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## Match Theory and the Asymmetry Problem

### An example from Stockholm Swedish

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# The Asymmetry Problem and Match Theory

An example from Stockholm Swedish

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Extending the core idea of Match Theory, we propose the *Minimal Interface Hypothesis (MIH)*. It states that Match be the sole constraints referring to syntactic XPs. MIH raises several theoretical questions, including the *Asymmetry Problem*. This poster illustrates how the Asymmetry Problem can be solved in Stockholm Swedish.

## 1. INTRODUCTION

### Background

In Match Theory (Selkirk 2011), the syntax–prosody mapping constraints per se never allow non-isomorphism between syntax and prosody. Non-isomorphism arises exclusively through the interaction with other constraints (**Prosodic Wellformedness Constraints, PWC**, or other interface constraints, e.g., information structure-related constraints).

### Minimal Interface Hypothesis (MIH)

Match constraints are the sole constraints which refer to syntactic categories (i.e., No constraints like ALIGN-XP, WRAP-XP and STRESS-XP).

### The Asymmetry Problem

Alignment Theory (McCarthy & Prince 1993, Selkirk 1996) allows separate ranking of L- and R-alignment w.r.t. relevant PWCs (e.g., ALIGN-R >> PWC >> ALIGN-L).

Such asymmetry is not possible in Match Theory.

When separate ranking of L- and R-edge mapping is called for, how can it be dealt with in Match Theory?

### Asymmetry in Stockholm Swedish (SSw)

Embedded clauses (ECs) may or may not be realized as an (embedded)  $\iota$ , as in (1a)/(2a) and (1b)/(2b), respectively.

Main clause material to the **right** of an EC may form an additional  $\iota$ , as in (1c).

Main clause material to the **left** of an EC **does not** form an additional  $\iota$ , as in (2c).

## 2. DATA

### $\iota$ -phrasing options in SSw

(x =  $\iota$ -head)

(1) [ [ ... ]<sub>CP</sub> ... ]<sub>CP</sub>

a. { { ... x } <sub>$\iota$</sub>  ... x } <sub>$\iota$</sub>

b. { ... ... x } <sub>$\iota$</sub>

c. { { ... x } <sub>$\iota$</sub>  { ... x } <sub>$\iota$</sub>  } <sub>$\iota$</sub>

