Matching Phrases in Norwegian Object Shift

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Introduction

- Movement is commonly understood to be the process where an element is linearized in a position different from where it originates.
- There is mounting evidence that some types of movement are actually phonological in nature (see Chung 2003, Bennett, Elfner & McCloskey 2016, Bibbs 2019).
- Erteschik-Shir, Josefsson & Köhnlein (2019) claim that Scandinavian Object Shift (OS) is also prosodically driven (focusing on adverb placement).

Big Questions:
- Can Match theory (Selkirk 2009, 2011) account for leftward OS?
- Which definition of MATCH best accounts for the data?

Norwegian Object Shift

- OS is a process where pronominal objects move leftward from its position in VP to a position to the left of verbal adjuncts (1a) and negation (1b).

(1) Examples of OS.
   a. Jeg så$_v$ **ham$_o$** aldri [$_{VP}$ t$_v$ **t$_o$**]
      I see.PAST him never
      'I never saw him.'
   b. Jeg så$_v$ **ham$_o$** ikke [$_{VP}$ t$_v$ **t$_o$**]
      I see.PAST him not
      'I didn't see him.'

- OS is subject to Holmberg's generalization: "Object Shift cannot apply across a phonologically visible category, which asymmetrically c-commands the object position except adjuncts (Holmberg 1999)."

- The regular word order for Norwegian main clauses is V2, as in (2). We assume that the phonologically deficient object pronouns crucially remain *in situ* in syntax. The prosodic output is shown in (3).

- We assume that Myrberg & Riad's (2015) diagnostics of prosodic constituency for Swedish also apply for Norwegian.

