

1. Introduction

• Empirical observation:

- Nuclear Stress patterns exhibit regularities: assigned by a regular operation (NSR)

• Some Theoretical Questions:

- What is the shape of the input? Of the NSR operation?
- Are there exceptions to the NSR?

• Meta-Question:

- What aspects of the data ought we pay attention to, when making generalizations?

Main Assertions

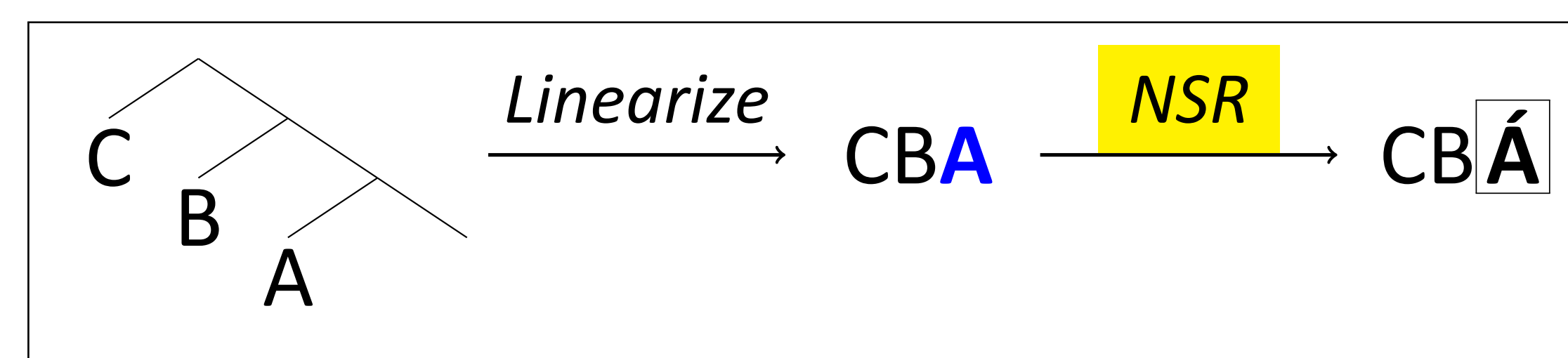
- Proper generalizations about Nuclear Stress patterns can only be formulated when syntax is considered
- The null hypothesis should be that there are no exceptions to the NSR
- Nuclear Stress patterns can help uncover properties of the syntactic derivation (like linear order is used)

2. Input to the Nuclear Stress Rule?

• Two competing hypotheses:

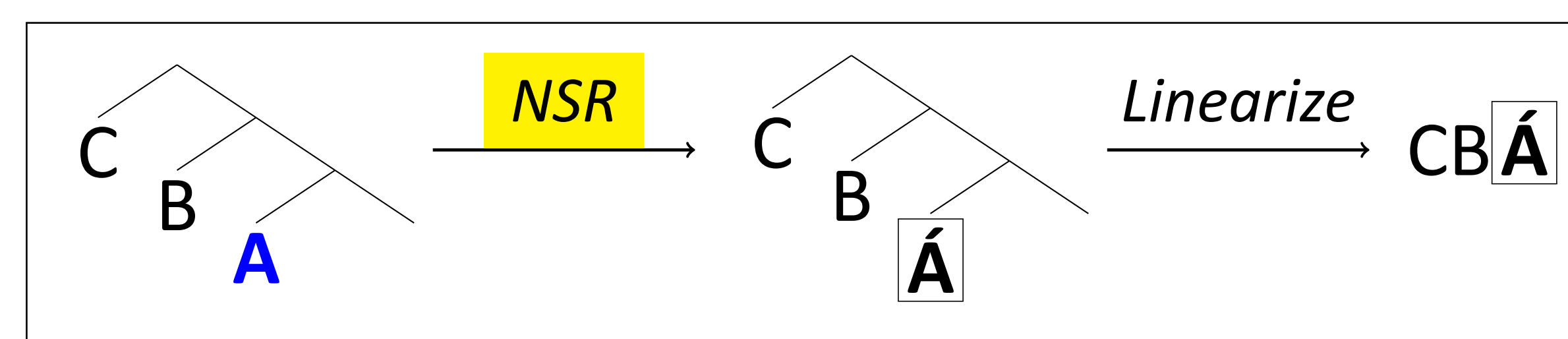
- (1) **Input = Linear order** (e.g. Chomsky and Halle 1968, Adger 2007)

