

Readers' Reaction to Tense Switching in *Hrafnkels saga freysgoða*: Combining Corpus-Linguistic and Experimental Methods

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Abstract: Abrupt switches between different tenses (past-to-present, present-to-past) are known from oral narratives and medieval literature in Romance languages, but there is little consensus about their function and interpretation. In this study, we combine corpus-linguistic tools with experimental methods and quantitative analysis to shed light on the use of tense switches in a medieval Icelandic prose text (*Hrafnkels saga freysgoða*). Specifically, we part-of-speech tagged all words in *Hrafnkels saga freysgoða* and then determined where verbs exhibit tense switches. In a second step, we had 19 subjects mark all parts in the saga they consider climactic so as to study the overall as well as subject-specific correlations between climaxness and tense switches. In the vast majority of subjects, we observe the expected correlation, and for most of these it is significant. We discuss the findings with regard to their implications for tense switching as a performative device and the position of sagas on an orality-literacy continuum.

1. Introduction

1.1 Aims of the study

The present study aims at bringing together linguistic and corpus-based methodology with literary criticism and traditional philological studies. We intend to do this by analyzing a well-known phenomenon in Romance medieval literature: tense alternations within a poetic or prose text that seem to defy any temporal logic or discourse cohesion requirements. Both linguists and traditional philologists have noticed these bizarre tense alternations in medieval French and Spanish epic poems and in modern English narrative styles (see references in Section 1.2 below), but there is little consensus as to their function, if any function can indeed be ascribed to them. Tense switching (TS) also happens in medieval Icelandic prose, and as far as we know, no one has ever studied these alternations in detail. This article therefore is a first approach to explore tense shifts and their relation to climactic moments in the narration. We hypothesize, in fact, that their use in medieval Icelandic prose is not random, but rather fulfills an alerting, possibly performative function within the context of the story being told. Not unlike the uses of the present indicative tense in modern English described by Wolfson (1978, 1979), we will argue that these tense alternations

are probably a remnant of oral story-telling, also supported by the performative kvöldvaka tradition of reading the sagas out loud, which continued well into the 20th century (Guttormsson 1989, Eggertsdóttir 2006, Sigmundsdóttir 2016). In order to grasp the development of our argument, however, it is important to spend a few paragraphs on theories of narrative structure, the stylistic features of the sagas in general, and specifically of *Hrafnkels saga freysgoða*, which we will use as the litmus test for our hypothesis.

1.2 Theories of narrative structure

To understand the nature of literary climaxes, one must refer to narrative structure. Many have written on this topic, starting with ancient Greek philosophers such as Aristotle down to the Russian formalist school and beyond. Most commonly accepted theories of narratology, however, share some main points about linear narrative structures, be they found in folktales, theater, or novels. In his *Poetics*, Aristotle describes fictional narratives as “art which imitates [nature] by means of language” (Part I). Given the importance Aristotle attributes to the “structure of the plot as a requisite” for good artistic composition, we can infer that good fiction must be composed of sequences of events on a story line, interspersed by descriptions of characters (“men in action” in Aristotle’s words) and settings:

[...] an action implies personal agents, who necessarily possess certain distinctive qualities both of character and thought; for it is by these that we qualify actions themselves, and these – thought and character – are the two natural causes from which actions spring, and on actions again all success or failure depends. Hence, the Plot is the imitation of the action – for by plot I here mean the arrangement of the incidents. By Character I mean that in virtue of which we ascribe certain qualities to the agents. [...] Dramatic action, therefore, is not with a view to the representation of character: character comes in as subsidiary to the actions. Hence the incidents and the plot are the end of a tragedy; and the end is the chief thing of all. (*Poetics*, Part VI)

Participating personae can be related to one another by family ties, friendships, work or living environments, and events, therefore, follow each other through cause and effect, and are impelled by the ‘character’ of the participants. As for the important parts of the plot, Aristotle maintains that

Every tragedy falls into two parts – Complication and Unraveling or Denouement. Incidents extraneous to the action are frequently combined with a portion of the action proper, to form the Complication; the rest is the Unraveling. By the Complication I mean all that extends from the beginning of the action to the part which marks the turning-point to good or bad fortune. The Unraveling is that which extends from the beginning of the change to the end. (*Poetics*, Part XVIII)

Reversal of fortune and recognition are also important parts of Aristotle's best "complex" tragic plots, especially when they take place at the same time (such as the recognition that follows Oedipus's revelation about who he is, and the reversal of fortune entailed in his connection to his mother and father). In Greek theater, the part of a play developing the main action and leading to the catastrophe is called *epitasis* (as defined by Merriam Webster's online dictionary). It is this part of the *epitasis* that corresponds to Aristotle's "turning point," and which is otherwise defined as a *climax*, or *climactic point* in much of the secondary literature on literary structure, as well as in the experimental psychology literature on reading, imagery and event recall (see for instance Sadoski 1983, Sadoski and Goetz 1985, and Sadoski et al. 1988, 1990). Sequential images as in comics, film or verbal discourse can all be analyzed according to similar basic narrative structure schemes: several approaches are summarized by Cohn (2013: 418, Table 1, but see also Labov and Waletzky 1967, Labov 1972, Fleischman 1986). Cohn's own approach keeps the events underlying the narrative, and the narrative sequence that orders them strictly separate, according to his '(Visual) Narrative Grammar' (Cohn 2013, Cohn and Wittenberg 2015). However, all approaches – from Aristotle's *Poetics* to Japanese theatre – share the fact that the climax or turning point is the most intuitively salient event of the narration, which then closes with the denouement, catastrophe, or resolution.

In order to alert the reader to particular contents, authors use different techniques that have been recognized both from a stylistic and narratological perspective (ornate prose and *skaz*, for instance, cf. Schmid 2010: 122-137) to experimental psychology (foregrounding and defamiliarization, cf. Miall and Kuiken 1994). The fact that the Russian formalists define the defamiliarization produced by *skaz* as an imitation of a (lower) oral genre in a more formal writing style encourages our hypothesis that tense switching in medieval literature could perform a similar function. TS could perhaps induce the same defamiliarization in the audience reading or listening to the Old Icelandic sagas being read aloud, and force readers/listeners to pay more attention to the story, because the switches made the text cognitively more taxing.

1.3 The sagas as narrative genre

The Icelandic Family Sagas (also called Sagas of Icelanders) are a group of medieval Icelandic tales in prose describing the lives and feuds of families that settled in Iceland between the end of the ninth and the beginning of the tenth century. They are anonymous texts, which were written between the thirteenth and fourteenth century, possibly in Christian monasteries, which were not only religious institutions, but also important cultural and literary centres (Hjálmarsson 1993: 44, Jónsson 1904-5: 223-4). They are arguably some of the most original and artistically valuable medieval works, "brilliant narratives" (Kristjánsson 1992: 203), on a par with other better known and more appreciated European works of art: epic poems such as *Beowulf* or the French *Chanson de Roland* and Chrétien de Troyes's chivalric romances.

Their originality, the everyday nature of their topics, and their formal characteristics make them defy a clear classification, as Byock pointed out (1992: 44), since they are neither historical chronicles nor romances. They have a clearly recognizable style: they are stylistically sparse, sober, and realistically told (Kristjánsson 1992: 207-8). Although they are never schematic and not necessarily reticent, words are certainly never wasted and understatement is a common feature. Unlike in medieval French romances, however, the narrator is mostly invisible and the narrative technique is dramatic: dialogue is frequent, revealing the subjective understanding that characters have of the events they experience.

