sup> I argue that the meter of the Faroese ballads is best accounted for by adopting the metrical template of traditional generative metrics (Halle and Keyser 1969 et seq.). Theories which assume the template are better equipped to capture descriptive generalisations such as those laid out in this paper, which hold of the mapping from metrical positions to phonological form. Restrictions on the distribution of syllable types are best explained by means of this mapping, a principle independent of how correspondence constraints are implemented (see e.g. Kiparsky 2006, Hayes et al. 2012, Blumenfeld 2015 for recent proposals). By contrast, the Faroese data are inconsistent with analyses which either do not distinguish meter from prosody (Hayes and MacEachern 1998), adopt bottom-up parsing largely insensitive to rhythm (Fabb and Halle 2008), or try to conflate the template into more general phonological constraints (Riad 2017). Moreover, I propose that while metrical structure cannot simply be read off performance, a regular correspondence of strong dance steps to strong metrical positions nevertheless applies; recordings of the Faroese ballads thus provide supplementary evidence for a given parse. Therefore, I argue that the levels of metrical structure, prosody and musical rhythm are distinct but interdependent, a model supported by the Faroese performance data. Throughout this paper, I refer to strong vs. weak metrical positions as distinct from stressed/unstressed syllables, both of which are also distinguishable from musical beats and dance steps in performance.

#### 2 The $kv a \partial i$

The folk ballad tradition of the Faroe Islands represents an excellent opportunity to explore the questions facing metrical theory. The  $kv \omega \delta i$ , sung ballads accompanied by a ringdance whose origins trace back to the Middle Ages, provide the metrist not only with a large corpus of textual source material but also an associated performance tradition that is a living part of Faroese culture. To date no major study has been undertaken of the Faroese ballad meter, nor of the relationship between text and performance. While the Faroese tradition exhibits features common to more intensively studied folk meters, investigation reveals it to be a unique combination of text, meter, song and dance which proves the relevance of verse performance to metrical theory.

The earliest attempts to describe the Faroese folksong and dance tradition appeared at the turn of the twentieth century (Thuren 1901, 1908). There are over 500 Faroese ballads from several centuries in a range of genres, although not all of them are performed regularly. Most ballads are traditionally performed with a particular melody and with a refrain that differs melodically and rhythmically from the regular stanza (1).

(1) Sniolvs  $kvæ\delta i$ , first stanza and refrain

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Árla var um morgunin, early was.3sg in morning-the.acc ið sól tók fagurt at branda, that sun.nom took.3sg beautifully to shine.INF tað var ungi Ásmundur, it was.3sg young.Nom Ásmundur.Nom hann lystir út at ganga. he.Nom desires.3sg out to go.INF

the sun shining beautifully, there was the young Asmundur, he wanted to go out.

Gyltan spora golden.ACC spur.ACC við mítt fótaspenni. with my.ACC buckle.ACC so temji eg mín gangara góða, so tame.1sg I.nom my.acc steed.acc good.acc lætur renna. lets.3sg run.inf

'A golden spur by the buckle of my shoe, so I tame my good steed and let [him] run.'

'It was early in the morning,

The sparse existing descriptive work claims that the meter is typically a 4343 short ballad meter similar to other folk ballad traditions, performed with a strict correspondence between 'accented syllables' and strong melodic beats (Clausen 2003).<sup>2</sup> In section 3, I lay out the descriptive generalisations revealed by the ballad texts, drawing upon both attested and unattested line types, thus delineating the range of what is permitted by the meter. In section 4 I show that the correspondence between meter and music is not bidirectional, yet regular in a way that is most readily explicable by a template-matching account; given this regularity, I posit that the dance steps may disambiguate between parses and serve as an indicator for a strong metrical position.

With this groundwork laid, in section 5 I argue that the metrical template is in fact necessary for our theory to account for all and only the attested  $kv\alpha\delta i$ , over against alternatives which attempt to conflate the distinct levels of meter and prosody. I discuss empirical generalisations which would be lost on these alternative approaches, and conclude that the model advocated for here — which considers the levels of metrical, phonological and musical structure as distinct but related — is best able to explain the observed facts about the Faroese meter.

#### 3 Descriptive overview of the meter

In this section, I will provide a descriptive summary of the Faroese meter, drawing on a sample of ballad texts for generalisations that I show also hold of the whole corpus of Faroese ballads. I will also deal with variations that necessitate a more fine-grained typology of Faroese meter, in particular a looser meter which permits a wider range of syllable types in strong position. I will argue that if we assume a trochaic metrical template whose positions map to a phonological representation, the Faroese meter is straightforwardly described. On the other hand, without these assumptions it is difficult even to formulate the generalisations adequately.

#### 3.1Faroese phonology

Before describing the meter, some basic features of Faroese phonology must be noted. Since Faroese orthography is highly etymological, e.g. retaining  $\delta$  even when silent or a glide in the modern language, an IPA transcription is provided for each line, including indications of primary and secondary stress. Historical long

<sup>&</sup>lt;sup>2</sup>The introduction to the eighth volume of the *Corpus*, edited by Marianne Clausen, along with two brief sections of Masterslevel studies (Luihn 1979, Weyhe 1979), contain to my knowledge the only descriptive claims made about the meter of the ballads. As Weyhe focuses on the satirical tættir and Luihn primarily on the dance, I do not directly draw upon their work

vowels  $\acute{a}$ ,  $\acute{i}/\acute{y}$ ,  $\acute{o}$ ,  $\acute{u}$  have become the diphthongs /ɔaː vuː vuː / in modern Faroese, all of which alternate with short counterparts when occurring in a closed syllable. Open and closed syllables are defined as in other Scandinavian languages, i.e. a syllable is closed if the nuclear vowel is followed by a long consonant or a cluster. I transcribe vowel length phonemically, e.g. I represent the word at as /ɛaːt/ even though in rapid speech it tends to be reduced to [at] or [ət]. Unstressed a, i and u are represented as [a ɪ v], somewhat of an idealisation since there is much dialectal variation, e.g. merging /ɪ v/ to [ə] or [ø]. I follow Práinsson et al. (2012) in transcribing the voiceless unaspirated stops b, d and g as devoiced [b d g], and the stops p, t and k with (pre-)aspiration when appropriate. The transcription is intended to be broad and represents the dialect of an idealised Tórshavn speaker. Perhaps most relevant to meter, the rules for Faroese stress are given in Práinsson et al. (2012:28):

- (2) a. Primary stress falls on the first syllable in all native Faroese words.
  - b. There is a stress alternation rule which places a weak secondary stress on every other syllable.
  - c. The first syllable of the second part of compound words gets secondary stress.

I assume that the metrical template maps to syllables on a phonological representation of the line. This representation minimally includes a binary stressed-unstressed distinction, but a third degree of stress turns out to matter: special licences are required in the meter that make reference to secondary stress, as discussed in section 3.4 below. In spoken Faroese, when the alternating secondary stress immediately precedes the article, the article attracts the stress and the weak stress on the inflectional ending is deleted, e.g. fjeppararnar ['fjehp:a.ia.,nai], 'supporters.ACC'; the same deletion occurs adjacent to stress in subparts of compounds, e.g. hálvleikur ['hɔlv.,lar.kui], 'half.NOM (of sport game)'. Throughout this paper I use the following notation for the phonological representation of stress: X = primary stress, Z = secondary stress,

#### 3.2 Ballad texts

The whole corpus of Faroese ballads,  $Corpus\ Carminum\ Farænsium$ , is collected in Grundtvig et al. (1941-2003). The University of the Faroe Islands kindly provided me with a digital version of volumes I-V of the corpus, which I hereafter refer to as CCF; readers may request access to the corpus from the Faculty of Faroese Language and Literature (Føroyamálsdeildin).<sup>5</sup> This excludes the modern ballads known to be composed during or later than the 19th century, two of which I include in my textual sample.<sup>6</sup> The textual sample I used consists of the following ballads (Grundtvig et al. 1941-2003):

BALLAD	Total lines	No. stanzas	Stanza	Refrain	Date
Sjúrðar cycle	2372	579	4343, ABCB	3433, AABA	medieval
- $Regin\ smi\partial ur$	572	131	-	=	medieval
- Brynhildar táttur	1088	271	-	-	medieval
- Høgna táttur	712	177	-	-	medieval
$Ormurin\ langi$	344	85	4343, ABCB	3343, ABAB	modern
Runsivals stríðið	532	132	4343, ABCB	4343 (437), ABCB	medieval
$Virgars\ kv$ æði	463	115	4343, ABCB	433, ABC	$\operatorname{modern}$
Artal kongur í Atlandi	1068	266	4343, ABCB	5585, ABAA	medieval
Torsteins kvæði	892	233	4343, ABCB	3443, ABCA	medieval
Heljars kvæði	222	107	44, AA	23343, ABCAB	medieval
Total sample	5893	1517			

Table 1: Textual sample of ballads

<sup>&</sup>lt;sup>3</sup>See Árnason (2011) and Þráinsson et al. (2012) for detailed treatments of Faroese phonology.

