# Constructing a liberal identity via political speech:
# Tracking lifespan change in the Icelandic Gigaword Corpus

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## Abstract

We examine individual lifespan change in the speech of an Icelandic MP, Þorgerður Gunnarsdóttir, who style-shifts after she switches parties, by becoming less formal as her political stance becomes more liberal. We make use of the resources of the Icelandic Gigaword Corpus, more specifically the Parliament section of that corpus, demonstrating how the reinvention of an identity in politics can be tracked by studying the collection of speeches given by a politician over time.

## 1   Introduction

In this paper, we examine individual lifespan change in the speech of an Icelandic MP, Þorgerður Gunnarsdóttir. The first part of her career as a parliament member is a period when she is a member of the Independence Party (*Sjálfstæðisflokkur*), a conservative party in Iceland, and she remains in that party when the financial crisis hits in 2008. Following this crisis, Gunnarsdóttir starts reinventing herself as a more liberal politician, eventually switching parties and joining the Reformation Party (*Viðreisn*). In the present study, we trace the level to which she uses formal speech over this period and find that after the financial crisis, she dramatically shifts her speech to a more informal style and maintains that new level of (in)formality throughout the following years. In sum, she style-shifts after she switches parties, becoming less formal as her political stance becomes more liberal.

We argue that the change in her linguistic behavior is a part of a successful identity reconstruction that caters to a more liberal audience. This relates to theories of style shift, the manner in which speakers can adjust the way they speak both as a part of a long term trend as well as on a moment-to-moment basis. In particular, Bell (1984, 2001) found that speakers align themselves with their audience, or their intended audience, which is an important ob-

servation for the present study. Furthermore, Eckert (1989), as well as much subsequent work, has found that patterns in language use are shaped by how individuals construct their identity, a type of linguistic behavior that is important for long term development and situational effects on language.

In this paper, we use Stylistic Fronting (SF), an optional movement of an element within a sentence in Icelandic, to track how formal Gunnarsdóttir's speech is over time. The background section highlights studies on individual lifespan change, while the sections on methods and the variable add important details on the corpus and SF. We then focus on overall effects based on regression analyses and monitor pivotal moments in Gunnarsdóttir's career, where we see correspondence between the use of SF and fluctuations in her political career. The paper concludes with a discussion on the relation between the linguistic trends of two political parties Gunnarsdóttir is part of and her own trajectory.

## 2   Background

While previous studies on linguistic change used to focus on changes between generations of speakers, recent times have seen an increased emphasis on how individuals change the way they speak across the lifespan (Sankoff and Blondeau, 2007; Wagner, 2012; MacKenzie, 2017; Sankoff, 2004; Kwon, 2014, 2018; Sankoff, 2018; Grama et al., 2023). We contribute to this line of research by focusing on linguistic lifespan change in the context of political speech.

Some lifespan change is systematically connected to community change (Sankoff and Wagner, 2006; Wagner and Sankoff, 2011). In such cases, we see the community moving in a certain direction while some groups of speakers either participate in the change by modifying their language in the direction of the change or go against it by moving towards more conservative linguistic behavior

(retrograde change). While individuals are changing the way they use language in such cases, the pattern of the change is systematically tied to how groups of speakers relate to the wider community. In contrast, reasons for change can be individual-specific – tied to personal histories (Sankoff, 2004; Stefánsdóttir and Ingason, 2018, 2024). Previous work on political speech has found that politicians use more formal speech when they have great responsibilities, and crises, either public or personal, can also lead to temporary changes that speakers make to their level of formality. When such effects are due to situational properties of the context, they can be described as style shift (Labov, 1972).

Furthermore, as in the case of Barack Obama, it has been suggested that politicians make use of their variable linguistic behavior in order to align themselves with particular sets of constituents (Holliday et al., 2020). Cases where politicians change their use of stylistic variation as they enter new periods in their career that relate to the political audiences they cater to can be analyzed as examples of audience design (Bell, 1984).

