SCOPE IN FAROESE DITRANSITIVES:
THE INTERPLAY OF SYNTACTIC STRUCTURE AND QUANTIFIER ORDER

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1. Introduction
2. Background on ditransitives in Faroese
3. Background on quantifiers Faroese
4. Theoretical and experimental background on scope
5. Ditransitivies and scope in Faroese
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1. INTRODUCTION and KEY QUESTIONS

▪ Do scope interpretations vary in DO versus PP ditransitives in Faroese?
  ▪ Prediction: DO should favor surface scope and PP should have ambiguous scope (based on observations in theoretical syntax literature)

▪ Do scope interpretations vary according to the ordering of quantifiers?
  ▪ Prediction: *a...every* sentences favor surface scope more than *every...a* sentences (based on observations in experimental literature)
  ▪ In *every...a* sentences, the inverse scope interpretation is a subset of the surface scope, so speakers may not tease the two readings apart
Initial Observations (a...every/ein...hvør)
DO:surface
PP: ambiguous, strong preference for inverse

(1a) **DO: ein...hvør ‘a...every’**
Timburmaðurin lænti einum starvsfelaga hvørt einasta skrúvublað.
the carpenter lent a coworker every single screwdriver
**Surface: a > every**
There is one coworker and that person is lent every screwdriver

(1b) **PP: ein...hvør ‘a...every’**
Timburmaðurin lænti eitt skrúvublað til hvønn einasta starvsfelaga.
the carpenter lent a screwdriver to every single coworker
**Ambiguous: a > every/every > a; strong preference for inverse**
- Surface: There is one screwdriver that is lent to each coworker
- Inverse: For each coworker, that person is lent a (possibly) different screwdriver
Some Initial Observations (every...a/hvør...ein)
DO: ambiguous, strong preference for surface
PP: ambiguous, strong preference for inverse

(2a) **DO: hvør...ein ‘every...a’**
Timburmaðurin lænti hvørjum starvsfelaga eitt skrúvublað.
the carpenter lent every coworker a screwdriver

*Ambiguous: every > a/ a > every; strong preference for surface*
  • Surface: Every coworker is lent a (possibly) different screwdriver
  • Inverse: There is one screwdriver and every coworker is lent that screwdriver

(2b) **PP: hvør...ein ‘every...a’**
Timburmaðurin lænti hvørt tað einasta skrúvublað til ein starvsfelaga.
the carpenter lent every single screwdriver to a coworker

*Ambiguous: every > a/ a > every; strong preference for inverse*
  • Surface: Every screwdriver is lent to a (possibly) different coworker
  • Inverse: There is one coworker and that person is lent every screwdriver
DO constructions prefer surface for both quantifiers order
PP constructions prefer inverse for both quantifiers order
• Suggests that syntactic structure matters more than quantifier order
• It’s more complicated

Where we’re headed:
When we examine more examples, we find a continuum:

DO with *ein...hvør ‘a...every’ order*
most amenable to surface scope

PP with *hvør...ein ‘every...a’ order*
most amenable to inverse scope
2. BACKGROUND ON FAROESE DITRANSITIVES

- **Faroese** allows **IO-dat + DO-acc** pattern almost exclusively
  - Five verbs have IO-acc+DO-acc, but these are not proper ditransitives; the IO has a different semantic role

  (3) læra **teg** stev
      teach you.EXPERIENCER.ACC a refrain.ACC

  (4) biðja **teg** eina bøn
      ask you.SOURCE.ACC a favor.ACC

- **Icelandic** allows a combination of case frames for IO+DO.
  Approximate number of verbs for each case pattern:
  - Dat-Acc (>220)
  - Acc-Dat (37)
  - Dat-Dat (29)
  - Dat-Gen (28)
  - Acc-Gen (21) (Jónsson 2000, ex3)

- **Insular Scandinavian**: Faroese, Icelandic
- **Mainland Scandinavian**: Danish, Norwegian, Swedish
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<th>Norrønt</th>
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<td>unna</td>
<td>lova</td>
<td>nema, læra</td>
<td>biója, spyrja</td>
<td>halda, loyna, ræna</td>
<td>dylja, eggja, fylla, krevja, minna.</td>
<td></td>
</tr>
</tbody>
</table>
- **Faroese** easily allows BENEFACTIVE IOs.

(5) **bakaði Fríðu** eina køku.

baked Fríðu-BENEFACTIVE-DAT a cake-ACC

(6) **Icelandic**

??Ég bakaði mömmu minni köku.

