Relative *sá* and the dating of Eddic and skaldic poetry

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Abstract

This paper investigates the use of *sá* as a relative pronoun in Eddic poetry, in skaldic poetry, and in Old Icelandic prose. Sapp (2019) proposes that relative *sá* emerges just before the first Old Icelandic prose appears in the 12th century, and this study supports that contention with data from poetry, much of which was composed before the earliest prose texts were written. In all three genres, *sá* is very frequent before the relative marker *er* and in that context often lacks demonstrative force. In the earliest skaldic poetry, *sá er* is just one way that relative clauses are introduced, competing with *er* alone and *er* appearing with other pronouns such as *hinn*. However, by the 11th century *sá* becomes the most frequent relative marker, peaking in 12th-century skaldic poetry and prose. Having established this timeline for the development of relative *sá*, I propose that the rates of different types of relative clauses can help date individual Eddic poems, with the purportedly earliest poems showing the lowest frequencies of relative *sá* and the later poems showing the highest rates.

1   Introduction

Relative clauses in Old Norse prose are usually introduced by the relative "particles" *sem* or *er*. These may be preceded by an apparently demonstrative pronoun, most frequently *sá* but occasionally *hinn* or *sjá*. Traditionally, this pronoun has been considered a genuine demonstrative (Nygaard 1905:261-262, Gordon 1988:296, Faarlund 2004:264), while other scholars have interpreted it as correlative pronoun (Lindblad 1943) or a relative pronoun (Åfarli 1995).

Sapp (2019) presents evidence that in Old Icelandic prose, *sá* can have all three of these functions. Sometimes, it is a true demonstrative pronoun (1), namely when it maintains demonstrative force. Sometimes, it merely anticipates a subsequent relative clause; because it is adjacent to the antecedent but not the the relative clause, it is a kind of demonstrative, but one with cataphoric reference to the relative clause, i.e. a "correlative" in traditional terms (2). Finally, there are some unambiguous instances in which *sá* must be a relative pronoun, as it is adjacent to the relative clause but not the antecedent (3). Of course, many examples are ambiguous, as when the pronoun in question is adjacent to both the antecedent and the relative clause (4).

(1)   demonstrative *sá*:
    Sá   stafur   er   hér   ritinn   c
    SÁ   letter   RP   here   written   c
    'that letter which [is] written here *c*' (1150.FIRSTGRAMMAR.SCI-LIN,.111)

(2) correlative *sá*:

Vér eigum **dag þann** fyr hendi, **er** dómadagur heitir.
we have day SÁ at hand RP doomsday calls
'We have the day at hand that is called doomsday.'

(1150.HOMILIUBOK.REL-SER,.940)

(3) relative *sá*:

Hann setti **jarl** í hverju fylki, **þann** **er** dœma skyldi lǫg
He set earl.acc in each district, SÁ.ACC RP [e].NOM judge should law
'He placed an earl in each district, who should judge the law.' (*Heimskringla* 98)

(4) ambiguous demonstrative/correlative/relative:

synir **Herodis þess,** **er** börnum lét fara.
sons H-GEN SÁ.GEN RP [e].NOM children let kill
'… sons of (that) Herod, who had the children killed.'

(1150.HOMILIUBOK.REL-SER,.237)

A perhaps suprising property of relative *sá* is that it displays "case attraction", i.e. it is in the same case as the antecedent noun (Nygaard 1905:261).[1] In (3), *sá* appears in the masc.acc.sg form *þann,* agreeing with the accusative antecent *jarl,* despite the fact that it represents the subject of the relative clause. Similarly, *sá* appears in the genitive in (4) in agreement with the antecedent *Herodis*, although again the relativized argument is the subject of the relative clause.

Sapp (2019) argues that relative *sá* consistently shows case attraction in Old Icelandic prose because it was reanalyzed from a correlative pronoun (inside the main clause) to a relative pronoun (at the beginning of the relative clause) just before the emergence of Old Icelandic prose.[2]

This paper examines the different types of relative clauses not only in prose, but also in Old Norse poetry, much of which was composed before the earliest prose texts were written. The goals of this examination are: i) to provide evidence for the reanalysis of *sá* to a relative pronoun in the pre-prose period, ii) to establish a timeline for that reanalysis based on the frequencies of different types of relative clauses in early prose and datable skaldic poetry, and iii) use that timeline to help confirm dates of Eddic poetry.

2   Types of relative clauses in Old Icelandic prose

This section reviews some of the arguments by Sapp (2019), an investigation of relative clause types in the *Icelandic Parsed Historical Corpus* (*IcePaHC* v. 0.9; Wallenberg et al. 2011). While Sapp (2019) examines the entire corpus, covering the whole history of Icelandic, the following data are limited to texts from 1150-1350. With a coding query written in the Corpus Search language (Randall 2009), I extracted all Noun Phrases (NP) from *IcePaHC* texts from the 12th to 14th centuries that contain a relative clause and/or a

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[1] Nygaard (1906: 261) maintains that pronouns only very rarely bear the case of the relativized argument in the "popular style." However, this is common in the Latinate "learned style" (Nygaard 1906:263).

demonstrative.[3] Each NP is tagged for: type of relative particle; type of demonstrative; presence or absence of a relative clause; position of the demonstrative vis-à-vis any antecedent noun, adjective, quantifier, possessor, other demonstrative, or relative clause; case of the antecedent noun, demonstrative, and trace in the relative clause; and century. The results were loaded into *R* for analysis.

2.1 Old Icelandic relative particles and demonstrative/relative pronouns

First, let us examine the distribution of the relative particles by century. Throughout the Old Icelandic period, *er* and *sem* exist side by side; *sem* slowly becomes more frequent at the expense of *er*, but *er* remains the most frequent particle into the 15th century. In addition, there are a small number of other particles (*að, eð,* and *sem að*), as well as relative clauses with no relative particle. The frequencies are given in Table 1, and the percentages are illustrated graphically in Figure 1:

Table 1: Type of relative particle by century

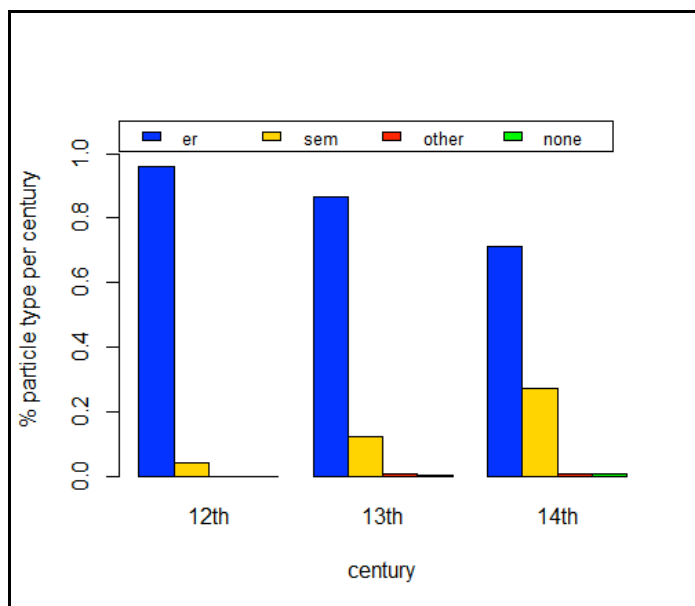|	*er*	*sem*	others	no particle	Total
12th century	620	27	0	0	647
13th century	774	108	7	3	892
14th century	1010	386	10	10	1416
Total	2404	521	17	13	2955

Figure 1: Type of relative particle by century

The few clauses with no relative particle tend to occur in religious texts, and these often have *sá* as the sole relative marker (5).[4]

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[2] See that paper for a detailed analysis of the syntax of each stage.

[3] The distinction between DP and NP does not play a role in this paper, so I use the abbreviation NP throughout.

[4] Clauses coded as CP-REL in *IcePaHC* that have neither a particle nor a demonstrative/relative pronoun are excluded from this study.

(5) Og   sá   það   margir vitrir   menn   **þeir**   hjá   honum voru
    and   saw   that   many   wise   men   SÁ.NOM.PL with   him   were
    'and many wise men who were with him saw that'

                                        (1210.THORLAKUR.REL-SAG,.73)

As mentioned in section 1, the relative particles *sem* and *er* are often preceded by a pronoun. This pronoun may be *sá* 'that', *sjá/þessi* 'this' (hereafter simply *þessi*), or *hinn* 'that/the'.[5] Beginning with *þessi,* it is the proximal demonstrative ('this'). According to Wagener (2017: 64-65), the proximal demonstrative *þessi* can point to a referent in the linguistic context (as an anaphor) or in the extralinguistic context. The demonstrative *sá,* despite its traditional description as a distal demonstrative 'that' (e.g. Gordon 1988: 295), is shown by Wagener (2017: 67) to be an 'anaphoric demonstrative,' i.e. it has deixis only within the linguistic context. Finally, the old demonstrative *hinn* is has evolved into a pre-adjectival definite article, and according to Wagener (2017: 69) it cannot be anaphoric. As will be shown below, these pronouns may actually function as relative pronouns, especially *sá* (*pace* Wagener 2017). The paradigms for these three pronouns are given in Tables 2-4.

