

Lifespan Change and Style Shift in the Icelandic Gigaword Corpus

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Introduction

Point of departure:

- In recent years, studies of variation and change have increasingly paid attention to linguistic change across the lifespan of an individual. What can change and how?
- Most of the studies of this type have a very limited time resolution, typically looking at 2–3 periods in the speaker's life.

Main point:

While community-wide usage evolution is often systematic and gradual, **individual lifespan change responds rapidly to idiosyncratic sociolinguistic pressures – demanding a high-definition approach.**

What is this study about?

- Variable use of **stylistic fronting in Icelandic in thousands of parliament speeches** given by Steingrímur J. Sigfússon between 1990-2013. This reveals a **fine-grained diachronic picture.**

Icelandic SF: Optional movement into a PF subject gap

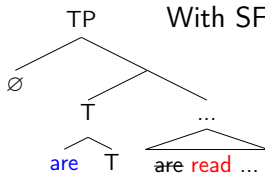
Variant **without** Stylistic Fronting (SF):

- (1) Bækur [CP sem eru lesnar til skemmtunar] eru bestar.
 books [CP that are read for entertainment] are best
 'Books that are read for entertainment are the best ones.'

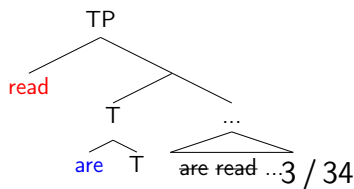
Variant **with** Stylistic Fronting (SF):

- (2) Bækur [CP sem lesnar eru til skemmtunar] eru bestar.
 books [CP that read are for entertainment] are best
 'Books that are read for entertainment are the best ones.'

Without SF (1):



With SF (2):



Roadmap

Main point:

While community-wide usage evolution is often systematic and gradual, **individual lifespan change responds rapidly to idiosyncratic sociolinguistic pressures – demanding a high-definition approach.**

Roadmap:

- Social meaning and linguistic performance.
- Stylistic fronting and the envelope of variation.
- Lifespan change and other types of linguistic change.
- Evolution of Steingrímur Sigfússon's SF use.
- Conclusion.

Social meaning and linguistic performance

How does social meaning shape linguistic performance?

Reactions to (“simple”) pressures towards formal/informal style:

- Variation along a one-dimensional scale.
- Attention paid to speech (Labov 1972)
- Linguistic Marketplace (Sankoff & Laberge 1978)

Reactions to perceived social roles of speaker/hearer:

- Multi-dimensional facts about society and social networks.
- Audience/Referee design (Bell 1984, 2001)
- Social identity; group membership (Eckert 1989; 2001)

Different types of forces

- Situational forces (style shift with respect to current moment).
- Long term forces (social status at this point in life).

The Linguistic Marketplace (Sankoff & Laberge 1978)

Linguistic Market Value in a nutshell

A reasonable measure of how important language is for a person can be a good predictor of the rate of use of formal/respectable variants.

High Linguistic Market Value:

- Politicians, teachers, reporters and in general people who are linguistic role models and/or visible in the media.

Our study ...

- ... can be seen as tracking the linguistic market value of Sigfússon throughout his political career and how it correlates with the use of a stylistically formal syntactic variant.

Stylistic fronting

What is Stylistic Fronting (SF)?

SF is an optional movement in Icelandic of a head (/word) or a phrase to the front of a clause that has a phonological subject gap.

- (3) ... [CP sem lesnar eru lesnar til skemmtunar] eru bestar.
 ... [CP that read are read for entertainment] are best
 '... that are read for entertainment are the best ones.'

Properties:

- SF has no effect on truth conditions.
- The only clear meaning component is a sociolinguistic one – SF is associated with formal style.
- SF is found in both main clauses and subordinate clauses, as long as the subject is not phonologically overt.
- Although XP's can be stylistically fronted, we only focus on the canonical case where a non-finite main verb is fronted.

Envelope of variation

In our study, we focus on the following word orders involving the complementizer *sem* that introduces Icelandic relative clauses:

- (4) a. *sem* - finite auxiliary - non-finite main verb
b. *sem* - non-finite main verb - finite auxiliary

Why?

- This does not include all cases of SF but allows us to extract a well-defined envelope of variation with high accuracy (where SF application and non-application are accounted for).
- Python script that matches actual relevant cases.
- Reliability checked manually and the method works well.