<sup>&</sup>lt;sup>4</sup>See also Árnason (2011:Chapter 13.2.1) and Dehé and Wetterlin (2013) for treatments of secondary stress in Faroese.

<sup>&</sup>lt;sup>5</sup>Courtesy of Hjalmar P. Petersen. Contact details for requesting access can be found at <a href="https://www.setur.fo/fo/gransking/foroyamalsdeildin/">https://www.setur.fo/fo/gransking/foroyamalsdeildin/</a>. A full list of the Faroese ballads can be found in Grundtvig et al. (1941-2003).

<sup>&</sup>lt;sup>6</sup> Ormurin langi by Jens Christian Djurhuus (1773-1853) and Virgars kvæði by Hans Meinhard Djurhuus (1920-80), which can be consulted in Egholm (1996).

CCF contains 138,746 lines, 5086 of which are included in my textual sample (hence 3.7%); an additional 807 lines from the modern ballads bring the total in the sample to 5893. I make use of a stress parsing script in order to show, to the extent possible (i.e. in the absence of a complex foot parser for the Faroese meter), that the generalisations made of this small sample also hold of the entire CCF. Moreover, the sample was selected in order to be representative of the range of ballad types: one entire cycle was included, the  $Sj\acute{u}r\acute{o}ar\ kv\&\acute{o}i$ , a multi-part ballad consisting of the three sections indicated in the table by dashes:  $Regin\ smi\eth ur$ ,  $Brynhildar\ t\acute{a}ttur$  and  $H\not egna\ t\acute{a}ttur$ . As the four-line, 4343 stanza is the most frequent type in CCF, only one two-line ballad,  $Heljars\ kv\&\acute{o}i$ , was selected. The two modern ballads  $Ormurin\ langi$  and  $Virgars\ kv\&\acute{o}i$  were included because there turn out to be metrical differences between the medieval and modern ballad types. The other ballads  $Runsivals\ str\acute{o}i\eth$ ,  $Artal\ kongur\ i\ Atlandi$  and  $Torsteins\ kv\&\acute{o}i$  were chosen at random. As can be seen in Table 1, refrains are often of irregular length and a different rhyme scheme than the stanzas; the number of feet could also differ depending on the parse assumed. I have opted for the number of feet proposed for the refrains in the table, since otherwise additional licences are required to a far greater extent even than the most extreme stanza examples, e.g. multiple consecutive unstressed syllables in strong position.

#### 3.3 Left-headed template

I posit that the Faroese meter is best described by a template of left-headed feet. It allows dactylic substitution, i.e. permitting a ternary grouping of syllables ( $X \times X$ ) in place of a binary grouping ( $X \times X$ ), as well as empty weak positions, i.e. a metrical foot consisting of a single syllable. This places it in the broader family of alternating binary-ternary meters such as dolnik (Tarlinskaja 1992, 1997) and the meters of sundry English-language folk ballad and children's verse types (Hayes and MacEachern 1998), since it is defined primarily by stress peaks and is less strict as to the number of intervening unstressed syllables.

The basic structure of a four-line stanza is shown in Figure 1 below, where '|' indicates foot boundaries and parentheses indicate optionality:

Figu	re 1:	Basic	metr	ical	ten	nplat	e of 4	343	sta	nza
(w)	s	W	s	w		$\mathbf{s}$	W		$\mathbf{S}$	(w)
(w)	s	W	s	w		$\mathbf{s}$	(w)			
(w)	s	W	s	w		$\mathbf{s}$	(w)		$\mathbf{S}$	(w)
(w)	s	w	s	w		$\mathbf{s}$	(w)			

This template holds for all four-line ballad verses in CCF; additionally, in medieval cycle ballads, empty weak positions are permitted line-medially (see section 3.5).

The need for a left-headed parse becomes clear upon even a surface-level examination of the ballad texts. Aside from the trochaic pattern of Faroese stress assignment (Árnason 2011:Chapter 13.2.1), a number of pieces of evidence point to such a conclusion: first of all, right-headed parses would require more structure-altering licences. An iambic parse of the following line requires both initial trochaic inversion and an extrametrical syllable at the end of the line (3); contrast a trochaic parse (4), which only requires permitting more than one unstressed syllable between stress peaks.

(3) viljið | tær orð|um trúg|va, 'be willing to believe [my] words' be.willing.IMP.2PL you.2PL words.DAT.PL believe.INF 'vil.ji tæai 'oi.iun 'tiig.va '?? W S | W S | W S | Ormurin langi 1.2

<sup>&</sup>lt;sup>7</sup>This line count was arrived at by adding together contentful lines of the digital corpus, i.e. excluding empty lines, titles, and textual critical information. Duplicates of the same ballad were included, since occasionally there are textual variations.

<sup>&</sup>lt;sup>8</sup>Written by myself in Python 3, it marks stresses and word-boundaries.

This problem is even clearer with lines consisting entirely of trochees, which are best assumed to be what they appear (6), rather than positing a right-headed parse with mismatches, e.g. (5).

(5) Vir|gar høg|gur óg|vulig|a, 'Virgar hews mightily' [Virgars kvæði 76.1]

Virgar hews.3sG mightily

'vɪɪ.gaɪ ˈhœgɪʊɪ ˈɛg.vʊ.ˌliɪ.ja

?? w s | w s | w s | w s

X | x X | x X | x 2 | x

Although anacrusis (an initial extrametrical syllable) is optional, an anacrustic line is better analysed as a left-headed line with a preceding weak position, rather than a right-headed line without anacrusis: otherwise, lines with initial trochees would require parses like (5). Indeed, lines with multiple initial unambiguously left-headed feet are common. Table 2 below shows the frequencies of lines beginning with three consecutive trochees or dactyls by ballad in the text sample. I exclude sequences of two or more initial unstressed syllables, which do not favour left- or right-headed parses by stress alone; I allow for a single initial extrametrical syllable. I have included one instance of the refrain associated with each ballad or section.

Ballad	No. of lines with three	Total lines	% of total
	initial left-headed feet		
Regin smiður	265	572	46.3
Brynhildar táttur	659	1088	60.6
Høgna táttur	501	712	70.4
Whole $Sjúrðar$ cycle	1425	2372	60.1
$Ormurin\ langi$	274	344	79.7
Runsivals stríðið	324	532	60.9
$Virgars \ kv$ æði	370	463	79.9
Artal kongur í Atlandi	714	1068	66.9
$Torsteins\ kv$ æði	630	892	70.6
$Heljars\ kv$ æði	199	222	89.6
Total sample	3936	5893	66.8

Table 2: Frequencies of lines with three initial left-headed feet by ballad

These results show that for all ballads in the sample other than  $Regin\ smi\delta ur$ , a majority of lines begin with three or more initial left-headed feet. Those which do not, usually lines beginning with a string of monosyllabic function words, may also be parsed with left-headed feet, but their stress pattern does not force

<sup>&</sup>lt;sup>9</sup>There are a couple of interesting outliers in this table: the only two-line ballad in the sample,  $Heljars\ kv\&\delta i$ , also has the largest proportion of lines beginning with three left-headed feet; this is probably due to its 44 template, since those lines in the 4343 ballads with not enough syllables to make up three initial left-headed binary/ternary feet will not be possible. Of the 4343 ballads, those with the highest proportion of this type of line are also those composed in the nineteenth century or later ( $Ormurin\ langi\$ and  $Virgars\ kv\&\delta i$ ); this statistical preference could be due to a conscious effort on the part of the writers to emulate what they correctly perceive to be left-headed rhythms of the old ballads. Finally, the paucity of such lines in  $Regin\ smi\delta ur$  appears to be a quirk of this ballad itself: 37 lines begin with three or more unstressed monosyllables, and 93 lines consist of five syllables or fewer.

such a parse. Moreover, this generalisation holds of the entire CCF: of the 138,746 lines, 42,008 begin with a sequence of three consecutive dactyls or trochees (30.3%), which would be an incredibly large proportion of primary stresses in supposedly weak positions. Therefore, this is best parsed as a trochaic meter with dactylic substitution.

A core claim of this paper is that the adoption of this trochaic-dactylic metrical template enables us to make empirically sound descriptive generalisations about the meter itself. In the following section, these generalisations are summarised. Data from the textual sample will demonstrate not only that the template is a prerequisite to achieve empirical coverage, but also to rule out unattested line types.

## 3.4 Summary of descriptive generalisations

Any empirically adequate theory of the basic Faroese meter will have to account for at least the following:

- 1. Left-headed feet
- 2. Strong position admits:
  - a. any one stressed syllable, including secondary stress
  - b. monosyllabic words not bearing lexical stress
  - c. at end of line only: unstressed inflectional endings of polysyllabic words
- 3. Weak position admits:
  - a. no main word stress
  - b. up to three unstressed syllables, including whole trochaic function words
  - c. at end of line only: empty
- 4. Up to two extrametrical syllables permitted before line only

Having discussed left-headed feet in section 3.3, I present evidence from the ballad corpus for generalisations 2–4 in sections 3.4.1-3.4.3 below. In section 3.5, further licences permitted in cycle ballads are discussed; again, I argue that the metrical template provides a means of capturing the systematic differences between the stricter and looser Faroese meter.