I.Nom baked mother.Dat my cake.Acc

‘I baked my mother a cake’. (Thráinsson 2007: 230)

- In Faroese, PP ditransitives are accepted to a larger extent than earlier presumed with verbs of *giving*, contra (Holmberg & Platzack 1995: 12; Thráinsson et al. 2004[2012]), which leads us to next slide:
2. BACKGROUND ON FAROESE DITRANSITIVES

Faroese

(7a) Sølumaðurin gave the young farmer the grain mixture

(7b) Sølumaðurin gave the grain mixture to the young farmer

Icelandic

(8a) Sölumaðurinn gave the young farmer the grain mixture

(8b) *Sölumaðurinn gave the grain mixture to the young farmer

• Faroese allows the PP frame more freely than Icelandic.

• In Icelandic, the PP frame is often tied to physical movement of the DO. The grain mixture could remain in the same location even though ownership is transferred.
2.
BACKGROUND ON FAROESE DITRANSITIVES

(Faroese)

(9a) Teir umhugsnu leiðararnir sendu tí raska skrivaranum
    the thoughtful managers sent the hard working secretary
    eina føðingardagsgávu.
    a surprise birthday present

(9b) Teir umhugsnu leiðararnir sendu eina føðingardagsgávu
    the thoughtful managers sent a surprise birthday present
    til tann raska skrivaran.
    to the hard working secretary

• Faroese and Icelandic pattern alike with ‘send’.
• DO and PP allowed.
Icelandic

(10a) Hugulsömu framkvæmdastjórarnir sendu duglega ritaranum the thoughtful managers sent the hard working secretary óvænta jólagjöf.
a surprise birthday present

(10b) Hugulsömu framkvæmdastjórarnir sendu óvænta jólagjöf the thoughtful managers sent a surprise birthday present til duglega ritarans.
to the hard working secretary

• Faroese and Icelandic pattern alike with ‘send’.

• DO and PP allowed.
2. BACKGROUND ON FAROESE DITRANSITIVES

● Work in this area is interesting because PP ditransitives are increasingly available alongside DO ditransitives in Faroese. (Fiebig 2012; Henriksen 2000; Petersen 2010; Ussery & Petersen, to appear)

● Various factors might affect the choice between DO and PP.
  
  Semantic properties of verbs
  Phonological heaviness of the indirect object
  Generational variation
  (Fiebig 2012; Henriksen 2000; Petersen 2010; Thráinsson et al. 2004/2012)

● (A very initial speculation: Scope flexibility of the PP construction might contribute to its rise.)
(11a) Jón gav mær ein hund.  
Jón gave me a dog  

(11b) Jón gav ein hund til mín.  
Jón gave a dog to me  

(11c) Jón gav børnunum bomm.  
Jón gave the children sweets  

(11d) Jón gav bomm til børnini.  
Jón gave sweets to the children  

(11e) Jón gav børnunum, sum kláraðu seg væl í skúlanum, bomm.  
Jón gave the children who did well in school sweets  

(11f) Jón gav bomm til børnini, sum kláraðu seg væl í skúlanum.  
Jón gave sweets to the children who did well in school  

Ussery & Petersen (to appear)

- Tested verbs with different semantic properties and with varying lengths of the indirect object NP  
- 50 speakers ages 18-25  
- DO construction judged better than the PP version for every semantic category.  
- But, no speaker rejects the PP construction.
Fieldwork, Uni Johannesen (2019)

Tekstasavn = Text Corpus

Spurnarblað = Questionary (62 speakers across generations)
1 = totally acceptable
5 = totally unacceptable

light blue vertical bar = % of DO in corpus
yellow vertical bar = % of PP in corpus
dark blue plot line = speaker rating of DO
orange plot line = speaker rating of PP
Even though the acceptability and distribution of the PP frame has been questioned in the literature on Faroese, there is enough evidence to suggest that PP ditransitives:

- Exist
- Are accepted by speakers
- Have fewer restrictions than in Icelandic
Universal quantifiers: *allir* ‘all’, *ein og hvør* ‘every (one), any’, *hvør* (*einsti*) ‘every (one)’.

(12) Hann lovaði eina viðgerð til hvønn einasta sjúkling
he promised a treatment to every single patient

- Not natural without ‘einsta’.
- ‘hvør’ (object animate).