Table 2: Paradigm for *sá* (Gordon 1988: 295):

	m. sg.	f. sg.	nt. sg.	m. pl.	f. pl.	n. pl.
nom.	*sá*	*sú*	*þat*	*þeir*	*þær*	*þau*
acc.	*þann*	*þá*		*þá*		
dat.	*þeim*	*þeirri*	*því*	*þeim*		
gen.	*þess*	*þeirrar*	*þess*	*þeirra*		

Table 3: Paradigm for *sjá/þessi* (Gordon 1988: 295):

	m. sg.	f. sg.	nt. sg.	m. pl.	f. pl.	n. pl.
nom.	*sjá / þessi*	*sjá / þessi*	*þetta*	*þessir*	*þessar*	*þessi*
acc.	*þenna*	*þessa*		*þessa*		
dat.	*þessum*	*þessi*	*þessu*	*þessum*		
gen.	*þessa*	*þessar*	*þessa*	*þessa*		

Table 4: Paradigm for *hinn* (Gordon 1988: 294-295):

	m. sg.	f. sg.	nt. sg.	m. pl.	f. pl.	n. pl.
nom.	*hinn*	*hin*	*hitt*	*hinir*	*hinar*	*hin*
acc.	*hinn*	*hina*		*hina*		
dat.	*hinum*	*hinni*	*hinu*	*hinum*		
gen.	*hins*	*hinnar*	*hins*	*hinna*		

Table 5 shows that the pronoun *sá* occurs in the same NP as the relative clause in a large majority (over 75%) of Old Icelandic relative clauses. The other demonstratives, *þessi* and *hinn*, occur in NPs with a relative clause much less frequently. Relative clauses with no

pronoun occur, but much less frequently than those with *sá*. The percentages for Table 5 are illustrated graphically in Figure 2:

Table 5: Pronouns occuring with relative clauses by century

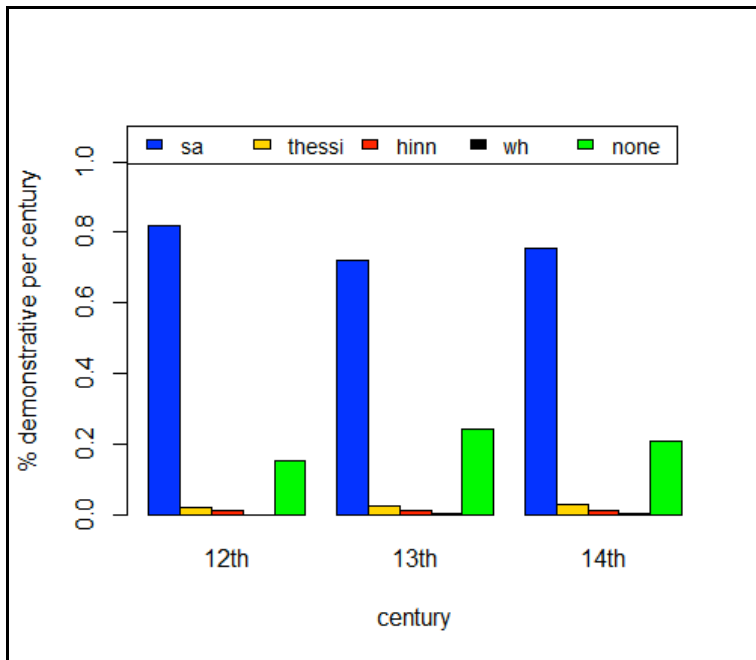|	*sá*	*þessi*	*hinn*	*wh*-pron.	no pronoun	Total
12th century	529	13	6	0	99	647
13th century	642	22	11	1	216	892
14th century	1068	39	14	3	292	1416
Total	2239	74	31	4	607	2955

Figure 2: Type of pronoun occurring with relative clauses by century

Finally, let us consider whether there is a correlation between the choice of relative particle and the presence of a pronoun. Apparently there is not: as shown in Table 6 and Figure 3, the proportion of *er* to *sem* is about the same in relative clauses following *sá* as it is in those with no preceding pronoun. Thus there is no hint yet at this stage of the later replacement of *sá er* by the sole use of *sem,* as we find in Modern Icelandic.

Table 6: Pronouns occuring with relative particles in Old Icelandic

	sá	*þessi*	*hinn*	*wh*-pron.	no pronoun	Total
er	1827	58	25	2	492	2404
sem	387	15	6	1	112	521
other particle	13	1	0	0	3	17
no particle	12	0	0	1	0	13
Total	2239	74	31	4	607	2955

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[5] Unless otherwise noted, *hinn* refers to the non-clitic determiner.
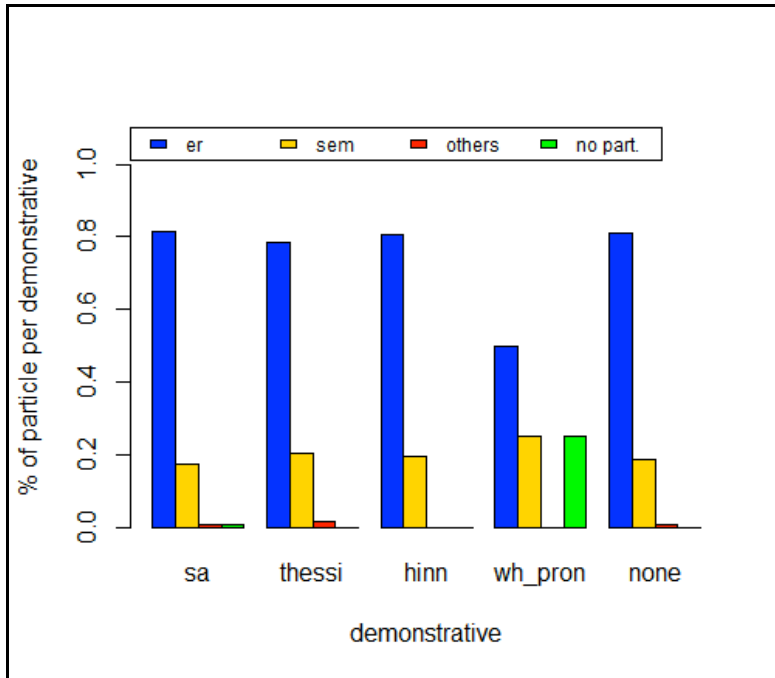
Figure 3: Correlation between type of particle and pronoun

2.2 Pre-relative-clause *sá* in Old Icelandic prose

When *sá* occurs before a relative clause, it is sometimes an unambiguous demonstrative, sometimes a correlative pronoun, and sometimes a case-attracting relative pronoun.

The first argument that *sá* is not simply a demonstrative pronoun comes from its surprisingly frequent occurrence in relative clauses: of the 3,419 instances of *sá* in my Old Icelandic corpus*,* over 65% co-occur with a relative clause. By comparison, only 3-4% of the instances of *þessi* and *hinn* co-occur with relative clauses:

Table 7: OIcel. demonstratives in relative and non-relative contexts

relative context?	*sá*	*þessi*	*hinn*	Total
relative clause	2,239 (65%)	74 (4%)	31 (3%)	2,344
no relative clause	1,180 (35%)	1,591 (96%)	1,022 (97%)	3,793
Total	3,419	1,665	1,053	6,137

Secondly, in terms of semantics, if *sá* were always a genuine demonstrative, it should not occur in indefinite NPs. However, as Wagener (2017: 124) points out, "the mere presence of [a relative clause] is enough to license *sá*…" My data supports this: *sá* frequently occurs with an indefinite N when immediately preceding a relative clause (6)-(7):

(6) hver tunga hefir **hljóð þau er** eigi finnast í annarri.
     each tongue has sounds SÁ RP not find-MP in another
     'every language has (*those) sounds that are not found in others'

                                        (1150.FIRSTGRAMMAR.SCI-LIN,.5)

(7) og   koma   þeir   of   kveldið   til   **búanda eins, þess er**   Atli   hét,
    and   come   they   at   evening-DEF   to   farmer   one   SÁ   RP   Atli   called
    'and they went in the evening to a farmer, (*the one) who was called Atli'
                            (1260.JOMSVIKINGAR.NAR-SAG,.1053)

In such instances *sá* appears to have no demonstrative force, but simply serves to introduce the following relative clause. On the other hand, *þessi* and *hinn* seem to preserve their deixis even in the presence of a relative clause (8a). Other examples of *hinn* are preceding an adjective and thus appear to be the use of *hinn* as a pre-adjectival definite article (8b):

(8) a.   Hafi   **stafróf   þetta er**   hér   er   áður   ritað
            have   alphabet   this   RP   here   is   before   written
            'Let him have this alphabet, which is written above'
                            (1150.FIRSTGRAMMAR.SCI-LIN,.182)

     b.   **in**   helga   **María, er**   bar   Drottin
            the   holy   Mary   RP   bore   Lord
            'the holy Mary, who bore the Lord'
                            (1150.HOMILIUBOK.REL-SER,.120)

This means that unlike the other two demonstratives, *sá* has a non-demonstrative function, i.e. it serves to merely introduce a relative clause, whether as a correlative pronoun inside the antecedent NP or as a relative pronoun inside the relative clause.