#### 3.4.1 Strong position

Stressed syllables In strong metrical position, (a) monosyllabic words bearing stress, (b) main word stress in polysyllabic words and (c) secondary stress must all be permitted. The relevant syllables in examples (7-8) from the text sample are given in bold.

(7) **Tor**stein | **gekk** at | **skip**a|**bun**ka, 'Torstein walked on the ship's deck' [*Torsteins kvæði* 41.1] Torstein walked on ship.deck

'tɔɹˌstaɪɪn ˈʤεʰkɪ εaɪt ˈʃiɪ.pa.ˌbʊŋ.ka

(8) »**Nú** skal | **rí**ða í | **Run**si|**val**, 'Now shall ride to Runsival' [Runsivalsstríðið 14.3] now shall ride.INF to Runsival

'nuu: skea:l '.101:.ja ui: '.1011.si.,vea:l s w | s w | s w |

Only one stressed syllable may correspond to a strong position; four-foot lines such as the constructed examples (9-10) with more than one stress in strong position are unattested in CCF.

(9) \*Gud faðir vár | signi | tykkum og | náði tykkum God father our bless.subj you.2PL and grace.subj you.2PL 'May God our Father bless you and have mercy on you' 'guːḍ 'fɛaː.jɪɪ vɔaːɪ 'sɪg.nɪ 'tɪʰkːʊn ɔ 'nɔaː.jɪ 'tɪʰkːʊn

(10) \*Sjúrð keisar av | Sakslandi | sló Brynhild í | vreiði Sigurd.ACC ruler of Saxony struck.SG Brynhild.NOM in wrath 'Sigurd ruler of Saxony (was him who) Brynhild struck in wrath' 'cuuːı 'kaıː.saɪ ɛaːv 'saks.,lan.dı 'slɔuː 'bˌxiːn.,hıldˌ ʊɪː 'vxɪaɪː.jɪ

Monosyllabic function words, which can be stressed or unstressed, can occupy strong metrical positions. A reviewer notes that it could be the case that such words could be parsed as word or phrasal clitics, or as prosodic words in their own right (Selkirk 1996, Ito and Mester 2008); given the lack of preceding work on this specific aspect of Faroese prosody, we cannot assume definitively that these are unstressed. There seems to be no restriction on which strong position in the line these syllables may occupy, as illustrated in examples (11-12) from the textual sample.

(11) so | **skal** eg | **hann** tó | finna.« 'so shall I however find him' [Artal kongur í Atlandi 6.4] so shall I him though find.INF so: skearl er han; tour 'fin;a

(12) **vilt** tú | **við** mær | fara, '[if] you want to go with me' [Ormurin langi 11.2]

want you with me go.INF
vilt thu: vi: mea: i 'fea: ...a
s w | s w | s w
x x | x x | X x

Monosyllabic function words in strong position are frequent in CCF: 6,092 lines begin with a sequence of three monosyllabic words, which includes parses of either an initial extrametrical syllable followed by a trochaic foot ( $x \mid x x$ ), or a trochaic foot followed by the strong position of the following foot ( $x \mid x x$ ).

**Definite article and compounds** Two subtypes of secondary stress appear to be more restricted in distribution than second elements of compounds: the suffixed definite article, and the rhythmic stress described by rule (2b). The definite article is attested in non-final feet (14), and not only in cycle ballads with the looser meter:

(13) Hann | gjørdi so | væl við | sveinar|**nar**, 'he did so well with the lads' [Torsteins kvæði 43.1] he did so well with lads-the

han: 'dei.di so: 'veail vi: 'svai.na.,nai

(14) »Kongur|in av | Dani|mark 'the King of Denmark' [Ormurin langi 34.3] king-the of Denmark

'kən.gu.,ım earv 'danıı,mark

$\mathbf{S}$	W	s	W	s	$\mathbf{W}$	s	W
X	$\mathbf{x}$	2	$\mathbf{x}$	X	$\mathbf{x}$	2	

However, occurrences of the definite article *in strong position* are found disproportionately at line-ends. Table 3 shows some relevant statistics, in which 'parsed' indicates a parse that must hold lest there be an unexpected number of feet in the line.

Definite article		
	Total in CCF	% of CCF total
All kongurin [ˈkɔŋ.gʊ.ˌɪɪn] 'king-the.NOM'	762	100.0
Line-final kongurin	150	19.7
Non-line-final kongurin	612	80.3
		% of subtype
Line-final kongurin:		
parsed $kongurin$ ( s w )	0	0.0
parsed $kongur/in$ ( s w   s )	150	100.0
Non-line-final kongurin:		
parsed $kongurin$ ( s w )	563	92.0
parsed $kongur/in$ ( s w   s )	49	8.0
SECOND PART OF COMPOUND		
		% of CCF total
All –ríki [ˌɹʊɪː.tʃɪ] 'realm, kingdom'	797	100.0
Line-final $-riki$	503	63.1
Non-line-final $-riki$	294	36.9
Of line-final $-riki$ :		% of subtype
Four syllables e.g. himmiriki [ˈhɪmːɪ.ˌɹʊɪː.ʧɪ] 'heaven'	372	74.0
of which parsed as trochees $(sw   sw)$	372	100.0
Three syllables e.g. Svøríki [ˈsvøx.ˌxux.tʃɪ] 'Sweden'	131	26.0
of which parsed as $Sv \#ri/ki$ ( s w   s )	131	100.0
Non-line-final Nøríki [ˈnøː.ˌɹʊɪː.ʧɪ] 'Norway' or Svøríki	223	100.0
of which parsed as dactyl ( $s w$ )	221	99.1
of which parsed $N\emptyset/riki$ ( s $\emptyset$   s w )	2	0.9

**Table 3**: Frequencies of lines with *kongurin* and -riki compound

A number of striking results emerge here, some of which appear to be categorical restrictions. First, all 150 lines with the definite article of kongurin line-finally must be parsed with the article in a strong position, lest the line have one foot less than expected in each case. Of the remaining 612 with kongurin elsewhere in the line, only 49 (8%) could be parsed kongur/in ( s w | s ) and not result in an unexpected number of feet. This contrasts with second elements of compounds, which may be bisyllabic and therefore have an unstressed syllable in the final weak position. For example, of the 503 line-final occurrences of the second element -riki 'realm, kingdom' in CCF, 372 (74%) consist of a four-syllable word like himmiriki 'heaven' and must be parsed as a trochee, whereas the other 131 (26%) have three syllables like Nøriki 'Norway' and Svøriki 'Sweden', with the final unstressed -i in strong position. All bar two of the 223 non-line-final occurrences of these words in CCF must be parsed as a dactylic foot, the exception being two instances of the same line, for Nøriki ræður 'rules Norway', in which Nø/riki ( s  $\emptyset$  | s w ) is the most natural parse. This indicates that there is indeed a line-final strong position which permits a wider range of syllable types than line-initially or medially.

The contrast between the four-syllable compounds and suffixed article may simply reflect that the latter is never trochaic or dactylic; however, it also reflects a tendency to avoid weak cadences when they would violate saliency or parallelism, conflicting constraints that favour the 4343 structure (Kiparsky 2006). For example, the following parse of (13) violates parallelism by creating a three-foot line where four feet are expected:<sup>10</sup>

<sup>&</sup>lt;sup>10</sup>There is one alternative parse which maintains the four-foot structure, by creating an empty weak position in the first foot.

(15) Hann | gjørdi so | væl við | sveinarnar he did so well with lads-the han: 'ʤœɪ.dɪ so: 'vɛaːl vi: 'svar.na.,na.ı

?? | s w | s w | s w | s w | x x | X xx | X x2

This same observation holds for the three-syllable compounds with riki: a line-final parse of  $N \sigma riki$  (s w) results in one foot too few in all 131 examples of this type in CCF, while  $N \sigma / riki$  (s  $O \mid s$  w) is possible but would introduce systematic misalignment with performance rhythm (see section 4). Hence, although the meter allows both the definite article and second parts of compounds in strong position, these types of secondary stress are distributed differently in frequency. I propose that this occurs as a result of both a purely metrical pressure (preserve parallelism), and word-phonology (compounds can end in trochees, the suffixed article does not). A result as striking as this, i.e. that 100% of line-final articles in kongurin and 100% of three-syllable -riki compounds maintain the 4343 stanza structure **if and only if** their final syllable occurs in strong position, ought not be ignored. If metrical constraints exist at all, we would expect them to produce systematic correspondences precisely as they do in the Faroese data. The null hypothesis, that there is no metrical template to which the phonological representation is mapped, should not yield such patterns.

