

# Exploring the internal syntax of finite *svo-að*-clauses in Icelandic

Xindan Xu ([xindanxu@hi.is](mailto:xindanxu@hi.is))

University of Iceland

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# Introduction

## Adverbial conjunction *svo að* 'so that'

- Purpose clause:
  - a. Ég lokaði hliðinu svo að hestarnir kæmust (sbjv) ekki inn. (Thráinsson 2007: 406)  
'I closed the gate so that the horses would not get in.'
- Result clause:
  - a. Ég lokaði hliðinu svo að hestarnir komust (ind) ekki inn. (Thráinsson 2007: 406)  
'I closed the gate so that the horses were not able to get in.'

# What syntactic properties do they possess?

- According to Haegeman (2012):
  - English purpose clause behave like central adverbial clauses – disallow argument fronting
  - English result clauses behave like peripheral – allow argument fronting
- Similar observations were reported for Swedish (Heycock 2017):
  - Purpose clauses do not allow embedded V2, a root phenomenon in Swedish
  - Result clauses allow it
- However, Icelandic data point in a different direction: both purpose and result clauses seem to allow topicalization of argument (Angantýsson & Jonas 2016).

# Research questions

1. Do purpose and result *svo-að*-clauses in Icelandic differ in their ability to host root phenomena?
2. If so, do they correspond to central vs peripheral distinction observed in other adverbial clauses?
3. What sorts of analyses can be used to account for the constructions and variations in question?

# Background

## Three interpretative domains of adverbial clauses

[...] conjunction may be interpreted as applying in one of (at least) three domains; and that the choice of a “correct” interpretation depends not on form, but on a pragmatically motivated choice between viewing the conjoined clauses as representing **content units, logical entities, or speech acts**.

– (Sweetser 1990: 78)

# English causal *because*-clauses

- a. John came back because he loved her.
- b. John loved her, because he came back.
- c. What are you doing tonight, because there's a good movie on?

## German causal *weil*- and *da*-clauses

Frey (2012: 407)

- a. Es hat Frost gegeben, *da* die Heizungsrohre geplatzt sind.  
EXPL has frost been, because the heating-pipes burst are  
'There has been frost, because the heating pipes burst.'
- b. \*Es hat Frost gegeben, *weil* die Heizungsrohre geplatzt sind.  
EXPL has frost been, because the heating-pipes burst are

# English result clauses

- According to Sweetser (1990), English result clauses can be interpreted on all three cognitive domains:
  - On content domain:  
He heard me calling, so he came.  
(The hearing caused the coming, in the real world.)
  - On epistemic domain:  
(You say he's deaf, but) he came, so he heard me calling.  
(The knowledge of his arrival causes the conclusion that he heard me calling.)
  - On speech act domain:  
Here we are in Paris, so what would you like to do on our first evening here?  
(Our presence in Paris enables my act of asking what you would like to do.)

# Syntactic classification of adverbial clauses (ACs)

- **Central Adverbial Clauses (CACs):**
  - Content-related and modify the matrix predicate
  - Internally, they resist root phenomena (RPs) in general
  - Externally, they are deeply integrated into the syntactic structure of the host clause
- **Peripheral Adverbial Clauses (PACs):**
  - Epistemically related and provide a background assumption that enhances the relevance of the host proposition
  - Internally, they allow some RPs, such as topicalization and epistemic adverbs
  - Externally, they attach higher into the syntacture of the host clause
- **Non-Integrated Adverbial Clauses (NACs)\*:**
  - Speech-act related and modify the discourse
  - Syntactically independent of the host clause

\* Note that the classification of the speech event modifiers identified in Badan & Haegeman (2022) is controversial, because they exhibit characteristics of both NACs and CACs. See also discussions in Frey (2023).

# CACs resist root phenomena (RPs) while PACs allow them

- English (Haegeman 2003; 2006):
  - Topicalization
  - Epistemic modality
  - Tag questions
- German (Frey 2020):
  - Modal particles such as *ja*
  - Epistemic and evaluative adverbs, e.g. *leider* ('unfortunately')
  - Embedded V2

## CACs resist RPs while PACs allow them

1. Argument fronting in English *while*-clauses (Haegeman 2006: 33):
  - a. \* **While** *this book* Mary was writing this time last year, her children were staying with her mother. (CAC)
  - b. His face not many admired, **while** *his character* still fewer felt they could praise. (PAC)
2. Modal particle *ja* in German ACs introduced by *während* (Frey 2021: 4):
  - a. Während Max (\*ja) vorgetragen hat, wurde er unterbrochen.  
while Max MP presented has was he interrupted  
'While Max was presenting he got interrupted.'
  - b. Während Max ja gestern bei der Unterbrechung nervös wurde,  
while Max MP yesterday at the interruption nervous got  
blieb er heute ruhig.  
stayed he today calm  
'While Max got nervous yesterday at the interruption, he stayed calm today.'