Thirdly, *sá* has different word-order distributions when co-occurring with a relative clause. Old Icelandic demonstratives strongly tend to precede N; in particular, *sá* occurs before the N about 73% of the time. Depending on the semantics of *sá* in given instance, this could be a demonstrative as in (1) or a correlative. It cannot be a relative pronoun because it is not adjacent to the relative clause. Less frequently, *sá* can occur after the N; however, this word order is strongly favored (88%) when a relative clause is present, as shown in Table 8.

Table 8 Order of Old Icelandic *sá* and noun in relative and non-relative contexts

relative context?	*sá* > N	N > *sá*	Total
relative clause	600 (42%)	469 (88%)	1069
no relative clause	825 (58%)	62 (12%)	887
Total	1,425 (73%)	531 (27%)	1956

When the N, *sá,* and the relative clause are adjacent as in (6), this is structurally ambiguous between a correlative and a relative pronoun. Other instances, however, are unambiguous. When *sá* is not adjacent to the relative clause but lacks demonstrative force, it is clearly a correlative (2). But *sá* is clearly a relative pronoun in sentences like (3), where *sá* immediately precedes the relative clause but is separated from the antecedent by another constituent. As Åfarli (1995:539) points out, such sentences must be analyzed as having an extraposed relative clause (3'); because *sá* extraposes with the relative clause, they form a single constituent.

(3')   Hann setti [$_{NP}$ **jarl** [t$_i$]] í hverju fylki, [$_{CP}$ **þann er** dœma skyldi lǫg]$_i$

In addition to following the N in relative contexts, there are a number of other word-order possibilities for *sá* when a relative clause follows that are not found in non-relative contexts; for details see Sapp (2019: 12-16).

2.3   Summary: relative clauses in Old Icelandic prose

By far the most common type of relative clause in Old Icelandic prose is that introduced by the particle *er,* especially early on. It is not until the 14th century that *sem* becomes a frequent alternative to *er.* In addition to these particles, most relative clauses are accompanied by a pronoun, usually *sá*, which lacks demonstrative force and is thus a correlative or relative pronoun. While many instances are ambiguous, a few sentences such as (3) provide a clear indication that *sá* can sometimes function as a relative pronoun. However, it is a relative pronoun with pervasive case attraction.[6]

In Sapp (2019), I argue that Old Icelandic case attraction arose as correlative pronouns were reanalyzed as demonstrative pronouns. Because demonstrative, correlative, and relative *sá* all frequently occur even in the earliest Old Icelandic prose, I propose that this reanalysis must have taken place before the emergence of prose in the 12th century. In the next section, I will test this hypothesis by examining the status of the relative particles and pronouns in Eddic and skaldic poetry, much of which predates the prose corpus. We will see that the poetry provides even clearer evidence for *sá* as a relative pronoun, and that this use indeed dates earlier than the 12th century.

3   In Eddic & skaldic poetry

In Old Norse poetry, it has been recognized since Kuhn (1933) that metrical and syntactic breaks closely correspond. For example, Heusler (1950: 161) claims that when *sá* immediately precedes the relative clause, it belongs to the relative clause. Therefore, we can use the strict metrical rules of Eddic and skaldic poetry to help establish whether a given instance of *sá* is in the antecedent NP or in the relative clause. In section 3.1, I will examine this more closely in the Eddic corpus. Section 3.2 investigates a subcorpus of skaldic poetry.

3.1   Pre-relative-clause *sá* in Eddic poetry

The twenty-nine core poems of the Old Norse *Poetic Edda* are contained in a single manuscript, the *Codex Regius*. Although the manuscript itself dates to the 1260's, the poems are anonymous and their origins are mysterious. They treat ancient themes of Norse mythology and Germanic legend, and were thus believed by nineteenth-century scholars to be much older than any Icelandic prose. While such an early date is no longer accepted for all the poems (see Fidjestøl 1999 and references therein), at least some Eddic material probably dates

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[6] Since Nygaard (1905), much of the literature on Old Norse relative clauses has claimed that case attraction occurs in the "popular style", while texts in the "learned style" have relative clauses without case attraction. However, non-attracting relatives are extremely rare in my Old Icelandic corpus, occurring only 6 times even in the learned-style *Hómilíubók.* I thus conclude with Wagener (2017: 128) that so-called learned-style relative clauses are an effect of translation and peripheral to Old Norse grammar.

back to the 9th century (Anderson 2004). It is therefore worth exploring whether Eddic poetry presents any evidence for the reanalysis of *sá* from a genuine demonstrative pronoun to a relative marker.

This section analyzes the Eddic poems of the *Codex Regius,* which exist in electronic form in the corpus *Greinir skaldskapar* (Karlsson et al. 2012).[7] The corpus is tagged for morphological, syntactic, and metrical features, making it ideal for studies like this one that use philological cues to determine syntactic status. I searched for "word class: relative particle" and received 417 results, 46 of which involved adverbial clauses such as *þar er* 'where'. The remaining 371 relative clauses were copied into a spreadsheet and coded by hand for the supposed date of composition (according to Finnur Jónsson), pronoun (*sá,* etc.), particle (*er* vs. *sem*), position of the pronoun vis-a-vis the particle, and metrical position in the poetic line. Note that relative clauses with no particle would not be picked up in this search.

First, let us examine the overall distribution of relative particles and potential relative pronouns in the Eddic corpus, shown in Table 9. Of the 371 relative clauses, nearly all are introduced by the particle *er,* with just 3 introduced by *sem* and one by *sems* (*sem* with a cliticized *er*).[8] More than half of these clauses are preceded directly or indirectly by the pronoun *sá*. A small number of relative clauses have the demonstrative *hinn* or an interrogative (*hverr* or *hvað*). Unlike in the prose corpus, no clauses are introduced by *þessi*.

Table 9: Type of pronouns and relative particles in Eddic poetry

	sá	*þessi*	*(h)inn*	*hverr/hvað*	no pronoun	Total
er	223 (61%)	0	9 (2%)	10 (3%)	125 (34%)	367
sem(s)	0	0	0	1	3	4
Total	223	0	9	11	128	371

Note that three of the four instances of *sem(s)* are unaccompanied by a pronoun, as in Modern Icelandic). Relative clauses with *sem(s)* will not be discussed further or included in the tables below.

Having seen that relative clauses in the Eddic corpus are often preceded by *sá,* let us take a closer look at its exact position. According to Lindblad (1943: 162) *sá* tends to occur in the same line as the relative clause in poetry. The data from my Eddic corpus are in Table 10.

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[7] There are a handful of Eddic poems in manuscripts other than the *Codex Regius*; because these are not found in the *Greinir skáldskapar,* they are not treated in this paper. Note also that the *Greinir skáldskapar* contains one skaldic poem, *Geisli,* which is treated with the other skaldic poems in section 3.2 below. Details about the poems and the tagging of the corpus can be found in Eythórsson et al. (2014).

[8] Note that *er* has an archaic form *es,* which can cliticize to the preceding word as *'s.*

Table 10: Position of *sá* and other pronouns vis-a-vis *er* in Eddic poetry

poem	date [9]	*er* only	non-adjacent *sá* and *er*	adjacent *sá er*	*hinn, hverr*	Total
Hávamál, 111-137	875-900	1 (10%)	4 (40%)	4 (40%)	1 (10%)	10
Þrymskviða	900	1		1	2	4
Völundarkviða	900	10 (67%)		5 (33%)		15
Skírnismál	900	12 (75%)		3 (19%)	1 (6%)	16
Vafþrúðnismál	900-925	6 (43%)	6 (43%)	1 (7%)	1 (7%)	14
Grímnismál	900-925	11 (58%)	2 (11%)	4 (21%)	2 (11%)	19
Hárbarðsljóð	900-925	9 (64%)	2 (14%)	3 (21%)		14
Hávamál (rest)	900-925	9 (14%)	17 (26%)	35 (53%)	5 (8%)	66
Völuspá	935	1 (8%)	2 (15%)	10 (77%)		13
Lokasenna	935	6 (38%)	2 (13%)	5 (38%)	3 (23%)	16
Hamðismál	925-950	1		2		3
Helgakv. Hund. II	925-950	10 (62%)	2 (12%)	4 (25%)		16
Gudrúnarkviða II	925-950		1	3		4
Reginsmál	925-975	3 (50%)	1 (17%)	2 (33%)		6
Alvíssmál [10]	950-975	2 (13%)	11 (73%)	2 (13%)		15
Helgakviða Hjörv.	950-975	11 (65%)		6 (35%)		17
Atlakviða	975-1000	4 (44%)	1 (11%)	4 (44%)		9
Fáfnismál	975-1000	5 (33%)	5 (33%)	5 (33%)		15
Sigrdrífumál	975-1000		3 (33%)	5 (55%)	1 (11%)	9
Brot af Sigurðark.	975-1000	2		1		3
Gudrúnarkviða I	975-1000	2		2		4
Gudrúnarkviða III	975-1000			1	1	2
Hymiskviða	975-1000	3 (38%)		5 (63%)		8
Helreið Brynhildar	1000-1025	1 (20%)	1 (20%)	2 (40%)	1 (20%)	5
Gudrúnarhvöt	1000-1025	1		1		2
Helgakv. Hund. I	1000-1025	2 (15%)		11 (85%)		13
Oddrúnargrátur	1000-1025	1 (33%)		2 (67%)		3
Sigurdarkv. hin sk.	1050	1 (17%)	1 (17%)	4 (67%)		6
Atlamál	1050	8 (30%)	9 (33%)	9 (33%)	1 (4%)	27
Grípisspá	1150-1200	2 (15%)	2 (15%)	9 (69%)		13
Total		125 (34%)	72 (19%)	151 (40%)	19 (%)	367

Of the 223 instances of *sá* with a relative clause, 151 have *sá* adjacent to *er* (and in the same line of poetry). This is almost always line-initial (or following *ok* 'and'), which is strongly suggestive that *sá* introduces the relative clause (9).