The Family Sagas are prose narratives that concentrate on the life of the main character(s), often including their family and ancestors, and revolve around conflicts between individuals, escalating into fully blown feuds among families and their supporters (Andersson 1967, Byock 1992). Such conflicts are caused by real or perceived threats to an individual's "status, wealth, or honor" (Byock 1992: 44), but they are not just topics in these stories, they also form important structural nuclei of the narration, as will be seen below.

Precisely because they are difficult to classify as a genre, and because their popularity throughout the ages turned them into pillars of Icelandic identity, the origin of the Family Sagas was a hotly disputed topic for the best part of the 20th century. They were traditionally considered as quasi-historical oral tales, committed to writing by literate scribes, who had heard them as told by illiterate peasants, after being handed down orally from generation to generation. As such, their contents were often taken to be historically correct statements of life in Iceland during the settlement and the Commonwealth periods (on these views, see for instance Byock 2001: 21ff. and Kristjánsson 1992: 203ff.).

This theory of saga origin (called the 'free prose' theory of saga origins) was not only a firmly held belief among lay Icelanders, but also had academic champions, such as Finnur Jónsson, professor of Icelandic at Copenhagen (Jónsson 1923). However, this view detracted significantly from the sagas' value as literature: an influential 18th century Icelandic scholar described them as stories about 'farmers at fisticuffs', (quoted in Byock 1992: 54) that is, uncouthly told tales of everyday occurrences. Paradoxically, in order to enhance the value of the sagas, they had to be recovered as Iceland's contribution to world literature (Byock 1992), i.e. as works of fiction. Thus, a group of scholars of Icelandic from the beginning of the twentieth century, especially the very influential scholar Sigurður Nordal and his followers argued to consider them purely works of fiction from the pen of anonymous authors ('bookprose theory'). To do so, the historical value of these texts had to be diminished, and as such, also the oral component in them. Nordal in fact goes so far as declaring an *aut aut*.

Those who wish to maintain that it [Hrafnkels saga] follows the pattern of oral tradition must choose between these alternatives: either to turn a blind eye to the art of this saga, its technical skill and profound understanding, or else to alter completely the current conceptions about folktales and their

limitations, about the concerns and psychology of ordinary people (Nordal 1940, quoted in Byock 1993: 55)

Interestingly, some of the 'book-prose' arguments were based on Nordal's analysis of *Hrafnkels saga freysgoða*, which he described as "one of the most completely developed 'short novels' in world literature" (Nordal 1958: 55). *Hrafnkatla*, as *Hrafnkels saga* is commonly and affectionately referred to in Iceland, is in fact a particularly well-structured tale with no loose ends. The consensus of Icelandic literary scholars is currently a compromise between the free prose and book prose theories of saga origin, i.e. it is now commonly accepted that these texts were composed by mostly anonymous authors, who used a number of different sources at their disposal, some of which could be oral (Sigurðsson 2003, 2004, Danielsson 2002, Sävborg 2003 for an assessment of the *status quæstionis*). This recent socio-historical scholarship privileges a multi-disciplinary approach to the historical, economic, and social environment that gave rise to saga literature, where "oral, written, and social components of the extant sagas [are] intertwined in narratives exploring success and failure within the drama of Icelandic social life" (Byock 2001a: 74). However, there are also what Byock calls the "new-bookprosists", scholars who advocate for a strict separation between the Icelandic saga tradition and medieval Icelandic society and culture. These scholars still reject the oral origin of the sagas and consider them as "pure literary invention" (2001a: 71).

Zumthor's typology of oral texts is relevant for Iceland in the thirteenth century (Zumthor 1983, also discussed in Fleischman 1986: 206-207, note 20). He sets up a four-part typology of oral texts as a classification of the culture that produced them. Relevant for medieval societies are the first three distinctions: primary orality is what exists in a culture where there is no intervention of any writing system and all story-telling and knowledge is handed down orally; mixed orality characterizes a culture where knowledge is handed down both through oral transmission and writing, within the context of a fully literate culture; secondary orality on the other hand, is the coexistence of orality and writing in a society where the influence of writing remains, however, external or partial. This seems to be the case of thirteenth century Iceland, where despite the existence of a literate minority, written sources do not reach the whole population, and where oral story-telling and communal reading still play an important role.

As the status of the medieval Icelandic family sagas and their relation with orality is not completely settled, we believe that new methodological approaches are warranted in order to make further headway to understand their composition and their relation with oral literature. Moreover, we chose *Hrafnkels saga freysgoða* for our study, as this saga was used as pivotal evidence for the book-prose theorists and their view of the sagas as pure fictional creations by their mostly anonymous authors. While this paper is only a first pass at using quantitative linguistic methodology in Old Icelandic literary studies, we will show that statistical analysis and an experimental approach can be very productive even in interpreting medieval literature. Although this study is limited to one of the short family sagas, we believe that its methodology can shed some light on

the controversy of saga origins, as well as showcasing the importance that quantitative methods can have for literary scholarship.

2. Tense switching in fiction

The main function of verb tenses in Indo-European languages is deictic in nature, marking the temporal location of events with regard to one another or with reference to the time of the utterance (Comrie 1976: 6, or simply any grammar or dictionary definition for the word “tense”). It is customary to find, therefore, past imperfective tenses in areas of the narration that are purely descriptive, whereas present and future tense, as well as imperatives and conditionals are more common in the narrative reproduction of dialogues. As dialogues take place in the here-and-now, verb use is often skewed towards the present tense and indicative mood.

However, in medieval texts, the function of tenses is often not referential; there is a frequent and thorough disregard for the *consecutio temporum* (Schiffrin 1981, Fleischman 1985, 1986, 1990). In the French philological and literary tradition, the non-referential nature of these abrupt changes is even known as “confusion des temps” (Fleischman 1986: 199). It is the linguistic literature on narrative strategies in natural speech (conversational storytelling, or “natural narrative” Fleischman 1986: 200) from the 1970s and 1980s (notably Labov and Waletzky 1969, Labov 1972, Wolfson 1978, 1979, 1982, Schiffrin 1981, Tannen 1982a, 1982b, Silva Corvalán 1983, Fleischman 1986) that recognized the existence of such ‘confusion of tenses’ in many languages and related it to the organization of oral narrative discourse. Since then, tense switching, or simply TS, has been defined as “[t]he intrusion of present-tense verbs into conversational narrations of past experience” (Fleischman 1986: 200).

Yet in the literature on medieval fiction, its function was not made clear, and was alternatively attributed to the usage of a special poetic register, or to oral narration. This raises the question, is TS part of a planned literary style or an imitation of oral speech? On the one hand, neither medieval philologists nor linguists analyzing TS in oral narratives agreed on the function of the present tense within past narratives; on the other, philologists ascribed TS to archaizing literary styles, such as the epic (Fleischman 1986: 201). Sandmann (1953) first observed that TS actually occurred in the narrative portion of medieval fiction, and never in dialogue; Sandmann (referring to medieval Spanish), and earlier Foulet (about medieval French [1920]), therefore suggested that dialogue in fiction must be an accurate reflection of contemporary speech, where the tense-switching narrations indeed reflected an ‘archaic, literary style’ possibly connected to chanting recitation or musical accompaniment (see discussion in Fleischman 1986: 202). Some tense switches clearly appear unrelated to referential function, but rather seem to serve different pragmatic functions related to discourse context or narrative discourse. Some of these functions have been noticed before, of course, such as that of backgrounding-foregrounding (Hopper 1979, Weinrich 1985) or their use in delimiting narrative units (Wolfson 1978, 1979) in a variety of languages, eras, and genres. Other

linguistics and literature scholars have explained tense switches from past to present as an expressive device for comment (for instance as an intrusion by the narrator, Schiffrin 1981), or as being dictated by the situational context (cf. Fleischman's "performance" (1990), Fludernik's "turns" (1992), and Carruthers' "collective memory" (1998)). It should be mentioned that TS as found in the Sagas of Icelanders is not synonymous with the so-called *historic(al) present* (Leech 2004: 11-2, 16-7), which has several different functions irrelevant for the current discussion.