## 3 Methods

In this study, we extract data from the *Icelandic Gigaword Corpus* (Steingrímsson et al., 2018) (2,429 million running words of text), specifically the subsection of this corpus that comes from the Icelandic parliament (*Icelandic Parliament Corpus*; 254 million words). Not long ago, Icelandic was a less-resourced language in terms of Language Technology resources, but much more has become available in recent years, due to both projects with specific smaller goals as well as the more far reaching Language Technology Programme launched by the Icelandic government (Nikulásdóttir et al., 2020). Studies like the current one, which apply Digital Humanities methods to large data sets, would not be possible without these previous efforts.

We wrote a Python script that extracts sentences which contain the relevant SF variation and coded them automatically using the same script. We verified that this automatic extraction resulted in valid sentences. We are primarily interested in how the percentage of SF changes over time in the language of the politician whose language we are studying. All plotting and statistical analysis was performed in R (R Core Team, 2023).

## 4 Linguistic variable

A sociolinguistic variable is a case of language use when there are two or more ways of saying the same thing, i.e. there is variation in the speech community in how to express the same meaning. The variable we focus on is Stylistic Fronting in Icelandic, a word order phenomena where there is an optional movement of an element to the first position of sentences with a subject gap. The element that moves can either be a word or a phrase, but in this study we only focus on movement of verbs in front of finite auxiliaries. SF has been studied in detail in the theoretical syntax literature (Maling, 1990; Holmberg, 2006; Thráinsson, 2007; Wood, 2011; Ingason and Wood, 2017). Furthermore, there have been some quantitative investigations as Wood (2011) found that the environment in which SF applies affects the probability of its application.

In our study, we focus on SF in relative clauses with a subject gap and we extract sentences that begin with a finite auxiliary and a non-finite main verb in either of the two possible word orders. In (1), we see an example of a relative clause with SF and in (2), we see an example without SF. The use of SF indexes higher formality (Wood, 2011).

(1)    Tillagan    [CP sem samþykkt var í proposal.the [CP that approved was in gær]    er góð. (SF) yesterday] is good 'The proposal that was approved yesterday is good.'

(2)    Tillagan    [CP sem var samþykkt í proposal.the [CP that was approved in gær]    er góð. (No SF) yesterday] is good 'The proposal that was approved yesterday is good.'

## 5 Overview: Regression model output

Mixed-effects regression modeling was conducted in R (R Core Team, 2023), using the *lme4* and *anova* to determine the best-fit model as is standard practice in sociolinguistic research. The final model included SF as response variable; year (2000–2021), role (minister, member), party status (minority, majority), party name (Independence Party, Reformation Party), and finite verb (*be*, *have*, modal verb) as fixed effects; and non-finite verb as random effect (see Table 1). The model predicts that Gunnarsdóttir decreases her SF use in the role

of minister, indicated by the negative estimate for that factor in the model. Further, when her party is in opposition, she is also more likely to produce less SF. There is also a significant difference between parties, i.e., there is a significant difference between the time, when she was in the Independence Party and the Reformation Party. Lastly, the type of finite verb has an effect on SF use, which we will not discuss further in this paper as we do not have an explanation for the effect of the finite verb at this point; however, we will discuss the other effects in more detail in the following sections.

# 6   Designing a more liberal audience across the lifespan

Þorgerður Gunnarsdóttir is a prominent figure in Icelandic politics who was first elected to parliament in 2003 as a member of the Independence Party, a center-right conservative party. In the early years of Gunnarsdóttir's career, the rate of Stylistic Fronting is relatively high, with an average rate of about 67% in the years 2000–2003 (see Figure 1). In other words, Gunnarsdóttir's linguistic performance is quite formal at the beginning of her career, a pattern that is not an unexpected one as the situational effect of the parliament surroundings and Gunnarsdóttir's status as a new MP is likely to have caused her to become more aware of her language use, which positively correlates with frequent use of formal variants such as SF, according to Labov's (1972) attention-paid-to-speech model.

Gunnarsdóttir's formal linguistic performance during this period can also be interpreted in terms of her constructing her identity as a conservative politician. There seems to be a correlation between the use of SF and being conservative in Iceland. Importantly, our analysis of the formality levels of all parties in the Icelandic parliament, based on their use of SF, shows that members of the Independence Party typically use SF more frequently than members of other parties, resulting in the Independence Party being one of the most formal parties. Therefore, by speaking formally, Gunnarsdóttir might be signaling her membership and identification with the Independence Party and the center-right conservative social group (Eckert, 1989).