Weak secondary stress and unstressed inflections Finally, there is evidence that both weak secondary stress assigned by (2b) and unstressed inflectional endings can occur in line-final strong position in the stricter meter:

(16) Ríða | teir í | bardag|ar 'they ride to battle' [Regin smiður 5.1] ride.3PL they to battle 'zur.ja tar.z ur 'baz.de: az s w | s w | s w | s w | s w | X x | x x | X x | Z

(17) Virgar | leyp úr | gullstó|li, 'Virgar leapt from [his] golden throne' [Virgars kvæði 9.1]

'vii.gai 'lei:p uuii 'godl.,stou:.li s w | s w | s w | s v X x | X x | X 2 | x

Virgar leapt from gold.chair

Of the 56 occurrences of bardagar 'battle' in CCF, only two are not line-final: two instances of the same line contain  $bardagar \ / bildust \ / a$  ['bat.de:.ai 'hil.dust bai] 'battle continued on', which cannot have the weak secondary stress in strong position without adding a foot or resulting in a dactylic final foot that does not rhyme. The parse in (17), as opposed to the most obvious alternative  $Virgar \ / leyp \ \'ur \ / gull/st\'oli$ , is supported by a performance by the Sumba dance society, in which the unstressed final -i of gullst'oli receives a strong dance step and strong melodic beat. This lends further support to the purely metrical preference for a line-final strong position, even when the occupying syllable is unstressed, a generalisation difficult even to formulate without the template. Thus we have evidence that any syllable type is permitted in strong position, but following a kind of markedness hierarchy, presented in (18) from most to least marked:

$$\left\{ \begin{array}{c} \text{Unstressed} \\ \text{inflectional} \\ \text{ending,} \\ \text{Rule (2b)} \end{array} \right\} \gg \text{Definite article } \gg \left\{ \begin{array}{c} \text{Stress in second} \\ \text{part of} \\ \text{compound,} \\ \text{Main stress} \end{array} \right\}$$

This is however a far more marked possibility than an empty weak in the final foot, which is generally the preferred option in metrical verse (see e.g. Hanson and Kiparsky 1996, Blumenfeld 2015).

<sup>&</sup>lt;sup>11</sup>Available on Youtube at <a href="https://www.youtube.com/watch?v=Nncdbtq2\_MM">https://www.youtube.com/watch?v=Nncdbtq2\_MM</a>>, accessed 2/18/19. The relevant line is at timestamp 2:48.

To summarise the empirical evidence for this hierarchy, although it is impossible to count every instance of the relevant syllable types due to the absence of a Faroese foot parser, some high-frequency examples are instructive: unstressed inflectional endings  $(N \sigma r i k - i)$  and weak rhythmic secondary stress (bardag - ar) only occur in strong position line-finally in the stricter meter; the definite article in kongur - in tends to occur in strong position at line-ends but is attested line-medially; and both stress in second parts of compounds (himmi - riki) and main word stress are attested in any strong position. Further work is required to establish that these trends hold more broadly across the ballad vocabulary, but it is clear that for these frequent tokens at least, the generalisation in (18) holds, and can only be understood in terms of the metrical template.

#### 3.4.2 Weak position

Main lexical stress prohibited Main word stress in a lexical polysyllabic word never occurs in weak position in either the text sample or CCF. As noted in (2), Faroese main stress is predictably word-initial; by 'lexical stress' I mean primary stress in a word belonging to a lexical category (N, A, V), not a functional category such as prepositions or determiners. Such a restriction naturally falls out of the generalisations already sketched, with the addition of extrametricality: since one monosyllabic word is permitted as an extrametrical syllable before the first foot, the stress of a trochaic word which begins as the second syllable of the line will always occupy strong position. As monosyllabic function words are permitted in strong position, any sequence of multiple monosyllabic function words will still receive a left-headed parse. Nevertheless, this restriction is still empirically necessary to prevent a proliferation of stresses, e.g. in the constructed line (19).

(19) ?Høll ynskti | Rólant at | ríða | frá hall wished Roland to ride from 'hœḍl 'nŋk.stı 'ɹɔuː.lant ɛaːt 'ɹʊıː.ja fɹɔaː s w | s w | s w | s w | X Xx | X xx | X xx | X X

'From the hall Roland wished to ride'

It remains unclear what set of lexical polysyllabic words are permitted in weak position; it may be that such verbs as *ynskja* 'wish' would be members of this set, which is why we cannot definitively rule out (19). However, there is no attested line in CCF containing a dactylic lexical word in weak position, nor one containing more than five lexical word stresses, e.g. constructed examples (20–21).

(20) \*Høll byrjaði | Rólant at | ríða | frá hall began Roland to ride from 'hœdl 'bɪɪ.ja.jɪ 'ɪɔuː.lant ɛaːt 'ɹʊɪː.ja fɪɔaː s w | s w | s w | s w | X Xx2 | X xx | X x | X

'From the hall Roland began to ride'

(21) \*Tóast | reið Sjúrður | burtur frá | kongsins høll however rode Sigurd away from king-the.GEN hall 'tɔuː.wast 'ɹaɪː 'c̞нuː.ɹuɹ 'b̞uɹ.tuɹ fɹɔaː 'kɔŋ.ˌsɪns 'hœḍl

təu:.wast 'ıaı: 'çʉu:.ɹʊɹ 'b̥ʊɹ.tʊɹ fɹɔa: 'kəŋ.ˌsɪns 'l s w | s w | s w | s w X x | X Xx | X xx | X 2X 'S. however rode away from the king's hall'

Multiple syllables between stress peaks In CCF, we find up to three syllables occupying weak position provided none is main word stress. These may consist of (a) unstressed or weak secondary stressed syllables of a polysyllabic word, (b) function words, or (c) a combination of both (22-23). The possibility of three consecutive unstressed syllables between strong peaks only occurs with trochaic function words. As with strong positions, in the text sample any weak position may be occupied by any of syllable types (a-c).

(22) all**ir** | só**u hann** | nið**ur** | fal**la**, all saw.3PL him down fall.INF

'all saw him fall down'

[Høgna táttur 98.3]

'ad.lız 'souz.wo hanz 'niz.joz 'fad.la

(23) So var | hann í | Atlan|di, so was he in Atland 'so he was in Atland'

[Artal kongur í Atlandi 53.1]

so: veau han: vii 'at.,lan.di

Disyllabic weak positions abound in CCF; for instance, there are 39,588 line-initial feet consisting of a stressed syllable followed by two unstressed syllables, and 7,035 lines beginning with two dactylic feet.

Whole trochaic function words may also occupy a single weak position (24), even with another unstressed syllable of a preceding word (25). In the textual sample trochaic function words may always be considered as equivalent to a single unstressed syllable.

(24) hann | sær **ikki** | Ormin | enn.« he sees not Serpent-the anymore 'he sees the Serpent no longer'

[Ormurin langi 34.4]

'the good knights from Spain'

han: ˈsɛaːɪ ˈɪʰtʃːɪ ˈɔɪ.mɪn ˈɛnː

(25) Teir | gingu | aftur  $\mathbf{fyri}$  | Einglands | kong 'they caught up with the king of England' [Runsival. 25.1]

they went again for England's king

taı:ı 'dyn.gu 'a<sup>h</sup>t:uı 'fi:.ıı 'aıŋg.,lands 'kəŋ

Examples of three unstressed syllables in weak position are also found in CCF, e.g. so / raskur yvir / allar / dreingir? [so: 'ass.kua 'iz.via 'ad.laa 'daon.daa 'so brave over all the lads?' [Sneulvs rima 42.4]. For trochaic function words we can simply say that their stressed syllable is not always considered a stress in the meter. Lines with more than three unstressed syllables between strong positions are unattested in CCF, e.g. this constructed three-foot line (26):

(26) \*Teir | góðu | riddararnir av | Spanialandi the good knights-the of Spain

tanı 'gəur.wu 'nıdıa.nı earv 'span.ja.,lan.dı

**Dactylic substitution** If we did not assume that two syllables may match to a single metrical position, lines with a straightforward parse like (27) would have five feet and a main word stress in weak position (28).<sup>12</sup>

<sup>&</sup>lt;sup>12</sup>An alternative parsing strategy would be to allow strong positions to 'resolve' into a trochee (i). Whilst this is necessary in weak position for trochaic function words, there is no obvious advantage in bracketing the stress with its following unstressed syllable in strong position; either manner of bracketing unstressed syllables does not factor into any constraint on the number permitted between stress peaks.

<sup>(</sup>i) Svaraði | keisarin | Karla|magnus, answered emperor-the Charlemagne

(27) Svaraði | keisarin | Karla|magnus, 'the emperor Ch. answered' [Runsivalsstríðið 102.1/107.1] answered emperor-the Charlemagne 'sveat.ia. ji 'kait.sa. jin 'kait.sa. j

(28) Svara|ði kei|sarin | Karla|magnus, 'svɛaː..ia. ji 'kaiː.sa.,ıin 'kai.la.,mag.nus

Dactylic substitution may occur in any but the final foot: of the 851 lines in CCF ending in two consecutive words with ( Xx2 ) or ( X2x ) stress, none may be parsed with a final dactylic foot without either reducing the number of feet or permitting empty weak positions non-line-finally (or both). A glance at the data shows that these tend to be either compounds or words with suffixed articles, e.g. 'keisar,in ['kar.sa.,mn] 'the Caesar', 'álvar,hús ['ɔl.vaɪ.,huuːs] 'elven house', 'Hildi,brand ['hɪl.dɪ.,bɹand] (proper name), as discussed in section 3.4.1. Line-final dactyls are better parsed as in (29), not as a completely empty final foot (30).