Existential quantifiers: *ein* ‘a’, *summi* ‘some’, *eihnvør* (*< Dan. enhver*) = *onkur* ‘some (one)’, *nakar* ‘anyone’.

- We will not use ‘onkur’, as it does not have specific reference.

Scope in Faroese Ditransitives-Ussery&Petersen.DGfS.Feb 2021

3. BACKGROUND ON FAROESE QUANTIFIERS

Very little work has been done on Faroese quantifiers - Sandøy (1992, 2014); Lindstad (2009), Petersen (2020).

FYI:
Mid Scalar quantifiers: *fåir* ‘few’, *mangur* ‘many’, *nógvur* ‘many’.

Negative quantifiers: *eingin* ‘no one’, *hvørgin* ‘neither’.
3. BACKGROUND ON FAROESE QUANTIFIERS

(13a) *ein...hvør* ‘a...every’

Ein søgufrøðingur las hvørja einastu bók um natúrvanlukkur.
A historian read every single book about the natural disaster

**Surface:** a > every
A certain historian read each and every book.

(13b) *hvør...ein* ‘every...a’

Hvør einasti søgufrøðingur las eina bók um natúrvanlukkur.
every single historian read a book about the natural disaster

**Ambiguous:** every>a/a > every
**Surface:** Each and every historian read some random (possibly different) book.
**Inverse:** There is a particular book that each historian read.
(This is a possibility with surface scope.)
4.1 THEORETICAL ASSUMPTIONS ABOUT SCOPE IN DITRANSITIVES

For English, it has been observed that the DO construction has a surface scope interpretation.

(14a) I gave a different child every candy bar.

Surface: a > every
There is a different child, and that child was given every candy bar.

(14b) I gave every child a different candy bar.

Surface: every > a
For every child, that child got a different candy bar.

(Bruening 2010b, EX 12b/13b)
4.1 THEORETICAL ASSUMPTIONS ABOUT SCOPE IN DITRANSITIVES

The PP construction has been observed to have ambiguous scope.

We saw earlier with Faroese:

\[
\text{DO = surface scope}
\]

\[
\text{PP = inverse scope}
\]

(15a) I gave a different candy bar to every child.

**Ambiguous:** a > every/every > a

**Surface:** There is some different (kind of) candy bar, and that candy bar was given to every child

**Inverse:** For each child, that child got a different candy bar

(15b) I gave every candy bar to a different child.

**Ambiguous:** every > a/a > every

**Surface:** For each candy bar, it was given to a different child

**Inverse:** There is a different child, and that child got every candy bar

(Bruening 2010a, EX 12b/13a)
DO Structure
- Theme is merged as sister to V.
- Goal is merged in Spec, ApplP.
- Theme and goal are arguments of different heads and the goal asymmetrically c-commands the theme.
- The goal will move first in scope-movement operations.

Surface Scope

(Bruening 2010b, ex 6, also discussed in Bruening 2001. See also Ussery 2018 for extensions to Icelandic.)
PP Structure

- Goal is merged as sister to P.
- Theme is merged in Spec,PP.
- Theme and goal are arguments of the same head and are equidistant to higher positions in the structure.
- Either theme or goal can move first in scope-movement operations.

Surface or inverse scope

(Bruening 2010b, ex 7, also discussed in Bruening 2001)
Anderson 2004

“The results of the experiments presented here show that assigning an inverse scope interpretation to a doubly quantified sentence consumes more processing resources than assigning surface scope...”

(Anderson 2004, p. 25-26)

- Examined transitive doubly quantified sentences
- Series of experiments using different tasks/set-ups
- Forced choice, Likert scale, reading time
  - With and without context for the target sentence

Inverse scope incurs a processing cost, but the ordering of quantifiers matters.

See also:

- Chemla & Bott (2015) for experimental findings which suggest that inverse scope is not susceptible to priming.
- Feiman, Maldonado, and Snedecker (2020) for a rebuttal to some of Chemla & Bott’s findings.
(16) *An* experienced climber scaled *every* cliff.

Surface follow-up: The climber was very skilled.
Inverse follow-up: The climbers were very skilled.

*(a...every* Reading Time*)

Follow-up with plural subject *(inverse) read significantly more slowly* than follow-up with singular subject (surface).

(17) *Every* historian examined *a* document.

Surface follow-up: The documents were in good condition.
Inverse follow-up: The document was a stirring speech.