Although we see a minor decline in the use of SF from 2003 to 2004, Gunnarsdóttir's speech remains formal, as the rate of SF is consistently above 50%. However, this pattern is disrupted in 2009, when the rate suddenly drops, following the economic crash which hit Iceland hard in late 2008. The economic crash seriously impacted Gunnarsdóttir's party, the Independence Party, as it had been part of the so-called crash government, which collapsed in early 2009. As a result, the party faced the lowest support in the history of the party, with many blaming the party and its economic policies for the crash. The effects of the crash can be seen when looking at the party as a whole, as the party's average rate of SF also drops in 2009 and goes below the parliament's average rate in the period 2009–2012, after which the rate of SF increases again (see Figure 2).

The change we see in Gunnarsdóttir's speech during this period is, however, not merely an example of an individual MP following their party's trend. Gunnarsdóttir's drop is far more dramatic than her party's, and, importantly, the rate of SF does not increase again when the aftermath of the economic crash is over. Therefore, the reason for this change must be individual-specific, tied to something in Gunnarsdóttir's personal history.

While the crash's consequences were significant for the Independence Party, they were even more profound for Gunnarsdóttir, who faced backlash due to her husband's ties to the Icelandic banking system. This controversy led to widespread public anger, protests outside the couple's home, and demands for her resignation. Ultimately, Gunnarsdóttir took a temporary leave from parliament and resigned as vice-chair of the Independence Party. Upon her return months later, she announced she would only complete her term and not seek re-election in the 2013 elections.

The rate of SF continues to be low during this period, in contrast to the Independence Party's average, which increases again after the aftermath of the crash is over, as previously mentioned. Gunnarsdóttir's informal style suggests a possible withdrawal from her party affiliation. Two factors support this: first, several party members publicly opposed her return to parliament after her brief leave of absence, indicating the party had turned its back on her. Second, the party faced uncertain prospects after suffering significant reputation damage from which it had not fully recovered. Thus, Gunnarsdóttir may have aimed to differentiate herself and secure her political future by constructing her identity as a distinct MP.

After three years away from parliament, despite her previous claim that she would not run again, Gunnarsdóttir returned after the 2016 elections as an MP for a then-newly founded center-right lib-

Table 1: Regression model results for Þorgerdur Gunnarsdóttir (2000–2021) with SF as response variable (mod = modal verb, nfv = non-finite verb).

| | Stylistic Fronting | | | | | |
|---|---|---|---|---|---|---|
| **Predictors** | **Odds Ratios** | **Std. Error** | **Statistic** | **p** | **Random Effects** | |
| (Intercept) | 7.86 | 2.68 | 6.05 | **<.001** | $\sigma^2$ | 3.29 |
| year | 1.58 | 0.31 | 2.38 | **0.017** | $\tau_{00\ nfv}$ | 0.47 |
| role [minister] | 0.54 | 0.12 | -2.76 | **0.006** | ICC | 0.13 |
| party status [minority] | 0.14 | 0.05 | -5.45 | **<.001** | $N_{nfv}$ | 308 |
| party name [Reformation] | 0.38 | 0.12 | -3.18 | **0.001** | Observations | 3206 |
| finite verb [have] | 0.31 | 0.03 | -11.91 | **<.001** | Marginal $R^2$ | 0.191 |
| finite verb [mod] | 0.07 | 0.02 | -9.90 | **<.001** | Conditional $R^2$ | 0.293 |
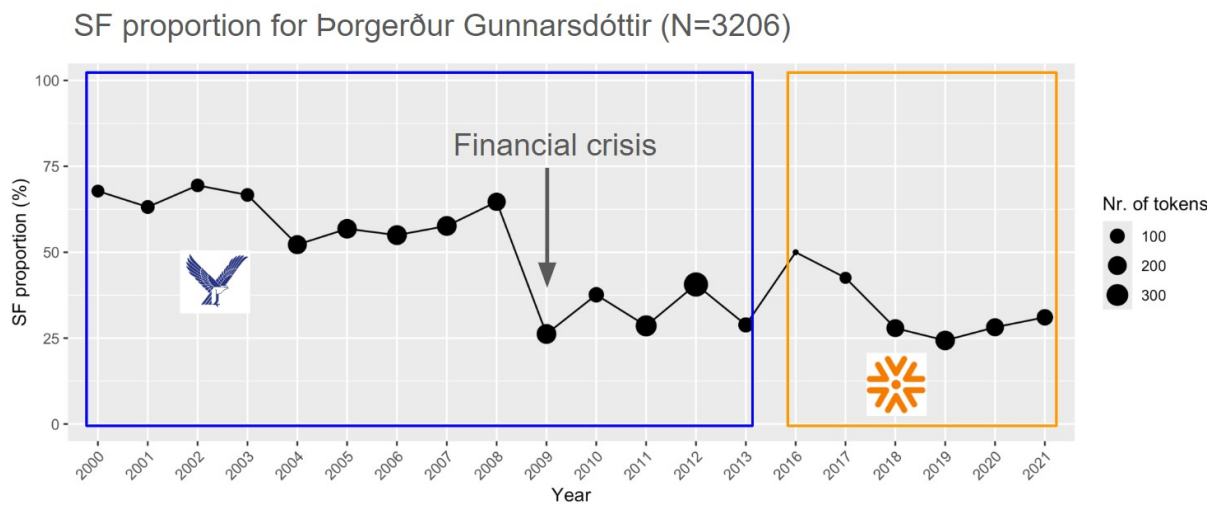


