Language use of political parties over time:
Stylistic Fronting in the Icelandic Gigaword Corpus

Johanna Mechler and **Lilja Björk Stefánsdóttir** and **Anton Karl Ingason**
University of Iceland
Sæmundargötu 2
102 Reykjavík, Iceland
mechler@hi.is, lbs@hi.is, antoni@hi.is

Abstract

Political speech is an active area of investigation and the ongoing ERC project *Explaining Individual Lifespan Change* (EILisCh) expands on some of the previous findings in this area. Previous work has found that political speech can differ based on party membership in a time-wise static environment and it has also been uncovered that individual politicians can change their linguistic behavior over time (Hall-Lew et al., 2010; Stefánsdóttir and Ingason, 2024c). In this paper, we pursue a novel topic in this area, the evolution of language use of entire political parties over time. We focus on Icelandic political parties and their use of Stylistic Fronting from 1999 to 2021, with a particular emphasis on the years around the financial crisis of 2008, and the subsequent years. Our results show that parties in a position of power typically speak more formally, using more Stylistic Fronting, but that at the same time there are some exceptions to this pattern. We highlight the significance of relying on a large speech corpus, when applying a high-definition approach to linguistic analyses across time (Stefánsdóttir and Ingason, 2018).

1 Introduction

Case studies on individual politicians have indicated that historic events have an effect on political speech. For example, in previous studies on several Icelandic members of parliament (MPs), Stefánsdóttir and Ingason (2019, 2024a,b,c) find that individuals employ different linguistic strategies in reaction to these events or crises. While Ásmundur Daðason uses significantly less Stylistic Fronting (SF) during a personal crisis, possibly trying to mitigate negative media coverage, Steingrímur Sigfússon increases his SF use temporarily during the economic crash (Stefánsdóttir and Ingason, 2019, 2024c). In addition to these individual studies which focus on lifespan change or change across time, Holliday (2024) and colleagues (Holliday et al., 2020) provide single case studies on

Barack Obama and Kamala Harris, focusing on one point in time. They reveal how linguistic variation may be part of creating political personas and performances and how equally, linguistic choices may be influenced by a speaker's orientation towards a certain topic (Holliday et al., 2020; Holliday, 2024).

Similarly, studies on entire political parties at one time point reveal that political identity is highly relevant for linguistic production. In their study on *Iraq* vowels of members of the U.S. House of Representatives, Hall-Lew et al. (2010) establish that "Republican Party members were significantly more likely to produce the second vowel in *Iraq* with the more nativized variant, /æ/, while members of the Democratic Party were more likely than Republicans to use /a:/" (Hall-Lew et al., 2012, 47) – a finding that was substantiated in their 2012 study (Hall-Lew et al., 2012). The correlation between phonetic variation and political party could also be found for Scottish MPs (Hall-Lew et al., 2017).

Taken together, the studies above suggest that political affiliation is correlated with how speakers use linguistic variables. However, this claim has not been tested for entire political parties across time. Thus, what we lack are studies on the linguistic evolution of entire political parties, highlighting changes and reactions to historic events and political crises. In this paper, we also focus on a syntactic variable, whereas most of the previous studies have focused on phonological variables. Our main research question is: How do political parties react linguistically to historic events across time, measured by their use of SF? This is the novel angle we add with our research.

2 Background

Our study captures several political crises and historic events in the 21st century. It covers eleven government periods, including one minority government in 2009 (19b), as shown in Table 1. We

313

focus on the linguistic trajectories of four main parties, which have dominated the political scene in the 20th and 21st century (but note for Table 1 that there was a government in 2017 (22b) with two additional parties (Reformation Party (*Viðreisn*), and Bright Future (*Björt framtíð*), which has since been dissolved). The four main parties are the Independence Party (*Sjálfstæðisflokkur*), the Progressive Party (*Framsóknarflokkur*), the Social Democratic Alliance (*Samfylking*), and the Left-Green Movement (*Vinstri græn*). The Independence Party is traditionally a center-right political party and has historically held the position as Iceland's largest political party. Originally founded as a farmers' party, the Progressive Party is a center-based party, remaining connected to rural communities. The Social Democratic Alliance is a center-left coalition party, established to consolidate left-wing political ideologies into a single party. The Left-Green Movement is a left-wing party that highlights ecological concerns and advocates for social justice (Kristjánsson and Indridason, 2011, 161–163).

