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Kuhn's Laws in Old Icelandic Prose and Poetry

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The paper is intended to shed light on the so-called Kuhn's laws pertaining to early Germanic word order and intonation. This is done by investigating the metrical function of different morphosyntactic categories in Old Icelandic meters and interpreting their behavior on the basis of insights from modern intonational phonology. Verb forms belonging to independent clauses cannot fill the last foot in lines in *dróttkvætt* poetry. This is taken to show that phonology was involved in the word order restrictions in Old Icelandic, among them the verb-second (V2) constraint, which is often assumed to be syntactically governed.*

1. Introduction.

The stanzaic structure of Old Icelandic poetry contrasts with the "stichic" character of the oldest English and German cognates. This makes the Icelandic poems more stylized and verse-like than the older forms represented in West Germanic. At the same time the prose style of the sagas developed as an art form, perhaps as part of the same tendency toward stylistic refinement, making prose the vehicle of epic function and verse the vehicle of lyric function. Thus the role of the stanzas in the saga text is often to supply the narrative with a lyric "interlude," typically in the very musical and elaborate *dróttkvætt* meter. The general characteristic of Old Icelandic literature is thus the clear formal separation between prose and verse.

But in spite of this polarization between prose and verse, a great deal can be learned from studying the relation between the language of prose

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and the language of verse and the metrical function of linguistic units. The study of metrical mapping can be the source of valuable insights for literary scholars and linguists alike. The purpose of this paper is to make use of this technique to shed light on both linguistic and metrical laws in Old Icelandic.

In the skaldic *dróttkvætt*, disyllabic finite verb forms belonging to an independent clause, that is, a clause that did not have a complementizer, could not occur in the last two positions in the line, defined by the meter as SW. It was not enough for these forms to have a heavy stressed syllable, which was the general requirement for filling strong positions in the meter. This is here taken to show that the verb forms in question were phonologically weak, and in turn to show indirectly that the verb-second (V2) position in fact was typically a weak one in the phonological phrase in Old Icelandic. I propose that the phonological structure of a typical NP+VP+NP construction was SWS, with the verb in the weak position. Under certain conditions the first strong position could be left empty, allowing WS verb-initial constructions.

In addition to supplying evidence that intonational phonology was involved in the regularities of prose word order, the paper proposes a natural account of the facts observed by Kuhn (1933 [1969]) for eddic and other early Germanic poetry that led him to pose his famous laws regarding word order and stress in early Germanic. These facts may be easily accounted for by assuming the phonological structure suggested here.

2. Traditional Insights about the Phrase Phonology of Old Icelandic.

2.1. Kuhn's Laws.

Kuhn (1933 [1969]) describes two "laws" of early Germanic syntax and meter. These laws, the *Satzpartikelgesetz* (Law of Sentence Particles) and the *Satzspitzengesetz* (Law of Sentence Beginnings) are quoted in 1 with English translations:

(1) *Satzpartikelgesetz*:
Die Satzpartikeln stehen in der ersten Senkung des Satzes, in der Proklise entweder zu seinem ersten oder zweiten betonten Worte.
(Kuhn 1933 [1969:23])
'The *Satzpartikeln* must stand in the first low of the sentence, before its first or second stressed word.'

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Satzspitzengesetz:
Im Satzauftakt müssen Satspartikeln stehen. (Kuhn 1933 [1969:51])
'The *Satzauftakt* (upbeat to a sentence) must include a *Satzpartikel*.'

Essential to these laws is the following definition of *Satzpartikeln*, literally 'sentence particles':

(2) ... substantivische Pronomina, viele Adverbien und finite Verben, Bindewörter, zum Teil auch adjektivische Pronomina, gelegentlich infinite Verbformen und Prädikatsnomina, vielleicht auch Vokative. Die meisten Satzpartikeln konnten auch vollbetont gebraucht werden. (Kuhn 1933 [1969:21])
'… substantive pronouns, many adverbs and finite verbs, binding words, to some extent also adjectival pronouns, occasionally nonfinite verb forms, perhaps also vocatives. Most of the sentence particles could also occur stressed.'

The category of *Satzpartikeln* is evidently not very specific, but the general idea is that certain morphosyntactic categories are assumed to be phonologically weaker than others. An even weaker category in Kuhn's theory than that of *Satzpartikeln* is that of *Satzteilpartikeln*. These include prepositions, articles, and demonstrative pronouns, which relate to smaller units, that is, *Satzteile*; these would most naturally be viewed in modern terms as clitics.

Despite their lack of precision, Kuhn's laws still figure prominently in the literature, and their value or implications for early Germanic, particularly Old English, poetry have been widely discussed (see, for example, Russom 1987, 1998; Stockwell and Minkova 1994). Russom (1998:52) interprets Kuhn's distinction between *Satzpartikeln* and *Satzteilpartikeln* in terms of a partial correspondence on the one hand between "major function words" (prepositions, auxiliaries, conjunctions, and pronouns) and "minor function words" or "closely bound proclitics" (prefixes, filler words, preverb negatives, and definite articles) on the other. The major function words are partly the same as *Satzpartikeln* and the minor function words overlap with what Kuhn calls *Satzteilpartikeln*. Below I interpret Kuhn's categories from the perspective of intonation and phrase phonology (cf. Ladd 1996: ch. 6 and Hayes 1989). I clarify the distinction between *Satzpartikeln* and *Satzteilparikeln* in terms of different layers in a "prosodic hierarchy."

2.2. Kuhn's Laws in Old Icelandic Poetry.

There are certain aspects of Kuhn's methodology and results that would appear to make the laws look suspect in the context of modern-day theories about language and meter. It is, for example, not clear whether the laws are metrical or linguistic; that is, are we dealing with linguistic constraints that have some indirect effect on metrical composition, or are the constraints part of the definitions of metrical correspondence? One particular aspect of Kuhn's results that might make them look suspect from the point of view of Old Icelandic is the fact that, according to Kuhn, the laws do not apply in all Old Icelandic poetry. Supposedly, poetry containing foreign material (*Fremdstofflieder*), that is, heroic poetry about *Völsungar* and *Gjúkungar*, *Nibelungen*, and *Siegfried*, are exempt from the laws, as is poetry in the meter *ljóðaháttr*. Why should the content of poetry have an effect on the function of syntactic, phonological, or metrical forms? No obvious or fundamental difference has otherwise been noted between the meter (*fornyrðislag*, see below) of, say, the "native" *Völuspá* and *Þrymskviða* on the one hand and the "foreign" *Völundarkviða* or *Grípisspá* on the other. I do not offer clear answers to these queries, but it is possible that age difference may have more to do with this typology than the subject matter or foreign influence (cf. Kuhn 1939 [1969:527]).

To illustrate the workings of the laws, we may look at the subject matter cited by Kuhn of breaches permissible in *Fremdstofflieder*, but not in "native" poetry (*heimische Dichtung*). Among the forms that are unacceptable in the native poems, according to Kuhn (1933 [1969:47]), are the following examples from *Fremdstofflieder*:

(3) a. *er* máls *kveðr* Grípi
which speech.GEN summons Grípir.ACC
'who addresses Grípir' (Grípisspá 3,4)

b. *en* níð *sagði* Atla
but libel told Atli.ACC
'but told Attila libelous things' (Atlakviða 35,6)

c. *at* görðum *kom* hann Gjúka
to gardens came he Gjúki.GEN
'he came to Gjúki's dwellings' (Atlakviða 1,5)

d. *af* bragði boð *sendi*
of gesture message sent
'sent a message right away' (Atlamál 2,7)

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The examples in 3a–d violate both the *Satzpartikelgesetz* and the *Satzspitzengesetz* by beginning with an upbeat (italicized), followed by a strong word, in turn followed by a sentence particle, that is, a finite verb form (italicized). (In Kuhn's words, they have "Satzpartikeln in der ersten inneren Senkung, obwohl Auftakt vorausgeht und das Wort in der ersten Hebung nicht senkungsfähig ist," '*Satzpartikeln* in the first internal low even though an upbeat precedes and the word in the first ictus is not fit to be a low').