Lifespan change and other types of linguistic change

Syntactic change

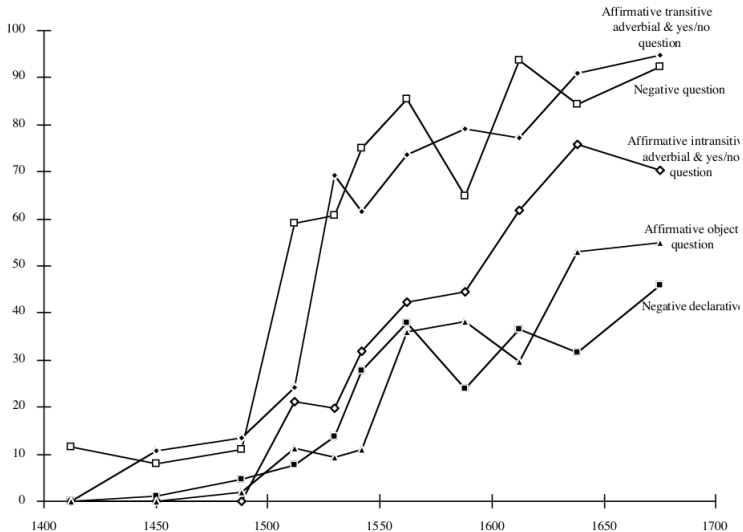
Historical change:

- Trajectories that can span several generations – or even centuries.
- Some mechanical (or at least systematic) effects yield S-shaped curves. (As mathematically neat as we can hope for.)

Change across the lifespan of an individual:

- **Age-grading:** Patterns in linguistic performance associated with certain age groups. Relatively systematic generalizations over communities. (Somewhat systematic and predictable)
- **Individual lifespan change:** Rapid reactions of individuals to idiosyncratic events. (Chaotic and unpredictable; explanations demand a high level of both quantitative and qualitative depth)

Syntactic change: S-curves across contexts (Kroch 1989)



Lifespan change (whether syntax or phonology)

Studies of lifespan change are difficult:

- Ideally, we would want repeated sociolinguistic interviews with the same speaker every year for a couple of decades. This is time consuming.
- Even lifespan studies that use publicly available recordings often focus on just 2–3 time periods because the transcription work is time consuming (e.g., Kwon 2017).

Our study

- We use publicly available transcripts and audio recordings of 23 years of a political career in the Icelandic parliament.
- Not sociolinguistic interviews, but still relatively natural speech and an abundance of data to analyze.

Sankoff & Wagner (2006): periphrastic futures in M. French

A very important study on morphosyntactic lifespan change, but the time resolution is only 2 readings per individual (1971 and '84).

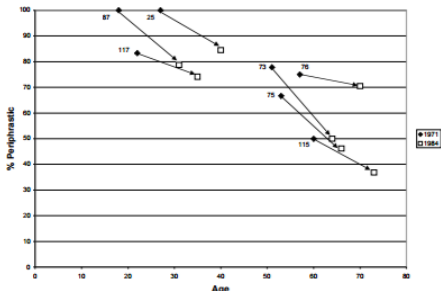


Figure 3: Individual percentages of periphrastic futures for all SEC=1 speakers (N=7), trajectories traced between 1971 and 1984.

Point about studying lifespan change

- A more fine-grained time resolution would tell us more.

Researcher(s)	Study	Time resolution
Sankoff & Blondeau, 2007	Language change across the lifespan: /r/ in Montréal-French	2 (/3)
Douglas-Cowie, 1978	Linguistic code-switching in a Northern-Irish village	2
Kwon, 2017	Vowel change across Noam Chomsky's lifespan	2
Sankoff & Wagner, 2006	Age grading in retrograde movement: The inflected future in Montréal-French	2
MacKenzie, 2014; forthcoming	Intraspeaker change in later life: Implications for grammatical representation	4

Steingrímur J. Sigfússon's parliament speeches 1990-2013



A mixed method

Quantitative:

- 8005 tokens of the SF variable extracted from publicly available audio+video recordings and transcriptions.

Coded for:

- SF application (SF vs. unused opportunity to use SF)
- Speaker's age
- Type of speech (prepared/response) – note: prepared ≠ read
- Manual checking of selected samples of machine annotation as well as transcription accuracy (by listening to recordings).

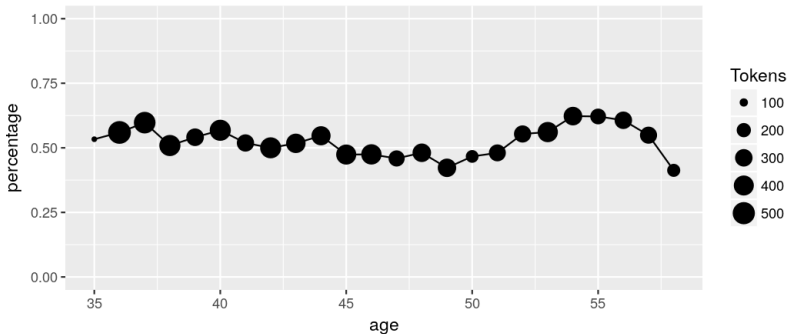
Crucial aspect of the design: High time resolution

We divide the data into 23 years.