Table 1: Overview of Icelandic governing parties and oppositions from 1999–2021 (I = Independence Party, P = Progressive Party, SD = Social Democratic Alliance, LG = Left-Green Movement, R = Reformation Party, BF = Bright Future). Note that in the opposition column only the four main parties are listed, so this is not a comprehensive list of all opposition parties.

Start	End	No.	Govern.	Oppos.
1999	2003	17	I+P	SD+LG
2003	2004	18a	I+P	SD+LG
2004	2006	18b	P+I	SD+LG
2006	2007	18c	I+P	SD+LG
2007	2009	19a	I+SD	P+LG
2009	2009	19b	SD+LG	I+P
2009	2013	20	SD+LG	I+P
2013	2016	21	P+I	SD+LG
2016	2017	22a	P+I	SD+LG
2017	2017	22b	I+R+BP	SD+LG+P
2017	2021	23	LG+I+P	SD

Throughout these periods some dramatic shifts in political power occurred. For instance, the government with the Social Democratic Alliance and the Left-Green Movement (20) was the first all-left government in Icelandic history. With this study, we aim to explore if these major shifts in political power are traceable in linguistic behavior.

3   Methods and Data

The data come from the *Icelandic Parliament Corpus*, which is a parsed subcorpus of the *Icelandic Gigaword Corpus* (Steingrímsson et al., 2018) (for more details see Steingrímsson et al., 2020). To consider more recent developments, our focus is on the time period from 1999 to 2021 or government periods 17 to 23 respectively. Importantly, whereas most studies on (individual) lifespan change include two or three time points (e.g., Wagner, 2012), our continuous data set offers numerous points of measurement, making it a high-definition study (Stefánsdóttir and Ingason, 2018).

As mentioned, we consider the speech of MPs only of the four main parties in Iceland: the Independence Party, the Social Democratic Alliance, the Progressive Party, and the Left-Green Movement. The data set accounts for 324 MPs, who occupied different roles in government, e.g., members or ministers.

Data processing relied on Python scripts, utilizing the PoS-tags and lemmas from the corpus to identify examples of SF (n=181,883) within relative clauses containing a subject gap, as well as similar instances where it could have been applied but was not, in order to determine the percentage of SF use.

SF is an optional feature in Icelandic, with a word or phrase moving to the subject gap position – as shown in (1) and (2) (Maling, 1980; Holmberg, 2000, 2006; Thráinsson, 2007; Angantýsson, 2017; Ingason and Wood, 2017). We define the grammatical context here as SF in relative clauses with a subject gap where a finite auxiliary and a non-finite main verb appear at the beginning of the clause in two possible word orders: Without SF, the auxiliary precedes the non-finite main verb (1). With SF, the non-finite main verb precedes the auxiliary (2). SF use indexes a more formal style (Wood, 2011).

(1)   Varðandi það [CP sem **var sagt** hér] ...
      regarding it   that **was said** here
      'Regarding what was said here ...'

(2)   Varðandi það [CP sem **sagt var** hér] ...
      regarding it   that **said was** here
      'Regarding what was said here ...'

Data analysis was conducted in R (R Core Team, 2023) and relied on chi-square tests and mixed-effects regression models (*lme4*). The reported model used SF as response variable and year (1999–2021), government (17–23), role (member, minis-

ter, replacement), sex (female, male), party status (majority/ government, minority/ opposition), and finite verb (*be*, *have*, modal verb) as fixed predictors; person and non-finite verb were random effects (Table 2). Model selection was based on AIC and *p*-values (*anova*).

4 Results

Figure 1 plots the proportional use of SF for all main parties across the eleven government periods. The Independence Party remains linguistically stable during their time in power from 1999 (17) to 2009 (19a). But they drastically decrease their SF use as they lose political power in the aftermath of the economic crash in 2009 (19b). They only increase their SF use slightly, when becoming part of the governing parties again in 2013 (21), remaining relatively stable for the remainder of the time.

The Progressive Party follows a similar trajectory to that of the Independence Party (Figure 1). We attribute this finding to the fact that they are in a coalition government together for the majority of the time period under investigation (1999–2007, 2013–2017, and 2017–2021; Table 1). But it should be noted that they generally show a lower proportion of SF than the Independence Party, which might be because they want to construct a more approachable, less formal identity, especially during their times in opposition. For example, during government periods 19a and 19b, the Progressive Party steadily decreases their SF use. Although we see a minor increase from 19b to 20, when they are still in opposition, this is not significant according to a chi-square test ($X^2(1, 10174)= 0.22$, *p*=.64). Like the Independence Party, the Progressive Party increases their use of SF substantially in 2013 (21), becoming part of the government again. They behave linguistically differently from the Independence Party from 2016 to 2017, but this drop could also be the result of low token numbers.