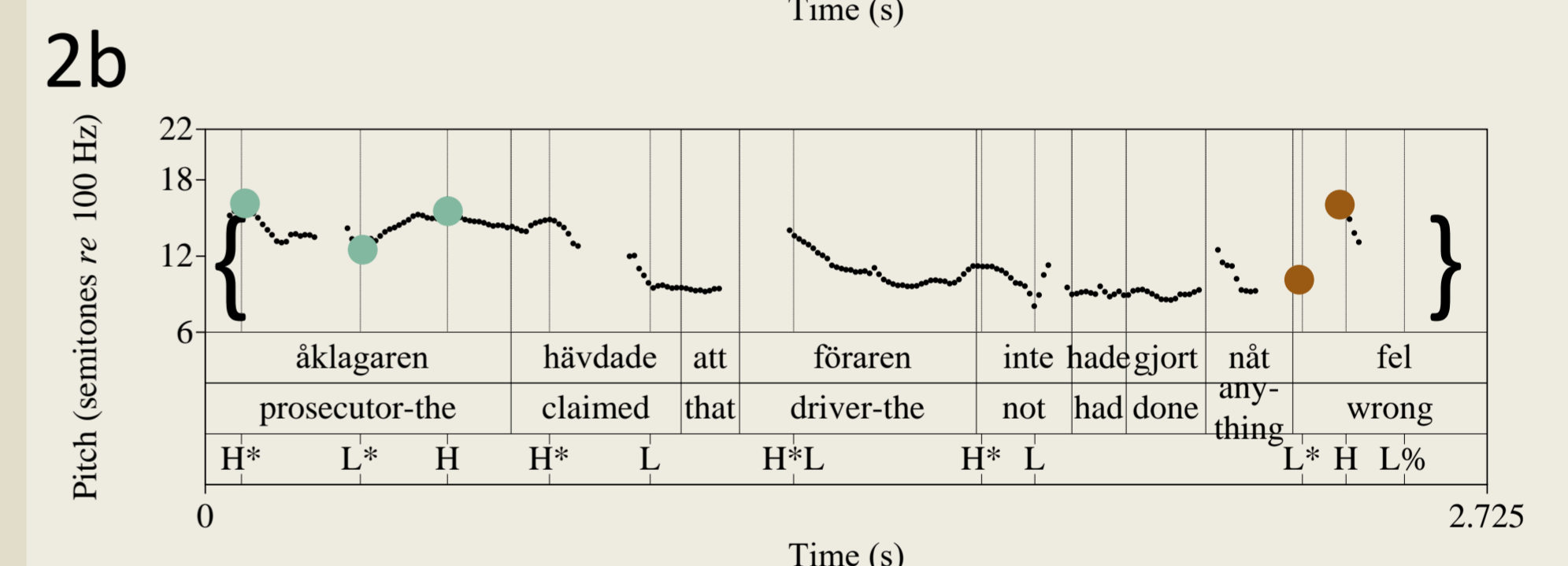
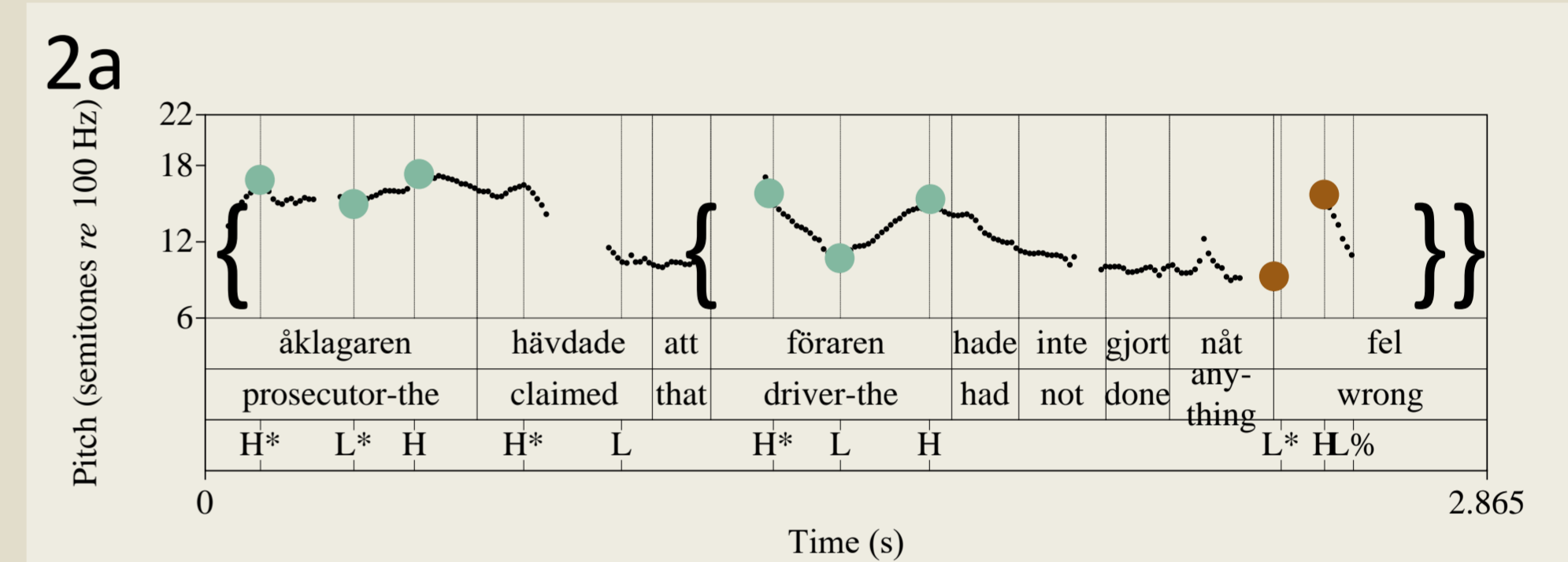