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[9] These are the dates proposed by Finnur Jónsson (1920), cited in Fidjestøl (1999: 106).

[10] Of the 11 instances of *sa* separated from *er,* 8 are in a formulaic refrain (stanzas 15, 17, 19, 21, 23, 25, 31, and 33).

(9) þaðan   koma   **dǫggvar**, /   **þær=s**   í   dala   falla   (*Völuspá* 19)
    thence   come   dews   SÁ.PL=RP   in   dales   fall
    'From there come the dews, which fall in the dales'

Such examples are infrequent in texts dated by Finnur earlier than 925 and especially frequent in texts purportedly composed after the year 1000; to the extent that Finnur's dates are reliable, this suggests that the relative use of *sá* developed during the period in which the earlier Eddic poems were composed. (For a statistical analysis, see section 4.)

In the other 72 instances in which *sá* precedes a relative clause, it is not in the same line as the relative clause. Sometimes, *sá* immediately precedes the relative clause, but a metrical break intervenes (10). Assuming that the metrical division is equivalent to a clause boundary, examples of *sá* like (10) are unlikely to be relative pronouns. In other examples, another word intervenes between *sá* and the relative clause, clearly ruling out the possibility that it is a relative pronoun (11):

(10) í   ey   **þeiri** /   **er**   Algræn   heitir   (*Hárbarðsljóð* 17)
    in   island   SÁ   RP   A.   is.called
    'in the/that island, which is called Algræn'

(11) a.   hvé   **sá**   hestr   heitir /   **er**   hverjan   dregr   (*Vafþrúðnismál* 17)
        how   that   horse   is.called   RP   each   drags
        'what that horse is called, that each (day) drags …'

    b.   Bítia   þér   **það**   sverð /   **er**   þú   bregðir   (*Helgak. Hund. II* 33)
        bite-SUBJ-not   you   SÁ   sword   RP   you   draw-SUBJ
        'May the/that sword that you draw not cut for you'

These instances of *sá* are therefore part of the antecedent NP, i.e. they are either demonstrative determiners or correlative pronouns.

Given the strict metrical rules of Old Norse poetry, we can use the metrical position of the relative particle and the various pronouns to help determine what their syntactic status might be. The *Greinir skáldskapar* database tags each word according to its position within the poetic line and whether it is in a stressed/alliterating position (a "lift") or an unstressed one (a "dip").

Table 11: Metrical position of *er, sá,* and other pronouns in the Eddic corpus

	er alone	*sá + er*	*hinn + er*	*hverr/hvað+er*	Total
er in anacrusis[11]	118	66	6	1	191
pron. + *er* in anacrusis		109	2	2	113
er in dip[12]	7	4			11
sá er in dip		20			20
stressed pronoun, *er* in dip		24	1	7	32
Total	125	223	9	10	367

Of the 367 relative clauses with *er*, in 304 instances, the particle alone, or the pronoun plus the particle, is in anacrusis, the optional, unstressed position at the beginning of a poetic line. This confirms that the line divisions of Eddic poetry often correspond to clause boundaries. It also strongly indicates that not only the relative particle, but also the accompanying pronoun *sá* is nearly always unstressed. This can be seen in example (9) above, in which the plural form of *sá,* the clitic form of *er,* and the preposition *í* are in anacrusis, the position preceding the first stressed word (lift) *dala*. Note that while the beginning of the metrical line allows for these additional syllables, the end of a line does not, so scanning *þær* in the previous half-line as in (9') would be unmetrical:

(9')   *þaðan koma dǫggvar þær / er …   (first half now has too many syllables)

Note also that the cliticization of *er* to *sá* indicates that the two are syntactically closely related. As Harbert (1992) argues for Gothic, this is additional evidence that *sá* is in the relative clause rather than in the antecedent NP.

Similarly, there are 31 cases of *er* alone or of *sá er* in a dip (unstressed position following a lift). This is further evidence that these items are generally unstressed. However, in such examples, the beginning of the relative clause is in the middle of the poetic line. In (12a), *sá* is likely a demonstrative as it functions as the subject of the matrix clause *ef sá er horskr,* while the relative clause is introduced by *er* alone. In (12b), the pronoun *það* and particle (along with the subject pronoun *tu*) are in a dip, because the lexical class items *orð* and *mæltir* must occupy the two stressed positions. Together with the cliticized spelling of *er* as *-s,* this indicates that the pronoun *það* is not a demonstrative but functions together with the particle to introduce the relative clause.

(12) a.   ef   **sá**   er   horskr   [CP **er**   hefir]   (*Skírnismál* 9)
        if   SÁ   is   wise   RP   has
        'if he is wise who has [it=the sword]'

     b.   orð   **það=s**   tu   mæltir   (*Grípisspá* 20)
        word   SÁ=RP   you   say
        'the word that you say'

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[11] The numbers for *sá + er, hinn + er,* and *hverr + er* in this row indicate that *er* alone is in anacrusis, while the pronoun occurs in a preceding line.

A final possibility is for the pronoun to be in a stressed position (lift), followed by unstressed *er* (in the dip). This occurs disproportionately often with *hverr/hvað* (7 of 10 instances) as in (13a), but it also occurs in about 10% of the instances of pre-relative *sá* (13b).[13]

(13) a. Hétu mik allir … / Hildi undir hjálmi, / **hverr er** kunni. (*Helreið* 6)
called me all   Hildr under helmet   who RP knew
'All … called me Hildr under the helmet, who knew (me).'

b. **þeir er** sótto / frá salar steini (*Völuspá* 14)
SÁ.PL RP sought   from hall-GEN stone
'(they) who from the hall's stone sought [seats]'

Let us now consider whether the pronouns are demonstratives, correlatives, or relatives. The comparison between *sá* and *hinn,* I believe, is telling. In 6 of the 9 instances of *hinn* (66.7%), *hinn* is in a separate line from the relative clause, and in a 7th instance, it is in a stressed metrical position. There are only two cases where *hinn* and *er* form a prosodic unit at the beginning of a line representing a relative clause. Thus it is unlikely that *hinn* is a relative pronoun at this stage of the language. *Sá,* on the other hand, is adjacent to *er* 153 times (69%), suggesting that the reanalysis of *sá* to a relative pronoun is well underway. The 70 instances in which *sá* is separated from *er* by a line break, together with the instances where *sá* is in a stressed position, can be taken as evidence for the continuation of the older use of *sá* as a demonstrative (or perhaps correlative) pronoun. There are several examples of correlative *sá* in the refrain-like stanzas toward the end of *Alvíssmál*:

(14) Segðu mér … / hvé **það öl** heitir / e**r** drekka alda   synir (*Alvíssmál* 33)
say   me   how SÁ ale is.called RP drink ages-GEN sons
'Tell me … what the ale is called that the sons of men drink …'

Here (and in the other variants of this stanza), *það* does not seem to be a demonstrative, as it does not anaphorically refer to previously mentioned ale. Thus there is clear evidence for *sá* as a demonstrative (12a), correlative (14), and relative pronoun (9) in the Eddic corpus.

3.2 Pre-relative-clause *sá* in skaldic poetry

The other main genre of Old Norse poetry, skaldic poetry, differs from Eddic poetry in a number of formal and thematic respects. Most importantly for this study, skaldic poems were composed by court poets known as skalds, many of whose names are known from historical sources, and the poems often discuss contemporary events. Thus unlike Eddic poetry, many skaldic poems can be dated with more or less certainty.

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[12] The four instances of *sá + er* in this row involve *er* alone in the dip, with *sá* occuring in a preceding line.
[13] This is especially common in the meter *ljóðaháttr*. Example (13b) is especially interesting, because *þeir* fails to show case attraction; thus it may be a demonstrative pronoun (the antecedent) rather than a relative pronoun.