*(every...a* Reading Time*)

No evidence for difference in reading time between follow-ups; *inverse is not read significantly more slowly.*

Reading Time Results

*(Anderson 2004)*

Inverse scope with *every...a* incurs less processing cost than inverse scope with with *a...every.*

With *every...a*, both singular and plural continuations could be surface scope.
Based on the theoretical and experimental literature, we expect both syntactic structure and quantifier order to play a role in interpreting ditransitives in Faroese with quantifiers.

We predict a continuum:

- **DO** with *a...every/ein...hvør* should be most amenable to surface scope.

- **PP** with *every...a/hvør...ein* should be most amenable to inverse scope.

This is what we find!

Note: We are not taking prosodic factors into account at this time.
(18a) Nevndin handaði einum tónleikara hvørja einastu virðisløn. the school awarded *a* musician *every* single *a* honor.

**Ambiguous:** *a* > *every*/*every* > *a*
**Surface:** There is a certain musician and that person was awarded each honor.
**Inverse:** Each honor was awarded to a (possibly) different musician.

(18b) Nevndin handaði hvørjum einasta tónleikara eina virðisløn. the school awarded *every* single musician *an* honor.

**Ambiguous:** *every* > *a*/*a* > *every*
**Surface:** Each musician was awarded a (possibly) different honor.
**Inverse:** There is a particular honor and that honor was awarded to each musician.

5. SCOPE INTERPRETATIONS IN FAROESE

**DO with handa**

‘award’

*a...every*: ambiguous

every...*a*: ambiguous
(19a) Læknin lovaði einum sjúklingi hvørja einastu viðgerð.
the doctor promised a patient every single treatment

Ambiguous: a > every/every > a
Surface: There is particular patient who was promised each kind of treatment.
Inverse: For each kind of treatment, it was promised to a (possibly) different patient.

(19b) Læknin lovaði hvørjum tí einasta sjúklingi eina viðgerð.
the doctor promised every single patient a treatment.

Ambiguous: every > a/ a > every
Surface: Each patient was promised a (possibly) different kind of treatment.
Inverse: There is a particular treatment and it was promised to each patient.
5. SCOPE INTERPRETATIONS IN FAROESE

DO with senda ‘send’

General Pattern for DO: Ambiguous $\rightarrow$ Surface
(21a) Nevndin handaði eina virðisløn til hvønn einasta tónleikara.
the school awarded an honor to every single musician.

**Ambiguous:** a > every/every > a

**Surface:** There is a particular honor and that honor was awarded to each musician.

**Inverse:** Each musician was awarded a (possibly) different honor.

(21b) Nevndin handaði hvørja einastu virðisløn til ein tónleikara.
the school awarded every single honor to a musician.

**Inverse:** a > every

There is a particular every musician and that person was awarded each honor.

5. SCOPE INTERPRETATIONS IN FAROESE

PP with *handa* ‘award’

*a...every:* ambiguous

every...*a:* inverse
5. SCOPE INTERPRETATIONS IN FAROESE

(22a) Læknin lovaði eina viðgerð til hvønn tann einasta sjúkling.
the doctor promised a treatment to each and every patient.

Ambiguous: a > every/every > a
Surface There is a particular kind of treatment and each patient is promised that treatment.
Inverse: Each patient was promised a (possibly) different kind of treatment.

(22b) Læknin lovaði hvørja einastu viðgerð til ein sjúkling.
the doctor promised every single treatment to a patient.

Ambiguous, but preference for inverse: a > every
Inverse: There is particular patient who was promised each kind of treatment.

PP with lova ‘promise’
a...every: ambiguous

every...a: preference for inverse
5. SCOPE INTERPRETATIONS IN FAROESE

PP with senda ‘send’

(23a) Arbeiðsgevarin sendi eitt skjal til hvørt einasta skrivstovufólk.
the supervisor sent a document to every single employee.

Ambiguous: a > every/every > a
Surface: There is a particular document and that document was sent to each employee.
Inverse: Each employee was sent a (possibly) different document.

(23b) Arbeiðsgevarin sendi hvørt einasta skjal til eitt skrivstovufólk.
the supervisor sent every single document to an employee.

Ambiguous: every > a/ a > every
Surface: Each document was sent to a (possibly) different employee.
Inverse: There is a particular employee and that person was sent each document.