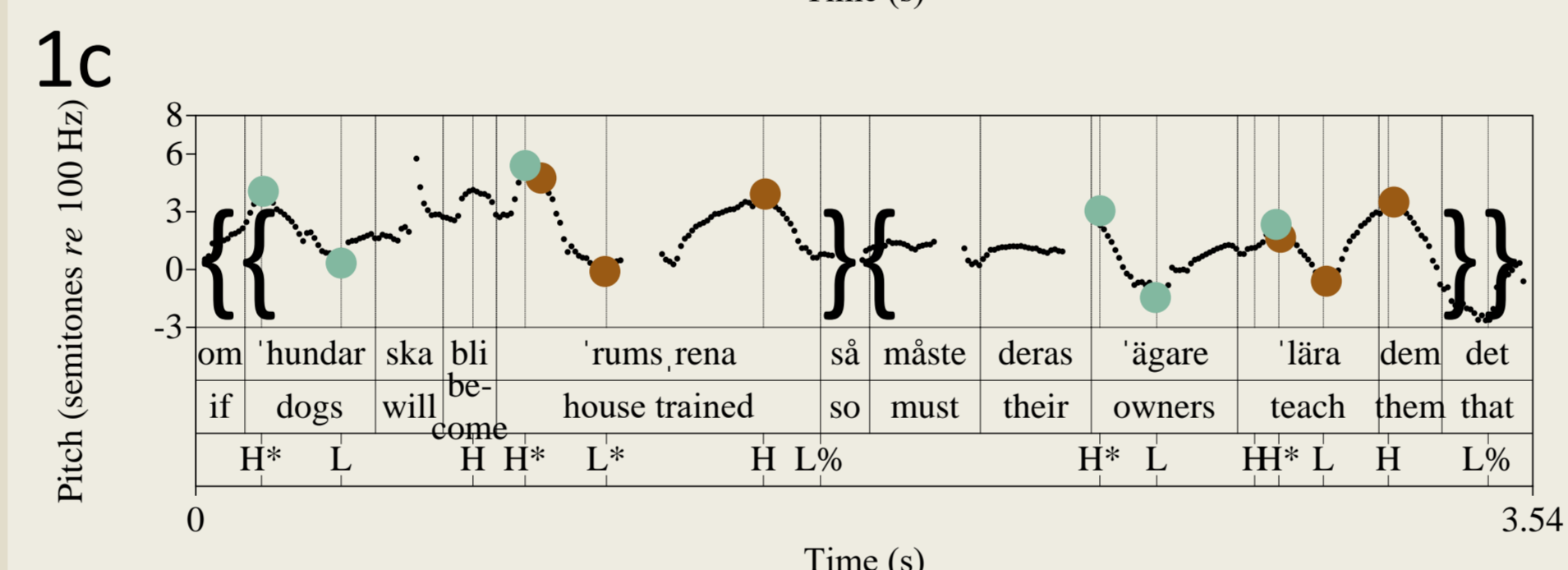
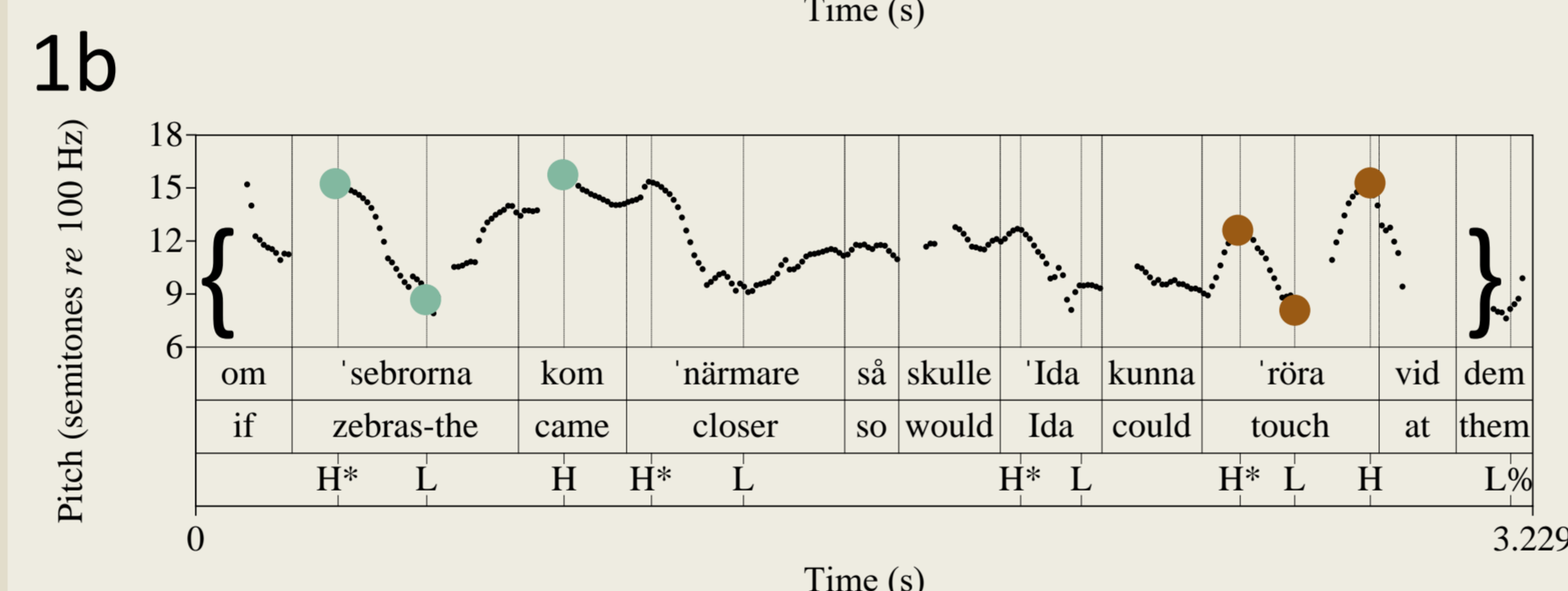