As mentioned above, it was first the Romance philological tradition, especially the French tradition, as well as some literature on the Spanish medieval epic, that first noticed TS, without however coming to an agreement as to what its function would be (for an extensive list of titles in the French philological tradition, see Fleischman 1986: 200, note 3). They have often been associated with epic narratives, as in these examples taken from lines 2950-2955 of the *Chanson de Roland*, analyzed by Fleischman (1990: 31, original French text from orbilat.com):

Ço dist li reis: "Sunez en vostre corn!". / Gefreid d'Anjou ad sun greisle
sunet. / Franceis descendent, Carles l'ad comandet. / Tuz lur amis qu'il i unt
morz truvet, / Ad un carne(l)[r] sempres les unt portet. / Asez i ad evesques
e abez ...

The King said [simple past]: 'Go sound your horn' [imperative]
Geoffrey of Anjou has his trumpet sounded [pres. perfect]
The French dismount [present], Charles has ordered [present perfect] it.
All the comrades that they have found [present perfect] dead,
They have borne them off [present] at once to a common grave.
There are [present] bishops and abbots in great numbers...

For Romance languages, Fleischman (1990) was the first to state in print that tense switches are neither ungrammatical nor random, but rather that their function is found in the "pragmatics of the genre", maintaining that their origin is to be found in oral discourse. They are commonly found in English oral discourse (Wolfson 1978, 1979), precisely in narrative contexts, and Fleischman stresses that they are typically used in "formalized situations of oral performance". Narratives in themselves are not part of regular linguistic interaction. On the other hand, since narrative discourse usually describes past events, indicative past tenses are the unmarked tenses in the non-dialogic sections of fiction, whereas in the use of the present tense there is a deviation from the unmarked use of the past. As such, the present tense in non-dialogic passages signals a marked usage with specific pragmatic consequences, such as a commentary on the event narrated, or the expression of a foregrounding function that places the reader *in medias res*, so to speak. It should be underlined that, while the use of TS can be found in different languages and seems to have by and large a pragmatic function, the precise purpose of the switches may well be different from language to language. Our findings for Old Icelandic may therefore not correspond to TS usage in Old French or medieval Spanish.

3. Tense switching in Old Icelandic prose

There is, as far as we know, no detailed study on tense switches and their function in Old Icelandic, let alone a quantitatively-informed one. However, even a quick glance at, for instance, *Hrafnkels saga*, shows many alternations to present tense where, according to the *consecutio temporum*, the past tense would be expected (original from sagadb.org, our translation unless otherwise stated):

Einari fer allvel að um sumarið, svo að aldrei verður sauðvant fram allt til miðsumars, en þá var vant nær þremur tígum ásauðar eina nótt. Leitar Einar um alla haga og finnur eigi. Honum var vant nær viku. Það var einn morgun, að Einar gekk út snemma, og er þá létt af allri sunnanþokunni og úrinu. Hann tekur staf ... Gengur hann þá fram yfir ána Grjótteigsá. Hún féll fyrir framan selið. En þar á eyrunum lá fé það, er heima hafði verið um kveldið. Hann stökkti því heim að selinu, en fer að leita hins, er vant var áður.

Things go well for Einar during the whole summer, he never loses a sheep until midsummer, but then one night some thirty sheep went missing. Einar looks for them in all the pastures but doesn't find them. They were lost for about a week. It so happened one morning that Einar went out early and ... [the weather] has improved ... He takes the staff ... crosses the Grjótteig river, which flowed past the shieling. On the flats by the river banks were those sheep that had been at home the night before. He drove them back towards the shieling and goes looking for those that were still missing.

Even if for a modern speaker of Icelandic the switches above are not particularly jarring, they sound very awkward in a translation into English or any Romance language because they occur in a preeminently descriptive passage. Here, Western European written literary tradition would demand the use of past tenses, or at least the use of a historical present throughout, establishing a consistent tense usage within the same narrative paragraph. This is particularly ingrained in Western European literary tradition and forces standard translations of these texts to 'normalize' the irregular use of tenses – at least most of the time. Here is Cole's 1882 translation of the same passage (from <http://www.sagadb.org>):

During the summer all went in a fair way with Einarr, so that never a ewe was missing up to mid-summer; but then, one night, it came to pass that nearly thirty of them had strayed away. Einarr went all over the sheep-walks, searching without finding any, and for nearly a week the sheep were missing. One morning Einarr rose early, and, coming out, found that all the fog from the south and the drizzle had lifted. And so he takes into his hand a staff and a bridle, and a riding-rug. Then he went on, passing Grjótteigsá, which ran above the dairy. On the shingly flats by the river were lying about all the sheep that had been home in the evening before. These he drove home towards the dairy, and then went in search of those that were wanting.

It should be mentioned that scribes writing in the Old Icelandic manuscript tradition would often abbreviate words in order to save space on the costly vellum (we thank an anonymous reviewer for pointing this out): It so happens, therefore, that at times it could come down to the modern editor's decision, whether the tense on frequently used quotative verbs such as 'say' or 'reply' was interpreted as present or past (*segir/sagði*, *svarar/svaraði*). Although for copyright and practical reasons we used the sagadb.org digital text with a modernized version of Old Icelandic spelling for the tagging and the experimental part, we made sure that that text of *Hrafnkatla* we used agreed with the choices made by Jón Jóhannesson, the editor of the saga for the official Íslensk fornrit series (Jóhannesson 1950). Of the 1996 verbs in the saga, only one verb was interpreted as having a different tense in the two editions of the saga. We can therefore state that the saga read by our experimental subjects agreed with the tense switches found in the manuscripts used for the prestigious, official edition of the saga published by Hið íslenska fornritafélag.

One way in which we could make sense of such tense choices and switches in the context of Old Norse literature could focus on tense choices and invoke the functions of foregrounding and backgrounding (Weinrich 1985). Thus, foregrounding, for instance, would entail a surreptitious intrusion of the otherwise invisible narrator, in order to focus the reader's attention on the immediately relevant event at that specific point of the tale; backgrounding on the other hand, would involve 'setting the stage', describing (landscape, past events) using past tenses. However, even the tense choices in the few lines from *Hrafnkatla* above are not compatible with this hypothesis. Thus, for instance, the first line of the passage above surely sets the stage, but in the original Old Icelandic text we find mostly present tenses and not past tenses: "Things go well for Einar during the whole summer, he never loses a sheep until midsummer, but then one night some thirty sheep went missing. Einar looks for them in all the pastures but doesn't find them." The next sentences could be background, since they are cast in the past: "They were lost for about a week. It so happened one morning that Einar went out early and ..." However, what follows is again an abrupt switch to a sequence of present perfect "[the weather] has improved" and present "He takes the staff ... crosses the Grjótteig river". The following descriptive sentences are indeed cast in the past tense: "... which flowed past the shieling. On the flats by the river banks were [some of] his sheep," but the passage abruptly ends with a surprising coordinated sequence of past to present again: "He drove them back to the shieling and goes looking for those that were still missing." The lack of cohesion that this brings about in the text is therefore incompatible with the backgrounding-foregrounding functions of tenses in Hopper (1979) and Weinrich (1985).