Qualitative:

- Interview with Sigfússon carried out on 2 March, 2017.
- Side-by-side investigation of SF use and Icelandic political history.

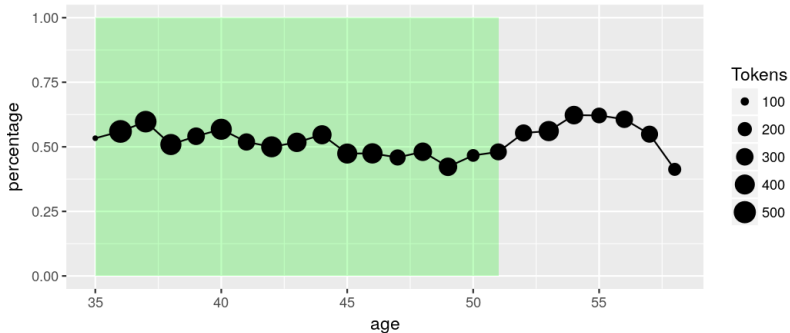
1990-2013: Sigfússon's overall rate of SF use



Initial observations:

- Not a (one simple) S-shaped curve.
- SF use ranges from 41% to 62% – and can change rapidly.
- A lot of information would be lost if we only had the first and the last year (a time resolution of 2 instead of 23).

1990-2006: Linguistic retrenchment (cf. Chambers)



- Gradual decline in use of SF.
- A different status in the Linguistic Marketplace.
- Linguistic retrenchment – more confident and less external pressure.



2006-2007: Sigfússon becomes the “minority leader”

- After the 2007 elections the right wing Independence Party and the Social Democratic Party form a coalition government.
- Steingrímur’s Left-Green Party transforms from a small and somewhat marginal party into the biggest opposition party.
- The other main opposition party at the time, The Progressive Party (Framsóknarflokkurinn), is in a weak position after suffering a loss in the election.

Quote from our 2 March interview

‘I felt like I had greater responsibilities. At least, I had a bigger role than before.’

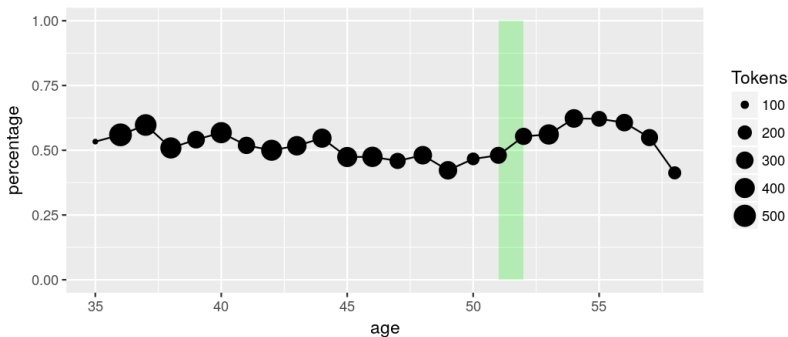
Events leading up the economic collapse in 2008

- Steingrímur becomes a frequent commentator in the Icelandic media, warning that an economic disaster is looming.

Quotes from our 2 March interview

- 'At that point I had become very worried that the [economic] balance was deteriorating and that we were about to be derailed. I received a lot of attention in discussions about the economy [and my message case across as] some kind of a general response to the government and its economic policies.'
- 'They should have listened to me back then'.

Linguistic Market Value as minority leader



Observations:

- The biggest rise in SF use between years in the study.
- An analysis in terms of a status change in the Linguistic Marketplace is well motivated.

2008: Economic collapse and demonstrations

- Following the bankruptcy of Lehman Brothers in the fall of 2008, the entire Icelandic banking system collapsed.
- Street demonstrations followed, the government lost its majority, and Sigfússon eventually found himself as the minister of finance in an economy fighting for its life.



2008-2012: Maximum Linguistic Market Value

- As minister of finance, Sigfússon was a key figure of the Icelandic side of a legal dispute between Iceland and the UK over savings accounts in the collapsed Icelandic banking system.
- Below, Sigfússon is on BBC news, arguing the Icelandic point of view, before a conclusion was reached by an international court.
- The claim made on the Icelandic government by the UK at the time was close to \$10.000 per every living Icelander.