(29) og so | báðir | ganga | teir 'and thus they both went' [Torsteins kvæði 98.3] and so both go.3PL they o sor 'bɔar.jɪɪ 'gɛŋ.ga taɪːɪ
s w | s w | s w | s w | s w | x x | X x | X x | x

(30) og so | báðir | ganga teir [|  $\emptyset$ ] by so: 'by az.ju 'gen.ga tai:

?? s w | s w | s w [| s w]

? x x | X x | Xx x | ]

No line in CCF has four consecutive dactylic words, which also indicates a dispreference for structures necessitating a line-final dactylic parse. Such patterns could also be the result of a conflict between pressures of saliency and parallelism (Kiparsky 2006). As argued by Blumenfeld (2016), parallelism within stanzas is signalled most efficiently at constituent boundaries such as line-ends: hence, perhaps the preference for a monosyllabic end to four-foot lines is a means of indicating the end of the dactylic sequence, which falls out of this general grouping property of metrical verse. Such properties are nicely explained if a template-based approach is adopted, particularly when combined with a constraint-based model.

**Empty weak position** One final observation regarding weak position is the possibility of it being empty, i.e. not corresponding to any syllable, as already presented in section 3.4.1. In the stricter meter this licence only occurs line-finally; see section 3.5 for discussion of line-medial empty weak positions in the looser meter.

#### 3.4.3 Extrametricality

**Extrametrical syllables permitted line-initially** Given the lack of a Faroese foot-parser or even a reliable syntactic parser, it is difficult to isolate phonological phrase boundaries, other than to use punctuation

```
'svεa:..a.,jı 'kaı:.sa.,ıın 'ka.ı.la.,mag.nos
s w | s w | s w | s v
Xx x | Xx 2 | X x | 2 x
```

Another reason to prefer a disyllabic weak position over the type of resolution in (i) is that this would be a unique phenomenon among Germanic meters; elsewhere in Germanic verse, resolution only occurs when there is a light stressed syllable followed by an unstressed syllable in the same word, i.e. a moraic trochee (Kiparsky, p.c.); this would be especially strange for words like 'Karla, magnus where a secondary stress is involved.

as a proxy. It seems that if we take punctuation to be an indicator of a major phrase break, they occur overwhelmingly at line-ends: of the 117,858 occurrences of punctuation in the set { . , : ; ! ? « } in CCF, only 8720 (7.4%) are line-medial, suggesting that major phrase breaks are permitted but rare line-medially. Up to two extrametrical syllables are permitted immediately before the beginning of a line; for the most part, we find an unstressed monosyllabic function word prior to the first foot (31). Extrametrical initial syllables of polysyllabic function words are also found in the sample (32).

(31) at | biðja so | fagurt | lilju|moy.« 'to beseech the maiden so beautifully' [Heljars kvæði 8.2] to bid so beautifully maiden ea:t 'bir.ja so: 'fear.voxt 'lɪl.jv.,mor:

| s w | s w | s w | s w | s w | x | X xx | X x | 2

(32) **í**|millum | tveggja | hurða, 'between two doors' [Torsteins kvæði 155.2] between two doors ou: 'mid.lun 'tveʤ:a 'hu:.ia

X xx

| s w | s w | s w | x x | X x | X x | X x

There are a few examples in the sample of trochaic function words occurring prior to the first foot which must be extrametrical to avoid a five-foot parse (33). This is further evidence for the metrical equivalence of a trochaic function word to a monosyllabic function word.<sup>13</sup>

(33) **yvir** | Ríka|landi | skuldi hon | sita. 'she was to sit over Ríkaland' [Heljars kvæði 4.2] over Ríkaland should she sit 'iz.vız 'zıvız.ka.,lan.dı 'skul.dı ho:n 'siz.ta

| s w | s w | s w | s v

Prohibited line-finally and line-medially No line-final or line-medial extrametrical syllables are

found in CCF; no lines such as (34-35) are attested, the examples representing a four-foot and three-foot line respectively.

(34) \*Denimarks | kengun og | Sysrikis | ridderer | og

(34) \*Danimarks | kongur og | Svøríkis | riddarar | og Denmark's king and Sweden's knights and 'danıı.,maıks 'kong.gor o 'svør.,ron.ffs 'lıdıa.,rar o

(35) \*Danimarks | kongur og | **teir** | riddarar | **eru** Denmark's king and the knights are

'danı. maıks 'kəŋ.guı ə tanı 'nıdıa. ıaı 'en ıu

I also did not find examples in CCF of a line-final unstressed syllable followed by an extrametrical syllable at the start of the next line within the same stanza. This is typical of extrametricality, which in trochaic meter I assume will not precede a weak position, must have less stress than the following syllable, and must be preceded by a prosodic boundary larger than that between the extrametrical syllable and the following

<sup>&</sup>lt;sup>13</sup>It should be noted that in lines that appear to have too many syllables, transcription errors may be to blame: the corpus is very large and collated from several sources. I have assumed the accuracy of the text whenever possible; in general even extreme cases of very long lines can be accommodated by allowing a disyllabic function word to occupy the same weak position as an unstressed ending of the previous word.

strong position (cf. the inverse for iambic, Hayes and Moore-Cantwell 2011:244). This prohibition of line-final extrametrical syllables can be captured by proposing that a single weak position is shared between the end of a line and the extrametrical 'position' before the following line within a stanza, similar to Hopkins' 'over-reaving' (see Kiparsky 1989).

#### 3.4.4 Summary

To conclude this section, evidence has been presented from the CCF ballad corpus and textual sample that is consistent with the core hypothesis, namely that the Faroese data are best accounted for by adopting the traditional template of generative metrics. Empirical generalisations, such as the markedness hierarchy of syllable types permitted in line-final strong position, minimally require a model which regulates correspondence from a phonological representation to a metrical foot-structure, independently of how precisely the correspondence constraints are implemented. Indeed, it is unclear how such generalisations would even be formulated if the concept of metrical position is done away with. In section 3.5, I briefly lay out evidence for a looser form of the Faroese meter which makes more liberal use of licences such as empty weak positions, which again presupposes metrical correspondence relations.

# 3.5 'Loose' ballad meter

There are two striking exceptions in CCF to the generalisations laid out in section 3.4. It turns out that some ballads permit (i) empty weak positions in feet other than the last in the line, and (ii) unstressed inflectional endings in strong positions other than line-finally. The ballads in which we find unequivocal examples are of medieval origin, the majority of which constitute multi-part cycles. 155 lines in CCF consist of only three syllables; of these, 138 come from long medieval cycles, including the Sjúrðarkvæði or Sigurd cycle, Karlamagnusar kvæði or Charlemagne material, or similar cycles whose medieval source is not disputed; the remaining 17 are found in non-cycle ballads of medieval origin.

In order to account for lines consisting only of three or four syllables, we have two options: posit empty positions (36) or empty feet (37).<sup>14</sup>



A clear reason to avoid option (37) is the problem of overgeneration, since it is unclear how extremely short unattested lines, e.g. a line of a single syllable, could be ruled out. It would be more plausible to allow empty

 $<sup>^{14}</sup>$ One might also posit unary feet consisting of a single strong position. I did not find any empirical difference between this and permitting an empty weak position, but opted for empty weaks for conceptual reasons: it preserves the generalisation that headedness seems to be a fundamental property of feet (if the reader will pardon the strange image). There may in fact be instances of empty feet in songs such as Kall og svein ungi, considered part of the ballad tradition but of the skemtikvæði or 'humorous' type; however, it is not clear to me that these songs have the same metrical template as the heroic ballads. See Weyhe (1979) for a proposal that some of the satirical tættir have dipodal lines. A reviewer points out that there are a few ballads with two feet in lines 2 and 4 of the regular stanzas, e.g. CCF 126, 160 and 186, called 'Stalt-Elinstrofen' in Nordic ballad research (Jonsson 1977, Fafner 1979). A different reviewer notes that another possible analysis of monosyllabic feet is to allow line-medial monosyllables to occupy 'both' positions, i.e. their own foot; this would mean that empty weak positions could be restricted to line-final position across the board. However, this would necessitate the addition of the licence of a single syllable 'sharing' two positions line-medially, which could be the right analysis for the reviewer's English example Goosey | Goosey | gan/der Ø with a main word stress, but less convincing for unstressed syllables such as  $s\emptyset/ti$  | min ['sø:.ti moi:n] 'my sweet' (Regin smiður 10.2/11.2) or  $k\delta/pu$  |  $bl\delta$  ['kɔa:.pu 'bləa:] 'blue cloak' (Regin smiður 9.2).

weak positions, since such a licence exists in English folk verse, and has already been suggested for meters which allow multiple unstressed syllables between strong positions, e.g. Hopkins' sprung rhythm (Kiparsky 1989). There is evidence that in some ballads, any foot can be monosyllabic (38), and any strong position can be occupied by an unstressed syllable (39).