Another set of breaches is the following (all examples from *Fremdstofflieder*):

(4) a. urðr öðlinga / *hefr þú* æ verit
witch gentlemen.DAT have you always been
'a witch to good men, you have always been'
(Guðrúnarkviða I 24, 5–6)

b. Sigurðr inn suðræni / *lagði* sverð nökkvið
Sigurðr the southern laid sword naked
'the southern Siegfried placed a naked sword'
(Sigurðarkviða in skamma 4,1)

c. Hlaðguðr ok Hervör / borin *var* Hlöðvé(i)
Hlaðguðr and Hervör born was Hlöðvér.DAT
'Hlaðguðr and Hervör was [sic.] born to Hlöðvér.'
(Völundarkviða 15, 1–2)

Here the breaches seem to involve only the *Satzpartikelgesetz*, which is violated because the sentence clitics (italicized) occur too late in the clause, that is, not "before the first or second stressed word." Thus the finite verbs in 4a and 4b are preceded by the two stresses of the first colon, placing the finite verbs *hefr* 'have' and *lagði* 'laid' in the second, rather than the first low of each clause. In 4c the finite verb *var* 'was' is placed after a nonfinite form, *borin* 'born', which forms an ictus in the second half-line, again putting the finite verb in the third weak position in the clause.

2.3. Heusler's Scale.

Another early scholar who assumed morphosyntactic categories of different phonological or metrical strength in early Germanic poetry was Andreas Heusler. His categories are shown in 5 (Heusler 1925 [1956:107–108]):

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(5) *Weak*: prepositions, pronouns, the copula;
Medium: finite verbs, adjectives of degree, nontemporal adverbs;
Strong: nouns, adjectives, nominal forms of verbs, adverbs of time.

Heusler's weak class is at least partly the same as Kuhn's *Satzteilpartikeln*, and his medium class is identical to Kuhn's *Satzpartikeln*, and of course the strong class correspond to Kuhn's normal *Satzteile*.

Heusler's motivation for the classification was purely metrical, based specifically on alliteration. He noted the following principle concerning alliteration in eddic meters:

(6) A word from the strongest group can only yield (in alliteration) to a *preceding* word of equal strength; that means if it does not alliterate, another strong word precedes (and alliterates), whereas a word from the second strongest group (for example a finite verb) can yield to a *following* word of equal or greater strength, that is, precede another word of equal or greater strength without alliterating (Heusler 1925 [1956:108] translation my own, KÁ).

The first part of this principle explains why the nouns Þ*rymr* 'the name of a giant' and *þursa* 'giants.GEN' alliterate but not the nouns *haugi* 'mound.DAT' and *dróttinn* 'king' in 7.

(7) **Þry**mr sat at haugi / **þur**sa dróttinn.
Þrymr sat at mound giants.GEN king
'Þrymr sat on the mound, the king of giants.' (Þrymskviða 6,1–2)

A line like 8 (a construct), with nonalliterating nouns preceding alliterating ones, would be unmetrical:

(8) *At haugi sat **Þry**mr / dróttinn **þur**sa
at hill sat Þrymr king of-giants

The strength difference between noun and verb, described in the second part of the law, is shown in a line like 9, where the verb *gingu* 'walked' in the first colon "yields" to the noun *regin* 'gods'.

(9) þá gingu **r**egin öll / á **r**ökstóla
then walked gods all on chairs of logic
'then all the gods had a meeting' (Völuspá 9, 1–2)

2.4. The Interpretation of the Traditional Insights.
Underlying the classification of syntactic constituents described above are the following assumptions. First, word classes differ in strength. Second, weak words formed weak metrical constituents in eddic and other early Germanic poetry.

A third assumption, which only Kuhn subscribes to categorically, is that word order is somehow (or partly) phonologically determined, due to the fact that, for example, finite verbs were intonationally weaker than other constituents. (His use of syntactic-phonological terms such as *Satzauftakt* literally 'sentence (or clause) upbeat' speaks to his understanding of syntax and phonology as intertwined.) According to Russom (1998; cf. also Pintzuk and Kroch 1989) the facts noted by Kuhn were basically due to syntactic principles but with phonological implications. Stockwell and Minkova (1994) reach a similar conclusion. Under this view the phenomena noted by Kuhn are real, but their causes are basically syntactic rather than phonological. I suggest that Kuhn was right, namely that phonological, more specifically intonational or phrase phonological, principles had an effect on word order. (The possibility, which of course should not be excluded, that the observations made by Kuhn were either wrong or insignificant will not be considered here.)

The interpretation described by Kuhn's law phenomena proposed below is that semigrammaticalized phonological strength relations were responsible for the metrical behavior observed. I suggest that systematic destressing (cf. Ladd 1996:160–204) or some sort of mechanism of phonological phrasing (cf. Hayes 1989) made finite verb forms weaker on a scale of phonological strength than nominals, and that this phonological relation was relevant in the meters. The clearest evidence comes from the behavior of verb forms in the *dróttkvætt* meter (see section 5 below). In spite of the freedom in word order given by the meter, there are some constraints that are strictly adhered to. Among them is the constraint that the disyllabic finite verb of an independent clause cannot form the last two positions of a *dróttkvætt* line, even if it had a heavy first syllable. This suggests that the verb forms in question were weak on the level of phrase phonology.

3. Prose Syntax.

Before considering the metrical relations, a brief mention of some facts about Old Icelandic prose syntax is in order.

There is disagreement among syntacticians on certain fundamental issues in Old Icelandic or Old Norse syntax. According to some scholars, OI was "configurational" in that there was a fixed basic word order, but others maintain that the language was "nonconfigurational." Rögnvaldsson (1994/1995; 1995) is of the former opinion and argues that the basic word order is the same as in Modern Icelandic, namely Subject-Verb-Object (SVO), whereas Faarlund (1990) opts for non-configurationality, maintaining that the fixed word order is a later development.

3.1. Options in Word Order.
Whatever the underlying syntactic relations, it is clear that in the Old Icelandic literary standard the most typical word order was SVO. This can be described in terms of phrase structure rules of the type shown in 10a, generating a construction as in 10b.

(10) a. S: NP + VP
VP: V + NP
b. þrælarnir [drápu Hjörleif]$_{VP}$
slaves.DEF kill.PAST Hjörleif.ACC
'The slaves killed Hjörleif.'

But a sort of OV order, with the auxiliary placed after the main verb, can be found in nonfinite VPs, as in 11.

(11) Gunnarr kvazk aldrei *bregðask skyldu* Njáli ok
Gunnar say.PAST.REFL never [fail should.INF] Njáll and
sonum hans
sons his
'Gunnar said he would never fail Njáll and his sons.'
(Njáls saga, 99)

Spurði Rögnvaldr jarl, hvárt Ólafr Nóregskonungr myndi
Asked Ronald earl whether Ólaf Norway-king would
fá vilja Ástríðar
[get want.INF] Ástríðr
'Earl Ronald asked whether the Norwegian king Ólaf would want to have Ástríðr (as his wife).' (Heimskringla II, 144)

Here the nonfinite modals follow their complements in *bregðask skyldu* 'fail should.INF' and *fá vilja* 'get want.INF' but the finite verbs *kvazk*

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'said' and *myndi* 'would' precede, while the objects follow. Another source of OV order is the so-called "sylistic fronting" (cf. Maling 1990) that can occur under certain conditions in subordinate clauses, as in 12.

(12) Höfðingi sá er *Óðinn var kallaðr*
chieftain the one as Óðinn was called
'The chieftain that was called Óðinn.'
(also: *er kallaðr var Óðinn*; cf. more normal: *var kallaðr Óðinn*)
(Nygaard 1906 [1966:256])

This reversal of the order of a verb and its complement is abnormal in main clauses, as shown in 13, which would seem to demand very strong focus on *Óðinn*:

(13) * *Óðinn var kallaðr* höfðingi þeira
Óðinn was called chieftain their
'Their chieftain was called Óðinn.'[1]

Other options in word order contribute to the fact that on the whole there is considerable freedom in word order in Old Icelandic. The order within noun phrases is thus relatively free. They can be either head-initial or head-final, as shown in 14:

(14) a. Skalla-Grímr var [*járnsmiðr*] *mikill* ok hafði
Skalla-Grím was blacksmith great and had
[*rauðablástr*] *mikinn*
iron-smeltering great (Egils saga, 78)

b. Eru þar *smáir* [*sandar*] allt með sæ
are there small sands all along sea (Egils saga, 78)

Another source of freedom within noun phrases is the optionality shown in 15, where a title or epithet can either be placed after the whole name or interpolated between the personal name and the patronymic.

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[1] Inversion of an auxiliary and main verb reminiscent of stylistic fronting occurs under certain conditions in main clauses, as in:

(i) *Tekit hef* ek hvelpa tvá ...
taken have I puppies two (Njáls saga, 234)

This construction, which is basically topicalization of the main verb with the tensed verb in V2, seems to have a special pragmatic function, as a sort of exclamation and is thus not to be counted as stylistic fronting.

(15) [Ari Þorgilsson] inn fróðI / [Ari] inn fróði [Þorgilsson]
[Ari Þorgilsson] the learned [Ari] the learned [Þorgilsson]

Other examples of discontinuities within NPs are given in 16 (from Rögnvaldsson 1995:9–10).

