

Að greina milli breytingar og stöðugleika  
– meginlegg rannsókn á íslenskum  
aukafallsfrumlögum

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24. ágúst, 2011, Útgáfuhátíð IcePaHC, Háskóla Íslands

# Overview

- 1 Diachrony of oblique subjects
  - No change since 12th century (so OV to VO is not to blame)
- 2 Quantitative evidence
  - Stable extraction contexts
  - Stable use immediately following finite verb
  - Stable conjunction reduction
- 3 Conclusion

## Goals of the paper

- **Empirical:** Show that the status of oblique experiencers in Icelandic as syntactic subjects has remained stable since the 12th century, ruling out changes from this period as causes (notably the OV to VO change).
- **Methodological:** Show how the use of quantitative evidence can make up for lack of categorical diagnostics in historical texts.

# Oblique subjects in Modern Icelandic

- Consensus that oblique arguments can have subject status in Modern Icelandic (since Andrews 1976; Thráinsson 1979):

(1) **Mér** líkar ekki öskuskýið.  
Me.DAT likes not ash.cloud.THE  
'I don't like the ash cloud'

# Diagnostics

- For example, dative experiencers can be PRO subjects in control infinitives in Modern Icelandic, unlike German (Zaenen et al 1985; Haider 2005, etc.) or Yiddish (Santorini 1989).

(2) Hún vonast til að **PRO** ganga vel einni.  
She hopes for to DAT do well alone.DAT.  
'She hopes to do well alone'

- Definitive diagnostics are more elusive in Old Icelandic, because they are low frequency and we are at the mercy of the written record.

## Oblique subjects probably “existed” in Old Icelandic

- Rögnvaldsson (1996) provided arguments that oblique subjects were also attested in Old Icelandic.
- Argued from selected example sentences that oblique arguments in Old Icelandic showed behavior characteristic of modern oblique subjects, including conjunction reduction.
- Clear oblique PRO examples were lacking.
- Not clear if the examples cited are early indications of spread rather than a fully developed Modern Icelandic system.
- Not everyone was convinced (Faarlund 2003).
- The current paper tests Rögnvaldsson’s claim of diachronic stability, and tests it with detailed large scale quantitative evidence.

## Quantitative evidence from IcePaHC

- The most convincing evidence for oblique subjects in Modern Icelandic occurs at a low frequency in natural data so its absence from older written texts is simply uninformative.
- In addition to the usual evidence, there are variable subject-object contrasts which produce quantitative patterns.

# Experiments

- 3 experiments:
  - Extraction contexts
  - Default postverbal position
  - Conjunction reduction
- Each experiment is designed to evaluate two quantitative hypotheses:
  - **Hyp. A: The obliques became subjects over time.**  
Oblique potential-subjects evolve so that a given quantitative behavior becomes more like the behavior of unambiguous nominative subjects (control group).
  - **Hyp. B: The obliques were subjects the whole time.**  
No change in relative quantitative patterning of obliques vs. nominative subjects.
- Separate sections for each experiment:
  - Data overview
  - Experimental design
  - Results

## Exp I: Extraction contexts (data overview)

- Icelandic data:
  - Symmetrical V2 language (Thráinsson 1986, 2007)
  - Permits embedded topicalization
  - Position preceding the finite verb can contain either the subject or a fronted constituent, even in subordinate clauses.
- Extraction out of a clause degrades (or completely rules out) acceptability of embedded topicalization (Jónsson 1996, Angantýsson 2011):

(3) Ég spurði hvað hún gaf Jóni  
I asked what.ACC she.NOM gave John.DAT  
'I asked what she gave to John'