I conducted a search for the relative particles *er* and *sem* in the poems of the *Skaldic Project* (Clunies Ross et al. 2012). Words in the database are lemmatized but not otherwise tagged (for details see Wills 2015); I was able to search for *er* as a relative particle, because the verb *er* 'is' is lemmatized under *vera* 'to be'. After removing adverbial uses of *er* and limiting the results to poems by known skalds, this yielded 294 instances of the particle *er* and 9 instances of *sem* in 96 poems.[14] These were the verified by hand and coded for date (as given in the documentation on the *Skaldic Project* website),[15] pronoun, particle, and the position of pronoun vis-à-vis the particle.

As we did in section 3.1 for the Eddic poems, let us examine the overall distribution of relative particles and potential relative pronouns in the skaldic corpus, shown in Table 12. Nearly all of the 303 relative clauses are introduced by *er*. More than two-thirds of these clauses are preceded directly or indirectly by the pronoun *sá*. A small number of relative clauses have the demonstrative *hinn* or one of the interrogatives (*hverr* or *hvað*). As in the Eddic corpus but unlike in the prose corpus, no relative clauses are introduced by *þessi*.

Table 12: Type of pronouns and relative particles in skaldic poetry

	sá	*þessi*	*(h)inn*	*hverr/hvað*	no pronoun	Total
er	211	0	40	10	33	294
sem	1	0	0	1	7	9
Total	212	0	40	11	40	303

Given the tiny number of instances of *sem,* these will not be included in the counts and analyses below.

Having seen that relative clauses in skaldic poems, as in the Edda, are often preceded by *sá,* let us take a closer look at the position of the pronoun with respect to the relative clause. Because the numbers for most individual poems are relatively small, in Table 13, I summarize the data by century in order to give a better overview of the diachronic trend. (The counts and approximate dates for each individual skald can be seen in Appendix 1.)

Table 13: Position of *sá* vis-a-vis *er* in skaldic poetry

century	*er* only	non-adjacent *sá* and *er*	adjacent *sá er*	hinn, hverr	Total
9th	5 (20%)	1 (4%)	10 (40%)	9 (36%)	25
10th	2 (6%)	5 (15%)	16 (48%)	10 (30%)	33
11th	13 (12%)	7 (7%)	70 (65%)	17 (16%)	107
12th	8 (9%)	3 (3%)	71 (77%)	10 (11%)	92
13th	1 (5%)	2 (11%)	12 (63%)	4 (22%)	19
14th	4 (22%)	3 (17%)	11 (61%)	0	18
Total	33 (11%)	21 (7%)	190 (65%)	50 (17%)	294

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[14] My analysis of Einarr Skúlason's poem *Geisli* is based on the digitization in *Greinir skaldskapar* rather than the one in the *Skaldic Project.*

[15] If the *Skaldic Project* website gives a range of dates for composition or the life of the skald, I list the latest year in the range (e.g. the year of the skald's death). For the statistical analyses below, skalds with only a century listed will be conservatively dated with the last year of that century, so e.g. Þjóðólfr ór Hvini will be assigned the year 899.

Of the 294 relative clauses with *er* in this data set, 214 (72.5%) are accompanied by *sá*. In most of these, *sá* and *er* are adjacent and in the same line. Because the *Skaldic Database* is not tagged for metrics, I could not automatically query whether these are in anacrusis, later dips, etc. However, I did inspect the examples and was able to tag most of the relative particles as line-initial or non-line-initial. Of 224 instances that I examined, 81 involved a line-initial relative marker. This includes cases where *er* alone begins the line containing the relative clause (15a), those in which *er* is preceded by a demonstrative in an earlier line (15b), and those in which *sá* and *er* introduce the line together (15c):

(15) a. feigðarorð / **es** at Fjǫlni kom. (*Ynglingatal* 1)
          doom-word   RP at F.   came
          'the word of doom that fell upon Fjǫlnir'

      b. Ok sá brann / ... menglǫtuðr / **es** mara kvalði. (*Ynglingatal* 3)
          and SÁ burned   ring-destroyer   RP   m.   tormented
          'And that ring-destroyer, whom the *mara* tormented, burned …'

      c. en gjǫldin jók / **sá=s** gísla tók. (*Runhenda* 2)
          but payments-DEF increased   SÁ=RP hostages took
          'but he who took hostages increased the payments.'

Again, on the assumption that metrical breaks reflect some syntactic reality, the line-initial position of *er* can be taken as evidence that in examples like (15a) and even (15b), *er* alone introduces the relative clause, while in (15c) *sá* has taken on the function of a relative pronoun and works together with *er* to introduce the clause.

This leaves 143 examples where *er,* or a pronoun plus *er,* is not line initial but in a dip. This represents nearly 64% of the examples—a proportion far higher than in Eddic poetry. The reason for this difference between Eddic and skaldic relative clauses could be that the main skaldic meter, *dróttkvætt,* has longer lines than the main Eddic meter. With additional metrical positions, we find many examples like (16) below, where the antecedent is immediately followed by a line-internal relative marker:

(16) Gamla kind, **sú=s** granda / … véum þorði. (Einarr sk. *Hákonardrápa*)
     Gamli-GEN kin SÁ=RP destroy   sanctuaries dared
     'Gamli's kin, who dared to destroy the sanctuaries, …'

In such cases, although the position of *sá er* vis-a-vis a line break does not indicate whether *sá* and *er* function together to introduce the relative clause, their position within the line does: in 93 of the examples, *sá er* is in a dip, as in (16). With *sá* and *er* together occupying this unstressed position, it seems unlikely that *sá* in such cases is a post-nominal demonstrative pronoun; rather the two words function together to introduce the relative clause.

As we found in the Eddic corpus, examples of adjacent *sá er* are less frequent in texts before the year 1000 and increasingly frequent thereafter. As I claimed for the Eddic corpus,

this suggests that the reanalysis of *sá* as a relative pronoun occurred early in this period. The increase in relative *sá* peaks in poetry in the 12th century, just as Icelandic prose emerges, and then begins to decline slightly over the next two centuries. (This will be analyzed statistically and compared to the prose and Eddic corpora in section 4.)

As a final note, relative clauses accompanied by a pronoun other than *sá* were particularly frequent in the first two centuries of the skaldic period:

(17) Ok varð   hinn / **es** Ôlfr of vá / vǫrðr   vestals / of   veginn liggja,
     and became HINN   RP O. PRT slew guardian altar-GEN PRT slain   lie
     'And that guardian of the altar, whom Álfr slew, had to lie slain.'
                              (*Ynglingatal* 11)

Such clauses make up 36% of the relative clauses in the 9th century and 30% in the 10th. These seem to be genuine instances of demonstrative or correlative pronouns in the antecedent NP, lending support to my claim that *sá* in examples like (15b) is also a demonstrative or correlative. The frequency of these examples in the earlier centuries of skaldic poetry suggests that early on, *sá* and *hinn* competed as correlative pronouns, but that by the 11th century *sá* has become specialized in the function of introducing relative clauses, ultimately being reanalyzed as part of the relative clause.

3.3   Prose and the two types of poetry compared

Let us now sum up the developments by century in the various genres. Setting aside the infrequent particle *sem* and the infrequent pronouns *þessi, hinn,* and *hverr/hvað,* Table 14 focusses on the distinction between *er* alone, *er* with *sá* in a previous line (likely demonstrative/correlative), and adjacent *sá er* (which I have argued indicates relative *sá*). Skaldic poems from the 9th century have the low rates of *sá er*, on par with Eddic poetry. Over time, *sá er* increases, hitting a high of 87% of the relative clauses in 12th-century skaldic verse, around the time when the earliest Icelandic prose emerges. Then *sá er* declines in the 13th- and 14th-century poems, on a similar trajectory to the steep decline of *sá er* in prose.

Table 14: Position of *sá* vis-a-vis *er* in all three genres[16]

Genre (date)	*er* only	non-adjacent *sá* and *er*	adjacent *sá er*	Total
Eddic poetry (900-1200?)	125 (36%)	72 (21%)	151 (43%)	348
9th c. skaldic	5 (31%)	1 (6%)	10 (62%)	16
10th c. skaldic	2 (9%)	5 (22%)	16 (70%)	23
11th c. skaldic	13 (14%)	7 (8%)	70 (78%)	90
12th c. skaldic	8 (10%)	3 (4%)	71 (87%)	82
13th c. skaldic	1 (7%)	2 (13%)	12 (80%)	15
14th c. skaldic	4 (22%)	3 (17%)	11 (61%)	18
12th c. prose (1150)	89 (15%)	82 (14%)	431 (72%)	602
13th c. prose (1200-1275)	172 (23%)	209 (28%)	369 (49%)	750
14th c. prose (1300-1350)	231 (24%)	230 (24%)	506 (52%)	967
Total	650 (22%)	614 (21%)	1647 (56%)	2911

4   Relative clauses as a criterion for dating Old Norse poems

If demonstrative *sá* was reanalyzed as a relative pronoun just before the literary period, perhaps we can add relative clause type to list of criteria for dating Eddic poetry by Fidjestøl (1999).[17] In this section, I will use the rates of various types of relative clauses in datable prose and skaldic poetry to attempt to establish a chronology of the demonstrative>relative reanalysis. Having done that, I will show how such a chronology might be used to confirm the dates of composition of some individual Eddic poems.