(16) a. *væta* var á *mikil*
wetness was on great
'The ground was very wet.' (Heimskringla II, 231)

b. *góðan* eigu vér *konung*
good have we king
'We have a good king.' (Heimskringla II, 464)

c. *hversu margar* vildir þú *kýr* eiga?
how many would you cows own
'How many cows would you like to own?'
(Heimskringla II, 133)

Discontinuous prepositional phrases can also be formed by placing a verb form between the preposition and its complement, as in 17.

(17) a. ok mun vér *frá* hverfa *ánni*
and will we from turn river
'We will turn away from the river.' (Laxdæla, 41)

b. ok var mikit *til* aflat *þessar vezlu*
and was much to gathered this feast
'Great supplies were gathered for this feast.' (Laxdæla, 93)

The prose syntax also makes ample use of adjuncts and ellipsis, as in 18.

(18) ok fengu [*veðrabálk*] *harðan*, *hvöss* [*veðr*]
and got spell-of-bad-weather hard windy weathers
ok *óhagstæð*
and unfavorable
'They got a fierce spell of bad weather, stormy and unfavorable winds.' (Egils saga, 106)

3.2. Verb Second and Verb First.
Despite all this freedom in word order, Old Icelandic (in its prose) qualifies as a V2/V1 language in that the finite verb as a rule occurs after

the first main syntactic constituent (cf., for example, Anderson 1993 and Vikner 1995). The V2 constraint applies to both main clauses and finite subordinate clauses, as shown in 19.

(19) [En er boði *var* lokit], *fór* Hallgerðr
but when party.DAT was finished went Hallgerðr
suðr með þeim
south with them
'After the party was finished Hallgerðr went with them to the south.' (Njáls saga, 45)

Note that the verb *var* 'was' of the (subordinate) temporal clause follows the (oblique) subject *boði* 'party'. The main clause verb *fór* 'went' comes right after the end of the temporal clause, forming the first immediate constituent of the main clause.

But under certain conditions, the verb is in first position (V1). This is for example the case under so-called "narrative inversion," as in 20.

(20) *Var* Þórólfr manna vænstr ok gjörviligastr
was Þórólf men.GEN handsomest and most-athletic
'Þórólf was the handsomest and most athletic of men.' (Egils saga, 5)

An interesting fact to note about narrative inversion is that it cannot be used at the beginning of a text. Thus a sentence like 20 can only occur after some introduction or orientation within an episode or chapter.

Further examples of V1 are to be found in more clear-cut syntactic situations, such as imperatives, questions, and conditional phrases:

(21) Imperative: *Mæl* þú allra manna heilastr
'Speak, you, the best of men.'
Question: (Hvárt) *er* hann ...?
'Is he ... ?'
Conditional: *Komi* hann ...
'(If) he comes ...'
Exclamation: (Þarna) *kemur* hann
'(There) he comes.'

Similar V1 phenomena in spoken German are noted by Louden (2000). The German V1 constructions typically occur in narratives and in exclamations with extra pragmatic "punch," which is hardly a coincidence.

3.3. Main and Subordinate Clause Relations.
In certain cases, different syntactic conditions hold for main and subordinate clauses. Thus narrative inversion (V1) is ungrammatical in subordinate clauses, as shown in 22a. And, as already mentioned, fronting of verb complements is ungrammatical in main clauses, as shown in 22b.

(22) a. *?Hann segir, að *komu* *þeir* þá ...
he says that came they then
'He says that they came then …'

b. *Margir menn *hyllt* *hafa* konunginn
many men hailed have king-the
'Many men have hailed the king.'

4. The Nordic Meters.
4.1. The fornyrðislag.
Compared to West Germanic poetic works such as *Beowulf*, the *Hildebrandslied*, and the *Heliand*, eddic poems seem generally to be one step further developed in stylization and formal stringency, and the rhythm is more "lyric" in the sense of Jakobson (see Hanson and Kiparsky 1997:20). The most obvious difference between Nordic and West Germanic is the stanzaic division, which is a Nordic innovation.

As shown in Árnason 2002, it is in fact possible to regard the *fornyrðislag* as a four-beat rhythm, with the eight short lines normally assumed for each strophe forming a quatrain. The traditional "short lines" are then to be seen as colons within the line:

(23) s s s s
Hljóðs bið ek allar / helgar kindir
silence ask I all holy creatures

s s s s
meiri og minni / mögu Heimdallar.
greater and lesser sons Heimdall.GEN

s s s s
Viltu að eg Valföðr / vel fyr telja
want that I Valföðr well for tell

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s s s s
forn spjöll fira / er eg fremst of man
old lore men.GEN as I foremost remember

'I ask for the attention of all holy creatures, greater and lesser descendants of Heimdall. You want me, Valfather, to recite the old wisdom as I can best remember.' (Völuspá, 1)

Seen in this way, the strophes have the 4x4 rhythm that scholars such as Attridge (1982), Hayes and McEachern (1998), and Hayes (2000) have ascribed to English popular poetry, and which is to be found in other genres; it may be universal.

4.2. The ljóðaháttr.

The other eddic form, *ljóðaháttr*, is different from the *fornyrðislag* in a number of respects. The first two colons of the half strophe form an alliterating structure, a long line similar to a line of *fornyrðislag*. But in addition to this, there is a line (referred to in German as a *Vollzeile* 'full line') that is sometimes seen as a sort of extra-long colon, but sometimes as having three strong positions. It will be assumed here that this line is basically a three-beat line, that is, with the last strong beat unrealized, as shown in 24.

(24) s s s s
a. Inn skal ganga / Ægis hallir í
in shall walk Ægir.GEN halls into
s s s s
á þat sumbl at sjá. Ø
on that drinking to look
s s s s
Jöll ok áfu / færi ek ása sonum
war and strife bring I gods.GEN sons
s s s s
Ok blend'k þeim svá meini mjöð Ø
and mix I them so malice.DAT mead

'Let us enter the halls of Ægir, and look at the party. I bring war and strife to the gods; that is how I mix their drink with malice' (Lokasenna, 3)

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s s s s
b. þegi þú Gefjun / þess mun ek nú geta
be silent you Gefjun that.GEN will I now mention
s s s s
er þik glapti at geði Ø
when you.ACC distracted at mind
s s s s
sveinn in hvíti / er þér sigli gaf
lad-the white when you.DAT necklace gave
s s s s
ok þú lagðir lær yfir Ø
and you laid thigh over
'Be silent, Gefjun, I'll now tell the story of when the fair lad fascinated you by giving you a necklace, and you went to bed with him.' (Lokasenna, 20)

Another peculiarity of the *ljóðaháttr* is that it has a special constraint concerning the ending of the three-beat line, the *Vollzeile*, that forbids heavy disyllables. This was first noticed by Bugge (1879) and later discussed by Heusler, who calls this ending *stumpf*, that is, blunt or catalectic (see Heusler 1925 [1956:239–240] and Árnason 1991:41). The line either ends in a monosyllable or a light disyllable, thereby forming one strong beat by resolution. Less regularly the second colon (the end of the first line) also tends to have the same ending. Thus the half-stanza of *ljóðaháttr* starts with a normal four-beat structure with a (typically) masculine ending, and the *Vollzeile* forms a masculine three-beat line. The first line is then (typically) catalectic in that it has a masculine ending, and the *Vollzeile* is "doubly catalectic," so to speak, in that it has three instead of four beats, and the last beat is furthermore masculine.

What most clearly distinguishes this meter from the *fornyrðislag* is then the catalexis, which is double in the case of the *Vollzeile*. The last strong position of this line is filled by either a monosyllable or a light disyllable by resolution (as, for example, in 24b: *nú geta* and *lagðir lær yfir*). The tendency for the second (but not the first) colon to be masculine is also explained by assuming that the end of the second (but not the first) colon forms a line end.

It may be noted here that the catalexis employed in the *ljóðaháttr* ranks high on the scale of "cadentiality" made use of by Hayes and McEachern (1998) and Hayes (2000). Cadentiality is the measure of the saliency of a

form as an end of a text, and the development of the *ljóðaháttr* is a part of the development in Nordic toward more rhythmic stringency.

4.3. Dróttkvætt.

The crown of formal stringency in Old Icelandic meters is carried by the *dróttkvætt* meter. The rhythm and origin of this meter has been a matter of some debate over the last couple of centuries. In Árnason 1991 I analyzed the meter in terms of three basic structures, as described in 25.

(25) A:

s w s w s w
Mjök verðr ár, sá's aura
'Very early must the one who wealth ...'

B:

s s w w s w
veðrseygjar skal kveðja
'weather-sucking shall address ...'