- Possible NSR: Stress on the **rightmost** stressable element



- (2) **Input = Hierarchical structure** (e.g. Cinque 1993, Kahnemuyipour 2009)

- Possible NSR: Stress on the **most embedded** stressable element



3. Effects of Syntax

• The syntactic derivation influences Nuclear Stress

- Syntax proceeds in cycles (contemporary terms: 'phases')
- Nuclear Stress assigned at an earlier phase can be maintained at later ones (Bresnan 1971)

- (3) a. {Helen has {written some **bóok**} }.
- b. {What **bóok** has {Helen {written *what* **bóok**} } }?

⇒ Nuclear Stress is assigned multiple times per sentence

- It operates on sub-parts of the syntactic derivation
- (See also Legate 2003, Adger 2007, Ahn 2015a,b)

A proper generalization requires attention to syntactic derivation

- Data like (3) do not distinguish between the hypotheses in (1) and (2)

• Consider when Nuclear Stress is not rightmost

- Widely noticed: anaphoric pronouns / functional elements do not receive Nuclear Stress (Bresnan 1971, Zubizarreta 1998)

- (4) Why do you think Mary might have been involved in the burglary?

- a. They say they arrested her **húsband**.
- b. They say they **arrésted** her.

- (5) What did Wesley do next?

- a. He locked his bike to **Kén**.
- b. He locked his **bíke** to himself.

- (6) What's the matter?

- a. I can't zip up my **pánts**.
- b. I can't zip my **pánts** up.

- Only recently discovered: anaphoric pronouns / functional elements **may** receive Nuclear Stress, after manipulating syntactic variables

- (4) c. They say they arrested John or **hér**.

- If a pronoun occurs in a syntactic island, it may bear Nuclear Stress (Wagner 2006)

- Islandhood is especially important: **purely** syntactic

- (5) c. Wesley locked his bike to **itsélf**.

- If the antecedent of the reflexive anaphor is an object, it may bear Nuclear Stress (Ahn 2015a)

- (6) c. My pants won't zip **úp**.
- d. C'mon, pants! Zip **úp**!

- If there is no object, a verb particle may bear Nuclear Stress (Ahn 2015b)

⇒ Nuclear Stress is NOT 'rightmost with exceptions'

Manipulating syntactic variables affects the position of Nuclear Stress

4. Conclusions

• Linear order is not changing, but the position of Nuclear Stress is

- Casts serious doubt on Hypothesis 1
- Hierarchical structure is changing (see Ahn 2015a,b for specifics), supporting Hypothesis 2

• Inadequate: Analyzing non-final Nuclear Stress as Exceptional

- Not supported by the data: Statements of the form 'For semantic / lexical reasons, X is an exception to the NSR'
- Premise 1: No true exceptions to NSR
- Premise 2: NSR takes hierarchical structure as its input
- Conclusion: **Nuclear Stress can be used to decide between hypothetical syntactic structures**, like linear order is traditionally used

- (Once we establish a formulation of the NSR)

• Misguided: Claims that any NSR based on syntax would be inadequate

- "Discussions of mismatches between syntax and prosody often stop short of even raising the question, the tacit assumption being that the syntactic analysis is obvious." – Wagner 2015:1171

- **Any data that seem to be mismatches between syntax and Nuclear Stress instead represent a need to reanalyze the syntax**

- (cf. Steedman 2000's analysis of intonational boundaries)

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