(38)	Tólv   gull twelve gold 'tœlv 'guḍl	d.chest	S			'twelve chests of gold'	[Brynhildar táttur 26.1]
	s w X	s   X	W	s   2	W	s w	
(39)	sø ti   mín sweet my 'sø:.ti mui:					'my sweet'	$[Regin\ smiður\ 10.2/11.2]$
	s w X	s   <b>x</b>	w	s   x	W		

Such stanza lines appear to be limited to three ballads in the text sample: Regin smiður, Brynhildar táttur and Runsivals stríð, all of which are sections from heroic cycles. However, this looser meter is not limited only to multipart cycles in the entire corpus, as indicated by e.g. Hermundur illi. This typology of meter represented by the stricter and looser meter is readily captured by the templatic approach: in the former, certain licences are permitted only in the final foot, whilst in the latter they can also occur in line-medial feet. It remains to be seen whether these same facts can be accounted for without assuming the template model.

## 4 Performance

In this section, I lay out a description of the Faroese ballad performance tradition, and discuss how the evidence falsifies the hypotheses that meter is either (a) unrelated to performance or (b) reducible to performance rhythm. I present examples from recordings made on the Faroe Islands, which support the templatic approach advocated for in this paper.

#### 4.1 The ring dance

The Faroese ballad tradition is performed in a unique combination of text, music and dance. The performers sing the text in unison while simultaneously dancing in a chain formation. One individual, the *skipari* 'skipper', is in charge of leading the song, which requires remembering the correct lyrics of the stanzas in order. There is usually a particular melody associated with the given ballad, and the stanza melody often differs from that of the refrain, which can have more rhythmic irregularities than the stanza. The dance consists of a simple repeated left-left-right pattern of leading steps *ad infinitum* in a closed circle, with a following movement of the other foot, which is often inaudible. The strong steps provide a rhythmic backbone to the performance, and reflect the musical structure, in that the strong step in most cases marks the beginning of a musical measure (Luihn 1979, Clausen 2003).

The key insight brought by the performance data is that, barring mismatches as discussed in section 4.2, if there is a strong dance step, there will be a strong metrical position. There is not a *single instance* of a strong dance step falling on a weak metrical position in the Faroese-language data collected.<sup>15</sup> Hence this

men | ingen så | vilde han | høre but none so wanted he hear.INF men 'ıŋ.gen so: 'vıl.dɛ han: høœ.ıɛ

 $<sup>^{15}</sup>$ I found a couple of examples of a strong dance step corresponding to a weak metrical position in a Danish-language ballad, Grindavisan, exemplified in the three-foot line below:

may be brought to bear on determining the best of multiple possible parses for metrically ambiguous lines in the Faroese-language ballads. The recorded selection of ballad excerpts are listed below; the recordings consisted of audio, video of the entire dance, and video focused on the feet of the dancers, in order to be certain of when the leading steps occurred. Complete audio and video files of the recordings, as well as dance step annotations on the texts, are accessible permanently from the Stanford Digital Repository. <sup>16</sup>

- 1. Regin smiður, medieval heroic ballad from Sjúrður (Sigurd) cycle: 131 verse, 4-line ballad, 4-line refrain, vv. 1-25.
- 2. Torkils døtur, medieval legendary ballad: 50 verse, 2-line ballad, 4-line refrain with refrain fragment in first verse line, vv. 2-17.
- 3. Ormurin langi, modern ballad on heroic theme: 85 verse, 4-line ballad, 4-line refrain, vv. 1-13.
- 4. Flóvin Bænadiktsson, medieval ballad of chivalry: 25 verse, 4-line ballad, 2-line refrain, vv. 1-16.
- 5. Ólavur Riddararós, medieval supernatural ballad: 38 verse, 2-line ballad, 3-line refrain with first line between verse lines, whole ballad.
- 6. *Grindavísan*, modern *vísa* in *gøtudanskt* (historical variety of Danish spoken on the Faroes): 58 verse, 4-line ballad, 2-line refrain, vv. 1-10.

In section 4.2, the relation from meter to rhythm in the Faroese performance data is discussed; in section 4.3, evidence from the performance is brought to bear on the metrical template hypothesis.

#### 4.2 Meter and performance

The locus classicus on meter and musical rhythm is Lehrdahl and Jackendoff (1983), which presents metrical structures as inferred by listeners to music, in the form of a grid representing alternating beats. Their model imposes the grid on non-vocal music also, and does not necessarily entail identity of musical and textual meter. I assume the 'meter' of Lehrdahl and Jackendoff (1983) to be in fact a representation of musical structure only, and the meter of the text to be distinct, for reasons delineated below. This view finds support in the ethnomusicological literature, for example Temperley (2000:85–86), who notes that there are mismatches between clapping and strong metrical beats in African children's songs, suggesting that the relation between these levels of rhythm is not always a one-to-one mapping.

The key generalisation about the relation between meter and performance in the Faroese data is given in (40).

(40) Strong dance steps always correspond to strong metrical positions.

This principle is not bidirectional: crucially, not all strong metrical positions line up with strong dance steps, as shown below in a refrain from  $Regin\ smi\partial ur\ (41)$ . In the examples below, I notate dance steps as follows: the uppercase L(eft) and R(ight) represent strong/leading steps, and the lowercase l and r indicate weak/following steps. Here the colon indicates a splitting of the metrical foot into two equal bars of music. On the fourth line I have indicated musical bars by double pipe and strong beats by asterisks. The same symbols are used in the annotations of the recordings available at the Stanford Digital Repository. The strong positions that do not line up with strong dance steps in (41) are bolded.

This ballad is written and performed in a form of Danish, gøtudanskt, a uniquely Faroese variety. Gøtudanskt borrows heavily from Faroese phonology — for instance, the word høre here is pronounced something like [høce.ie], not Standard Danish [høc..a] — and includes many Faroese loanwords and constructions; however, it is still recognisably a variety of Danish. Therefore it may be that the Danish language ballads operate on different metrical principles than those in Faroese; further work is required to establish how this system differs from that of the Faroese-language ballads.

<sup>16</sup>Permanent URL <a href="https://purl.stanford.edu/md087sq1387">https://purl.stanford.edu/md087sq1387</a>. Recorded on September 6, 2014 at Miðvágur, performed by Vága Dansifelag.

(41) Grani bar | gullið av | heiði,
Grani bore gold-the from heath
ˈgɹεaː.nɪ ˈbɛaɪɪ ˈguḍ.lɪ εaɪv ˈhaiɪ.jɪ

Marron

 METER S
 W
 | S
 W
 | S
 W

 PHON. X
 : x
 X
 | X
 : x
 X
 : x

 STEPS L
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 R
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 L
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 MUSIC
 \*
 || \*
 || \*
 || \*
 || \*

brá hann | sínum | brandi av | reiði, glistened his sword of wrath

jaar di waan di katu 'inai.jr

 s
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 s
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 X
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 X
 :
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 X
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 L
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 \*
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 \*
 |
 \*

Sjúrður | vá á | orminum, Sigurd slew serpent-the

'cur.iui 'voai ac 'ai.mi.,non

Grani bar | gullið av | heiði.

'gıɛaː.nı 'bɛaːɪ 'gʊd.lı ɛaːv 'haiː.jı

What example (41) shows is that for refrains at least, a dance step does not necessarily correspond to a separate foot, but a single foot may receive more than one dance step. In this refrain, each dance step whether strong or weak corresponds to a musical stress. Rather than following the dance steps and musical stresses exactly for my metrical parse, which would yield a structure of 6646, I have assumed that dance steps may occur on weak positions (as is clear from other performance data, e.g. Flóvin Bænadiktsson in which all weak positions receive a weak dance step). Thus it seems that stipulating separate but linked metrical and musical grids leads to a more consistent overall characterisation of the system. Mismatches operate on a regulative principle of binarity (42):

(42) When strong musical beats occur on weak metrical positions (with or without a dedicated dance step), the mismatch must be of a ratio either 2:1 or 1:2.

In (41) the music is effectively 'double-speed' relative to the meter: two strong musical beats per metrical foot if there is a mismatch. We see from line 2 here that the music-to-text correspondence may change even within a line, since the ratio for the first two feet is 1:1. Nonetheless, this observation on ratio falls out simply from the fact that the music cannot be dissociated from the dance, which since humans are bipedal creatures is going to operate on a principle of two. It is clear then that the position that the meter and musical rhythm are one and the same is not tenable for Faroese, although there is a general mapping principle—and one robust enough that a strong dance step is a very reliable predictor of a strong metrical position. The data therefore support a position which construes the metrical and musical structure as generally congruent but not identical (cf. Hayes and MacEachern 1998); the lack of a one-to-one mapping, however, does not render performance data irrelevant to meter (pace Fabb and Halle 2008). These theoretical issues are discussed further in section 5 below. In the following section, examples from the recordings are presented in support of the metrical template.

# 4.3 Support for template hypothesis

**Left-headed feet** The proposal that feet are left-headed in this meter is supported by the fact that a trochaic performance is given to lines with multiple unstressed syllables (43-45).