C:

w s s w s w
ok valköstu vestan
'and the heaps of slain from the west ...'

Other scholars, such as Gade (1995), use a different system of classification, but ever since Sievers (1893), scholars have agreed that the basic structure has three strong positions, which is then less "natural" than the four-beat rhythm of *fornyrðislag* and *ljóðaháttr*. As can be seen, the variation between forms is only in the first four positions, whereas the trochaic ending is absolutely fixed. These last two positions are invariably filled by disyllabic words with heavy first syllables (with the notable constraint that finite verbs belonging to independent clauses do not occur in this position, as discussed below).

In terms of the metrical typology proposed by Hanson and Kiparsky (1996, 1997), the crucial difference between eddic and skaldic styles is (apart from the number of beats) that the eddic rhythm is word-based, while the skaldic rhythm is foot-based. The word-based character of the eddic rhythm means that its strength relations (defining strong and weak constituents) are defined at the level of phrase phonology and the metrical positions are filled by word-like units (cf. Russom 1987, 1998). The strength relations in the *dróttkvætt* on the other hand have their

linguistic correlates on the next lower level (that is, the word level). One consequence of this difference between the styles is that the number of syllables in eddic lines varies quite a bit whereas the number of syllables in the *dróttkvætt* is much more regular. But for our purposes the most important metrical fact about *dróttkvætt* is the trochaic ending, demanding a heavy stressed syllable in the last ictus.

5. Poetic Word Order.

5.1. Eddic Word Order.

As we saw from the brief description in section 3, there are syntactic asymmetries between main and subordinate clauses in Old Icelandic prose syntax. Kuhn (1933 [1969:41]) makes a similar distinction with respect to *dróttkvætt* syntax, between "independent" (asyndetic, *selbständige*) and "dependent" (syndetic, *gebundene*) clauses. Dependent clauses, which can be either main clauses or subordinate clauses, are introduced by a complementizer (*Bindewort*), whereas independent clauses, which are all main clauses, have no such *Bindewörter*.

And it turns out that there seems to be a systematic difference between these two types of clause also in the eddic meters. There is considerable freedom in word order in the eddic poems, but a general tendency can be seen such that V1/V2 is valid in independent clauses, whereas OV order is more common in dependent clauses. Furthermore, the verb in dependent clauses, following its complement, typically occurs in a position that is most likely to be interpreted as strong. This is illustrated in 26 with examples from *fornyrðislag*, and in 27 with examples from *ljóðaháttr*. (All verbs are italicized, and the verbs of dependent clauses are italicized and underlined.)

(26) *Fornyrðislag*:

a. Reiðr *var* þá Vingþórr (V2) / er hann *vaknaði*
angry was then Thor as he woke
ok síns hamars / um *saknaði* (OV)
and his hammer about missed
'Thor was angry when he woke up and found his hammer missing.' (Þrymskviða 1,1–2)

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b. *Hittusk* æsir / á Iðavelli (V1)
met gods on Iðavöllur.DAT
þeir er hörg ok hof / *hátimbruðu* (OV)
those that altar and temple high-timbered
'The gods met on Iðavöllur, those who built high altars and temples.' (Völuspá, 7)

c. *Teflðu* í túni (V1) / teitir *váru* (OV)
chessed in field happy were
var þeim vettergis (V1) / vant úr gulli
was them nothing.GEN needed of gold
unz þrjár *kómu* (V2)/ þursa meyjar
until three came giant maidens
ámátkar mjök / úr jötunheimum.
strong very from monster-dwellings
'They played chess in the field and were happy, and there was no shortage of gold, until three giant girls, very strong, came from the dwellings of monsters.' (Völuspá, 8)

(27) *Ljóðaháttr:*

a. Ósnjallr maðr / *hyggsk* munu ey lifa, (V2)
Unwise man intends will ever live
ef hann við víg *varask*; (OV)
if he against fight avoid
en elli *gefr* / honum engi frið (V2)
but old-age gives him no peace
þótt honum geirar *gefi* (OV)
although him spears give
'An unwise man thinks he will live for ever, if he stays out of a fight, but old age gives him no mercy, even if the spears do so.' (Hávamál, 16)

b. *Kópir* afglapi (V1) / er til kynnis *kømr* (OV)
gapes fool when to visit comes
þylsk hann um eða þ*rumir* (V1)
recites he about or keeps-silent
'The fool gapes when he comes to parties, speaks incessantly, or keeps silent.' (Hávamál, 17)

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c. Gráðugr halr, / nema geðs *viti*, (OV)
greedy man unless mind know
etr sér aldrtrega; (V2)
eats himself death
opt fær hlægis, (V2) / er með horskum *kømr* (OV)
often gets laughing when among wise comes
manni heimskum magi
man stupid stomach
'A greedy man, unless he has some sense, eats himself to death; often the stomach makes a stupid man a laughingstock.'
(Hávamál, 20)

What these examples show is that there is a tendency for the finite verbs in dependent clauses to occur later and be metrically stronger than the verbs in independent clauses. But things are more complicated.

As observed by Russom (1998:118–126), a typical stylistic option in the *fornyrðislag* is the postposition of constituents such as prepositional phrases and appositions. A good example of that style is the second half of the eighth stanza of *Völuspá* (cf. 26c above):

(28) unz þrjár kómu *þursa meyjar*,
ámátkar mjök, *úr jötunheimum*.
Literally: 'until three came, giant girls, very strong, from the world of monsters'

Here the only part of the complex subject *þrjár mjök ámátkar þursa meyjar* 'three very strong giant girls' that precedes the verb is the numeral *þrjár*. The other parts are postposed, as is the prepositional phrase *úr jötunheimum* 'from the world of monsters'.

The stylistic devices typical of the *ljóðaháttr* are different. One of these is preposition stranding as in 29 (cf. 24a).

s s s s
(29) a. Inn skal ganga / Ægis hallir *í*
in shall walk Ægir.GEN halls in
'Let's walk into Ægir's halls.' (Lokasenna 3,1–2)

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s s s s

b. Byrði betri / *berrat* maðr brautu at
Burden better carries not man road to
(en sé mannvit mikit)
(than be man-wisdom great)
'Man bears no better burden on his travels (than great wisdom).' (Hávamál 10,1–3)

In 29a the prepositional phrase, which has the normal form *í Ægis hallir* 'into Ægir's halls', is inverted ('Ægir's halls into'), and this, we assume, makes the preposition intonationally free so that it can carry an ictus and form a catalectic end of a line, as shown further by the example in 31 below. The prepositional phrase *brautu at* literally 'road to' in the first line of 29b is another case of inversion of a preposition and its complement for metrical purposes.

Similar conditions obtain when verb complements occur before the finite verb, as in 30.

(30) Gáttir allar, áðr gangi fram
gates all before walk forth
um skoðask *skyli*, um skyggnask *skyli*.
about investigate should about look should
'All gates should be checked (lit. checked should be) and viewed (lit. viewed should be) before walking forth.' (Hávamál 1,1–3)

The main clause OV order in 30 *um skoðask skyli* 'about investigate should' (instead of *skyli skoðask)* and *um skyggnask skyli* 'about look should' (instead of *skyli skoðask*) seems to be typical for *ljóðaháttr*.

We have seen that prepositional phrases and verb phrases were basically head-initial in Old Icelandic and that these syntactic heads were normally phonologically weaker than their complements. Assuming that a stranded head of a phrase becomes a separate intermediate phrase when it loses its complement, it can form the catalectic ending of the line. Thus when the main verb *skoðask* is moved in front of the auxiliary, each subconstituent of the VP becomes a separate stress unit on the phrase level. It is as if the phonologically weak functional head assumes the "responsibility" for accounting for the phrase level unit allotted to that constituent when its heavier head is dislocated. And the same happens with a stranded preposition (cf. Árnason 1991:79–80, l63). The

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preposition *í* in *Ægis höllu í* 'Ægir's hall into' can carry the last (catalectic) ictus of a three-beat line, as in 31.

(31) s s s s
Síðr oss Loki kveði lasta stöfum
s s s
Ægis höllu í[2]
'Loki should not be saying bad things about us in Ægir's hall.'

5.2. Skaldic Scrambling.
One of the most striking characteristics of the *dróttkvætt* form is the freedom in word order, or scrambling (see, for example, Reichardt 1928). This is briefly illustrated by the half-stanza in 32. (Rhyme is indicated by italics, and alliteration by boldface).

(32) Mjök verðr ***ár***, sá's ***a****ur*a 'Very must early he who money
í*s*arns meiðr at *rís*a iron tree to rise
v*áð*ir **V**idda bróður cloth Viddi.GEN brother.GEN
v*e*ðrseygjar skal kv*e*ðja; weather-sucking shall address;'
(Skallagrímr, 2)

This half-stanza consists of two sentences, which with normal prose word order is something like in 33. (The number above each word indicates its position in the actual verse text).