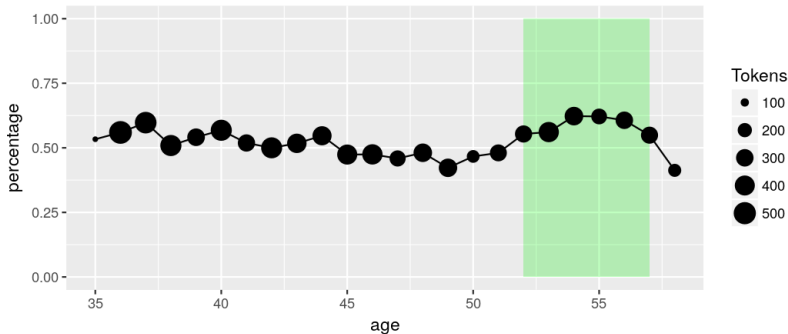


On great responsibilities

From our 2 March interview:

'The tasks that I had to undertake were really difficult and many of the proposals I put forth were terrible [...] gory budget cuts and tax increases [...] but you just had to do it because there was nothing else that could be done.'

2008-12: Linguistic Market Value as minister of finance



Observations:

- SF use is highest when Sigfússon is responsible for the Icelandic economy in the aftermath of the 2008 economic collapse.
- Sigfússon's linguistic market value skyrockets in this period under any reasonable way of measuring it.

2013: Sigfússon steps down

- In the 2013 election, the left wing government lost its majority.
- Sigfússon stepped down as minister of finance and as the leader of the Left Green party.
- He returned to being a normal parliament member and others took over those roles.

Quote from our 2 March interview

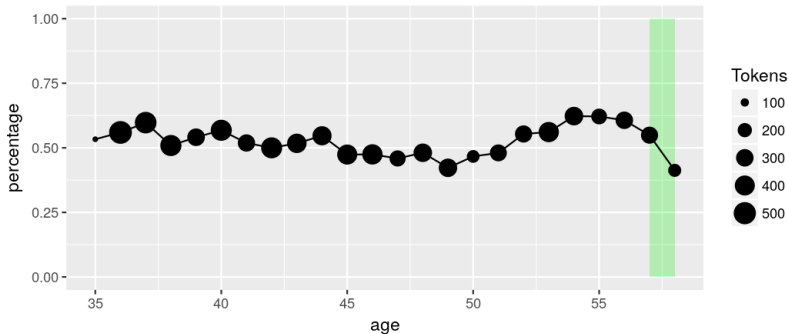
'... I had had enough in the sense that my first thought was simply that it was time for me to take a break, get some rest, breathe and recover.'

2013: Tending to the sheep

One month after the election ...



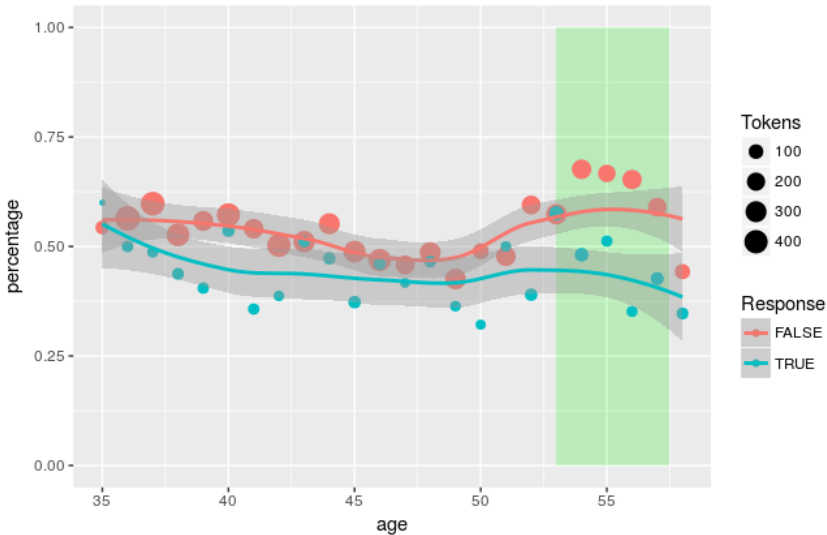
Sigfússon steps down after the 2013 election



Observations:

- SF use sharply declines when Sigfússon steps down as finance minister and leader of his party.
- While he is still a member of the parliament, he has passed on the torch in terms of the leadership roles that shaped his usage 2006-2012.

Style shift



Conclusion

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Main point:

While community-wide usage evolution is often systematic and gradual, **individual lifespan change responds rapidly to idiosyncratic sociolinguistic pressures – demanding a high-definition approach.**

- Our method is not a replacement for sociolinguistic interviews.
- Different approaches are appropriate for different kinds of questions; here we need a lot of data from one speaker.
- Individuals can be more complicated than communities.