4.1   The chronology of demonstrative vs. relative *sá*

Table 14 above shows that the rate of *sá* non-adjacent to *er* (i.e. *sá* as a demonstrative pronoun) is basically stable, ranging from 4% of the examples of *sá* up to 28%, with no discernable diachronic pattern. I believe that this is because throughout the history of Icelandic, demonstrative *sá* has always been possible, even in the presence of a relative clause. By contrast, adjacent *sá + er* (likely relative *sá*) is not particularly frequent in the most archaic skaldic poetry, namely that from the 9th century. Thus the oldest kind of relative clause appears to be that formed by *er* alone.[18] Starting in the 10th century, relative *sá* increases over time, peaking in the 12th century (in both prose and skaldic poetry) before declining again. Because the Eddic poems are extant in the *Codex Regius* (*ca.* 1260, likely copied from an even older manuscript) and were supposedly composed orally some time before being put to velum, we can rule out that the Eddic poems date from the 14th century or even the 13th century, when relative *sá er* began to decline in favor of *sem.* Therefore, as a

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[16] The counts in this Table for the two genres of poetry come from Tables 10 and 13 above. The counts for prose come from Sapp (2019); note that the totals for each century amount to the numbers for *er* in Table 1, minus the 85 co-occurrences of *er* with *þessi, hinn,* and *hverr* given in Table 6.

[17] See Sundquist 2002 for a similar approach to relative clauses in *Beowulf*.

[18] *Pace* Lindblad (1943), who argues that the earliest relative clauses were introduced by *sa,* evidenced by the Blekinge runic inscriptions. Note however, that both examples from Blekinge involve free relatives, so it is very likely that *sá* is actually the antecedent rather than the relative marker. Moreover, Larsson (1931: 38-40) gives other runic examples with demonstrative *sa* distant from the RC, or no demonstrative, but with *iaR* or *sum* as a relative particle, i.e. identical to the construction in Eddic poems that I claim to be the most archaic type.

general rule, the higher the proportion of relative *sá* in a given Eddic poem, the later its date of composition might be.

4.2   Applying this to the Edda

If the above sketch is correct, we can use the frequency of different types of relative clauses to confirm the relative chronology of Eddic poems. My method here will follow that used by Pintzuk & Ecay (2016), who compare the frequencies of 10 syntactic features in *Beowulf* with those in a large corpus of datable OE poetry and prose. For each feature, they plot a regression line based on the development in the datable texts, and then they draw a horizontal line representing the frequency of that feature in *Beowulf.* The intersection of the *Beowulf* line with the regression line for the datable corpus gives a rough impression of the probable date for *Beowulf.* Pintzuk & Ecay find that for most features, the *Beowulf* line intersects the regression line around the year 850, suggesting an early date of composition for that poem.

The first step in applying Pintzuk & Ecay's method to the current study is to plot a regression line for the rise of *sá er*. In order to do this, the various types of relative clauses discussed in this paper need to be converted into a binary variable; I test relative clauses beginning with adjacent *sá er* against the relative clauses with other markers (*er* alone, *hinn er, hverr er*, and non-adjacent *sá er*). I also exclude examples from the 13th and 14th century. There are two reasons for this exclusion. First, the rise and fall of *sá er* throughout the whole period is a non-linear development, so excluding the latter centuries creates a linear development: the rise of *sá er* from the earliest poetry through the 12th century. Secondly, the Eddic poems are very likely to have been composed before the 13th century (being found in a mid-13th century manuscript), so for comparing Eddic poems with the other genres, the latter centuries are irrelevant.

Before examining the regression analysis, let's review the raw numbers. Table 15 below shows the counts for adjacent *sá er* vs. relative clauses with *er* but no adjacent *sá*. Viewed this way, with Finnur's dates being used as a rough guide, the impression emerges that the purportedly 9th-century Eddic poems have relatively low rates of *sá er,* on par with the 9th-century skalds. Similarly, most of Finnur's 10th century Eddic poems have *sá er* less than 50% of the time, in line with the 10th-century skaldic ones, with the notable exceptions of *Völuspá* and *Hymiskviða.* Most poems from Finnur's late group (except *Atlamál*) have *sá er* in more than 67% of relative clauses; this is in agreement with the high rates of *sá er* in 11th- and 12th-century skaldic verse and in 12th-century prose.

Table 15: *sá er* vs. other types in Eddic poetry vs. other genres[19]

poem	date	*er* without adjacent *sá*	adjacent *sá er*
Hávamál, 111-37	875-900	6 (60%)	4 (40%)
Þrymskviða	900	3	1
Völundarkviða	900	10 (67%)	5 (33%)
Skírnismál	900	13 (81%)	3 (19%)
Cf. 9th c. skaldic		15 (60%)	10 (40%)
Vafþrúðnismál	900-925	13 (93%)	1 (7%)
Grímnismál	900-925	15 (79%)	4 (21%)
Hárbarðsljóð	900-925	11 (73%)	3 (27%)
Hávamál (rest)	900-925	31 (47%)	35 (53%)
Völuspá	935	3 (23%)	10 (77%)
Lokasenna	935	11 (62%)	5 (38%)
Hamðismál	925-950	1	2
Reginsmál	925-975	4 (67%)	2 (33%)
Helgakviða Hund. II	925-950	12 (75%)	4 (25%)
Gudrúnarkviða II	925-950	1	3
Alvíssmál	950-975	13 (87%)	2 (13%)
Atlakviða	975-1000	5 (56%)	4 (44%)
Fáfnismál	975-1000	10 (67%)	5 (33%)
Helgakviða Hjörv.	975-1000	11 (65%)	6 (35%)
Sigrdrífumál	975-1000	4 (44%)	5 (56%)
Brot af Sigurdarkv.	975-1000	2	1
Gudrúnarkviða I	975-1000	2	2
Gudrúnarkviða III	975-1000	1	1
Hymiskviða	975-1000	3 (37%)	5 (63%)
Cf. 10th c. skaldic		17 (52%)	16 (48%)
Helreið Brynhildar	1000 - 1025	3	2
Gudrúnarhvöt	1000 - 1025	1	1
Helgakviða Hund. I	1000 - 1025	2 (15%)	11 (85%)
Oddrúnargrátur	1000-1025	1	2
Sigurdarkv. hin sk.	1050	2 (33%)	4 (67%)
Atlamál	1050	18 (67%)	9 (33%)
Cf. 11th c. skaldic		37 (35%)	70 (65%)
Grípisspá	1150-1200	4 (31%)	9 (69%)
Cf. 12th c. skaldic		21 (23%)	71 (77%)
12th century prose	ca. 1150	189 (17%)	431 (70%)

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[19] The counts in this Table for the poetry come from Tables 10 and 13. The total of 189 examples of non-*sá-er* in 12th-century prose represent 89 instances of *er* alone and 82 instances of non-adjacent *sá er*, plus 18 instances of other pronouns with *er;* this 189 plus the 431 examples of *sá er* yields a total of 620, matching the number of instances of *er* in the 12th century listed in Table 1. Percentages are not shown for Eddic poems with 5 or fewer tokens.

The regression analysis was conducted on texts with known dates, i.e. skaldic verse and 12th-century prose texts. Although binned by century in the table above, each relative clause was assigned a precise date, based on the documentation provided by *IcePaHC* for the prose texts and the *Skaldic Database* for the skalds. The resulting analysis shows a significant effect of date on the choice of *sá er* vs. the other types of relative clauses ($p = 0.014$). This effect is illustrated in Figure 4, which shows an increasing likelihood of *sá er* the later a text is composed.
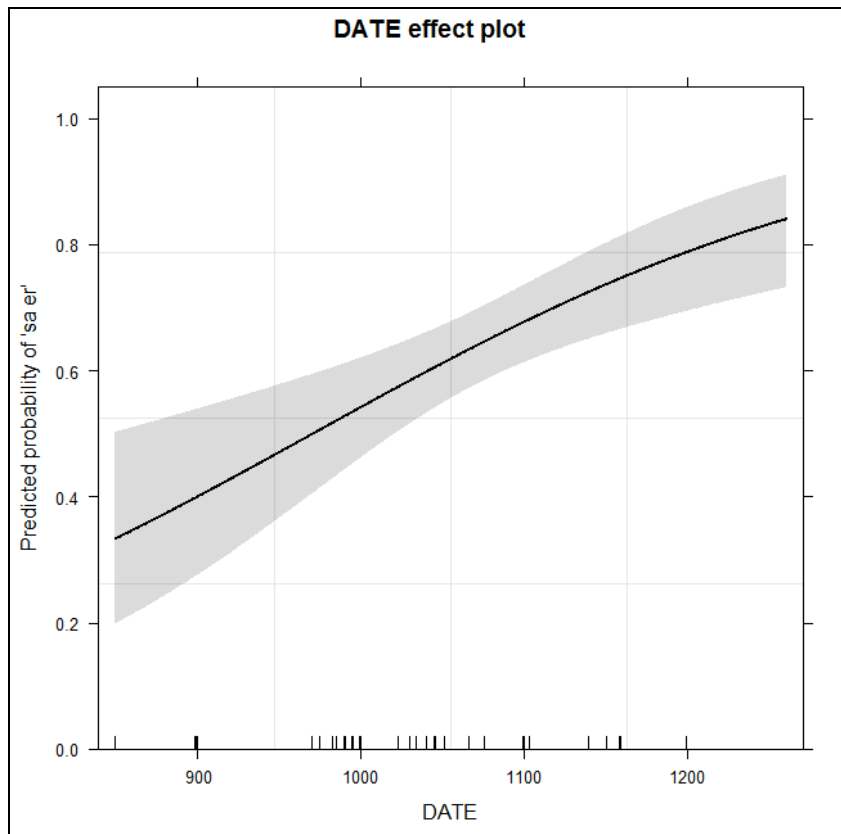

Figure 4: Regression line for *sá er* vs. other types in skaldic poetry through 12th cent.