(33)
4	7	8	5	15	16	14		11
[$_{NP}$Sá	ísarns	meiðr],	es	[$_{VP}$skal	kveðja	veðreseygjar		váðir
[$_{NP}$that	iron	tree],	as	[$_{VP}$shall	address	weather-sucking		cloths

[2] We notice that the phrase that forms the *Vollzeile* or three-beat line in 31 is, as a linguistic form, rhythmically equivalent to the one that forms the second colon in 29a. The three-beat requirement of the *Vollzeile* in 31 demands that all three words form ictuses, as indicated by the scansion. The fact that the same structure can be used to form two metrical forms shows that there is some freedom in mapping between language and meter. The three linguistic word stresses that are inherent in the construction *Ægis hallir í* / *Ægis höllu í* are not necessarily all made use of in the metrical mapping. In 29a there is only need for two metrical strongs, and in the scansion indicated these are taken to be filled by the noun *Ægir* and the stranded preposition *í*.

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12 13 6
Vidda bróður aura],
Viddi.GEN brother.GEN money]

2 8 9 1 3
[$_{VP}$verðr at rísa mjök ár]
[$_{VP}$must to rise very early]
'The man (the iron-carrying tree, i.e., blacksmith), who wants to address the bellows (weather-sucking cloth of the wind [the sea's brother]) for wealth, must rise very early.'

Further complexity of *dróttkvætt* poetry derives from the use of *kennings*, which can form very complex noun phrases. Typically, the scrambling involves interpolating extra material within noun phrases or drastically dislocating their parts, as shown by further examples in 34. (Numbers denote interpolations [numbers of full words] between the parts of the phrases; syntactic heads are in square brackets.)

(34) a. *sá* -1- *ísarns* [*meiðr*]
'that -1- iron tree' = 'that man'

[*váðir*] *vidda bróður, veðrseygjar*
'the cloths of the sea's brother (wind), weather-sucking' (bellows)

[*golli*] *geisla njóts* -2- *heitu*
gold of ray user -2- hot
'melted iron'

[*hrærikytjur*] *hreggs, vindfrekar*
stir-corners of gust wind-demanding
'bellows' (Skalla-Grímr, 2)

b. *hreingróit steini, Þrúðar* -3- *þjófs* [*iljablað*]
clear-grown with-paint Þrúð (i.e., Thór) -3- thief.GEN sole
'a decorated shield (Ragnarsdrápa, 1)

c. *hrafnbláir* -2- *Erps of barmar*
raven-blue Erpr's brothers
'dark brothers of Erpr' (Ragnarsdrápa, 3)

Material can be interpolated between the complementizer and its complements, as in the example from Hallfreðr, Ólafsdrápa.

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(35) *ef* - 2 - *jöfurr lifði*
'if -2- the king lived'
(Hallfreðr, Ólafsdrápa, 21; see 42b below)

Although, as we shall see, the place of prepositions seems to be fairly fixed, complex prepositional complements may be split, as in 36.

(36) *við illan* -6- *draum*
'from a bad -6- dream' (Ragnarsdrápa, 3)

Despite the considerable freedom in *dróttkvætt* word order, there are interesting restrictions. For example, preposition stranding, which occurs frequently in *ljóðaháttr*, is much rarer in *dróttkvætt*. The reason is probably that, as noted above, preposition stranding induces phrasal independence and strength for the stranded preposition. Most prepositions are monosyllabic like *í* 'in' or *við* 'by' or light disyllables like *fyrir*, and such monosyllabic or resolved catalectic ictuses are not called for in the *dróttkvætt* meter. But disyllabic prepositions with a heavy first syllable, such as *eptir* 'after', could fill the last two positions in the line, as in 37.

(37) keypt sé ást ef *eptir*
bought be love if after
of látinn skal gráta
too dead shall cry
'Love is too dearly bought if one is to mourn (cry after) the dead one.' (Sighvatr, Lv. 22)

Other restrictions on word order can be mentioned. For example, the subject usually occurs before the object, as in 38 where the subject *jarl* 'earl' precedes the object *hyrjar þing* 'fire's gathering, i.e., battle'.

(38) [*háði jarl*], (þar's áðan engi mannr) [und ranni] [*hyrjar þing*] (at herja) [hjörlautar] (kom) [Sörla].
engaged earl, where before no man below house fire meeting to fight sword-glen came Sörli
'The earl engaged in battle under the shield, where no one had been before on a military expedition.' (Vellekla, 31)

But scrambling of arguments is possible, as shown in 39. Here, the verb *gaf* 'give' has three arguments (aside from the prepositional phrase).

(Note: () = direct object, [] = indirect object, {} = subject, // = prepositional phrase.)

(39) (Síþögla) *gaf* [söglum] Always-silent.ACC gave talkative.DAT
{sárgagls} (þría) [Agli] weapon-duckling.ACC three Egil.DAT
{herðimeiðr} / við hróðri / hardening tree for praise
{hagr} (brimrótar gagra). crafty surf root-dogs.ACC
'The crafty hardener of the sword gave the loquacious Egil three ever silent seaweed dogs (shells) in thanks for the praise.'
(Egils saga, 82)

The verb must not precede the complementizer, but parts of NPs may be preposed:

(40) *auðs* **áðr** *jafnfögr tróða* wealth before as pretty pillar
alin verði Steingerði born be Steingerðr.DAT
'… before there is born a prettier woman than Steingerðr'
(Kormákr, 42)

Because there is no preposition stranding in *dróttkvætt*, prepositions do not occur without at least some of their complements immediately following. In fact, prepositional phrases are quite often left intact:

(41) *í sverða flaumi*
'in flow of swords' (Ragnarsdrápa, 3)
í djúpan ægi
'in deep sea' (Kormákr, 42)

The most interesting constraint for our immediate purposes is that V1/V2 is generally valid in independent clauses in *dróttkvætt* but relaxed in dependent clauses. This can be seen in the two half-stanzas in 42. All verbs are italicized, and the dependent clause verbs are furthermore underlined.

(42) a. Rósta *varð* í ranni battle was in house
Randvés höfuðniðja Ramdvér's main descendants
þá's hrafnbláir *hefnðu* when raven-black retaliated
harma Erps of barmar. sorrows Erpr's sons
'There was a battle in the house of Randvér when the sons of Erpr retaliated for their sorrows.' (Ragnarsdrápa, 3b)

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b. *Væri* oss, þótt ærir — *were* us though messengers
elds þeim svikum <u>*beldi*</u> — fire's that treason *committed*
heilalíkn, ef, hauka — brain-relief if hawk's
háklifs, jöfurr <u>*lifði*</u>. — high-tree king *lived*

'It would be a relief to us, even if the soldiers committed that treason, if the king were alive.' (Hallfreðr, Ólafsdrápa, 21)

Connected with this is the observation that, as far as can be seen, finite verbs in independent clauses cannot occur in the last ictus. The constructed lines in 43 with finite verbs from independent clauses in the last two positions are unmetrical by this principle.

(43) a. *Ærir elds oss *væri* (cf. 38b, line 1)
messengers fire.GEN us were
b. *Landa öglis *undrask*[3]
lands.GEN eagle.GEN wonders

This we take to be a highly significant fact that, like the lack of preposition stranding, is due to the interplay of phonological and metrical constraints.

7. Syntax and Phonology.

7.1. Strength and Constituent Structure in Intonation.

We have seen that although Kuhn's original laws were clearly phonological in nature, later scholars have tended to interpret the facts in terms of syntactic principles. Thus Russom (1998:121) argues that the fact that *Satzpartikeln* occur early is due to universal syntactic principles that "particle movement must be 'upward' in a syntactic tree," and similarly Pintzuk and Kroch (1989) assume that various syntactic movement rules are responsible for some characteristics in the text of *Beowulf*. But both Russom and Pintzuk and Kroch acknowledge (more or less directly) the involvement of phonology in the mapping between language and meter. Thus phonology sneaks in through the back door, as

[3] This is a construct corresponding the the first line of the following pair by Þorðmóður Kolbrúnarskáld:

Undrask öglis landa — wonders eagle's lands
eik hví vér'rom bleikir. — oak why we are pale
(Þormóður Kolbreúnarskáld, Lv. 25)

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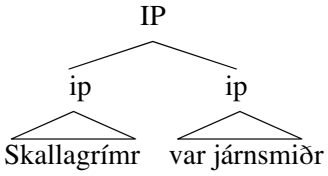
it were, in some of the definitions (in fact very informal) used by Pintzuk and Kroch. This is the case, for example, in their description (1989:128) of "floating" in Old English, which "obligatorily Chomsky-adjoins unstressed elements, usually pronouns and adverbs, to the left periphery of S." Similarly, one of the crucial operations in their rule system is termed "heavy NP shift," without clear indication as to whether the "weight" of the NP is phonological, syntactic, or semantic.