# Epistemic modality in English ACs

- Haegeman (2006: 30, ex. 5a-c and references there):
  - a. \*Mary accepted the invitation without hesitation **after** John *may* have accepted it.
  - b. ??John works best **while** his children are *probably/might* be asleep.
  - c. The ferry will be fairly cheap, **while/whereas** the plane *may/will probably* be too expensive.

## Tag questions in English

- Central *while*-clause (Haegeman 2006: 31, ex.7a-b)
  - a. Bill took a degree at Oxford **while** his children were still very young, *didn't he?*
  - b. \*Bill took a degree at Oxford **while** his children were still very young, *weren't they?*
  
- a. Peripheral *while*-clause (Haegeman 2006: 31, ex.8a-c):
  - a. \*Bill took a degree at Oxford, **while** his daughter is studying at UCL, *didn't he?*
  - b. Bill took a degree at Oxford, *didn't he*, **while** his daughter is studying at UCL.
  - c. Bill took a degree at Oxford, **while** his daughter is studying at UCL, *isn't she?*

# Analyses

- Truncation analysis (Haegeman 2003: 335)
  - Central adverbial: Sub > Fin
  - Peripheral adverbial: Sub > Force > Top \* > Focus > Top \* > Fin
  - Root clause: Force > Top \* > Focus > Top \* > Fin
- Revised truncation analysis (Haegeman 2006: 36):
  - Central adverbial clause: Sub > **Mod\*** > Fin
  - Peripheral adverbial clause: Sub > Top > Focus > Force > **Mod\*** > Fin
  - Root clause: Top > Focus > Force > **Mod\*** > Fin
- Syntactic representation of different semantic layers of speech acts (Frey 2023):
  - ActP > ComP > JP > TP
  - ActP (speech act phrase): encodes a speech act performed by a speaker
  - ComP (commitment phrase): encodes the commitment of a committer to a judgement.
  - JP (judgement phrase): encodes the private assessment of a proposition by a judge.
  - TP (tense phrase): represents a proposition.
  - CACs are TP-adjuncts, PACs are JP-adjunct, NACs are ActP-adjuncts

# Icelandic purpose and result clauses

# Different interpretations of *svo-að*-clauses

## 1. Content related:

- a. Hann heyrði að ég var að kalla, **svo** hann kom. (Result)  
'He heard that I was calling, so he came.'
- b. Jón sat við gluggann **svo að** hann sæi út. (Purpose)  
'Jón sat by the window so that he could see outside.'

## 2. Epistemically related:

- a. (Þú sagðir að hann væri heyrnarlaus, en) hann kom, **svo** hann heyrði að ég var að kalla. (Result)  
'(You said that he was deaf, but) he came, so that he clearly heard that I was calling.'

## 3. Speech act related:

- a. Nú erum við í París, **svo** hvað viltu gera í kvöld? (Result)  
'Now we are in Paris, so what would you like to do this evening?'
- b. **Svo að** allt sé á hreinu verða menn að vera hér sjálfum sér samkvæmir. (Purpose)  
'So that everything is clear, people should be consistent with themselves here.'

# Argument fronting in English purpose and result clauses

Heycock (2017):

- Topicalization (of argument) seems to be ambiguous in purpose clauses:
  - a. ?\* I came **so** *people like you* I would be able to help.
- Result clauses seem to allow it:
  - b. You're only at 13 weeks **so** *most things* you should still be able to do.

# Argument fronting in Icelandic purpose and result clauses

- Based on examples from Heycock (2017):
  - a. ?Ég kom **svo að** *fólki eins og þér* gæti ég hjálpað. (Purpose clause)
  - b. Þú ert aðeins gengin 13 vikur **svo að** *flesta hluti* ættir þú að geta gert. (Result clause)
- Angantýsson & Jonas 2016 (134–135):
  - a. Ég las aðra bókina hennar vandlega **svo að** *þá fyrstu* gæti ég skilið almennilega. (Purpose clause)  
'I read her second book carefully so that I could understand the first one properly.'
  - b. Ég missti samband við menntaskólavini mína **svo að** *fæsta þeirra* sá ég aftur. (Result clause)  
'I lost contact with my friends from middle school, so I saw very few of them again.'