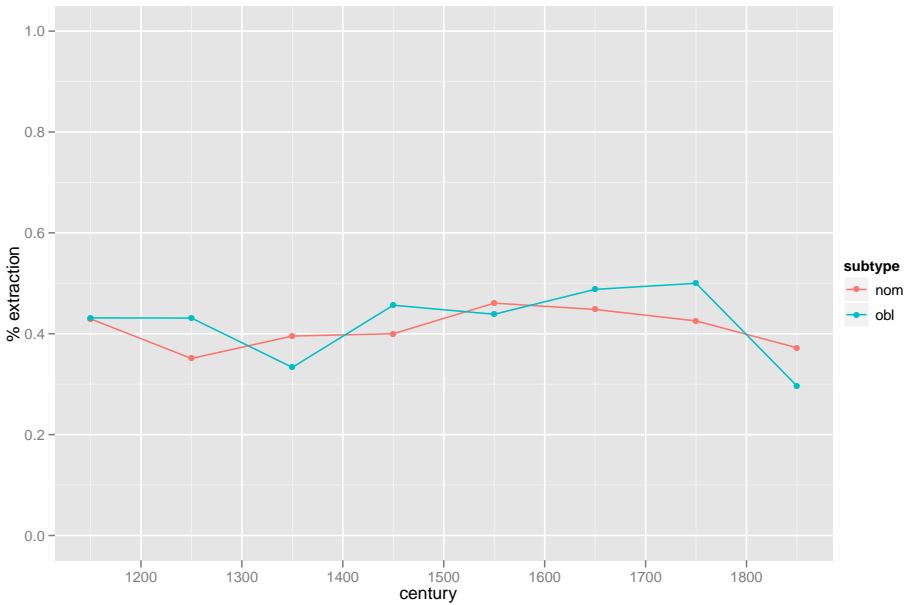
(4) \*Ég spurði hvað Jóni gaf hún

(5) Ég spurði hvað Jóni var gefið  
I asked what.NOM John.DAT was given  
'I asked what John was given'

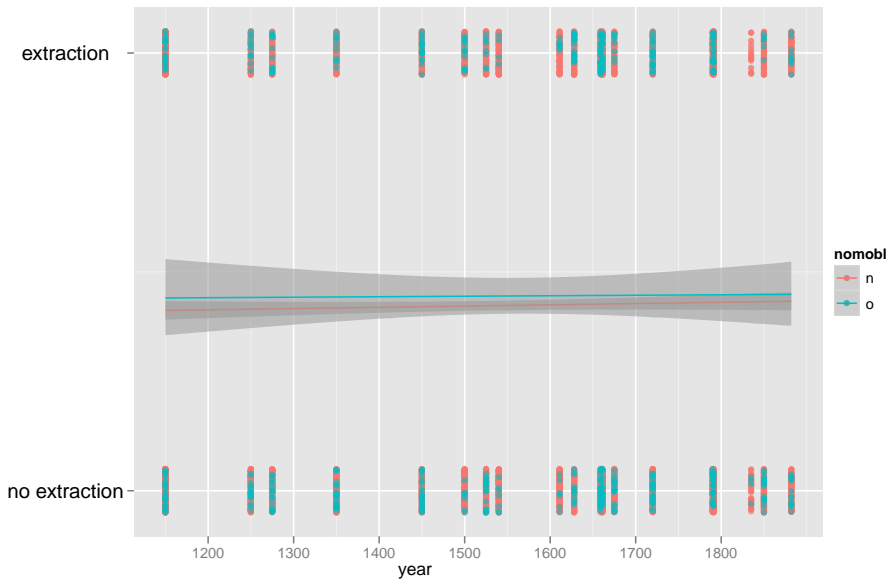
## Exp I: Extraction contexts (experimental design)

- Queried for:
  - All subordinate clauses where initial element is either hypothesized oblique subject or a nominative subject
- Coded each clause for:
  - Clause containing an extraction vs. non-extraction
  - Year (and century)
- Different quantitative predictions:
  - **Hyp. A: The obliques became subjects over time:**  
Rise in frequency of gap-containing clauses with initial obliques, as this string becomes more and more grammatical (as the obliques become subjects).
  - **Hyp. B: The obliques were subjects the whole time:**  
Stable frequency of gappy clauses with initial obliques compared to the control sample with initial nominative subjects.
- We calculated the frequency by time period

# Exp I: Extraction contexts (results) (n=8303)



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## Exp II: Default postverbal position (data overview)

- Icelandic data:

- V2

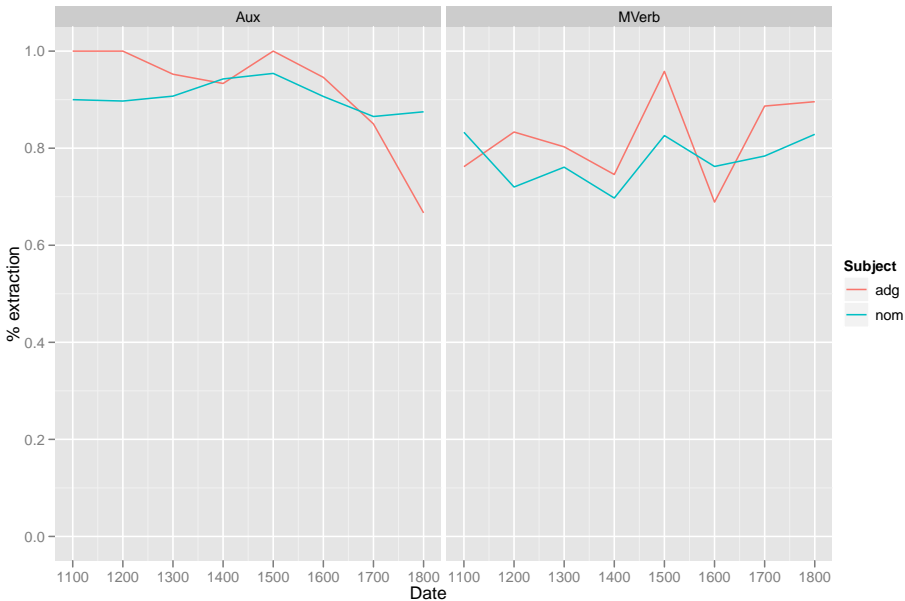
- Subjects follow the finite verb immediately by default when something else is topicalized

- (6) Sjaldan líkar **málfræðingum** öskuský.  
rarely like.3Sg linguists.DAT ash.clouds  
'Rarely do linguists like ash clouds'
- (7) \*Sjaldan líkar öskuský **málfræðingum**.  
rarely like.3Sg ash.clouds linguists.DAT  
'Rarely do linguists like ash clouds'
- (8) Sjaldan líka **málfræðingar**  
rarely facebook-like.3Pl linguists.NOM  
Eyjafjallajökul.  
Eyjafjallajokull.ACC  
'Rarely do linguists facebook-like Eyjafjallajokull'

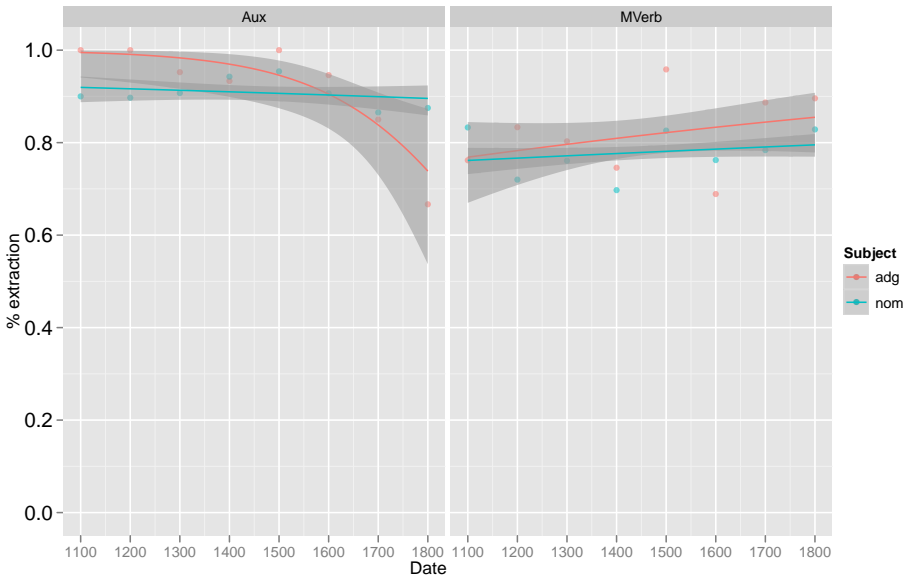
## Exp II: Default postverbal position (experimental design)

