

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%.

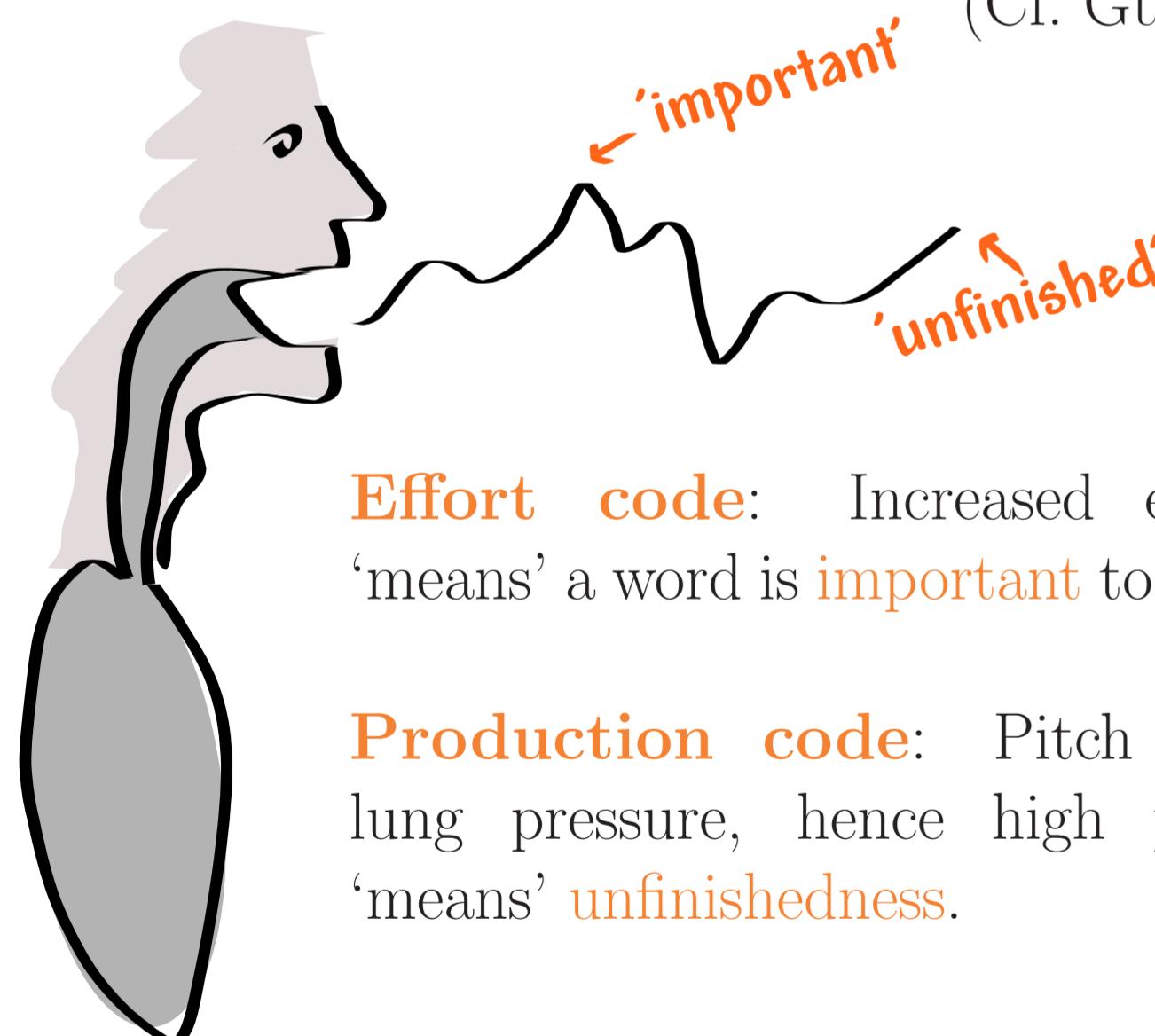
The semantics must be:

- 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



Effort code: Increased effort naturally ‘means’ a word is **important** to reliably convey.

Production code: Pitch decreases with lung pressure, hence high pitch naturally ‘means’ **unfinishedness**.

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);
- ...if 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↘.

Other things... might have happened, but as for other foods... I've mentioned all John had... and this is sufficient for the present purposes

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

(2) # JOHN↖ had the BEANS↗. (with *surface scope*)

Other things... didn't happen but as for other foods... I haven't mentioned all John had... and this is insufficient for the present purposes

Contradiction!

Fall-rise conveys uncertain relevance:

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

As for the weather... I haven't violated a maxim in this particular respect... but I have violated a maxim nevertheless. The violation cannot be due to the utterance itself; only due to its relation to the discourse.

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!’ [...]