# Three types of RPs in Icelandic

## Modal particles (MPs)

- **nú**: (when unstressed) can be used to add emphasis by way of an appeal to the interlocutor, sometimes lessens or softens a statement, partly by giving it an air of accepted truth:
  - Það get ég **nú** varla sagt. ‘That I could hardly say.’
- **jú**: can indicate that what is being said is known between the speaker and the listener:
  - En þú skalt ráðfæra þig við lækni, þeir vita **jú** alltaf best hvað gera skal. (bland.is)  
‘But you should consult a doctor, they always know (of course) best what to do.’
- **víst**: (when unstressed) used to refer to the words of others, public opinion or similar:
  - Þau eru **víst** að skilja. ‘(I heard that) they are separating.’

## MPs in Icelandic purpose and result clauses

- Result clause:
  - a. María lokaði hliðinu svo að hestarnir komust (<sub>IND</sub>) **víst** ekki inn.  
'María closed the gate so that the horses were MP-apparently not able to get in'.
- Purpose clause:
  - a. María lokaði hliðinu svo að hestarnir kæmust(<sub>SBJV</sub>) \***víst**?/jú ekki inn.  
'María closed the gate so that the horse would MP-apparently/of course not be able to get in.'

## Speaker-oriented adverbs (S-adverbs)

- Jónsson (2002):
  - Evaluative adverbs: *sem betur fer* ‘fortunately’, *því miður* ‘unfortunately’, *skiljanlega* ‘understandably’
  - Evidential adverbs: *augljóslega* ‘obviously’, *greinilega* ‘clearly’, *vissulega* ‘certainly’
  - Epistemic adverbs: *líklega* ‘likely’, *sennilega* ‘probably’, *hugsanlega* ‘possibly’
- Result clause:
  - a. María lokaði hliðinu svo að hestarnir komust (<sub>IND</sub>) **augljóslega/líklega** ekki inn.  
‘María closed the gate so that the horses were obviously/likely not able to get in.’
- Purpose clause:
  - a. María lokaði hliðinu svo að hestarnir kæmust (<sub>SBJV</sub>) **?augljóslega/?sennilega/?líklega** ekki in.  
‘María closed the gate so that the horses would ?obviously/?probably/?likely be not able to get in.’

# Tag questions

- Er það ekki? ('is it not?', 'isn't it right?'): positive polarity item
- Er það nokkuð? ('is it?', 'is that right?'): negative polarity item
  
- Result clause:
  - a. María lokaði hliðinu svo að hestarnir komust (<sub>IND</sub>) ekki inn, **er það ekki?**  
'María closed the gate so that the horses were not able to get in, **didn't she?**'
  - b. María lokaði hliðinu svo að hestarnir komust (<sub>IND</sub>) ekki inn, **er það nokkuð?**  
'María closed the gate so that the horses were not able to get in, **did they?**'
  
- Purpose clause:
  - a. María lokaði hliðinu svo að hestarnir kæmust (<sub>SBJV</sub>) ekki inn, **er það ekki?**  
'María closed the gate so that the horses would not be able to get in, **didn't she?**'
  - b. \* María lokaði hliðinu svo að hestarnir kæmust (<sub>SBJV</sub>) ekki inn, **er það nokkuð?**  
'María closed the gate so that the horses would not be able to get in, **did they?**'

# Acceptability of the subject-initial V3 in purpose and result clauses in Icelandic

# Are topicalization and V3 negatively correlated?

## Topicalization:

- More acceptable in complement clauses than in relative clauses;
- Older generations gave better judgments than younger generations (in complement clauses and relative clauses with a subject gap);

## V3:

- More acceptable in relative clauses than in complement clauses;
- Younger speakers seem to be more likely to accept it than older generations (in complement clauses);

