

# Grounding topic and focus in biological codes

Matthijs Westera (m.westera@uva.nl)

Institute for Logic, Language and Computation, University of Amsterdam

## 1. Main aim

### A semantics of (English) intonational phonology:

- ▶ **Nuclear accents:** H\*, L\* (not distinguished here).
- ▶ **Phrase accents/boundary tones:** H-, L-, H%, L%.

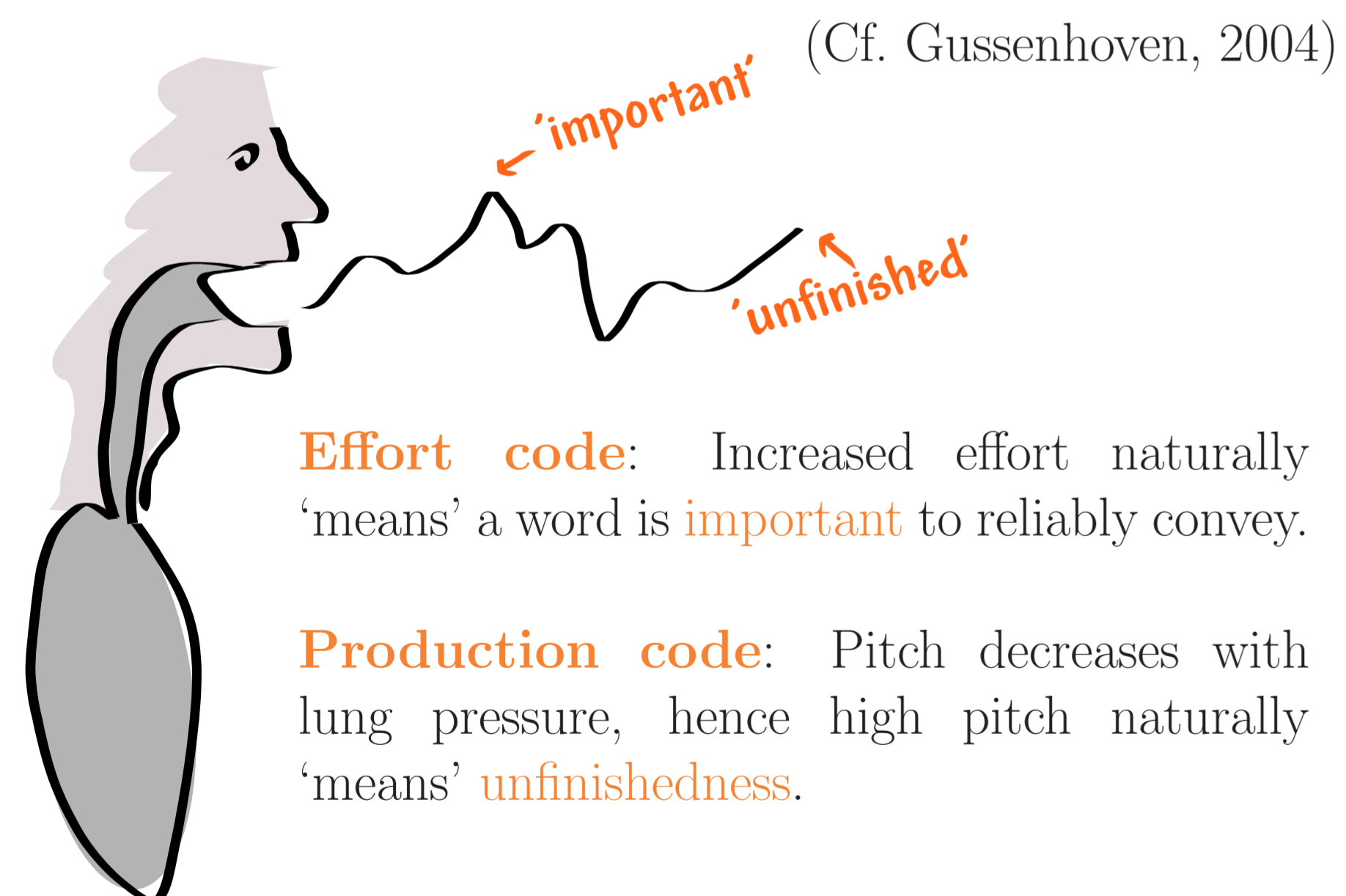
The semantics must be:

- ▶ **compositional;**
- ▶ **explanatory** (non-arbitrary); and
- ▶ **empirically adequate.**

The intended empirical domain includes:

- ▶ **focus;** (e.g., Rooth 1991)
- ▶ **contrastive topic;** (e.g., Büring 2003; Wagner 2012)
- ▶ **rising declaratives;** (e.g., Truckenbrodt, 2006)
- ▶ **(rise-)fall-rise.** (e.g., Ward & Hirschberg 1985)

## 2. How to explain intonational phonology



### Phonologicalization of biological codes:

- ▶ Gradient features become categorical.
- ▶ Volitional production makes meaning more *pragmatic*.
- ▶ Enriched meaning becomes conventional.

**Explanation** is a *reconstruction* of this process.

## 3. Nuclear accent (H\*, L\*): alternatives

### 1. Natural meaning:

- ▶ Accented word is important to reliably convey (Effort);
- ▶ ...iff it is *left-to-right unpredictable*.

### 2. Phonologicalization:

- ▶ Unpredictability due to **relevant alternatives**.
- ▶ Left-to-right replaced by **wide-to-narrow scope**.

### 3. Resulting meaning:

- ▶ Nuclear accent marks the existence of **relevant alternatives**, sharing with the uttered sentence all material outscoping the accented constituent.