Another possibility is focusing on the switches, assuming that what is relevant is the tense switch itself (from a narrative tense to an 'action' tense or vice versa): tense switches have an alerting function, preparing the text recipient – a contemporary audience of the orally performed text – to take an active stance towards the narrative. In this sense, tense switching would function as a kind of Brechtian *V-Effekt* imposed on an otherwise linear dramatic structure in order to attract the attention of the audience to the approaching climax. The

estrangement effect in Brecht's aesthetic conception is meant to be a jarring note that induces the audience to challenge its own *Weltanschauung* in view of the events it is witnessing on the stage (Squiers 2012: 72). In medieval Icelandic prose, it could be intended to function as a performative device alerting the audience or readers of the need for enhanced attention to the upcoming events in the narrative.

In order to evaluate tense switching as a potential narrative device to produce 'estrangement' in the text recipient and consequently his/her heightened attention, it is necessary to assess and describe the general structure of the family sagas. The structure of these prose texts must be taken into account, since our hypothesis focuses on a formal, grammatical device such as tense and its interaction with the events in the narration. Saga structure and narrative technique are rather traditional in an Aristotelian Poetics sense: the structure in fact, just as in Aristotle's 'dramatic' theater, follows a linear development, where conflict is introduced early in the narration, and scenes follow each other on a trajectory towards resolution (Squiers 2012: 74). Specifically, Andersson summarized the family saga structure as pivoting around a conflict leading to revenge and being laid out in a sequence of six stages: 1) Introduction (of characters, their description etc.), 2) Introduction of the conflict, 3) Climax (major clash), 4) Revenge (the victim's supporters/family retaliate against the enemy), 5) Reconciliation (usually a legal settlement), and 6) Aftermath (short narrative about future destiny of main characters and their descendants) (Andersson 1967, modified and repropoed in Lönnroth 1978: 19, 68ff.).

It should be mentioned that the saga structure proposed above corresponds by and large to the structure of general oral narrative proposed by Labov (1972) and again by Fleischman (1985: 216), who states that "A fully developed narrative will exhibit all or most of the following sections: Abstract (what the story is about), Orientation (participants and setting of the story), Complicating Action (main events), Evaluation (narrator's comments about the events, making the 'point' of the story), Resolution (what finally happened), Coda (relation to present context)." While essentially just the complicating action is indispensable to a narrative (Labov 1972: 370), Fleischman maintains that abstract, orientation, resolution and evaluation constitute important elements of an 'effective narration' (1986: 216). In the case of the family sagas, the Abstract corresponds to Andersson's Introduction, Orientation to the Introduction of the Conflict, Complicating Action to Climax and Revenge, Resolution to Reconciliation, and Coda to the Aftermath (1967). As for Evaluation, because of the 'objective' nature of saga style, the narrator never intrudes as is common in medieval romances, and commentary on the events is rather left to trustworthy characters within the fictitious world of the text.

Although Byock criticizes the use of a rigid sequencing of such actions and reactions in the Icelandic Family Sagas (1982:57), he also recognizes the importance of conflict as a structural unit in these medieval texts. He goes so far as to propose a narrative unit called a *feudeme*: an active narrative element consisting of either conflict, advocacy, or resolution clustering together in no particular order and forming 'chains of feud, which are the backbone of Icelandic

prose narrative [...] the feudeme [is] the sagaman's basic narrative tool' (1982: 57).

Because of the pivotal nature of conflicts to advance the narration in these texts, one of our first goals was to establish the presence of climactic moments within the saga analyzed here. Climaxes or climactic moments are defined as narrative sections reporting events that are essential in moving the storyline forward. Given the concept of feudeme advanced by Byock (1982), we assumed that *Hrafnkel's saga* would not just have one main climactic scene or two (see Section 4.1 for the actual structure of this saga), but that smaller climaxes could be strewn throughout the text. If our hypothesis is correct, i.e. that TS has an alerting function that makes readers harken to an upcoming pivotal moment in the narration, then the sections of the saga containing complicating action that builds up to a climax should correlate with the presence of more TS.

Our hypothesis also fits within the reasoning of studies on literary stylistics and the cognitive impact that literary style has on the processing of written texts (for instance, Miall and Kuiken 1994). They maintain, in fact, that heavily literary style (which they call foregrounding) causes 'defamiliarization' (i.e. makes perception less automatic and more conscious), which in turn slows down reading and evokes feelings; these feelings make the relevant passages more salient, easier to recall, and they are therefore rated higher on a 'strikingness' scale.

Moreover, if we accept that TS has its roots in oral narrative and that it is present in a variety of languages, then Icelandic medieval literature provides the ideal testing ground for this hypothesis in an experimental setting. Contemporary Icelanders can in fact read medieval literary Icelandic with little difficulty, as the morphology of the language has evolved very little over the past 1000 years. Using a version of the saga with modernized spelling allowed us to use the text as a litmus test to see whether contemporary Icelandic readers would agree in finding climaxes in the narrative. Once this was accomplished, statistical analysis would establish whether there is indeed a correlation between TS and 'climaxness' (the degree to which a narrative passage is considered climactic by readers).

4. Methods

In this section, we discuss how our data were gathered, prepared for analysis, and then analyzed using corpus-linguistic and statistical tools. Specifically, the next section is concerned with the corpus-linguistic pre-processing of the saga we are analyzing; after that, we outline the statistical analysis with which we explored the correlation between the presence of tense switches on the one hand and the degree of climaxness of text segments on the other.

4.1 The corpus-linguistic preparation of the saga

The saga whose characteristics and literary perception we are studying here is *Hrafnkels saga freysgoða*. This saga describes the life of a chieftain in the East of Iceland, Hrafnkell, and is neatly structured in five sections: Prologue, Murder, Punishment, Revenge, and Epilogue (following Pálsson's analysis, Pálsson 1971). Andersson's stages 1 and 2 are here subsumed under the Prologue. Stage 3 (Climax or major clash) corresponds here to the murder of the shepherd. Andersson's stage 4 (Revenge, i.e. the victim's supporters/family retaliate against the enemy) corresponds to Hrafnkel's punishment (as in Pálsson's 'Punishment' section). However, in *Hrafnkel's saga*, a second main clash occurs (Pálsson's 'Revenge'), and this is finally followed by Andersson's stages 5) Reconciliation (usually a legal settlement), and 6) Aftermath. Andersson's last two stages are subsumed by Pálsson under his 'Epilogue' section (cf. Andersson 1967, Pálsson 1971).

We downloaded a text version of that saga from <http://www.sagadb.org> and, using R scripts, tokenized the saga into all lower-case words (yielding 9127 tokens of 2057 types) by splitting up the file at spaces, numbers, and punctuation marks. Then, each of the types was annotated for whether it was a verb (*yes* or *no*) and, if it was a verb, for a tense form (*non-finite* vs. *past* vs. *present* vs. *other*) and this annotation was then mapped back onto the word tokens in their original order in the saga, which allowed us to use another R script to add annotation to each verb but the first whether it had the same tense as the previous one or not. Thus and to sum up, all the information resulting from this step was captured in a data frame/spreadsheet that had one row for each word token in the saga in their original order and that contained the following:

- CASE: a column that numbered all the word tokens in the saga from 1 to 9127;
- WORD, a column containing each word token in the saga;
- VERB: a column stating for every word token whether it was a verb or not;
- TENSE: a column stating for every word token that was a verb which tense it was used in (and that contained NA for every word token that was not a verb);
- SWITCH: a column that states for every verb token but the first whether it was in the same tense or not.