(43) fann hann upp |  $\acute{\bf a}$  eitt | álvar|hús. 'he came across an elven house' [ $\acute{O}$ lavur Riddararós 8.2] found he upon an elven.house

'fan: han: v<sup>h</sup>p: ɔa: ar<sup>h</sup>t: 'ɔl.vaɪ.ˌhʉu:s

In (43) a strong dance step falls on  $\acute{a}$ , suggesting that it occurs in strong position, and hence that the foot is trochaic. Similar observations hold of (44-45):

(44) **um** enn tú | fert í | frið ella | stríð, 'even if you go in peace or war' [Ormurin langi 7.3] if even you go in peace or war

um en: tuu: fest ui: 'fsi: 'ed.la 'stsui:

(45) (á og) | **Hon** fór |  $\mathbf{i}$  ein | silki|serk, -at / dansa— 'She went in a silk shirt, -to dance—' [Torkil. 7.1] she went in a silk.shirt -to dance—

(ca: c) horn four our am 'sıl.tfi.serk eart 'dan.sa

Note that (45) contains an example of 'filler words' sung in performance before the beginning of the line, indicated by brackets in the parse as not belonging to the metrical grid. This implies a preference for a ternary rhythm in performance, since these anaptyctic vowels are inserted only between the final strong position of a line or stanza and the first strong of the following line or stanza.<sup>17</sup>

**Dactylic substitution** Examples of more than one unstressed syllable in weak position abound in the recordings, three of which are given below (46-48).

(46) hann | stýrdi | Orm**inum** | langa. 'he steered the *Long Serpent*' [Ormurin langi 13.4] he steered serpent-the long

han: 'stvii.di 'ɔi.mi.ˌnvn 'lɛnˌ.ga

(47) (eg tí) | Hundings|sy**nir í** | randar|gný 'Sons of knavery in battle' [Regin smiður 13.1] villainy.sons in battle

(ex turn) 'hun.dins.,six.nix ur: 'ian.dax.,gnur:

<sup>&</sup>lt;sup>17</sup>The refrain phrase at dansa I also do not consider to be part of the meter — it is repeated every stanza and if included in the line, would necessitate a five-foot line, which the rest of the evidence points against. It is best analysed as extrametrical and part of a composite refrain, but it is also consistent with the apparent preference for dactylic performance rhythm at the edges of metrical constituents.

(48) gull eftir | hvørjum | seymi | lá (og) 'gold lay under every seam' [Flóvin Bænadiktsson 8.2] gold under each seam lay 'guḍl 'ɛʰtɪɪɪ 'kvœɪ.jun 'sɛɪː.mɪ 'lɔaː (ɔ) s w | s w | s w | s w | s w | X xx | X x | X x | X x | X r R

**Empty weak positions** There are multiple examples of strong dance steps occurring on line-final syllables (49-50) and in lines without enough syllables to construct more than two feet if empty weak positions are not permitted (51).

(49) um teir | ríku | kongar|nar, 'about the rich kings' [Regin smiður 1.3] about the rich kings-the um tann 'non.ko 'kon.ga.,nan s w | s w | s w | s w | s w | x x | X x | X x | Z

(50) tá kom | sorgin | í mítt | **bróst** 'then came the sorrow in my breast' [Flóvin Bænadiktsson 6.3] then came sorrow-the in my breast toa: kom 'sɔɪ.ʤm vɪ: mvɪ<sup>h</sup>t: 'bɹœst

 s
 w
 |
 s
 w
 |
 s
 w

 x
 x
 |
 X
 x
 |
 X

 L
 r
 R
 l
 L
 r
 L

(51) Sig|mundar | vív. 'Sigmund's wife' [Regin smiður 8.4]
Sigmund.GEN wife
'sig.mon.daɪ 'voɪ:v

 s
 w
 |
 s
 w
 |
 s
 w

 X
 |
 x
 x
 |
 X

 L
 r
 R

Again we see that instances of lines with non-line-final monosyllabic feet come from the long heroic ballad cycles, in this case  $Sj\acute{u}r\eth arkvæ\eth i$ . The same phenomenon occurs in refrains, which seem always to permit more metrical licences than stanzas (52).

(52) dans | sláðið | ring! 'dance, form a ring!' [Ormurin langi refrain, sixth iteration]
dance form.IMP.2PL ring
'dans 'slɔaː.jɪ 'nn

s w | s w | s w
X | X x | X

**Stressed syllable types in strong position** The recordings also provide support for permitting (a) monosyllabic words bearing stress, (b) main word stress in polysyllabic words, and (c) secondary stress in strong position (53-55).<sup>18</sup>

(53) (eh) | **Ó**lavur | **heim** í | **garð**in | **fór**, 'Ólavur went home to the farm' [*Ólavur Riddararós* 29.1] Ólavur home to farm-the went

<sup>&</sup>lt;sup>18</sup>A reviewer notes that an alternative parse for (55) is Teir | vundu | upp síni | silki|segl, with upp in strong position.

(eː) 'ɔuː.la.vʊɪ 'haɪːm ʊɪː 'gɛaː.ɪɪn 'fɔuːɪ

(54) við | **fyl**gis|**moyggj**um | **sí**num, with maidservants her

'with her maidservants'

[Flóvin Bænadiktsson 3.2]

viː ˈfɪl.ʤɪs.ˌmɔɪʤːʊn ˈsʊɪː.nʊn

(55) Teir | vundu upp | **sí**ni | silki|**segl**, they wound up their silk.sail

'They hoisted their silk sail'

[Ormurin langi 13.1]

tarı 'von.du v<sup>h</sup>p: 'sor.nı 'sıl.tfı.,ser.l

I also found evidence for the suffixed definite article in strong position:

(56) Árla | var um | morgun|in, early was in morning-the 'ɔɹ.la vɛaɹ um 'mɔɹ.gu.,nm 'It was early in the morning'

[Flóvin Bænadiktsson 1.1]

s w | s w | s w | s w | X x | X x | X x | Z L r L r R l L r

Unstressed syllables in strong position As proposed in section 3.4.1, there is evidence for (a) monosyllabic function words and (b) unstressed inflectional endings in strong position (57-60).

(57) vilt tú | **við** mær | fara, want you with me go.INF

want you with me go.INF
vilt tuu: vi: mear 'fear.ia
s w | s w | s w
x x | x x | X x
l L r
(a)

'[if] you want to go with me'

[Ormurin langi 11.2]

[Ólavur Riddararós 2.1]

(58) (eh) | »**Eg** fari | **mær** á | hei|**ði**, 'I am going up to the heath' I go me.DAT on heath

(ex) ex 'fɛax..ıı mɛaxı ɔax 'hax..jı

(59) (á og) | Torkil | gongur til | búð| $\mathbf{ar}$ , -at | dansa— 'Torkil goes to the residence –to dance–' [Torkils døtur 4.1]

Torkil walks to residence -to dance-

(ca: c) 'tor.fil 'gon.gor tirl 'buur.war eart 'dan.sa

(60) káp $|\mathbf{u}|$  blá, 'blue cloak' [Regin smiður 9.2]

cloak blue

'kəar.pu 'bləar

The only ballad in the recorded sample which allows an unstressed inflectional ending in non-line-final strong position is *Regin smiður*, i.e. part of the Sigurd cycle; this is consistent with the observation that the long medieval ballads have a looser meter.

Up to three unstressed syllables in weak position Several examples of trochaic function words along with a third syllable in weak position are found in the performance, two of which are given below. The lack of a strong dance steps lends further credence to these syllables occupying an interval between strong positions.

(61) (eh og) | Ólavur | ríður **eftir** | bjørgunum | fram, 'Ólavur rides on by the cliffs' [*Ólavur Riddararós* 7.1]

Ólavur rides after cliffs-the forth

(e: b) 'bu:.la.vuı 'ı<br/>uı:.juı ' $\epsilon^h$ tııı 'bjæı.gu.,nun 'fıam

(62) (eh) »Tú | tarft **ikk**' at | flætta títt | hár fyri | meg, 'You don't need to braid your hair for me' you need not to braid your hair for me

(ex) tuux 'taaft 'i<sup>h</sup>tfx(i) east 'fla<sup>h</sup>txa tuu<sup>h</sup>tx 'hoaxa 'fixa mex

eg | eri **ikki** | komin at | biðja | teg.« 'I am not here to beg you' [*Ólavur Riddararós* 12.1-2] I am not come to beg you

er 'er.nı 'ı<sup>h</sup>tfır 'kor.mın gart 'bir.ja ter

# 4.4 Summary of performance data

In this section, it has been argued that a general principle of mapping from metrical structure to rhythm in performance is borne out by recordings of dance performances of the  $kv \alpha \delta i$ . It was proposed that this principle is violated by mismatches between meter and musical rhythm which can and do occur, but that when they occur the mapping is subject to a principle of binarity: performance restrictions will trump meter, but in a regulated way. Given the robustness of the prediction that a strong dance step will mark a strong metrical position, this can be employed in support of claims made about the meter (as in section 3.4 above).

In the following and final section 5, I will discuss alternative approaches which either do away with the template altogether, or collapse metrical structure into music or purely phonological constraints. I discuss their implications in reference to the Faroese tradition, and conclude that the approach I have advocated here constitutes a better overall analysis of the data.