## 4. IP-final rise (H%): maxim violation

### 1. Natural meaning:

- ▶ Utterance/breath group is *unfinished* (Production code).

### 2. Phonologicalization:

- ▶ H% cannot mean syntactic/semantic unfinishedness...
- ▶ hence: **pragmatic unfinishedness**;

### 3. Resulting meaning:

- ▶ The utterance **violates a conversational maxim**.
- ▶ Pitch height marks *severity* of the violation.

### Conversational maxims: (Westera 2013a)

"Mention (*A-Quantity*), and if possible truthfully confirm (*Quality, Quantity*), all relevant, possible propositions."

Existing accounts of H% are reproduced (Westera, 2013b).

## 5. iP-final rise (H-): relative maxim violation

Maxim violations can be *due to* relevant alternatives.

- ▶ A speaker may fail to mention/confirm them;
- ▶ She may think the world is different from what she said.

### Assumed meaning (derivative of IP-final rise):

- ▶ iP-final rise marks a maxim violation **relative to the iP's nuclear accent**.

## 6. Examples & predictions

(Nuclear accent in CAPS, rises/falls as ↗ and ↘.)

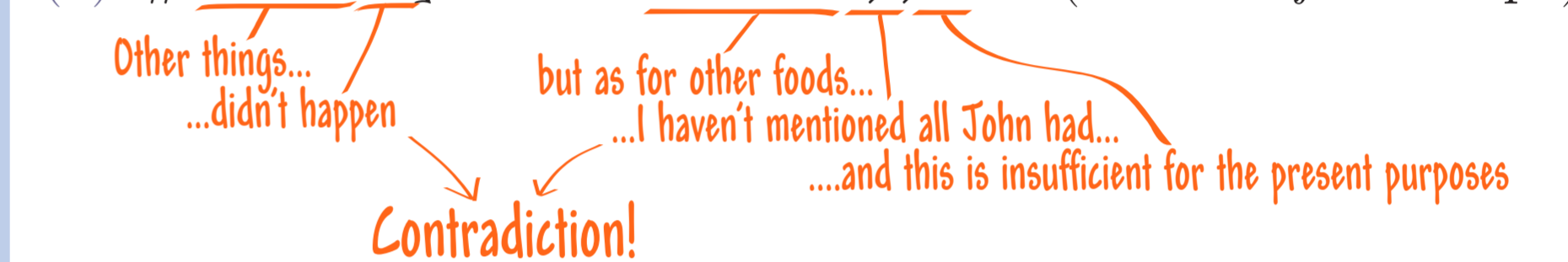
### Contrastive topic and focus:

(1) JOHN↗ had the BEANS↘.



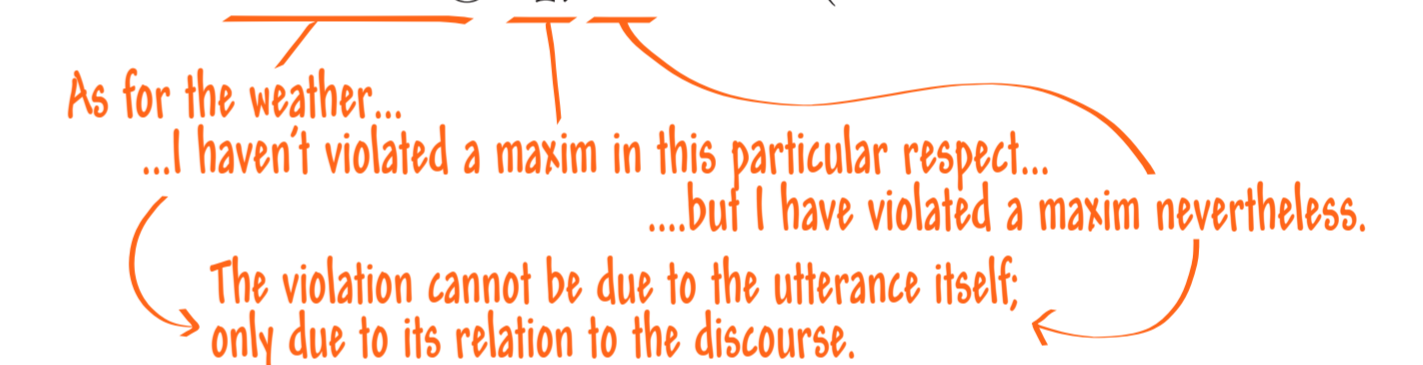
### Topic must scope over focus: (cf. Wagner 2012)

(2) # JOHN↘ had the BEANS↗.



### Fall-rise conveys *uncertain relevance*:

(3) It was RAINING↘↗. (cf. Ward & Hirschberg, 1985)



### Lists: (problematic for Büring's (2003) strategies)

(4) JOHN↘ had the BEANS↗; SUE↗ had the PASTA↘.

## 7. Any comments are welcome!

Especially on:

- ▶ Differences between various rising contours;
- ▶ Cross-linguistic variation;
- ▶ Diachronic/dialectal change.

## 8. References

- ▶ Büring (2003). On D-trees, beans, and B-accents.
- ▶ Gussenhoven (2004). The phonology of tone and intonation
- ▶ Rooth (1992). A theory of focus interpretation.
- ▶ Truckenbrodt (2006). On the sem. motivation of synt. verb mov. to C in German.
- ▶ Wagner (2012). Contrastive topics decomposed.
- ▶ Ward & Hirschberg (1985). Implicating uncertainty: [...] fall-rise intonation.
- ▶ Westera (2013a). Where the air is thin, but the sky so much clearer.
- ▶ Westera (2013b). 'Attention, I'm violating a maxim!' [...]