4.2 The experiment

As a next step, we conducted an experiment designed to provide us with ratings of climaxness, Climax, for each word in the saga, which would then be correlated with Switch. 19 native speakers of Icelandic (ages 22-52, all with a university degree in a Romance language or studying towards one) were told that we were interested to find out how readers approach literary texts and how readers understand the story to be constructed. They were asked to read

Hrafnkels saga freysgoða in a Word processor and to highlight parts of the texts in different colors:

- red for “important scenes (climaxes, *hápunktar*), which are events / actions / utterances that change the previous course of action, causes a reaction from the characters involved in the saga, causes comments from the community within the story, pushes the story forward etc.”;
- yellow for “actions, dialogues and developments building up towards a climax”;
- blue for “background, often just descriptive information”.

We told them that climaxes could well be small and that there should be between 5 and 25 climaxes, and we asked them to do this without any interruption (so as to not have their flow of reading be influenced by other activities/thoughts) and to simply save the file with their added highlighting when they were done. We then mapped each subject's marking of climaxes – i.e., the red markings – onto the saga by adding to the above data frame 19 columns binary $CLIMAX_{1-19}$ – one for each speaker/subject – each of which stated for every word token whether the relevant subject had highlighted that word as part of a climax (*yes/1* or *no/0*). In addition, we added one numeric summary column $CLIMAX_{all}$, which contained for each word the average of the 19 subjects' binary ratings; that is, a word that 16 speakers rated as being part of a climax would receive the value $^{16}/_{19} \approx 0.84211$.

4.3 The statistical analysis

Our statistical analysis was in large part exploratory although, given our expectation, also involved (at the very end) statistical significance testing.

Grouping the subjects. We expected the subjects to return very different highlightings of the saga parts. We therefore began by exploring whether the speakers could be classified into different groups depending on the ways they categorized the words in the saga as being part of a climax or not (as measured in columns $CLIMAX_{1-19}$) using hierarchical cluster algorithms. Such hierarchical clustering algorithms accept as input a two-dimensional matrix of data points and try to group the columns (in this case the speakers) on the basis of the data points in the rows (in this case the words) on the basis of some user-defined similarity measure and amalgamation rule and return the grouping/clusters in the shape of a tree diagram, which can be inspected with various follow-up statistics to determine how many different clusters the speakers make up and how good the discriminatory power of these clusters is. Since cluster algorithms can return quite different results depending on which similarity measure is used, we ran different cluster analyses with different similarity measures that are sensitive to different distributional facets of binary data; each of these analyses was then explored by computing average silhouette widths of the cluster analyses, which quantify how well/cleanly the clusters discriminate between the clustered objects. If the cluster analyses distinguished well-defined groups of subjects, we would statistically analyze not only the overall climaxness value of

each word by all subjects, but also climaxness values computed on the basis of the groups into which the subjects were clustered.

Speaker-specific analysis. In addition to the above-mentioned attempt to group the subjects, we also explored more fine-grained analyses of the data. Specifically, in addition to each word's CLIMAX_{all} value, we cross-tabulated for each subject *x*, the binary variables SWITCH (*no* vs. *yes*) and CLIMAX_{*x*} (*no* vs. *yes*), in a two-by-two table and computed for that table

- the log of the odds ratio OR for that table (directed such that the expected positive correlations of tense switches and climaxness would return positive values and non-expected negative correlations would return negative values); in addition, we computed these logged odds ratios' 95% confidence intervals;
- a *p*-value from a Fisher-Yates exact test.

The results were then visualized in a dotchart-like plot and evaluated with regard to determining how many subjects (i) exhibited the expected positive rather than the negative correlations and (ii) for how many of these subjects that correlation was significant (and the corresponding confidence interval did not include 0).

5. Results

5.1 The corpus-linguistic annotation

The following table summarizes the frequencies with which word types in the saga were categorized with regard to being a verb or not and which tense the verbs were used in. The 1996 tensed verb forms identified by our tagging mean there are 1995 transitions from one verb to the next; these 1995 transition consist of 1319 switches – i.e. cases where the two verb forms exhibited different tense annotations – and 676 non-switches – i.e. cases where both verbs had the same tense annotation.

VERB: <i>no/NA</i>	VERB: <i>yes</i> (1996 tensed cases altogether)				
TENSE: NA	TENSE: non-finite	TENSE: aux	TENSE: other	TENSE: past	TENSE: present
7131	518	38	152	596	692

5.2 The statistical analysis

When the subjects' highlightings were analyzed, it transpired that most participants adhered to the suggestion to consider between 5 and 25 climaxes –

17 of the 19 subjects highlighted between 5 and 25 climaxes, and two subjects highlighted 26 and 32 climaxes respectively. Since there was no principled reason to require subjects to highlight no more than 25 climaxes – we merely wanted to give them a rough estimate – the two subjects with >25 climaxes were not excluded from the subsequent analyses.

The results of the subsequent cluster analyses were interesting because none of the cluster analyses revealed any useful groupings of the subjects into clusters (and neither did a non-metric Multidimensional Scaling analysis): average silhouette widths were very low, did not differ much between different solutions, and one similarity measure yielded a useless two-cluster solution that contained two clusters, one of which contained all subjects but one; a Multidimensional Scaling analysis was similarly unrevealing. Put differently, the subjects' strategies of identifying saga parts as climactic or not were rather heterogeneous and defied easy classification. The initially-planned approach of comparing climaxness values to switches per cluster was therefore abandoned in favor of an exploration that ultimately focuses on results per subject. To visualize the degree to which subjects differ in their highlightings, consider Figure 1.

The x-axis represents the word tokens of the saga (from 1 to 9127) and the y-axis represents (from the bottom) the 19 subjects followed by two rows that summarize all speakers); the green and red lines (cf. below for the color difference) represent where speakers marked saga segments as climactic. For example, speaker 2 marked word tokens 1072 to 1924 as the first of her five climaxes. The two top rows of Figure 1 summarize the results of all 19 speakers together, first by lines in grey-shading (where darker grey indicates larger numbers of speakers considering a word climactic) and with a small line plot (where a higher position of the line indicates larger numbers of speakers considering a word climactic). In particular, the two top summary rows indicate that there are a few saga segments that most speakers considered climactic, but that there is also a large amount of variation (e.g. between words 2000 and 5000), which must be what made it impossible to identify good (in the sense of discriminatory) groups/clusters of subjects.