Modern intonational phonology studies, among other things, the relation between syntactic structure and phonological strength or prominence, making a distinction between sentence stress and word stress (see, for example, Ladd 1996:48, 221–235 and Hayes 1989; for Modern Icelandic see Árnason 1998). Word stress defines relative prominence within words, whereas sentence stress defines relative prominence within longer constructions. For example, the typical sentence stress pattern for Modern Icelandic is right-strong, so that in a NP like *gamall MAður* 'an old man' or *Jón JÓNsson* 'John John's-son', the second word takes the sentence stress, whereas compounds like *GAMalmenni* 'senior citizen' and *FRIðjón* (a proper name, literally 'peace-John') have initial stress.

The size and character of constituents above the word is a matter of debate among intonational phonologists, but the ultimate truth about the details need not concern us here. The units relevant for our discussion correspond to what Ladd (1996:251) calls intermediate phrases (ip) and intonational phrases (IP). Intermediate phrases, which form immediate constituents within intonational phrases, are assumed to be minimally the size of phonological words, and have a strong position or head corresponding to a word stress. Intonational phrases often correspond to one-clause utterances in prose and to lines or colons in the meter. Thus if we assume that the verb forms an ip with its following complement, a prose utterance like *Skallagrímr var járnsmiðr* 'Skallagrímr was a blacksmith' can be parsed as in 44.

(44)



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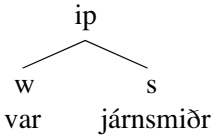
We have seen that Kuhn and Heusler assumed that different morphosyntactic categories have different phonological strength. Even though the detailed interpretation of the facts may be unresolved, it seems to be safe to assume at least some (direct or indirect) correlation between (morpho)syntactic structure on the one hand and phonological parsing and strength relations on the other (cf. Ladd 1996:160–204). The problem of formalizing this sort of relation between morphosyntax and phonology will not be solved here, but as can be seen from the work described in Hayes 1989, some such mapping will have to be defined. And it can for example be argued (cf. Árnason 1998:51) that for Modern Icelandic, whatever the formal character of the relation, the following strength scale goes some way toward predicting correctly regularities in normal sentence rhythm.

(45) nouns > verbs > prepositions > personal pronouns

In what look like unmarked (broad focus) intonational patterns for Modern Icelandic, nouns are more likely to be strong than (neighboring) verbs, verbs more than prepositions, and prepositions more than personal pronouns.

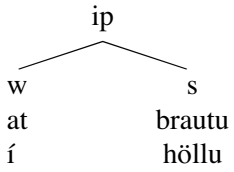
We have seen that several things suggest that a scale similar to the one in 45 was valid at earlier stages. Prepositions and verbs were weaker than their complements, and the verb phrase *var járnsmiðr* 'was a blacksmith' can be assumed to have had the phonological structure shown in 46.

(46)



And similarly, prepositional phrases like *at brautu* 'to road' and *í höllu* 'in (the) hall' had as an unmarked phonological form a structure as in 47.

(47)



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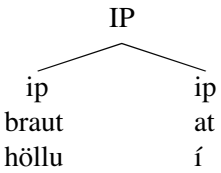
But based on the arguments presented above, we can assume that when the preposition is stranded, the phonological constituency is broken up, so that each word can form a separate intermediate phrase, as shown in 48.

(48)



And each of these ip's can fill a strong position in the meter, as we have seen in 29 and 31.

7.2. The Nature and Origin of V1/V2.

7.2.1. Syntax, Morphology, or Phonology?

The standard account among syntacticians of the V2 phenomenon as it appears in languages such as German is that the finite verb is moved to the head position of a complementizer phrase (which in turn may be preceded by a specifier) so long as the position is not already filled by a complementizer (see, for example, Vikner 1995, Eythórsson 1996, 1997/1998). The fact that the position is filled by a complementizer in subordinate clauses is taken to explain the fact that the V2 constraint does not hold for subordinate clauses in German. But there are problems with this account. As is well-known (cf. Anderson 1993:90–92), languages like Modern Icelandic and Yiddish have V2 also in subordinate clauses with surface complementizers, and in these cases an additional slot, other than [C, CP], I(nfl), for example, has been assumed, to which the verb moves in embedded clauses. Another problem that this type of account has to solve are the examples of V1 mentioned in section 3.2. For these examples, the position before [C, CP] has been assumed to be lexically empty, either as a "null operator" (Sigurthsson 1990), or a lexically unfilled [Spec, CP] position (Thráinsson 1986).

An earlier account of the V2 phenomenon is a phonological one, namely Wackernagel's original theory regarding verb placement in Indo-European, which brings us closer to Kuhn. And there is an obvious connection between Kuhn's laws and Wackernagel's (1892) observation, that in Greek, "enclitic" elements appear as a group immediately after the initial word of the sentence. According to Wackernagel, this was an

inherited principle of Proto-Indo-European word order: enclitics appear in the second position of the utterance. Related to this is the view, now generally accepted, that early Indo-European had unaccented finite verbs in main clauses (cf. Anderson 1993:69–72). Under this view, the principles of stress and verb placement were related to the verb-second phenomenon in Germanic, Wackernagel's suggestion being that V2 developed as a consequence of the fact that unaccented verbs in main clauses were placed in second (clitic) position in main clauses.

Anderson (1993:88), who accepts Wackernagel's connection between V2 and the tendency for clitics to appear in second position, proposes a sort of compromise, a morphological account of V2. Anderson's view is that clitics are the inflectional endings of phrases and look for words to serve as their "anchor points," according to certain principles. According to Anderson, the finite verb is the inflectional head of a sentence. The V2 phenomenon comes about by a principle that causes inflectional features of a clause to be realized "by (a) locating its first constituent, and (b) copying the features of Tense, Mood, and Agreement onto a word immediately following this anchor point" (Anderson 1993:88). By this principle, the tense and mood inflection is in second position in the clause, and since the finite verb realizes this inflection, this is its place in the surface word order. Anderson's morphological proposal in a sense assumes the middle ground between the syntactic model and Wackernagel's phonological model. It presumes that similar principles apply as in cliticization, which necessarily involves both phonological and morphological principles.

7.2.2. Rhythm and Word Order.

It is interesting to see how Wackernagel's and Kuhn's models would work in terms of modern ideas about syntax and intonation. The notion that the verb is in second (weak) position in a clause is reminiscent of a phenomenon described by Fitzgerald (1994) in Tohono O'odham (an Uto-Aztecan language spoken in southern Arizona). In this language, some rules for placement of clitics and auxiliaries "conspire" to the effect that utterances begin with a trochaic foot. That is, there is a phonological principle ("Initial Trochee") that utterances should begin with a stressed element, and then a weak position follows; it is thus Fitzgerald's conclusion that the "prosody drives the syntax" in O'odham. This shows a striking resemblance to Wackernagel's idea that the utterance (sentence) starts with a strong position followed by a weaker

one. If it is assumed that the finite verb was phonologically weak and that its favorite position was after a strong element, this could then explain the V2 phenomenon.

Such an analysis requires the following:

(49) a. an understanding of the intonational structure of the utterance;
b. an account of the verb's weakness;
c. an account of the fact that it occurs early, rather than late (say, after the last strong element).

I submit some points toward fulfilment of these premises.

Several facts can be taken as indication that alternating strength starting with a strong position was part of Old Icelandic prose rhythm. The normal SVO order fits well into that model if it is assumed that noun phrases were stronger than verbs, as the metrical evidence suggests and as was Heusler's and Kuhn's interpretation. The same tendency for SWS alternation can be seen in noun phrases. The order of name, article, and epithet in *Ari inn fróði* 'Ari the Learned' or *Ormr inn langi* 'Worm the Long', with the weak article in the middle, fits well into that pattern. The rhythm can be pictured as in 50.

(50) s w s
Ari inn fróði
'Ari the Learned'
s w s
Ormr inn langi
'Worm the Long'

In this type of noun phrase the order **inn fróði Ari / inn langi Ormr* is less likely, and placing the article at the right end seems to be totally ungrammatical: **Ari fróði inn/langi Ormr inn*.[4] However, we see below that under certain circumstances the unaffixed article may occur at the beginning of a complex noun phrase.