Generally, the Social Democratic Alliance shows very similar trends, increasing their SF use when holding more political power. Especially during the economic crash period and its aftermath from 2007 to 2013, when they are part of the government, they show higher SF rates than during other periods in opposition (except for 22a, where we only have low token numbers) (Figure 1).

These linguistic patterns highlight two important trends. First, they emphasize the importance of party status: When political parties hold power,

they use more SF, thus they speak more formally. These results are confirmed by our regression models, selecting government period and party status as highly significant predictors and indicating highly significant differences between levels (Table 2).

We should also note here that, as far as we know, SF use is not tied to specific topics, nor does it evoke certain attitudes or opinions (in contrast, e.g., to the phonetic variation studied by Hall-Lew at al., 2017). In our data, the role of the MP conditions SF use (Table 2). This might be because in the role of the minister, MPs have more carefully prepared speeches, thus potentially apply a more formal style. Although this effect of role operates independently of the shifts in SF use described above, they are connected indirectly. Political parties in power assign all ministers, and ministers typically have more prepared speeches with a higher degree of formality. This effect then accounts at least for some of the power changes outlined above.

There are also exceptions to the general trend that more power equals higher SF rates, which we will exemplify by considering the linguistic trajectory of the Left-Green Movement. While overall they pattern together with the Social Democratic Alliance, it is surprising to find that they decrease their SF use when gaining political power in 2017 (23) (Figure 1). This change from government period 22b to 23 is highly significant ($X^2(1, 6681)= 6.71$, *p*<.01). Their divergence from the general pattern might be explained by the unique situation the Left-Green Movement was facing during that time. They were part of the government in 2017 (23), but they were forced to form a coalition with the Independence Party and the Progressive Party, which are on the opposing political spectrum. In response, the Left-Green Movement was faced with criticism and unpopularity, so they might have chosen a different linguistic path in order to differentiate themselves from their "political opponents" who were nevertheless part of the same coalition government. Hence, when political parties are struggling to work together, these parties may try to set themselves apart linguistically to highlight their different stance or political identity, even when they are working together in the same government.

5 Conclusion

Political parties shift their use of SF as they gain or lose political power. With more political power, the parties use more SF, and vice versa. However,
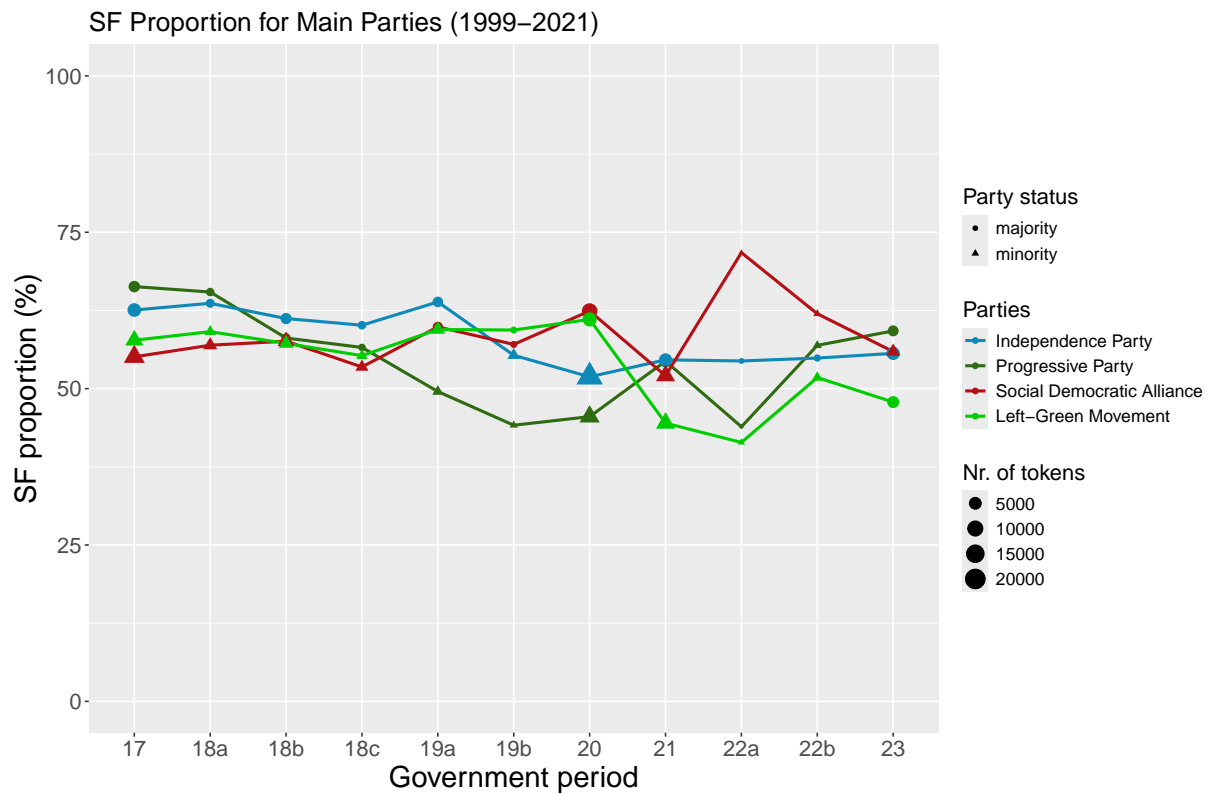
Figure 1: The empirical rate of SF over eleven government periods (1999-2021), by political party and party status.