General Pattern for PP: Ambiguous → Inverse
### Syntactic Frame and Quantifier Order Comparison

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<th>DO CONSTRUCTION</th>
<th>DO CONSTRUCTION</th>
<th>PP CONSTRUCTION</th>
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<td><em>ein...hvør</em> ‘a...every’</td>
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<td><em>hvør...ein</em> ‘every...a’</td>
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<tr>
<td><strong>handa</strong> ‘award’</td>
<td>ambiguous</td>
<td>ambiguous</td>
<td>ambiguous</td>
<td>inverse</td>
</tr>
<tr>
<td><strong>lova</strong> ‘promise’</td>
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<td>ambiguous</td>
<td>ambiguous</td>
<td>inverse</td>
</tr>
<tr>
<td><strong>senda</strong> ‘send’</td>
<td>surface</td>
<td>surface</td>
<td>ambiguous</td>
<td>ambiguous</td>
</tr>
<tr>
<td><strong>læna</strong> ‘lend’</td>
<td>surface</td>
<td>ambiguous → surface</td>
<td>ambiguous → inverse</td>
<td>ambiguous → inverse</td>
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</tbody>
</table>

We see a continuum!
PP ditransitives are broadly available in Faroese

We observe a continuum in which syntactic structure and quantifier order matter for scope interpretations. Consistent with observations in the theoretical and experimental literature.

DO with *ein…hvør* ‘a...every’ are most amenable to surface scope

PP with *hvør…ein* ‘every...a’ are most amenable to inverse scope

PP construction allows for more flexibility of interpretation, so perhaps connected to the rise of the PP ditransitive in Faroese??
Bobaljik and Wurmbrand 2012

- Relationship between the word order options in a language and the availability of inverse scope.
- **LF First Principle:** If there is a surface order that matches a particular interpretation, then speakers should use that order.

**Possible production task**
- Show a scene that maps to a particular interpretation - e.g. one screwdriver that gets passed around and lent to multiple people.
- People should produce (1b) more than (2a).

(1b) Timburmaðurin lænti eitt skrúvulað til hvønn einasta starvsfelaga.
   the carpenter lent a screwdriver to every single coworker

(2a) Timburmaðurin lænti hvørjum starvsfelaga eitt skrúvulað.
   the carpenter lent every coworker a screwdriver

- If (2a) produced, what is the prosodic structure?

**Next Steps**

Design an experiment to test interpretations across a wide range of verbs.
ICELANDIC

(24a) Haraldur sendi einhverjum blaðamanni öll skjölin.  
Harold sent some reporter all the documents  
‘Harold sent some reporter all the documents.’

Surface: a > every  
Surface: There is some reporter and that reporter received all documents.

(24b) Kennarinn sendi skjal til allra foreldra í skólanum.  
the teacher sent a document to all parents in the school  
‘The teacher sent a document to all the parents in the school.’

Ambiguous: a > every/every > a  
Ambiguous: a > every/every > a

Surface: There is some (kind of) document and that document was sent to all parents.  
Inverse: For all parents, they received some unique (kind of) document.

Next Steps

Compare Faroese and Icelandic across several several several and several verbs.

Examples from Tinna Frímann Jökulsdóttir.  

See also Svenonuis (2000), EX 53 for a brief discussion of word order and scope in DO ditransitives in Icelandic.

See also Sigurðsson, Wood, Sigurðsson (2020) EX 21-22 for examples of the morphosyntactic properties of reciprocals and distributives in DO and PP ditransitives in Icelandic.
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Existential quantifiers: *ein* ‘a’, *summi* ‘some’, *einhvør* (< Dan. *enhver*) = *onkur* ‘some (one)’, *nakar* ‘anyone’.

(25a) Timburmaðurin lænti onkrum starvsfelaga hvørt einasta skrúvublað.
the carpenter lent some coworker every single screwdriver
**Surface:** a > every
There is one coworker who is lent every screwdriver every screwdriver

(25b) Timburmaðurin lænti okkur skrúvublað til hvønn einasta starvsfelaga.
the carpenter lent some screwdriver to every single coworker
**Surface:** a > every
There is one screwdriver that is lent to every coworker

- *onkur* ‘some’ does not allow for ambiguous readings
**APPENDIX:**

**BACKGROUND ON FAROESE QUANTIFIERS**

`ein` ‘a certain’

(26) ... og har kom hann fram á `ein mann`, sum hevði stolið kjøt
...and there he came up on a certain man, who had stolen meat.

(27) var tað ikki ein Poulsen, sum einaferð arbeiddi her
...was it not a certain Poulsen, who once worked here?