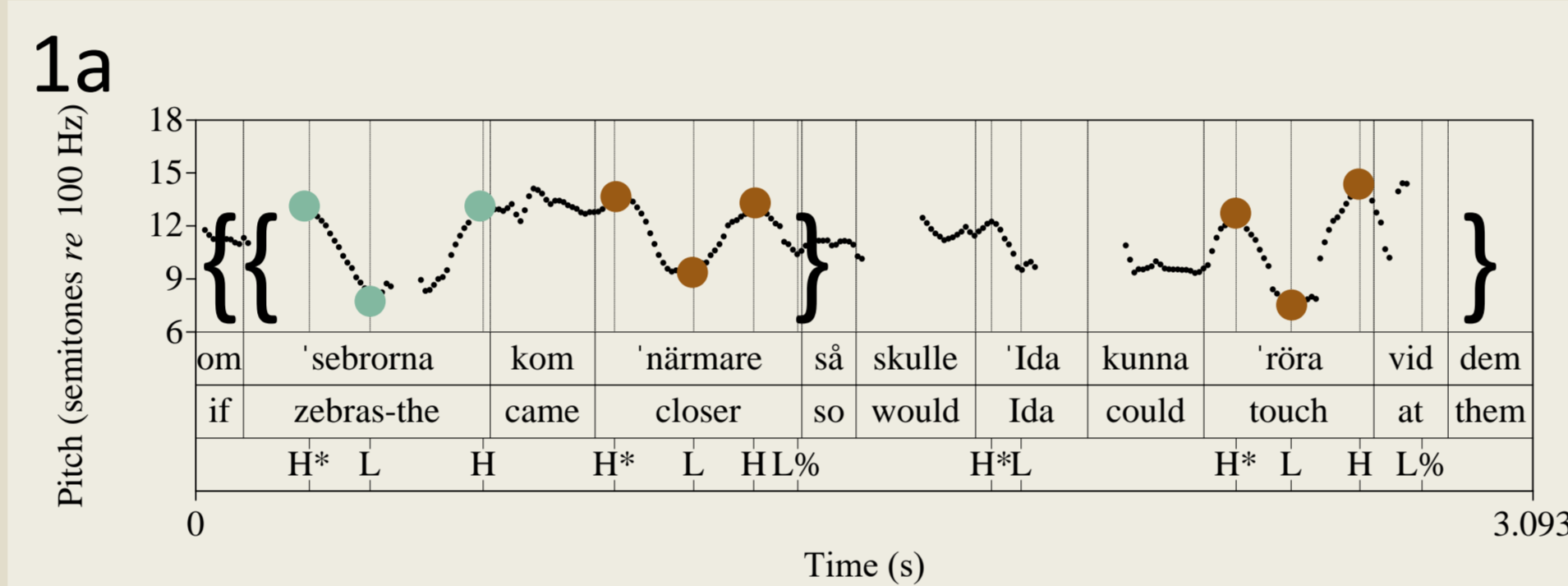
(2) [ ... [ ... ]<sub>CP</sub> ]<sub>CP</sub>