# Hypothesis

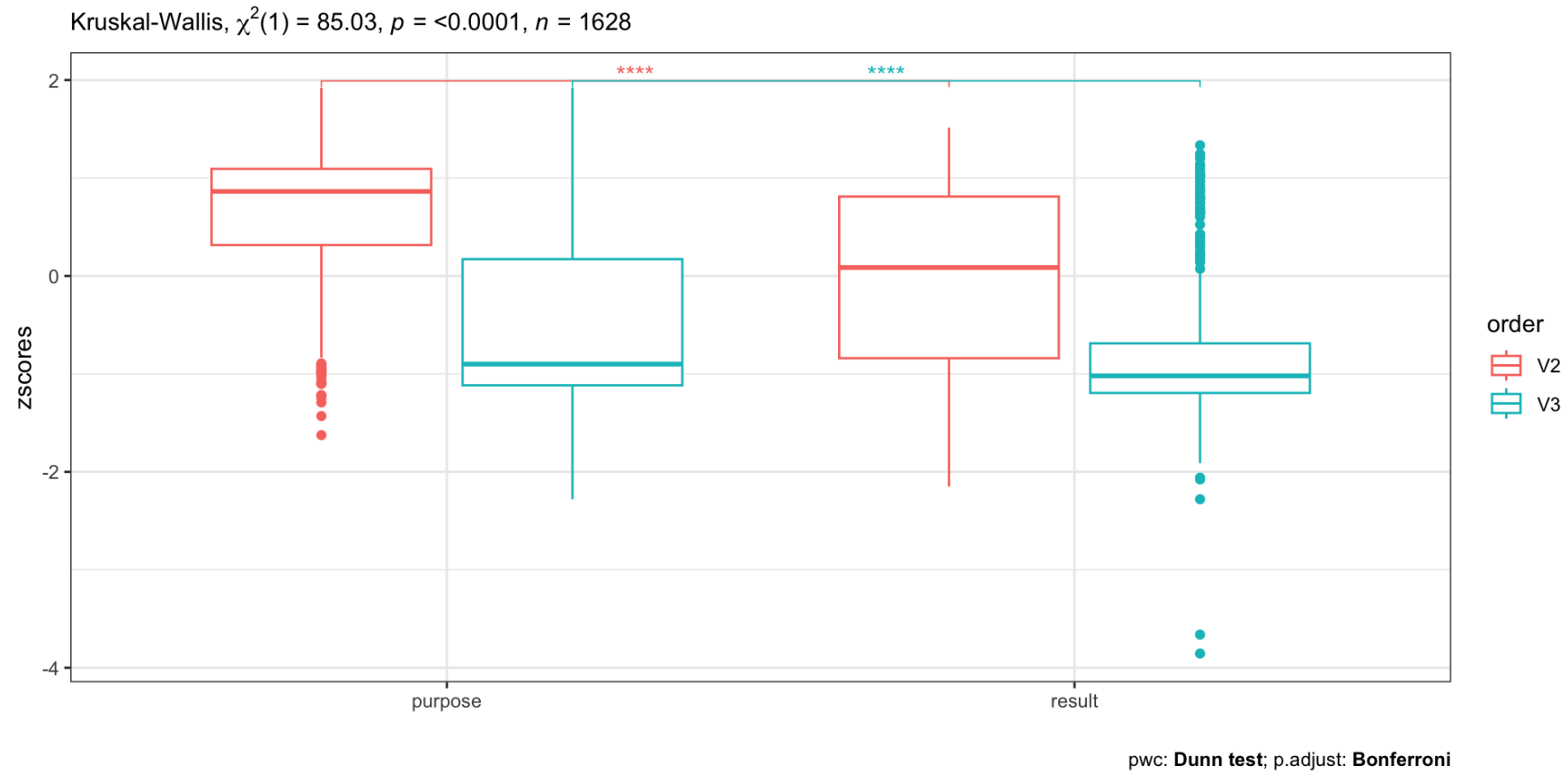
- V3 receives better judgments in CACs than in PACs and worst judgments in NACs.

## Survey design

- **Design:** 6x3x2 factorial design (6 semantic types, 3 syntactic types, 2 word orders) – 20 unique conditions.
- **Participants:** native Icelandic speakers (407 completed the survey).
- **Task:** Rate sentences on a 7-point Likert scale (-3 to +3).
- **Sentences:** 120 test sentences (6 per condition) + 40 filler sentences.
- **6 versions:** 20 test sentences + 40 fillers, randomly assigned to participants

# Results

## Purpose and result clauses



# Summary

Diagnostics	Purpose clause	Result-clauses
MPs	-	+
S-adverbs	?	+
Tag questions	-	+
Argument fronting	+/?	+
Subject-initial V3	+	-

## Conclusion

- The observations so far suggest a split between content-related purpose and result clauses in Icelandic.
- Content-related purpose clauses appear to lack a Force / assertive feature, which may explain why they cannot host several types of RPs.
- In contrast, content-related result clauses *can* host these RPs.
- This pattern suggests that result clauses behave like peripheral adverbial clauses, whereas purpose clauses pattern more like central adverbial clauses.
- However, topicalization of argument seems possible in both clause types, creating a tension in the analysis.

# The puzzle

- If Icelandic purpose clauses are non-assertive, do they project Force at all?
- If not, then how can they host topicalization of argument?

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Thank you!

Questions?