Figure 1: The empirical SF rate for Þorgerður Gunnarsdóttir, divided by her time in the Independence Party (2000-2013) and Reformation Party (2016–2021).
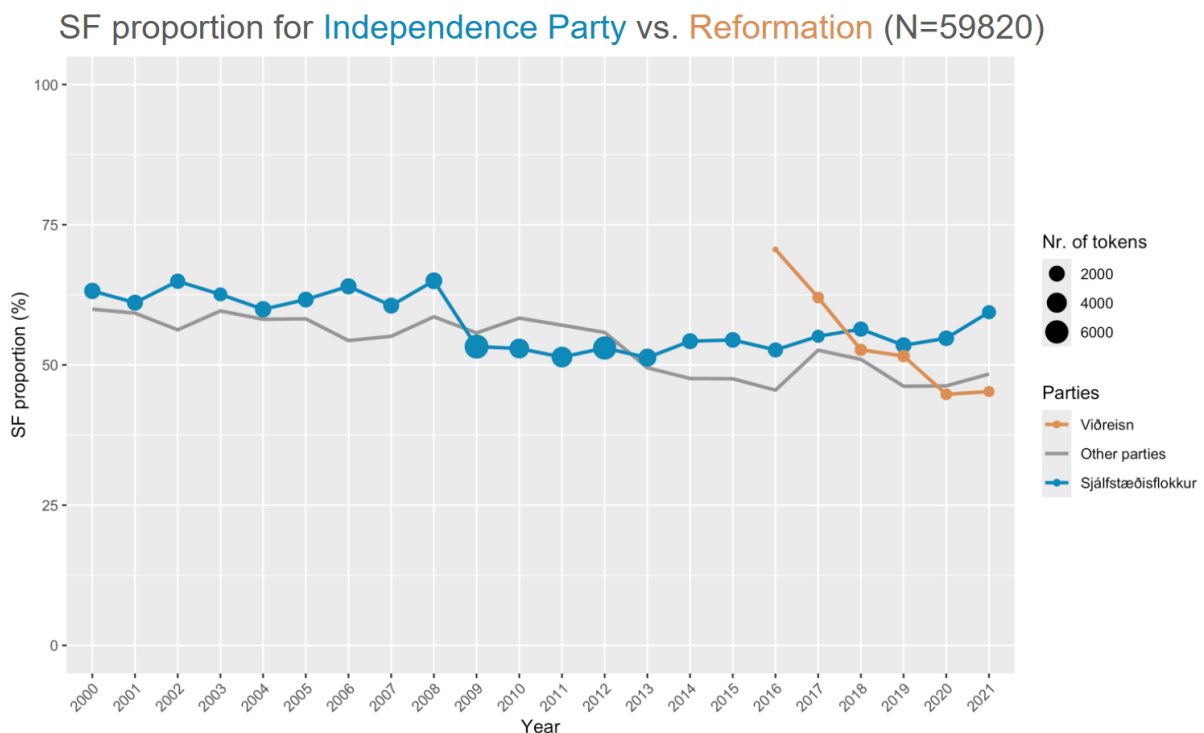


Figure 2: The empirical SF rate for the Independence Party, Reformation Party, and other parties (2000–2021).

eral party, the Reformation Party. Her return caused some stir, and the fact that she was able to gain support to be elected came as a surprise to many. However, Gunnarsdóttir quickly regained the public's trust and her status as an experienced and respected MP, leaving her post-economic crisis behind.

