

## Focus Domain Neutralization and Sentence Stress

This paper presents an analysis of sentence stress (SS), which relies on the interaction of prosodic markedness constraints and faithfulness constraints that hold between prosodic and focus structures. I follow the proposal in Jackendoff (1998) that the components of grammar are independent and interact via a set of correspondence rules. This interaction is formalized in the model of Optimality Theory (Prince & Smolensky 1993). I argue that the proposed analysis accounts for a number of phenomena that were problematic in previous accounts of SS.

It has been observed that SS is ambiguous in that a single SS may mark different focus domains (Selkirk 1995). This is shown in (8). The prosodically unique SS can mark more than one focus domain, in our example any of the focus domains (8a-d). SS is perfectly aligned with the focus domain in (8a). In the examples (8b)-(8d), the domain of SS remains the same (BATS), however, the focus domain gets progressively larger as we move from (8a) to (8d). In our approach, the output domain of SS is faithful to the input focus domain in (8a) but not in (8b)-(8d). I propose to formalize the ambiguity of SS as the neutralization of contrast between different focus domains. This is shown in tableaux (1,2). Different input domains surface as identical outputs prosodically (1a = 2a). The markedness constraint SINGLE HEAD (in 5) forces the placement of SS on a single prosodic word. Being higher ranked than the faithfulness constraint FOC $\leftrightarrow$ PRHEAD<sub>IO</sub> (in 6), results in neutralization of the focus domains [bats] and [a book about bats]. The original Nuclear Stress Rule (NSR) when reconceptualized as a violable OT alignment constraint RIGHTMOST (in 4) dictates that SS aligns with the rightmost prosodic word.

(1)

Mary bought a book about [bats]	SINGLE HEAD	FOC $\leftrightarrow$ PRHEAD <sub>IO</sub>	RIGHTMOST
Aa. Mary bought a book about BATS			
b. Mary bought a BOOK about BATS	*!		
c. Mary bought a BOOK about bats		*!	

(2)

Mary bought [a book about bats]	SINGLE HEAD	FOC $\leftrightarrow$ PRHEAD <sub>IO</sub>	RIGHTMOST
Aa. Mary bought a book about BATS		**	
b. Mary bought a BOOK ABOUT BATS	*!***		
c. Mary bought a BOOK about bats		**	*!

(3)

Mary bought [a book] about bats	SINGLE HEAD	FOC $\leftrightarrow$ PRHEAD <sub>IO</sub>	RIGHTMOST
a. Mary bought a book about BATS		*!	
Ab. Mary bought a BOOK about bats			*

I argue that this account extends on Reinhart (1995). In her system, SS is initially assigned to the most embedded element of a sentence (Cinque 1993). Due to the interface economy, a different position for SS is permissible only to satisfy focus domain requirements. In my proposal, the assignment of SS is unified into one OT hierarchy and RIGHTMOST is violated only to avoid the violation of higher-ranked constraints (3b) or to render a candidate as sub-optimal (2c).

Following Smith (1997) I argue for special faithfulness for nouns, formalized in (7). In English, this constraint dominates RIGHTMOST, to compute cases such as (9). However, for Bengali, the opposite ranking selects the optimal sentence (10). Languages such as Bengali that do not assign SS to the most embedded element pose a problem for the Cinque/Reinhart account. I show that such languages are directly accounted for in the proposed system via the re-ranking of the constraint RIGHTMOST.

To sum up, I argue for a novel approach to SS, which relies crucially on the interaction of violable faithfulness and markedness constraints. Faithfulness constraints dictate preservation of input focus domains. These constraints interact with prosodic markedness constraints to derive the location of SS in different languages. Phenomena such as the ambiguity of SS or the location of SS in languages that do not observe the NSR are shown to derive from the re-ranking of the basic constraints in the proposed system.

Constraints (representative subset)

- (4) RIGHTMOST - Align SS with the rightmost PrWd
- (5) SINGLE HEAD - Every IP can have only one PrWd with SS
- (6) FOC $\Leftrightarrow$ PRHEAD<sub>IO</sub> - Focused words in the input are marked by SS in the output
- (7) FOC $\Leftrightarrow$ PRHEAD<sub>IO</sub> N - Focused nouns in the input are marked by SS in the output

Data (focus domains are shown in brackets, sentence stress in capitals)

- (8) Mary [bought [a book [about [BATS]]]]
  - a. [BATS]- not butterflies
  - b. [about BATS] - not with nice pictures
  - c. [a book about BATS] - not a picture with birds
  - d. [bought a book about BATS] - and not found a nice place to stay
- (9) The BABY is crying.
- (10) Schaemoli Ram-er bari D<sup>h</sup>UKEC<sup>h</sup>ILO  
Shamoli Ram's house entered  
Shamoli entered Ram's house

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