[4] Constructions like *gamli maðurinn* 'the old man' are normal in the modern language, but this involves a historical change. The fact that the article cannot occur at the end of an NP could perhaps be taken as evidence that the phonological bracketing is S [WS], rather than [SW] S, since in a left-headed bracketing structure [SW] we might have expected something like [langi] [[Ormr]$_s$ [inn]$_w$] to be well-formed.

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The typical rhythm for sentences starting with noun phrases followed by verbs can be represented as in 51.

(51) s w s
Skallagrímr var járnsmiðr
'Skallagrímr was (a) blacksmith.'
s w s w s
Sandar eru þar allt með sæ
'Sands are there all along the sea.'

The initial SW pattern is of course reminiscent of the initial trochee constraint mentioned above. In 52 each constituent, weak or strong, is minimally a phonological word and a potential intermediate phrase (ip), depending on intonational mapping and strength relations.

But this is not the only rhythm allowed, since constructions like the ones in 51 are also common. These examples include V1 constructions, as in 52a, or noun phrases with the definite article first, as in 52b.

(52) a. *Töluðu* þau margt um kveldit
'Talked they much that evening.' (Egils saga, 16)
Leizk honum mærin fögr
'Found he the girl pretty.' (Egils saga, 16)
Fóru sendimenn heim til konungs ok sögðu honum örendislok sín.
'Went the messengers home to the king and told him the result of their mission.' (Egils saga, 9)

b. *hinn* þriði maðr keypti Ólaf
'the third man bought Ólaf' (cf. Nygaard 1906 [1966: 29])

It is possible to interpret these examples by regarding them as instances of what may be called initial catalexis on the phrase level, that is, where the initial strong position in the phrase is unrealized, as shown in 53.

(53) s w s
Ø Töluðu þau margt

s w s (s)
Ø Leizk honum mærin (fögr)

s w s
Ø Váru þær ok efniligar ...

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s w s
Ø hinn þriði maðr keypti ...

It is thus an option for intonational phrases to skip the first beat of the rhythmic template, leaving empty the slot for the first strong intermediate phrase. I present some arguments in support of this interpretation in section 8 below, but let us first turn to Kuhn's laws, which seem to get a natural interpretation if this is assumed.

We can regard Kuhn's *Satzpartikeln* as phrasal categories that are (typically) phonologically weak. According to the *Satzpartikelgesetz*, these forms "stehen in der ersten Senkung des Satzes, in der Proklise entweder zu seinem ersten oder zweiten betonten Worte" (Kuhn 1933 [1969:23]), that is, they "must be grouped together before the *first* (as in 53) or the *second* (as in 51) stressed word of a clause" (italics and parentheticals added). Thus they occur in the first weak position of the intonational phrase, forming either the first or second intermediate phrase, depending on whether the first strong position is filled or not.

The *Satzspitzengesetz* also falls out from this model. In order for this to happen we only have to accept Russom's version of the division between major function words (*Satzpartikeln*) and minor function words (*Satzteilpartikeln*). The major function words are the ones that normally occur as weak relative to phonological phrases and can themselves form intermediate phrases, whereas the minor function words are those that occur as weak relative to words, and are unable to be stranded like prepositions or verbs. That "im Satzauftakt Satzpartikeln stehen müssen" 'unstressed constituents (upbeats to a sentence situated before the first stressed word of the clause) must include a *Satzpartikel*' (Kuhn 1933 [1969:51]) is due to the fact that the weak position defined by the *Satzauftakt* was a phrase-level weak position, rather than a word-level one, that is, the weak part of a phonological phrase, rather than a clitic to a word.

The workings of these phenomena can be further illustrated with definite noun phrases of the type mentioned above. The definite article is classified as a *Satzteilpartikel*, belonging to the weakest category (in modern terms, a proclitic), and therefore (according to the *Satzspitzengesetz*) cannot form a phrase-level constituent (an ip) on its own. Thus [$_{ip}$**inn*] [$_{ip}$*Ari fróði*] is rhythmically bad because the article is followed by a noun, which, we may assume, forms an ip with the following adjective. However, a numeral like *þriði* or *fyrsti* seems to

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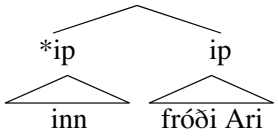
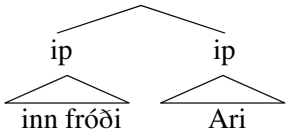
have supplied the necessary material to form a (weak) phrase-level constituent (*Auftakt*), as in [$_{ip}$*inn þriði*] [$_{ip}$*maðr*] or [$_{ip}$*it fyrsta*] [$_{ip}$*haust*], which are normal (cf. Nygaard 1906 [1966:29]). A phrase such as *[$_{ip}$*inn*] [$_{ip}$*fróði Ari*], which does not seem to occur, would be ill-formed with the adjective *fróði* forming an ip with the noun, but a parsing like [$_{ip}$*inn fróði*] [$_{ip}$*Ari*], where *inn fróði* forms a full *Auftakt* should be better. The parsing is here a matter of the relations between the adjective and the noun. If the adjective and the noun form an ip, the article is left without an anchor as in 54a, but if they belong to two ip's we have the well-formed structure in 54b.

(54) a.



b.



The key to understanding these relations seems to lie in the principles of phonological phrasing, which could be captured by algorithms of the sort assumed by Hayes (1989).

7.2.3. Independent vs. Dependent Verb Relations.

One of the facts we have observed about metrical mapping in Old Icelandic is the different function of finite verbs in dependent versus independent clauses. For some reason only the "syndetic verbs" (i.e., verbs in dependent clauses, defined as having a complementizer, be they main clauses or subordinate clauses) can occur in final position in the *dróttkvætt* (with the added condition that they have a heavy stressed syllable).

According to Kuhn (1933 [1969:61–62]), this behavioral difference of syndetic versus asyndetic finite verbs mirrors a rule in Vedic whereby verbs in independent clauses were unstressed, but verbs in dependent clauses were stressed. The difference in the metrical behavior of these verbs in Old Icelandic was then a matter of inheritance from Proto-Indo-European. Kuhn furthermore thinks that the word order differences in modern German between main and subordinate clauses were originally due to similar rhythmic differences. (The syntactic difference, according to him, originated as a difference between syndetic and asyndetic constructions, while the main/subordinate opposition is a later development.)

But Kuhn's interpretation of the historical relations between this and the Nordic situation seems to be rather complicated. He assumes that word order differences between main clauses and subordinate clauses similar to the ones in German prevailed in older Nordic, and that these syntactic differences were originally due to phonological differences. But he did not go so far as to conclude that there was a real stress difference in Old Icelandic prose that would account for or correspond to the syntactic differences, nor would such phonological laws explain the metrical behavior. The phonological laws only prevailed at some earlier stage. The difference in the behavior of the two types of finite verb in the poetic language all the way down to the thirteenth century, including poetry by Sturla Þórðarson, (1214–1284) is, according to Kuhn, "sicher eine Stilsache," that is, 'purely stylistic' (1933 [1969:65]). Thus the earlier difference in prose between the two verb types, similar to what is reported for Vedic, was the origin of the metrical regularity, but spoken Old Icelandic had lost the feature.

It seems, though, that Kuhn's appeal to "stylistics" does not help a great deal. It is not clear when and how the regularity could have become "purely stylistic." There does not seem to be any way of getting around the fact that the stylistic options were based on some linguistic property, that is, a linguistic distinction prevailed, on which the options were defined. And we still need to know what sort of distinctions we are dealing with, for example, whether the linguistic property that governed the constraint in metrical mapping was phonological or syntactic.

A purely morphosyntactic account of the behavior of the verb forms, referring only to such things as word class, word order, or government relations, is impossible in principle. Pure syntax has no means of referring to syllable structure or syllable weight. Even if we could pinpoint the syntactic characteristics of the syndetic/asyndetic distinction, the constraint that the last two positions in *dróttkvætt* can be filled by syndetic verbs only if they have a heavy syllable is impossible to state in purely syntactic terms. Also, and perhaps more significantly, many syntactic relations that hold in prose are abolished in *dróttkvætt*, and a relatively loose syntactic relation like that between the presence of a complementizer and the possibility of verb stranding (cf. below) is unlikely to be one of the few to survive skaldic scrambling. There seems to be no way of getting around the fact that a phonological (i.e., intonational) characteristic was at least partly involved. (We may note

that this is in accordance with the Hypothesis of Phonological Metrics proposed by Hayes [1989:224].)