Table 2: Regression model results for four main parties (1999–2021) with SF as response variable (fv = finite verb, gov = government, mod = modal verb, nfv = non-finite verb).

			Stylistic Fronting			
Predictors	**Odds Ratios**	**Std. Error**	**Statistic**	***p***	**Random Effects**	
(Intercept)	2.37	0.19	10.81	**<.001**	σ^2	3.29
year	0.92	0.03	-2.75	**0.006**	$\tau_{00 \ nfv}$	0.86
gov [18a]	1.02	0.03	0.50	0.616	$\tau_{00 \ person}$	0.20
gov [18b]	0.91	0.03	-2.69	**0.007**	ICC	0.24
gov [18c]	0.83	0.04	-4.16	**<.001**	N_{nfv}	1578
gov [19a]	1.04	0.05	0.93	0.354	N_{person}	324
gov [19b]	0.89	0.05	-1.96	0.051		
gov [20]	0.92	0.05	-1.45	0.147	Observations	181883
gov [21]	0.72	0.06	-4.29	**<.001**	Marginal R^2	0.127
gov [22a]	0.62	0.08	-3.70	**<.001**	Conditional R^2	0.339
gov [22b]	0.87	0.09	-1.39	0.165		
gov [23]	0.74	0.08	-2.91	**0.004**		
role [minister]	1.22	0.03	8.10	**<.001**		
role [replacement]	1.04	0.05	0.93	0.350		
sex [M]	0.79	0.05	-3.65	**<.001**		
party status [minority]	0.80	0.02	-11.74	**<.001**		
fv [have]	0.25	0.00	-103.19	**<.001**		
fv [mod]	0.10	0.00	-69.57	**<.001**		

as illustrated by the trajectory of the Left-Green Movement, there are exceptions to this pattern. Although party status is a main contributing factor, linguistic choices for political parties are not the result of a single factor, but are conditioned by a multifaceted, complex set of factors. By relying on extensive data from a tagged corpus, we could apply a high-definition approach to our analysis (Stefánsdóttir and Ingason, 2018), which revealed this intricate pattern across time.

In sum, these results add a new dimension to the study of political speech by considering the language use of entire political parties across different government periods. We could highlight that political crises or historic events, such as the economic crash, can cause changes in power dynamics, which evoke linguistic reactions that are traceable for entire political parties over time.

Limitations

The limitations of this paper refer to the linguistic and fine-grained stylistic conditioning of SF use that were not investigated further here. It is possible that, for example, the type of speech affects SF rates; however, we lack reliable data on the stylistic contexts of the political speeches. As mentioned, we can only operationalize this factor indirectly using the MP's role, since ministers generally give more prepared speeches with a higher degree of formality. As suggested by a reviewer, future research might consider other markers (specifically lexical) that could mark a different tone. The Icelandic Parliament Corpus is also limited to Icelandic as a language, and further, the Icelandic political system. Other forms of government might operate differently, which might also have consequences for the linguistic variation of the political parties involved.

Acknowledgments

References

Ásgrímur Angantýsson. 2017. Stylistic fronting and related constructions in the insular scandinavian languages. In Höskuldur Þráinsson, Caroline Heycock, and Zakaris Svabo, editors, *Syntactic Variation in Insular Scandinavian. Studies in Germanic Linguistics*, pages 277–306. John Benjamins Publishing Company, Netherlands.