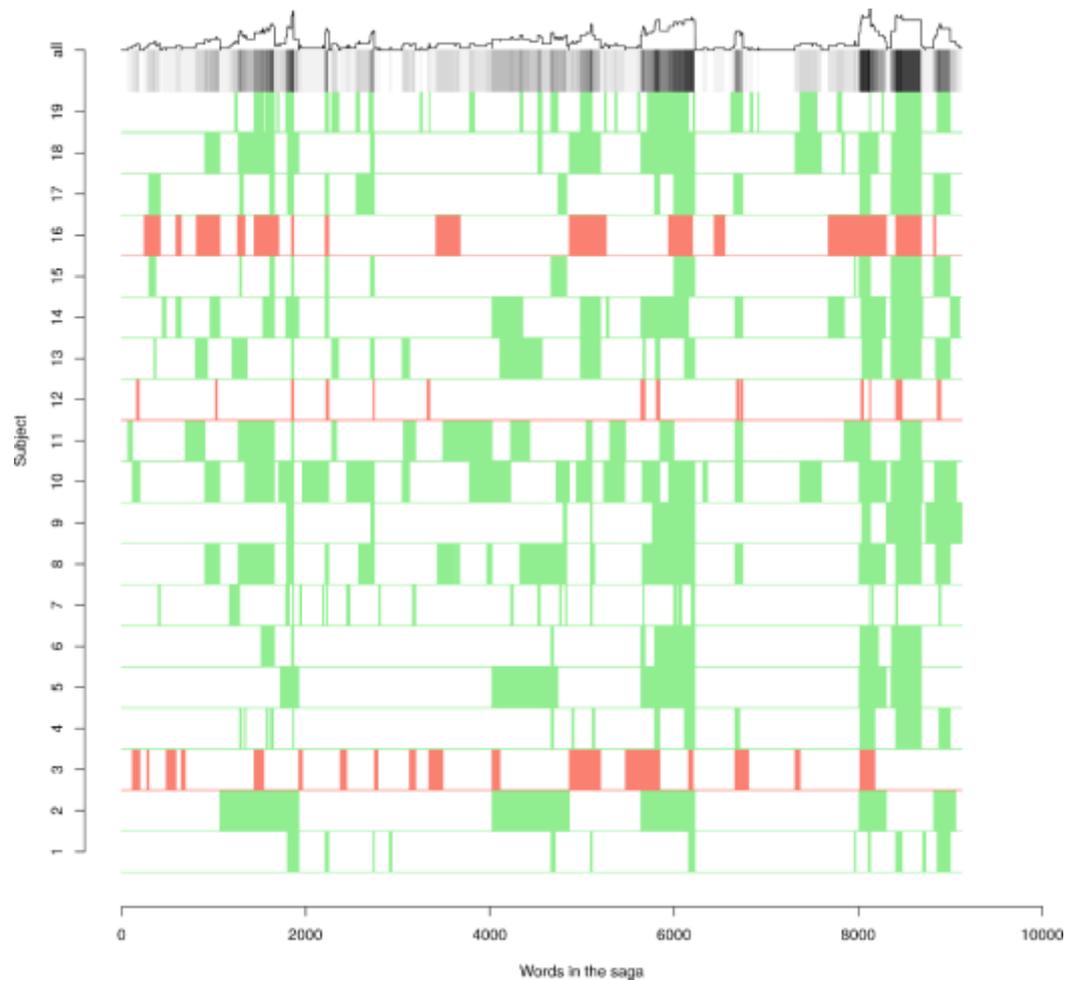


Fig. 1: Dispersion plot of climax highlightings between and across all subjects

Given the inability to identify groups of subjects, our first coarse-grained analysis of the data involved exploring the correlation between the binary variable SWITCH and the numeric variable CLIMAX_{all} using empirical cumulative distribution plots of CLIMAX_{all} for SWITCH: no and SWITCH: yes and a subsequent Kolmogorov-Smirnov test (for differences between the two groups; cf. Gries 2013: Section 4.1.2.1). The results are represented in Figure 2: the x-axis represents the values of CLIMAX_{all}, the y-values the empirical cumulative percentage and the two lines represent the results for SWITCH: yes (black *ys*) and SWITCH: no (grey *ns*). As one can see, the values of CLIMAX_{all} are consistently higher when SWITCH is yes (exactly as expected), and the result of the Kolmogorov-Smirnov test is highly significant.

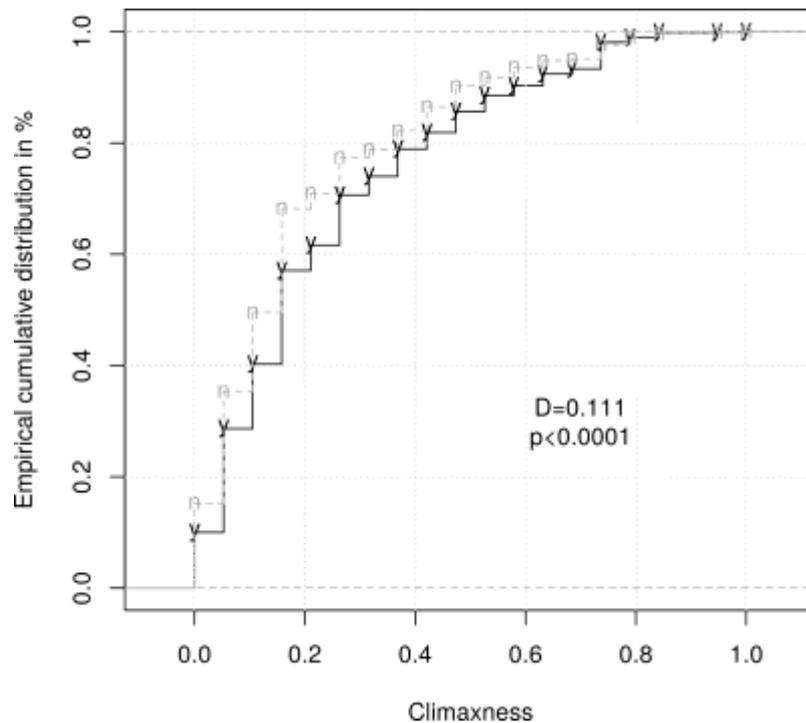


Fig. 2: Ecdf plot of CLIMAX_{all} as a function of SWITCH (all subjects combined)

However, this overall result may mask considerable individual variation, which we know from above resides in the data. While the cluster analyses showed that this variation does not exhibit much systematic patterning, there is still a risk that the results represented in Figure 2 do not apply equally to all subjects. We therefore proceeded with the subject-specific analysis discussed in Section 4.3. The results of this analysis are shown in Figure 3. The x-axis represents the speakers, the left and right y-axes represent the logged and unlogged odds ratios respectively, and the dots represent the (logged) odds ratios of the correlation between Climax and Switch and their confidence intervals for each speaker; the green and red background shading reflects the direction of our expectations: we expect positive logged odds ratios rather than negative ones.

The results are compatible with our expectations and can be summarized as follows:

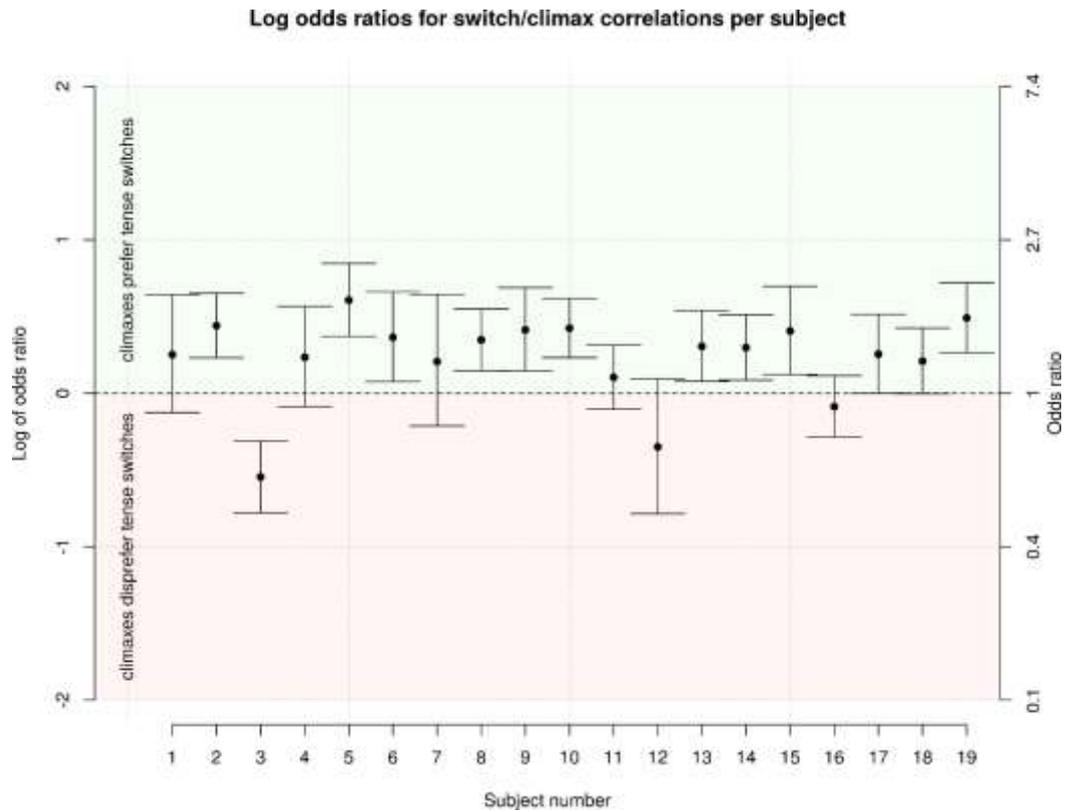


Fig. 3: Log odds ratios of the correlations between CLIMAX and SWITCH per speaker

- for 16 of the 19 speakers, we obtained the expected positive log odds ratios – for the remaining 3 we obtained negative log odds ratios; note that these results are what the color coding in Figure 1 represented, where, like here, speakers 3, 12, and 16 are marked in red because they behave in the opposite direction of our prediction.
- however, not all the above-mentioned correlations are significant. If we restrict our attention to the 12 results that are significant, we find that 11 of these have the predicted positive log odds ratios and only 1 – speaker 3 – has a significant effect in the non-predicted direction.

In other words, the more fine-grained resolution of this speaker-specific analysis also strongly corroborates that the majority of the speakers has a significant preference to consider saga segments as climactic that have larger numbers of tense switches – only one of all the speakers exhibits a significant opposite tendency. It is not quite clear to us why this speaker behaved so differently from the rest: her number of climaxes is an average 17, but, as Figure 1 reveals, she most markedly deviates from the rest of the subjects in the word ranges around 6000 and around 8500, where most other speakers agreed on longer climactic stretches.

6. Discussion and concluding remarks

6.1 Discussion and interpretation

In analyzing TS in *Hrafnkels saga freysgoða*, our hypothesis was that it is not a haphazard vestige of oral narration composed by semi-illiterate anonymous authors, as TS was considered in old French literature. We rather considered it as a device with an alerting function towards an approaching climactic moment in the narration, ultimately rooted in the structure of effective orally performed story-telling. This hypothesis built on previous literature that approached TS from the point of view of its possible pragmatic function, and comprising Wolfson (1979), who worked on English spontaneous narratives, and criticized a lack of distinction of genre (literary vs. spoken language) in previous analyses of TS; it also built on Fleischman (1986), who working on medieval French literature, refined the genre distinction further, and stated that the divide was to be placed between narrative delivered either through writing or through oral performance (1986: 205). In this sense, we accepted a view of saga origin that included both written and oral sources, as well as the hand of the often anonymous author (pioneered in Andersson 1964). Because we noticed the parallels between oral narrative structure (Labov 1972, Fleischman 1986) and saga structure (Andersson 1967, Pálsson 1971), we surmised that TS could be construed as a relic of oral performance, the importance of which should not be underestimated (see also Sigurðsson 2003, 2004). Both Wolfson and Fleischman invoked a concept of performance or performed story in the sense defined by Zumthor (1983: 32f.): “a situation in which the operations of transmission, reception, and, for improvisational texts also production, are all carried out (aural-)orally” (Fleischman 1986: 206). As such, TS would therefore be properly classified as a performative device that crossed genres and sneaked into the composition of medieval written literary texts.

This of course could only be proven if the modern Icelandic readers reacted in what we surmised to be a way comparable to the intended audience of the saga, i.e. late thirteenth century Icelanders. Our results show extremely high individual variation in the assessment and placement of climaxes, but this is actually to be expected, given our broad definition of climax and complicating action leading to a climax as “important scenes, i.e. events / actions / utterances that change the previous course of action, cause a reaction from the characters involved in the saga, cause comments from the community within the story, push the story forward, etc.,” and “actions, dialogues and developments building up towards a climax” respectively, which leaves considerable leeway as to how to divide the text into separate chunks.

Despite the individual variation, however, even the results of the unrevealing cluster analysis that pitched 18 subjects vs. 1 is informative. While the outlier subject behaved in a markedly different way, it is in fact instructive to note that, compared to this subject, the others behaved in a way that allowed for the tests to group them together. This does not mean that the other 18 subjects behaved very similarly, but that at least there were no consistent patterns that would

justify a further division into other sub-groupings. Paradoxically, this is a positive result in the sense that if the function of TS is indeed an alerting function of a pragmatic nature, one would assume that most members of the audience (whether readers or listeners) would react to it in comparable ways, or the efficacy of TS as a performative device could be compromised.

Figure 1 above highlights the individual variation among the subjects (red and green section of the graph), but also summarizes in the two top sections (in grey), that there is an overall agreement at least regarding quite a few climactic moments, marked by the darkest grey areas and the higher peaks of the top line. The same can be said for Figure 3, where it is clear from the odds ratios and their confidence intervals that the majority of subjects shows the expected positive log odds ratio (and that 11 out of 12 are significant in the direction we expected), which in turn demonstrates that even modern Icelanders react similarly to what we expect the medieval audience to have done. Our experimental subjects, in fact, marked as climaxes those sections of the narrative with a higher frequency of TS. In this sense, our findings agree with Fleischman's analysis of TS for Old French in that it "cannot be explained away as simply an archaizing quirk of poetic language [...] It is to the contrary a technique rooted in spoken language, albeit of a very specific type: oral performed narrative" (1986: 228). However, in our case, it is not a strategy for internal evaluation of the narrated facts as in Old French, but rather a performative strategy alerting the reader that something momentous is about to occur. Differently put, one can say that since TS correlates with climaxes in our experimental results, we can indeed consider TS in *Hrafnkels saga freysgoða* to be a performative device with an alerting function towards upcoming important events.

It is also worth noting that the function of TS in Old Icelandic may be different from its function in Old French. As Fleischman (1986: 228) herself notices, the

distribution [of TS] will vary somewhat from one language to another, as well as diachronically over the history of a language. However [...] certain basic principles governing the structure of oral narrative and the distribution of tense/aspect functions seem to hold across languages across time, and across genres.

The fact that linguistic scholarship from the end of the 1960s onward finds TS in modern-day oral narratives suggests that in Old Icelandic it also seeped through oral sources and practices to the written text. This would parallel findings for Old French literature. For instance, Uitti (1973: 51) counts TS among the "highly sophisticated oral techniques," and finds, just as we did for *Hrafnkels saga*, that the direction of the shift is irrelevant (also Wolfson 1979, but cf. Schiffrin 1981, who only considers present-to-past switches as marking an event boundary, in Fleischman 1986: 208, note 22).