The next step in Ecay & Pintzuk's method is to find the intersection between the regression line and the rate of that feature in the text of questionable date. While we could do this for each of the Eddic poems, many of the Eddic poems have too few examples of relative clauses to make this a reliable method. With that in mind and in the interest of space, I have chosen several Eddic poems that have at least 10 relative clauses. Using the percentage of adjacent *sá er* from Table 10, I have drawn a horizontal line representing the frequency of *sá er* in the selected poems.

Figure 5 shows the intersections of 5 purportedly early poems with the regression line:
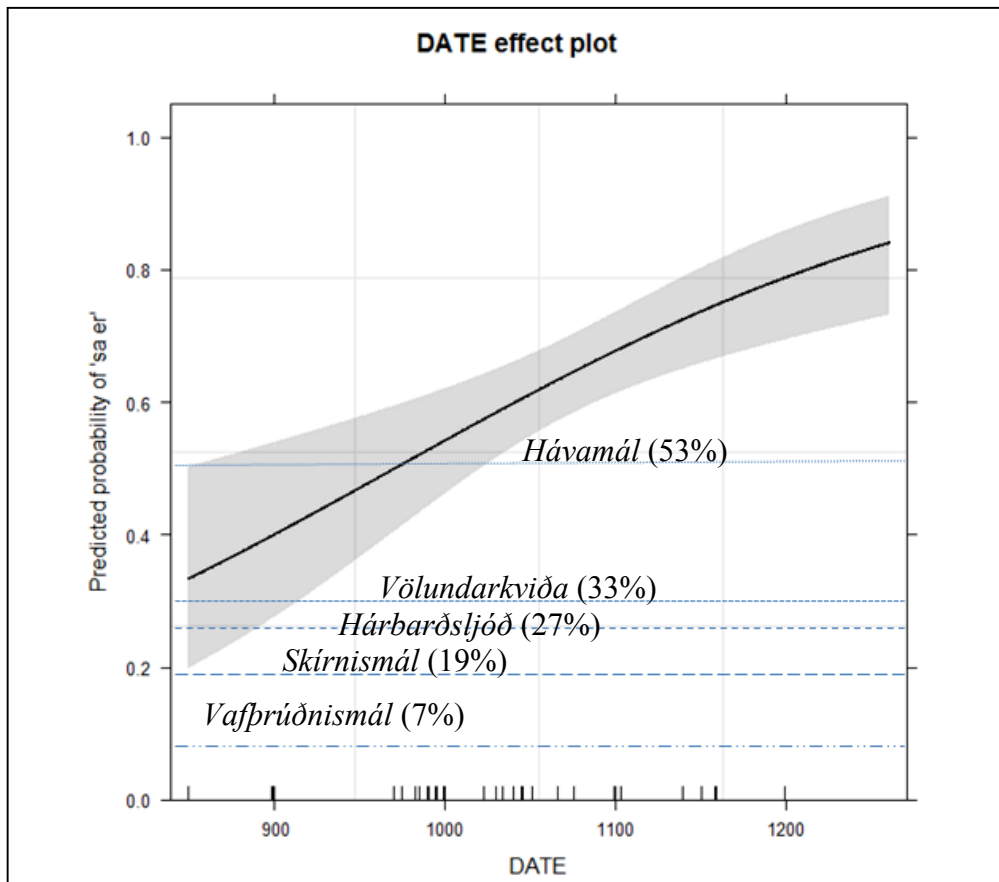
Figure 5: Rates of *sá er* in Eddic poems composed 900-925 (acc. to Finnur Jónsson)

The rates of *sá er* in all of these poems intersect the regression line (or its confidence band, shown in gray) at an appropriately early date. The rate of adjacent *sá er* in *Hávamál* (excluding stanzas 111-137) intersects the regression line at about the year 975, falling within the confidence band roughly representing the years 850-1025. While there is much debate on the dating of this poem, this result is consistent with those scholars who believe *Hávamál* to be relatively old, e.g. Finnur's dating of these stanzas to 900-925, basically confirmed by Fidjestøl (1999: 221, 245). *Völundarkvíða* and *Hárbarðsljóð,* dated by Finnur to 890-925, interect the confidence band in the period 850-900 but would intersect with the regression line itself much earlier. *Skírnismál* and *Vafþrúðnismál,* also dated by Finnur to 890-925, have rates of *sá er* so much lower than the 9th century skaldic poems, that this model seems to predict that they were composed perhaps as far back as the 8th century, an implausibly early date. Nevertheless, this method confirms claims by Finnur, Dronke (1997: 288, 402), and Evans (1989) that these poems are early and speaks against scholars who argue for later dates, e.g. Kristjánsson (1997) who puts *Vafþrúðnismál* after 1000 and von See (1989) who believes that *Hávamál* is mostly the product of 13th-century learning.

However, the results are not nearly so neat if we look at four of the longer poems that are dated by Finnur between 925 and 1000. *Völuspá* was dated to 935 by Finnur, although scholars such as Lönnroth (2003) have argued that parts of the poem must be younger. The line for *Völuspá* intersects the regression line around 1175, but it intersects the grey

confidence band as early as 1100. By contrast, the other three supposedly 10th-century poems pattern more with 9th-century skaldic poems in their frequencies of *sá er*.
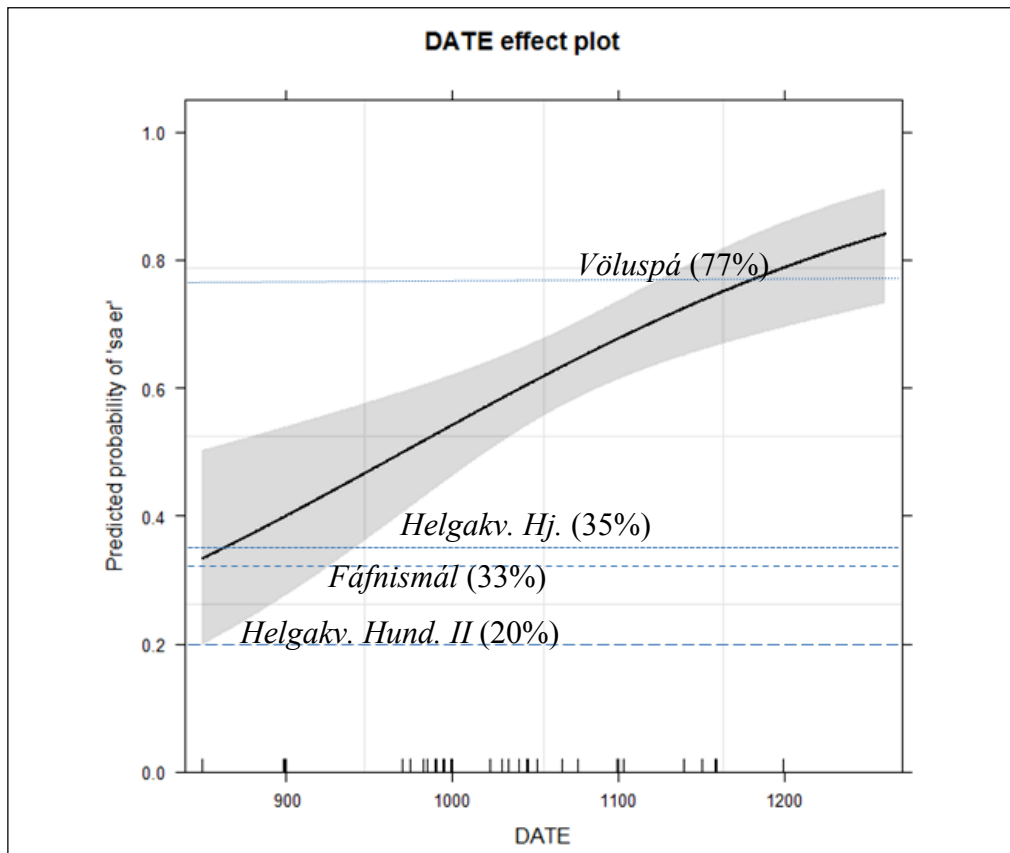

Figure 6: Rates of *sá er* in Eddic poems ca. 925-1000 (Finnur Jónsson):