- Queried for following word orders:
  - FiniteVerb - **NomSubject** - SomePhrase ← **def. sbjpos.**
  - FiniteVerb - SomePhrase - NomSubject
  - FiniteVerb - **Oblique** - SomePhrase ← **def. sbjpos.**
  - FiniteVerb - SomePhrase - Oblique
- Different quantitative predictions:
  - **Hyp. A: The obliques became subjects over time:**  
Rise in frequency of oblique arguments immediately following the finite verb compared to nominative control group.
  - **Hyp. B: The obliques were subjects the whole time:**  
Stable frequency of obliques in this position compared to nominatives.
- We calculated the frequency by century (12th to 19th inclusive)

# Exp II: Default postverbal position (results)



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## Exp II: Default postverbal position (results)

- For clauses with auxiliaries, the only difference between the obliques and nominatives is in the opposite direction of the prediction that oblique subjects developed over time. (And there is sparse data for the last period, 15 clauses for the 1800s.)
- Logistic regression of the main verb data gives no significant difference between the position of nominatives and obliques over time ( $p=0.4077$ ).
- In fact, it is not clear that there is a change at all over time: year as a predictor of subject position does not significantly improve the fit of the model ( $p=0.0726$ ).
- In short: DPs in default postverbal position (with V2 inversion) do not present any evidence that the status of the obliques has changed.

## Exp III: Conjunction reduction (data overview)

- Icelandic data:

- The grammatical subject of a clause can be omitted under identity with the subject of the preceding clause
- In many contexts, this is **only** possible for grammatical subjects

(9) Ég las bók og (mér) fannst hún góð  
I read book and (me.DAT) found she.NOM good.NOM  
'I read a book and (I) found it good'

(10) Jon kom og \*(honum) gaf ég gjöf  
John came and (him.DAT) gave I.NOM gift.ACC  
'John came and I gave (him) a gift'

## Exp III: Conjunction reduction (experimental design)

- Queried for:
  - All conjoined clauses with an initial overt or null hypothesized oblique subject or a nominative subject.
- Coded each clause for:
  - Initial element overt vs. null (reduced).
- Different quantitative predictions:
  - **Hyp. A: The obliques became subjects over time:**  
Rise in frequency of reduced initial obliques compared with frequency of reduction in nominative control group.
  - **Hyp. B: The obliques were subjects the whole time:**  
Initial obliques and nominative controls show same trend over time wrt frequency of reduction.
- We split the corpus into two periods century (pre-1540 and post-1540)

## Exp. III: Conjunction reduction (results)

- There is an increase in overall conjunction reduction over time, but oblique reduction does not increase more than nominative.
- In fact, the frequency of oblique reduction changes less over time than that of nominative reduction (if it is different at all)

Time Period	Case	Reduced	Total	Frequency Reduced
pre-1540	obl	37	364	0.102
post-1540	obl	31	267	0.116
pre-1540	nom	3118	7184	0.434
pre-1540	nom	2660	5203	0.511

## Exp. III: Conjunction reduction (results)

- Applying a loglinear model which assumes no interaction between Case, reduction, and time period yields a very good fit to the data ( $G^2 = 0.384$  on 1 df,  $p = 0.54$ ).
- This means that the effect of Case on the probability of reduction did not change over time.
- In fact, a simpler model which assumes conditional independence between Case of the subject and time period (controlling for reduction), also fits well and not significantly worse:  $G^2 = 2.57$  on 2 df,  $p = 0.28$ .
- This means that the general frequency of hyp. oblique subjects in this sample, whether reduced or not, plausibly did not change over time.

## Conclusion

- Oblique subjects in Icelandic have remained unchanged since the 12th century.
- They are not a consequence of VO, nor a necessary consequence of Tense-medial.
- When definitive diagnostics are lacking, quantitative patterns can be used to distinguish between stability and change.
- Measuring quantitative patterns tells us more than a handful of categorical pieces of evidence could. The quantitative evidence can establish stability whereas individual examples might only be early indications of spread.