Lauren Hall-Lew, Elizabeth Coppock, and Rebecca L Starr. 2010. Indexing political persuasion: Variation in the Iraq vowels. *American Speech*, 85(1):91–102.

Lauren Hall-Lew, Ruth Friskney, and James M. Scobbie. 2017. Accommodation or political identity: Scottish members of the UK parliament. *Language Variation and Change*, 29(3):341–363.

Lauren Hall-Lew, Rebecca Starr, and Elizabeth Coppock. 2012. Style-shifting in the u.s. congress: The vowels of 'Iraq(i)'. In Juan Manuel Hernandez Campoy and Juan Antonio Cutillas Espinosa, editors, *Style-Shifting in Public: New Perspectives on Stylistic Variation*, pages 45–63. John Benjamins Publishing Company.

Nicole Holliday. 2024. Complex variation in the construction of a sociolinguistic persona: The case of vice president Kamala Harris. *American Speech*, 99(2).

Nicole Holliday, Jason Bishop, and Grace Kuo. 2020. Prosody and political style: The case of Barack Obama and the L+ H* pitch accent. In *Proceedings of the 10th International Conference on Speech Prosody, Tokyo, Japan, May*, pages 25–28.

Anders Holmberg. 2000. Scandinavian stylistic fronting: How any category can become an expletive. *Linguistic Inquiry*, 31(3):445–483.

Anders Holmberg. 2006. Stylistic fronting. *The Blackwell Companion to Syntax*, pages 532–565.

Anton Karl Ingason and Jim Wood. 2017. Clause bounded movement: Stylistic fronting and phase theory. *Linguistic Inquiry*, 48,3:513–527.

Svanur Kristjánsson and Indridi H. Indridason. 2011. Iceland: Dramatic shifts. In Torbjörn Bergman and Kaare Strøm, editors, *The Madisonian Turn: Political Parties and Parliamentary Democracy in Nordic Europe*, New Comparative Politics, pages 158–199. University of Michigan Press.

Joan Maling. 1980. Inversion in embedded clauses in Modern Icelandic. *Íslenskt Mál*, 2:175–193.

R Core Team. 2023. *R: A Language and Environment for Statistical Computing*. R Foundation for Statistical Computing.

Lilja Björk Stefánsdóttir and Anton Karl Ingason. 2018. A high definition study of syntactic lifespan change. *U. Penn Working Papers in Linguistics*, 24(1):1–10.

Lilja Björk Stefánsdóttir and Anton Karl Ingason. 2019. Lifespan change and style shift in the Icelandic Gigaword Corpus. In *Proceedings of CLARIN Annual Conference 2019*, pages 138–141.

Lilja Björk Stefánsdóttir and Anton Karl Ingason. 2024a. Reinventing an identity for a more liberal audience. *New Ways of Analyzing Variation*, 52.

Lilja Björk Stefánsdóttir and Anton Karl Ingason. 2024b. Using the Icelandic Gigaword Corpus to explain lifespan change. In *Proceedings of CLARIN Annual Conference 2024*, pages 6–9.

Lilja Björk Stefánsdóttir and Anton Karl Ingason. 2024c. Wiggly lifespan change in a crisis. contrasting reactive and proactive identity construction. *U. Penn Working Papers in Linguistics*, 30(2):119–125.

Steinþór Steingrímsson, Starkaður Barkarson, and Gunnar Thor Örnólfsson. 2020. IGC-Parl: Icelandic Corpus of Parliamentary Proceedings. In *Proceedings of the Second ParlaCLARIN Workshop*, pages 11–17.

Steinþór Steingrímsson, Sigrún Helgadóttir, Eiríkur Rögnvaldsson, Starkaður Barkarson, and Jón Guðnason. 2018. Risamálheild: A very large Icelandic text corpus. In *Proceedings of the Eleventh International Conference on Language Resources and Evaluation*, LREC 2018, Miyazaki, Japan.

Höskuldur Thráinsson. 2007. *The Syntax of Icelandic*. Cambridge University Press, Cambridge.

Suzanne Evans Wagner. 2012. Real-time evidence for age grad(ing) in late adolescence. *Language Variation and Change*, 24(2):179–202.

Jim Wood. 2011. Stylistic Fronting in spoken Icelandic relatives. *Nordic Journal of Linguistics*, 34(1):29–60.