(2) Syntactic input
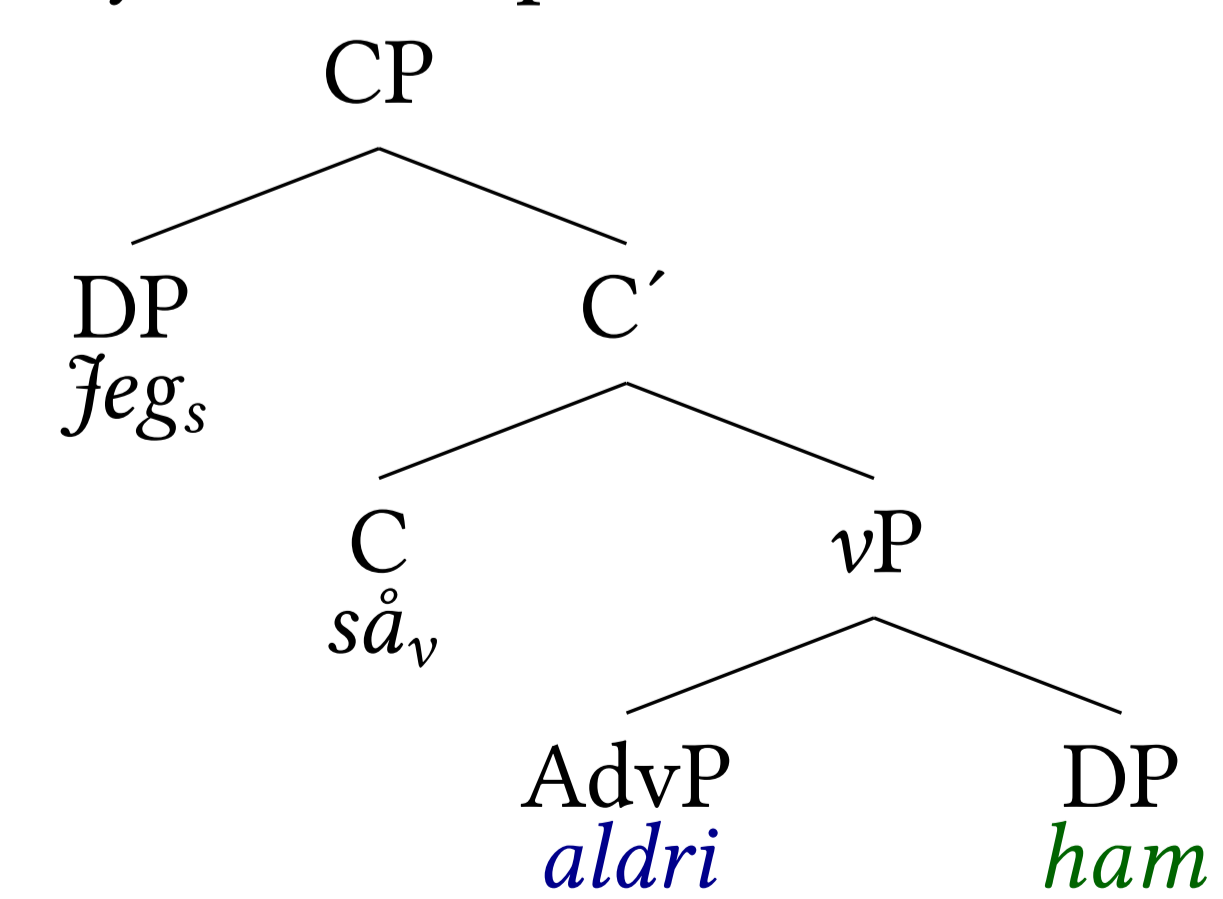
(3) Prosodic output
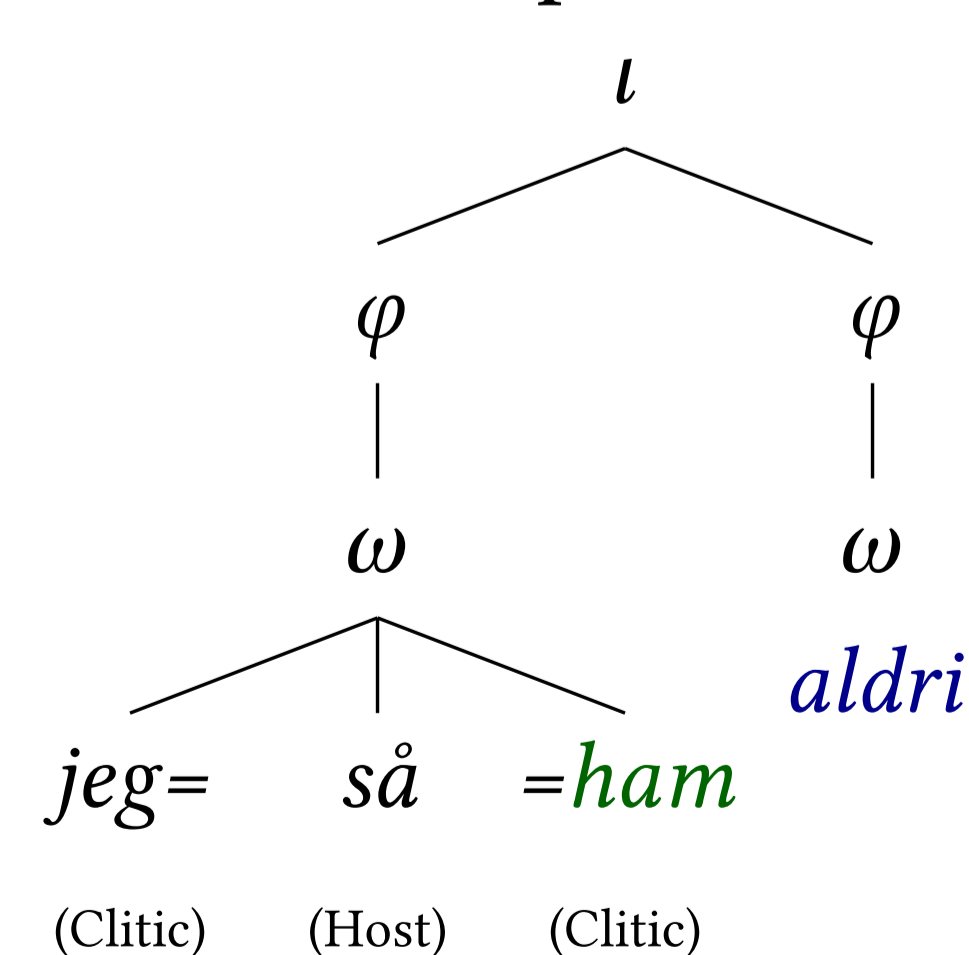
- DPs containing NPs cannot shift across adverbials and negation, (4a); contrary to pronouns which do shift when they are not marked, (4b).

(4) Comparison of full DP vs. pronominals.
   a. Jeg så {*studenten} aldri {studenten}.
      I see.PAST {*student.DEF} never {student.DEF}
      'I never saw the student.'
   b. Jeg så {ham} aldri {*ham}.
      I see.PAST {him} never {*him}
      'I never saw him.'

Lexical Matching

- Match Theory can account for OS if the MATCH constraints are only sensitive to lexical elements, which are nouns, verbs, adjectives, and adverbs following traditional instruction (O'Grady et al. 2017).

- Definitions for MATCH:

  – MATCH(XP,φ):
    Assign one violation for every node s of a lexical category XP in the syntactic tree for which there is no node p of category phi (φ) in the prosodic tree such that every terminal node dominated by s corresponds to a terminal node dominated by p.

  – MATCH(φ,XP):
    Assign one violation for every node p of category phi (φ) in the prosodic tree for which there is no node s of a lexical category XP in the syntactic tree such that every terminal node dominated by p corresponds to a terminal node dominated by s.

- Because the AdvP *aldri* is the only lexical phrase in (5), its boundary is the only one which we overtly label to show its status as a lexical projection.

(5) Tableau for *Jeg så ham aldri* 'I never saw him' (HEAD = HEADEDNESS).