The discussion above has shown that several facts can be taken to indicate that in prose the finite verb typically occupied a phonologically weak position, and we have also seen that the normal word order was VO. Thus a normal place for the finite verb was a weak position before its complement and following a strong initial position in the clause. But the order could be reversed, creating OV constructions. Thus verb and preposition stranding in *ljóðaháttr*, which involved moving the complement in front of the Verb, was a means of creating a (possibly resolved) metrical position at the end of the catalectic line (cf. 30 above). The metrical behavior of these stranded forms can, as we have seen, be taken to show that the stranding granted them the status of separate intonational constituents (ip's), which could carry an ictus. Thus the phonological subordination of the verb was relaxed when the complement did not follow.

Although preposition stranding does not occur in normal prose, a number of verb-final constructions, conditioned by syntactic relations, are to be found. One source of this sort of thing is ellipsis in relative clauses, creating object gaps or similar conditions, as in 55.

(55) a. Allt þat er hann [beiddisk Ø]
'All that which he asked Ø.' (Nygaard 1906 [1966:257])

b. hann vill sjá fyrst, hvert ráð jarl [tekr Ø]
he wants see first what reaction earl take Ø
'He wants to see first how the earl reacts.'
(Heimskringla II, 68)

And also, prepositions may be left without their complements in relative clauses, as in 56.

(56) Skála þeim er húskarlar sváfu í Ø
house.DAT that.DAT as serfs-the slept in
'the house in which the serfs were sleeping'
(Nygaard 1906 [1966:257])

Further examples of verb-final constructions, reminiscent of what Maling (1990) calls stylistic fronting, in subordinate or connected clauses, are to be found in 57.

(57) a. Mun hún enn ekki víða hafa farit yfir
will it [i.e., the arrow] yet not widely have gone over
landit, því at stund hefir *skömm verit*.
country-the because time has short been
'It will not have travelled widely over the country since time has been short.' (Heimskringla II, 154)

b. Sá er skírnarbrunni hreinni er *skírðr er* Ø
that is baptism-fountain.DAT cleaner as baptized is Ø
'The baptized one is cleaner than the fountain of baptism.'
(Nygaard 1906 [1966:259])

c. þá sá hann í hvert óefni komit *var* Ø
then saw he in what disaster come was
'Then he saw what a disaster was at hand.' (Heimskringla II, 155)

If we assume that leaving verbs or prepositions without their complements created intonational conditions similar to those in *ljóðaháttr*, that is, the verb forms (and prepositions) formed separate constituents in the intonation, (i.e., were freed from the domination of their strong sisters), this would lend them enough intonational strength to occur in the last ictus of a *dróttkvætt* line.

We can illustrate this with an example from *Ragnarsdrápa*. The half-stanza quoted above in 42a is here repeated as 58.

(58) Rósta *varð* í ranni — battle was in house
Randvés höfuðniðja — Ramdvér's main descendants
þá's hrafnbláir *hefnðu* — when raven-black retaliated
harma Erps of barmar. — sorrows Erpr's brothers
(Ragnarsdrápa, 3b)

The natural prose order of the text would be (with the verb forms italicized):

(59) Rósta *varð* í ranni Randvés höfuðniðja, þá's hrafnbláir Erps barmar *hefnðu* harma.
'Battle occurred in the house of Randvér's main descendants, when the raven-black brothers of Erpr retaliated for their sorrows.'

If we assume that the syntactic option of inverting the order, *hefnðu harma* to *harma hefnðu*, secured the "intonational independence" of the

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verb form, this would make it able to occur in the last SW position in a metrical line, as it does in 58. On the other hand, the syntactic-phonological relation between the verb and its arguments in independent clauses like *Rósta varð í ranni* and other equivalent constructions prohibited the use of the verb form in this rhythmically prominent and strictly defined position in the line.

Another example that we may use for illustration is the half-stanza by Hallfreðr vandræðaskáld quoted in 42b and repeated here as 60.

(60) *Væri* oss, þótt ærir — were us though messengers
elds þeim svikum *beldi* — fire's that treason committed
heilalíkn, ef, hauka — brain-relief if hawk's
háklifs, jöfurr *lifði*. — high-tree king lived
(Hallfreðr Ólafsdrápa 21)

The prose version would be something like this:

(61) *Væri* oss heilalíkn, ef jöfurr *lifði*, þótt ærir elds
were us brain-relief if king lived even though the messengers
hauka háklifs *beldi* *þeim svikum*
of the fire of the arm committed that treachery
'It would be a relief if (we could believe that) the king lives, even if the soldiers were lying about it.'

Here we have two dependent (and subordinate) clauses *ef jöfurr lifði* 'if king lived' and *þótt ærir hauka háklifs* [$_{VP}$*beldi* [$_{NP}$ *þeim svikum*]] 'even if the soldiers committed that treachery'. The former of these involves an intransitive verb, preceded by its only argument, the subject, and a complementizer. The presence of the complementizer *ef* somehow breaks the rhythmic relation between the subject and the verb. This could be formulated in terms of a rule of phonological phrasing (cf. Hayes 1989:211–218), by which the conjunction forms an ip along with the subject, as shown in 62.[5]

[5] This can be expressed with the notation used by Hayes (1989) as C": / [CX], which states that a complementizer forms a phonological phrase with a following constituent.

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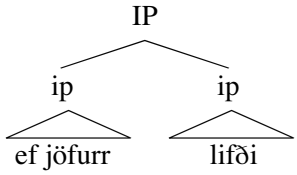
(62)



In the second sentence, the same happens, mutatis mutandis, and inversion *þeim svikum beldi* is allowed. The prose syntax and phonology thus supply motivation for the verb's phonological freedom. This freedom of the verbs makes them fit to fill the last two positions in *dróttkvætt*. The asyndetic verbs in *Rósta varð í ranni* and *Væri oss heilalíkn*, however, are phonologically subordinated as weak constituents, either following a strong constituent, as in *Rósta varð* or in a weak "Kuhnian *Satzauftakt*" of the type discussed in 7.2.2 and illustrated in 52. That is, the phonological strength relations are of the sort shown in 63.

(63) s w s
Rósta varð í ranni
s w s
Ø Væri oss heilalíkn.

8. Conclusion.

The investigation carried out in this paper of certain phonologically governed constraints on Old Icelandic poetic and prose syntax opens up the possibility of understanding better some of the facts noted by Kuhn in his famous laws on stress and word order in early Germanic. Using insights from modern intonational phonology, it is possible to account for the relation between syntax and intonational structure, and the scrutiny of metrical, phonological, and syntactic relations helps to understand the workings of the laws as they appear in Old Icelandic.

The key to understanding the behavior of finite verb forms lies in discovering the laws that made them weak in independent clauses, and seeing how the presence of complementizers, verb stranding, and other conditions that separated the verb from its complements made finite verbs phonologically freer in dependent clauses. And, conversely, the strongest argument in favor of phonological involvement in the word order phenomena of Old Icelandic is the metrical behavior of finite verbs in

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poetry, particularly in *dróttkvætt*. The fact that asyndetic verbs are excluded from the last two positions of the line must be due to the phonological weakness of these forms. Although more work needs to be done toward understanding these laws in detail, this paper has laid the groundwork for such a closer study.

Another point made here is that the V2/V1 phenomenon in Old Icelandic is at least partly a consequence of intonational conditions. In fact, the phonological viewpoint may turn out to provide a plausible explanation for the V1 phenomenon, its origin, and distribution. I have assumed what I call initial catalexis as an implied first strong position. Even though skipping a strong position at the beginning of a phrase may seem somewhat strange, this is not a new idea. Abercrombie (1967:35–36) noted the "silent stress" in English utterances like '*kyou* for *Thank you*. According to Abercrombie, this silent stress is often "revealed by a 'synkinetic' nod, or other gesture, preceding the audible syllable." In this light it would seem not altogether implausible that the historical origin of V1 in questions, imperatives, and exclamations may have involved at some stage a synkinetic gesture of the sort mentioned by Abercrombie.

As noted above, "narrative inversion" typically occurs when something precedes; it is excluded at the very beginning of a text, and this is also true of the V1 phenomena in German, noted by Louden 2000. One possible reason for this could be that the implied strong, when not motivated as a marker of exclamation or a question, was in some way licensed by a phonological strong belonging to the preceding utterance. In other words, a sequence of an empty strong position followed by a weak position would be marked after silence, since indeed a strong beginning was more natural than a weak one. And this markedness of V1 would then make it a good marker of special illocutionary functions like exclamations, questions, and orders. If this interpretation is on the right track, it would seem to offer a more natural account of the relation between V1 and V2 than at least some morphological or syntactic accounts.

It is another matter how long this phonological conditioning remained significant, particularly in written prose like that of the sagas and later literature. At some stage syntactic parameters must have taken over. Thus it is not maintained here that, say, narrative inversion, which is still used in some Modern Icelandic styles as a marker of cohesion, is phonologically conditioned, any more than other stylistic devices that have a long history.

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