As a member of a conservative party, Gunnarsdóttir's speech was quite formal, with an average rate of SF of approximately 47%. However, following the economic crash of 2008, and subsequently as a member of a more liberal party, her speech is considerably less formal, with an average rate of SF at about 28% (see Figure 1). Interestingly, a less formal language use is not the only change that can be seen in Gunnarsdóttir, as her image has shifted quite a lot since she changed parties, going from a pantsuit-wearing conservative to a casual-looking liberal and a devoted handball fan. We analyze these changes as a successful identity reconstruction necessary for Gunnarsdóttir's political future, as she had previously been forced out of office due to morally questionable actions before and during the economic crash. The downward style-shift monitored is, therefore, an example of audience design where Gunnarsdóttir alters her linguistic performance to be a better match for a more liberal audience, resulting in more casual speech.

## 7  The two political parties

The conservative Independence Party is historically formal in style except for the years following the economic crisis of 2008 (see Figure 2). During and after the years of the economic crash, we can note a significant drop in SF rates for the Independence Party ($X^2(2, 8978) = 103.32, p < .001$). The period from 2009 to late 2012 marks the only time, when they fall below the average of all other parties. In the following years, they remain relatively stable, but incrementally increase their SF use in the periods from 2013 to 2015, from 2016 to 2018, and again from 2019 to 2021, rising above the average for other parties. In 2021, the Independence Party almost reaches the same SF level, or level of formality, as in the early 2000s.

The Reformation Party is a much younger party than the Independence Party and generally takes a more liberal stance. While MPs of the Reformation Party start out with a relative high SF use in 2016, when the party was founded, they quickly drop their rates until 2018 ($X^2(2, 1545) = 13.57, p < .01$; see Figure 2). In 2018 and 2019, they remain overall stable, but decrease their use of SF substantially again in 2020. This also marks the first time they fall below the average of other political parties, which could be cautiously interpreted as a reaction to the Covid-19 pandemic, when the Reformation Party might have tried to appeal to the public by switching to a less formal style.

In the context of this study, it is interesting to consider the parties' trajectories in relation to Gunnarsdóttir's language use. Although she follows the pattern of the Independence Party quite closely up until the economic crash in 2008, her linguistic reaction is much more pronounced than that of the overall party, lowering her rates to almost 25%, while her party remains at about 50% (see Figures 1 and 2). When she re-enters parliament in 2016 as member of the Reformation Party, she is again below the party's average for that year. In the subsequent years, she decreases her SF rates further in line with the change we see for the entire Reformation Party. Thus, Gunnarsdóttir can be described as a leader of linguistic change (Milroy and Milroy, 1985), adopting linguistic trends of her political community or party early and consequently pushing forward linguistic change.

## 8  Conclusion

In this paper, we explored the linguistic trajectory of one Icelandic MP, Þorgerður Gunnarsdóttir, considering the changing rates of SF across her lifespan and political career respectively. The high-definition approach used in the analysis reveals stylistic shifts over time in her language, which seem to be conditioned mainly by the construction and reinvention of her political persona. This negotiation of identity is influenced by historic events such as the economic crash period, but also by personal crises and her relationship to the political party she is part of. We can trace Gunnarsdóttir's altered political identity by the linguistic malleability of her political speeches over time, as featured in the Icelandic Gigaword Corpus.

### Limitations

This paper is an individual case study, making generalizations difficult for groups of politicians. However, an in-depth analysis of one individual still contributes relevant results as outlined above. We focus here on one linguistic feature indexing formality – variation in other variables could complement the presented findings; work on more vari-

ables is in progress. Additionally, this study was conducted on Icelandic in the context of Icelandic politics, which may limit the way in which some findings or conclusions can be applied universally.

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