[[Jeg] så [[$_{AdvP}$ aldri] [ham]]]	HEAD	M(XP,φ)	NOSHIFT	M(φ,XP)
☞ a. ($_φ$ jeg$_{CL}$=så$_ω$=ham$_{CL}$)($_φ$ aldri$_ω$)			*	*
b. ($_φ$ jeg$_{CL}$=så$_ω$)($_φ$ aldri$_ω$)($_φ$ ham$_{CL}$)	*W		L	**W
c. ($_φ$ jeg$_{CL}$=så$_ω$)($_φ$ aldri$_ω$=ham$_{CL}$)		*W	L	*

(6) Tableau for *Jeg så aldri studenten* 'I never saw the student'.

[[Jeg] så [[$_{AdvP}$ aldri] [$_{DP}$ studenten]]]	HEAD	M(XP,φ)	NOSHIFT	M(φ,XP)
a. ($_φ$ jeg$_{CL}$=så$_ω$)($_φ$ studenten$_ω$)($_φ$ aldri$_ω$)			*W	*
☞ b. ($_φ$ jeg$_{CL}$=så$_ω$)($_φ$ aldri$_ω$)($_φ$ studenten$_ω$)				*
c. ($_φ$ jeg$_{CL}$=så$_ω$)($_φ$ aldri$_ω$ studenten$_ω$)		*W		*

- We have seen that through the simple constraint interactions, the grammar correctly predicts when OS does or does not occur.

- Our analysis depends on whether or not there are HEADEDNESS violations, which causes the prosodically deficient object pronouns to shift into a more optimal position at the expense of NOSHIFT violations.

Functional Matching

- The Elfner (2012) version of MATCH(XP,φ) operates with an XP that is both lexically and functionally sensitive, XP$_{lex,fnc}$.

(7) Tableau with MATCH(XP$_{lex,fnc}$,φ).

[[$_{DP}$ Jeg] så [$_{vP}$ [$_{AdvP}$ aldri] [$_{DP}$ studenten]]]	HEAD	M(XP,φ)	NOSHIFT	M(φ,XP)
a. ($_φ$ jeg$_{CL}$=så$_ω$)($_φ$ studenten$_ω$)($_φ$ aldri$_ω$)		**	*W	*
☞ b. ($_φ$ jeg$_{CL}$=så$_ω$)($_φ$ aldri$_ω$)($_φ$ studenten$_ω$)		**		*
c. ($_φ$ jeg$_{CL}$=så$_ω$)($_φ$ aldri$_ω$ studenten$_ω$)		***W		*

- However, in the case of pronominal OS, MATCH(XP$_{lex,fnc}$,φ) incorrectly outputs candidate c as the optimum, while candidate a is the expected one.

(8) Harmonic Bounding with MATCH(XP$_{lex,fnc}$,φ).

[[$_{DP}$ Jeg] så [$_{vP}$ [$_{AdvP}$ aldri] [$_{DP}$ ham]]]	HEAD	M(XP,φ)	NOSHIFT	M(φ,XP)
☹ a. ($_φ$ jeg$_{CL}$=så$_ω$=ham$_{CL}$)($_φ$ aldri$_ω$)		***	*W	*
b. ($_φ$ jeg$_{CL}$=så$_ω$)($_φ$ aldri$_ω$)($_φ$ ham$_{CL}$)	*W	**L		*
☞ c. ($_φ$ jeg$_{CL}$=så$_ω$)($_φ$ aldri$_ω$=ham$_{CL}$)		***		*

Conclusions

Our claim:
- OS can be accounted for by focusing on the movement of pronominals instead of adverbs.
- Match theory (Selkirk 2009, 2011) can account for leftward OS movement if MATCH is sensitive to lexical items and their projections only, contrary to Elfner's (2012) redefinition of MATCH which is also sensitive to functional items and their projections (see Itô & Mester 2019).

- Forthcoming research:
  – Explore the strength of this analysis in relation to:
    * Cases where the weak pronouns incorporate into the adverbials.
    * OS's behavior with verb particles.
    * Typological predictions for other Scandinavian varieties.

References

Bennett, et al 2016. Lightest to the Right: An Apparently Anomalous Displacement in Irish. **Bibbs 2019**. Prosodic alignment of weak pronouns in Chamorro. **Chung 2003**. The Syntax and Prosody of Weak Pronouns in Chamorro. **Elfner 2012**. Syntax–Prosody Interactions in Irish. **Erteschik-Shir, et al 2019**. Variation in Mainland Scandinavian Object Shift: A Prosodic Analysis. **Holmberg 1999**. Remarks on Holmberg's Generalization. **Itô & Mester 2019**. Match as Syntax–Prosody Max/Dep: Prosodic Enclisis in English. **Myrberg & Riad 2015**. The prosodic hierarchy of Swedish. **O'Grady, et al 2017**. Contemporary linguistics: An introduction. **Selkirk 2009**. On Clause and intonational phrase in Japanese: The syntactic grounding of prosodic constituent structure. **Selkirk 2011**. The Syntax–Phonology Interface.