Finally, not all of the purportedly later poems pattern as expected. The supposedly 11th-century *Helgakv. Hund. I* and *Atlamál* have wildly different frequencies of *sá er,* such that the former seems to be implausibly late and the latter seems incredibly early. This is especially troubling in the case of *Atlamál,* as there is independent linguistic evidence that this poem is relatively late: 3 of the 4 instances of the innovative relativizer *sem* in the Edda are from this poem, and it shows an alliterative type that must be from the 11th century or later (Þorgeirsson 2016). However, the intersection of *Grípisspá* with the confidence band before 1200 is entirely compatible with Finnur's dating of the poem to the 12th century, and this daing agrees with the poem's use of late types of negation (Åkesson 2005) and alliteration (Þorgeirsson 2016):
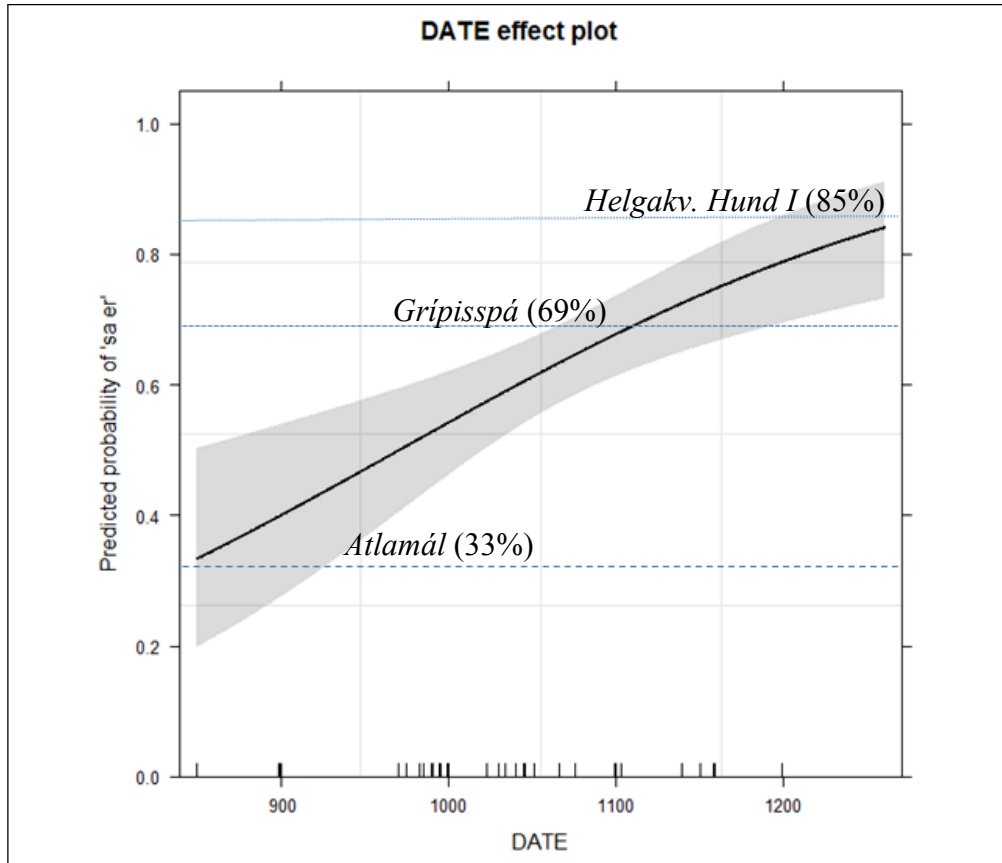
Figure 7: Rates of *sá er* in purportedly late Eddic poems:

It should be noted, however, that there are several limitations of applying this method to my Eddic and skaldic corpora. First, my study examines only one feature, so the results are not as reliable as Pintzuk & Ecay's, who analyzed 10 features. Secondly, my skaldic corpus is not particularly large. Thirdly, some Eddic poems have a very small number of tokens, in which case using percentages may imply a larger effect size than is warranted. Nevertheless, while the frequency of *sá er* cannot by itself reliably predict the date of an Eddic poem, it can be added to the list of syntactic and metrical criteria used in works such as Fidjestøl (1999), Åkesson (2005), and Þorgeirsson (2016). In future work, I plan to examine the interplay of all of these dating criteria in order to come to a new dating scheme for the Edda that is based on linguistic rather than literary grounds.

5   Conclusions

This paper shows that in addition to its demonstrative use, *sá* can be a relative pronoun in Eddic poetry, in skaldic poetry, and in Old Icelandic prose. The goals of this study were: i) to provide evidence for the reanalysis of *sá* to a relative pronoun in the pre-prose period, ii) to establish a timeline for that reanalysis based on the frequencies of different types of relative clauses in early prose and datable skaldic poetry, and iii) use that timeline to help confirm dates of Eddic poetry.

In my prose corpus (*IcePaHC*), *sá* is very frequent before the relative marker *er* and in that context often lacks demonstrative force. This relative use of *sá* is very frequent in 12th-

century prose but begins to decline already in the 13th. Therefore, I proposed in Sapp (2019) that *sá* must have been reanalyzed from a demonstrative pronoun to a relative pronoun before the 12th century. This hypothesis is supported in the current study of Eddic and skaldic poems.

In datable skaldic poems of the earliest period, *sá er* competes with other relativization strategies*,* but by the 12th century as many as 77% of relative clauses begin with *sá er*. While the dates of Eddic poems are not precisely known, those that are considered to be more archaic pattern with the older skaldic poems, while supposedly later Eddic poems such as *Grípisspá* pattern with the 12th-century skaldic poems Old Norse poetry. Taken together with the prose data, this indicates that relative *sá* arises in the 9th century, is fully established as a relative pronoun in the 11th century, and peaks in its use in the 12th century, before it starts to be replaced by *sem.*

Finally, having established a timeline for the rise of relative *sá*, I attempted to use the rates of various types of relative clauses to date individual Eddic poems. While the results of this were mixed, they suggest that relative *sá* could be used in conjunction with other linguistic criteria in future studies on the dating of Eddic poetry.

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Appendix 1: Position of *sá* vis-a-vis *er* in skaldic poetry, listed by skald

skald	date	*er* only	non-adjacent *sá, er*	adjacent *sá er*	hinn, hverr	Total
Bragi	ca. 850				2	2
Þjóð	9th cent.	1	1	2	2	6
Þhorn	ca. 900	4		8	5	17
9th century total		5 (20%)	1 (4%)	10 (40%)	9 (36%)	25
KormQ	970				1	1
Glúmr	975		1			1
Egill	983		1	1		2
Tindr	985		1	1		2
Eskál	990			1	1	2
Eyv	990		1	4	2	7
Hfr	995	1		5	2	8
Ggnæv	10th cent.				1	1
Gsind	10th cent.			1	1	2
Gunnh	10th cent.	1				1
ÞHjalt	10th cent.		1		2	3
Þjsk	10th cent.			1		1
Eil	ca. 1000			1		1
UlfrU	ca. 1000			1		1
10th century total		2 (6%)	5 (15%)	16 (48%)	10 (30%)	33
ÞKolb	1023	1		4		5
Jǫk	1030			1		1
Þflek	1030		1			1
Þorm	1030	1	1			2
Þloft	1034			1	1	2
Sigv	1045	5	2	31	7	45
Þfagr	1051			3	1	4
Arn	1066	2	1	10	1	14
Hharð	1066	1	1	1		3
ÞjóðA	1066	1	1	6	1	9
ÞSkall	1076				1	1
Halli	11th cent.			2	1	3
Ill	11th cent.			1		1
Leiðó	11th cent.			1		1
Okík	11th cent.			1		1
Ótt	11th cent.	1		3		4
Refr	11th cent.				1	1
Skrau	11th cent.			1		1
Snæbj	11th cent.			1		1
Stein	11th cent.	1		1	2	4
Þórál	11th cent.				1	1

Valg	11th cent.			1		1
Bkrepp	ca. 1100			1		1
11th century total		13 (12%)	7 (7%)	70 (65%)	17 (16%)	107
Mark	1103	1		3	1	5
Mberf	1103	1		2		3
Ív	1139			4		4
ESk	1153	3	1	33	3	40
Gísl	1150		1	2		3
Rv	1158			3		3
Ník	1159	1		1		2
Árm	12th cent.			1		1
Gamlkan	12th cent.		1	16	2	19
RvHbreið & Hbreið	12th cent.	1		4	3	8
HSt	12th cent.	1		1		2
Oddi	12th cent.				1	1
Sigm	12th cent.			1		1
12th century total		8 (9%)	3 (3%)	71 (77%)	10 (11%)	92
Kolb	1208			1		1
GunnLeif	1218		1	2		3
Bjbp	1223			2	1	3
SnSt	1241			3	2	5
Ólhv	1259		1		1	2
Sturl	1284			3		3
Ólsv	13th cent.	1		1		2
13th century total		1 (5%)	2 (11%)	12 (63%)	4 (22%)	19
14th century (Kálfr)		4 (22%)	3 (17%)	11 (61%)	0	18
Total		**33 (11%)**	**21 (7%)**	**190 (65%)**	**50 (17%)**	**294**