### 5 Theoretical discussion

In this paper I adopt the basic assumptions of classical generative metrics that meter is an abstract object corresponding to a phonological representation (Halle and Keyser 1969, 1971), and assume further that metrical structure is templatic, hierarchical and definable by a set of constraints on mapping from phonology to meter (see Kiparsky 1977, Piera 1980, Prince 1989, Hayes and MacEachern 1998 *i.a.*). While I do not develop an OT-style constraint analysis here, the metrical template hypothesis is supported by considerable evidence in the form of descriptive generalisations from both textual and performance data. These empirical generalisations hold independently of the specific correspondence constraint-based analysis; they are, on the other hand, difficult to capture if the template is abandoned. Moreover, the performance data are inconsistent with approaches that conflate either meter and general phonology or meter and music. In this section I discuss some of these alternative hypotheses, concluding that both the template and meter-specific constraints are necessary.

## 5.1 No template, disconnected performance?

The model put forward here contrasts with one recent proposal, Fabb and Halle (2008), which although it shares some assumptions inherent to other generative approaches, is unique in that its basic claim is that all meters are generated via bottom-up parsing. It assumes a combination of iterative rules and constraints, but does away with the metrical template, and represents a substantial rethinking of the correspondence between meter and phonology. I contend that due to these problematic starting assumptions, Fabb and Halle (2008) will by necessity both overgenerate and miss generalisations, in contrast to the approach I have outlined above.

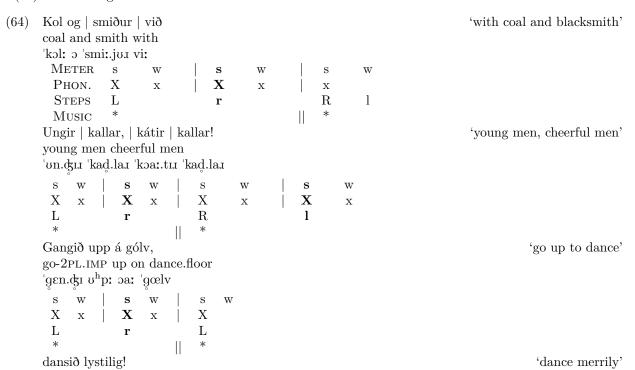
Although Fabb and Halle (2008) do not provide an analysis of Faroese meter, it can be demonstrated that their rejection of the template will lead to greater difficulty explaining the descriptive generalisations laid out in sections 3-4. One of their central claims is that 'the metrical grid is generated from each individual line, not preconstructed', and that 'the computation that generates the grid follows an ordered application of a licensed set of rules' (Fabb and Halle 2008:11). The metrical structure is generated by iterative rules which insert parentheses on gridlines; this functions essentially as a grouping mechanism for items that correspond to syllables or higher nodes in hierarchical structure. This hierarchical structure is not templatic but built up bottom-to-top from the base gridline where syllables are projected. Example (63) illustrates how a well-formed grid is generated from a line of verse.

Syllables project as asterisks to gridline 0, after which an iterative rule groups asterisks by insertion of parenthesis at a given interval. The heads of each grouping project to gridline 1, and again an iterative rule applies; this continues until there remains only a single ungrouped asterisk on the highest gridline, the main criterion for well-formedness, though further filters and constraints may apply.

On this theory, since the rules for generating the grid make no reference to metrical positions other than syllable groupings, the regularity of correspondence between strong dance steps and strong metrical positions is not accounted for. Headedness of syllable groupings might be a good candidate for an equivalent to strong positions, but this will vary greatly with respect to stress, e.g. the least stressed syllable in a line may end up as the head of a grouping. It is possible to stipulate non-iterative rules which privilege stressed syllables, as Fabb and Halle (2008:67–69) do for looser meters: they allow for non-projecting syllables and insertion of parentheses to the left or right of 'maxima', which mitigates the headedness problem. However, despite undergoing these readjustment processes, maxima may or may not end up corresponding to strong beats in performance. In addition, other empirical generalisations lose the straightforward explanations they have on the template-based approach. For example, the typological differences between the stricter and looser meter, such as allowing unstressed syllables in strong position line-finally versus elsewhere, raises the question of how the rules yield regularities in an apparently arbitrary fashion. Moreover, it is difficult to rule out unattested line types, such as those with lexical stresses in weak position, if weak positions do not exist. These issues arise not from a specific analysis of Faroese, but as a direct result of rejecting the metrical template and positing that meter and performance are disconnected.

#### 5.2 Metrical and musical rhythm identical?

A second alternative proposal concerns the relation between metrical structure and musical rhythm: one could assume that the metrical and musical grids are not distinguishable abstractions, i.e. that strong beats in performance and strong metrical positions are one and the same. Although it is not the main concern of their paper, Hayes and MacEachern (1998:475) make this assumption, adopting the rhythmic grid representation of Lehrdahl and Jackendoff (1983), an assumption also made in Hayes and Kaun (1996). While there is not space to discuss these approaches in detail here, it is noteworthy that the Faroese tradition speaks especially to the issue of rhythm in meter and music, and calls this position into question. Examples like (41) in section 4.2 seem to falsify the hypothesis that metrical strong positions and musical strong beats are identical: while there is a general alignment of strong beats, strong positions and stressed syllables, examples abound in the ballad recordings of refrains with strong metrical positions that do not align with strong dance steps and/or strong musical beats. For example, in Ólavur Riddararós alone, every instance of a refrain contains 5 correspondences of weak/following dance steps and weak musical downbeats with strong metrical positions, which amounts to 180 such misalignments in the recorded sample; an example is shown in (64) with misalignments bolded.



dance-2Pl.IMP merry.NPL

'dan.sı 'lıs.tı.,li:

s w | s w | s w
X x | X : x | 2 :

r R 1 L r

It is significant that these examples all come from refrains rather than the regular stanzas, suggesting that more textsetting variation is permitted in the former, but it nonetheless remains clear that the metrical and musical grids cannot be identical in these cases.

## 5.3 Meter reducible to phonology?

If it were possible to account for the descriptive generalisations laid out in this paper without meter-specific apparatus, and instead rely on more general phonological constraints, we would arguably have a more parsimonious theoretical solution. Tomas Riad (p.c.) commented that the Faroese data do not provide evidence one way or the other with respect to the traditional templatic approach versus a theory in which metrical prosody obeys a phonological constraint more strictly than in the prosody of normal language (Riad 2017). For example, the generalisation that a main word stress never occurs in weak position could be an instantiation of adherence to a privileged constraint such as NoClash prohibiting adjacent prominences.

However, there are a number of considerations that render the templatic approach still the better option. Firstly, if we allow performance to have some say in our evaluation of metrical hypotheses, in the Faroese tradition, a strong dance step is predictive of a strong metrical position, not a word-stress—i.e. the head of the metrical prosodic constituent. Hence, NoClash can penalise adjacent stresses, but does not capture the tracking of the strong step to the strong position regardless of whether the syllable in that position is stressed or not. Indeed, as shown in section 3.4.1, strong positions permit unstressed syllables of polysyllabic words quite readily. So we can call the binary feet 'unmarked prosodic constituents' of a metrical tree, but we still need to explain the lining up of strong beats to the head of these constituents. This could not be achieved with language-internal phonology alone, since the alignment is between an extra-linguistic phenomenon and the metrical structure. Moreover, as Blumenfeld (2015:84) notes, in many works of verse the template is in fact the unifying feature; this is certainly true of the longer cycle ballads, where line length can vary greatly, as can the number of licences used in a given line. Blumenfeld (2015:84-5) provides further argumentation and a more detailed discussion of the templatic versus holistic approaches, and reaches the same conclusion as this paper regarding the template's usefulness. It seems to me that accounts like Riad (2017) in fact are not dispensing with the template anyway, since the metrical prosodic structure plays essentially the same role. It is doubtless a sound methodological principle to avoid reification of a theoretical construct, but given the remarkable consistency of the Faroese data with the template hypothesis, it seems to be as necessary to metrics as onsets or codas are to phonology of the syllable.

#### 6 Conclusion

In this paper I argued for two main theoretical standpoints: firstly, that an approach to Faroese ballad meter that assumes the classical metrical template was consistent with the data; and secondly, that the Faroese tradition offered evidence that meter and performance rhythm operate as distinct but closely connected systems. The textual corpus was examined in detail and empirical generalisations laid out which substantiate the need for the template; this proposal was then supported by recordings made on the Faroe Islands of a dance society performing ballad sections. The unidirectional generalisation that strong dance steps are predictive of strong metrical positions was shown to hold in the majority of cases, and as such was employed as evidence for particular parses, as well as a diagnostic for distinguishing the levels of meter, prosody and performance. It was also found that mismatches between metrical and musical rhythm did occur, but that they were subject to a regular principle of binarity. Finally, plausible alternative hypotheses were discussed:

accounts which reject the template, or which attempt to conflate meter with music or regular prosody, were shown to be inconsistent with the Faroese data. Ultimately, the Faroese tradition constitutes strong evidence for the classic metrical template and the insight that meter and performance are distinct, but closely related.

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