Whether modern Icelanders behave indeed as late thirteenth century ones is of course a question that has no certain answer, and so is the question of whether the thirteenth-century audience responded to a written or an orally performed

text. However, it is known that the tradition of writing and reading came to Iceland with Christianity, monks and cloisters (Guttormsson 1989: 119, 121), while many of the Family Sagas deal with events that purportedly took place between the Settlement (870-930 C.E.) and the conversion to Christianity (1000 C.E.). In the approximately two centuries between the Settlement and the establishment of cloisters in Iceland, there must have been a very vivid tradition of oral storytelling, or the events committed to writing in the thirteenth century would have been forgotten. It would not be surprising therefore, if vestiges of oral performance had made their way into the Family Sagas, even those so sophisticated and perfectly structured, such as *Hrafnkels saga*.

As for the second question about whether the text to which the medieval audience responded was read or orally performed, there may never be a single answer. Nevertheless, a few relevant points can be raised. It is difficult to reconstruct with any certainty how widespread literacy, manuscript ownership and circulation were in medieval Iceland, but scholars nowadays maintain that very few people were able to read and write in the Middle Ages (Nordal 1999: 8). However, Guttormsson points out that there was a considerable increase in the production of manuscripts in the thirteenth and fourteenth centuries, which may point to a spread in literacy, especially because there are manuscripts from those centuries of very different quality, indicating that some of them might have been owned by simple farmers, as opposed to powerful, rich chieftains. It is also well known that Iceland had a very long-standing tradition of communal reading (Eggertsdóttir 2006: 175, Guttormsson 1989: 124), which has implications for our study because it does not require literacy to be extremely widespread to enjoy the pleasure of the Family Sagas, and has even more relevant consequences for the importance of performative devices such as TS. If someone read aloud for the rest of the local community (the farmers, their extended family, and the farm-hands), it would have been even more important to have and maintain, from manuscript to manuscript, any performative devices that enabled the reader to give more emphasis to his/her narration at pivotal moments.

6.2 Implications

Our experimental results confirm the work of the 1970s and 1980s that TS is indeed neither chaotic, haphazard nor part of a special register of primitive narrative forms, (also in agreement with Schiffrin 1981). It is rather a pragmatic device used in oral narrations that has made its way into medieval written texts.

Our contribution in this sense has been manifold: testing the performative character of this device using contemporary readers as experimental subjects, and providing a statistical analysis contributes to breaking down the still too frequent barriers between literary analysis on the one hand and corpus-linguistic and quantitative methods on the other. Without the statistical analysis, we could not have reached the conclusion that TS is indeed correlated to climaxes in this text, and therefore we could not have reached a conclusion about its specific function. Given the pervading acceptance of the *consecutio temporum* in

modern Western European literature, TS is conspicuously absent from modern written narratives (see already Lakoff 1970 for English), unless the prose is reproducing fictitious dialogues. Even in Icelandic, where TS may sound less jarring than in other Western European languages, on the basis of our experiment, we can conclude that modern readers appear to react to the sagas as if they were an oral genre. We have also extended the scope of previous scholarship on TS insofar as we have shown that TS exists and has a performative function in Germanic languages such as Old Icelandic. Moreover, we found TS in prose texts (one of the Family Sagas), showing that it is not a phenomenon exclusive or even typical of medieval (mostly epic) poetry or romance. Finally, among the methodological implications of our study, we can claim that it adds to the body of literature that fruitfully enriches literary studies with corpus-linguistic and experimental methods.

Moreover, this article has shed further light onto the question of saga origin. *Hrafnkels saga* was chosen because Nordal had made it his *cheval de bataille* to support the book-prose theory of saga origin, i.e. that the medieval Icelandic sagas were composed by anonymous authors in the thirteenth century and were purely works of fiction, rather than preserving any historical truth about events of the Icelandic Settlement, as chronicles would. Of course, a lot has happened in Old Icelandic scholarship since then, especially the work of Sigurðsson re-evaluating the oral component of saga origins (2003, 2004). No Icelandic scholar nowadays would support a strict version of the book-prose theory of saga origins, but Byock (2001: 71, and footnote 2) quite aptly points out that the debate is far from dead and that there are, for examples, modern scholars that could be defined as *new-bookprosisists*: “For the active new-bookprosisists, Iceland’s family sagas are original, *written* creations of thirteenth-century authors, who, rather than drawing their storytelling art from older oral narratives, derived personal inspiration and generative force principally from knowledge of Latin and learned writings, especially church writings and hagiography” (2001: 71, our italics). It is therefore clearly still a timely topic and, more to the point, one that has not been exhausted, much less resolved, solely on the basis of literary or philological evidence. It is, thus, fundamental to be able to marshal actual quantitative data to buttress one’s conclusions, since this has not been done so far. It is particularly important to be able to devise creative ways to demonstrate such theories experimentally, as we did in this study, considering that the original audience/readership of the sagas has been dead for more than 700 years. Thanks to the mutual intelligibility of the different stages of the language, our experimental data clearly show that tense switching in Old Icelandic elicits (what can be surmised to be) a similar response in the modern reader as it did in the original saga audience/readership. The modern Icelandic readers react to TS as if it were an alerting device, since they classify as climactic passages containing more frequent switches. This correlates with oral usages in modern Icelandic (but also in English, for instance), and we can therefore conclude that such switches reflect vestiges of oral performativity also in the original medieval text. Another important conclusion is that vestiges of oral performance are present even in *Hrafnkels saga*, one of the texts that have come to represent the highest achievement of medieval Icelandic literary production and that was chosen by the book-prose scholars as the prime

example of a written creation of a single, albeit anonymous, thirteenth-century author.

It is interesting to notice that, some authors working on French medieval literature (Blanc 1961, 1964, 1965, Fleischman 1986) see the thirteenth century as a turning point, when some written prose texts still preserve and use techniques and devices from earlier oral narrative (such as the epic poems), while others anticipate more 'modern' written texts, characterized by the respect for the tense sequencing typical of written narrative. This seems to be the case also for Old Icelandic saga literature, if our findings from *Hrafnkels saga* can be generalized to the whole genre. TS is, in fact, found in most, if not all, Family Sagas, which were also committed to writing in the thirteenth century.

6.3 Where to go from here

While we have observed the presence of TS in many other Icelandic sagas, we have only carried out statistical and experimental work on *Hrafnkels saga freysgoða*, a rather short example of the genre. Therefore, trivially, we would need to increase the number of sagas to be studied in order to prove whether TS as a performative device is a feature of Old Icelandic as a whole, or at least of the Family Sagas as a literary genre.

While typically TS does not occur in dialogue in medieval literature (cf. also Fleischman 1986:225), we would need to analyze more thoroughly the role dialogue and verbs of speaking play *vis á vis* TS in these narrative texts, as well as investigating the relation of they have to climaxes in more detail. It would also be interesting to explore whether TS behaves differently in excerpts marked as 'climactic' and others marked as 'building towards a climax'. Finally, future studies might require more complex analyses: in particular, if the statistical exploration of speakers' behavior returned several groups, this could give rise to interesting differences between *if* and *how* tense switches trigger literary interpretation. In conclusion, we believe that this study exemplifies a fruitful convergence of corpus-linguistic methods and literary study that will make this slowly growing area of research more widespread.

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