a. { ... { ... x } <sub>$\iota$</sub>  } <sub>$\iota$</sub>

b. { ... ... x } <sub>$\iota$</sub>

c. \* { { ... x } <sub>$\iota$</sub>  { ... x } <sub>$\iota$</sub>  } <sub>$\iota$</sub>

(Myrberg 2010, 2013)



● initiality accent, aligned with the left edge of  $\iota$ : H\*LH (tone accent 2)  
●  $\iota$ -head, aligned with the right edge of  $\iota$ : H\*LH / L\*H (tone accent 2 / 1)

## 3. ACCOUNT

### PWCs related to prosodic heads cause the asymmetry

An  $\iota$  cannot be inserted if it triggers the insertion of an additional  $\iota$ -head.

$\iota$ -insertion to the right of an embedded  $\iota$  does not add an additional  $\iota$ -head (1c), while insertion to the left does add an additional  $\iota$ -head (2c).

This is because  $\iota$ -heads are right aligned in SSw.

### 3 PWCs

#### ALIGN-HEAD( $\iota$ )-R

Align the right boundary of every  $\iota$  with its head.

(Truckenbrodt 1995:119, Féry 2013:696)

#### \*P-HEAD( $\iota$ )

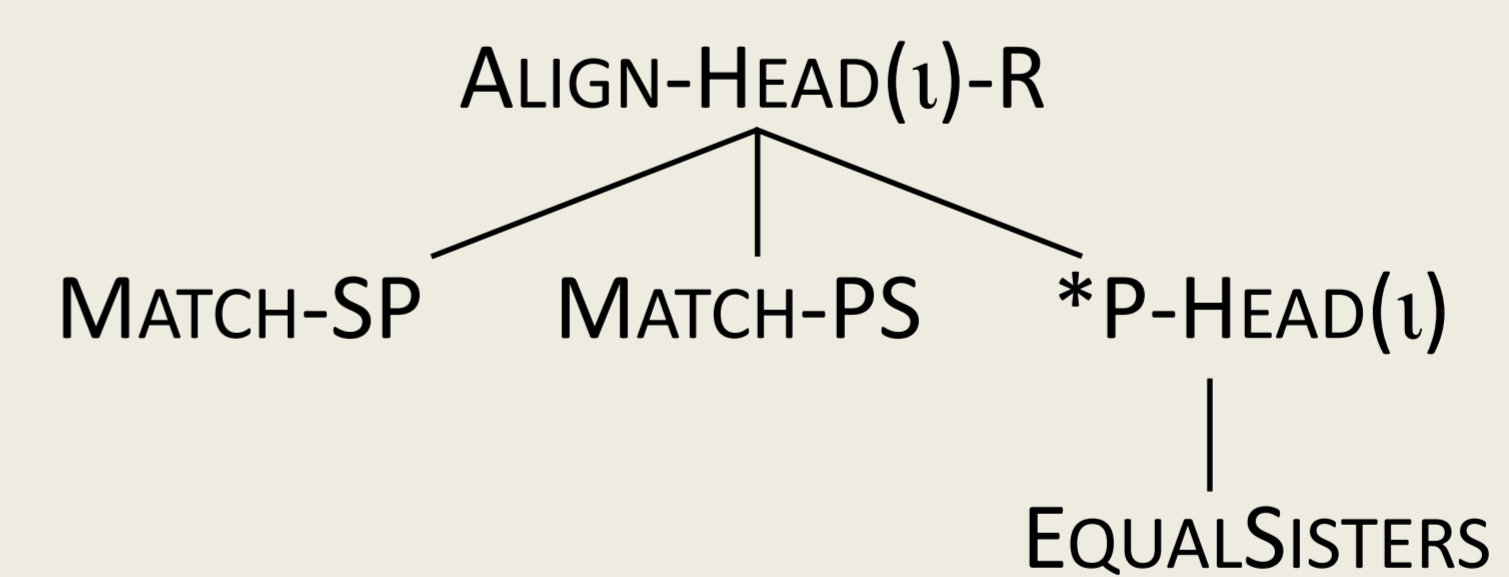
Avoid  $\iota$ -heads.

#### EQUALSISTERS

Sister nodes in prosodic structure are instantiations of the same prosodic category.

(Myrberg 2013)

### Crucial rankings



Below is the ranking where (1) and (2) render divergent results. Other rankings in the handout.

Input: (1) [ [ ... ] ... ]	ALHD-R	MA-SP	*PHD	EQSIS	MA-PS
a. { { x } x }			**	*!	
b. { { x } }		*!	*		
c. { { x } { x } }			**		*
d. { { } { x } }	*!		*		*

Input: (2) [ ... [ ... ] ]	ALHD-R	MA-SP	*PHD	EQSIS	MA-PS
a. { { x } }			*	*	
b. { { x } }		*!	*		
c. { { x } { x } }			**!		*
d. { { } { x } }	*!		*		*

**SELECTED REFERENCES:** Féry, C. 2013. Focus as prosodic alignment. *NLLT* 31:683–734. McCarthy, J. & A. Prince. 1993. Generalized alignment. In G. Booij & J. van Marle (eds.) *Yearbook of Morphology*. 79–153. Myrberg, S. 2013. Sisterhood in prosodic branching. *Phonology* 30:73-124. Selkirk, E. 2011. The syntax–phonology interface. In J. Goldsmith, J. Riggle, & A. Yu (eds.) *The handbook of phonological theory*. 435-484. Selkirk, E. 1996. The prosodic structure of function words. In J. L. Morgan & K. Demuth (eds.). *Signal to syntax*. 187–214.

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