Overview

Research question: Does every phrase have a head? What marks the head of a phrase?

- If every intermediate phrase (iP) has a head, and the head must be marked by pitch accent, every iP must have a pitch accent (Beckman 1996)
- Prediction: constraints that affect pitch accent (e.g. focus) can affect phrasing

Preview of the results:

- iP boundaries are retained post-focally (in the absence of pitch accents), contra this prediction
- Post-focal material is shortened in general
- It is not clear if there are still prominence distinctions post-focally

Implication: Headedness can still be maintained if the head of an iP could be marked by something other than pitch accent (e.g. phrasal stress)

Broad focus

Different syntaxes lead to different prosodies (Price et al. 1991 and Norcliffe & Jaeger 2005)

(1) a. Verb + Particle (VPart)
Fréddie’s been thinking over the problem.
H* H* L- H*

b. Verb + Preposition (VPrep)
Fréddie has been thinking over the last hour.
H*

Prominence and phrasing are reflected in length:

- Pre-boundary lengthening (Price et al. 1991; Wightman et al. 1992; Shattuck-Hufnagel & Turk 1996)
- Lengthening due to accentuation (Dimitrova & Turk 2012)

Predictions:

(1) a. Verb + Particle
th in k ing Ê v er iP th in k ing iP o v er
V1 V2 P1 P2 V1 V2 P1 P2

- Length of V1 is longer in VPrep than in VPart
- Length of P1 is longer in VPart than in VPrep
- Ratio of V2/P2 is larger in VPrep than in VPart

Methods

- Production study with 13 participants
- 4 conditions: Syntax (VPart and VPrep) x Focus (broad and narrow)
- 80 target sentences (20 sets x 4 conditions)
- Measured the duration of V1, V2, P1, P2
- Linear mixed effects models (‘lmer’ & ‘lmerTest’)

Results: V2/P2

Broad focus:

- V2/P2 in VPart is 70% of V2/P2 in VPrep (p<0.01) (expected)
- V1 is 5.3ms longer in VPrep than VPart (p<0.001)(expected)
- P1 is 10.6 ms longer in VPart than VPrep (p<0.01) (expected)

Post-focally:

- The difference in V1 duration between VPrep and VPart is not significant, but this difference does not differ significantly from the difference in broad focus. Same for P1
- All the measured rimes are shorter post-focally than in broad focus, except P2

Discussion

- No post-focal de-phrasing; there are iP’s without pitch accent
- Unclear if prominence distinctions are retained post-focally
- If they are, then post-focal iP’s still have heads (maintaining headedness), which are marked by phrasal stress instead of pitch accent
- The whole sentence is one intonational phrase (IP) and headed by the focused subject
- Pitch accent is assigned to the head of IP

I thank my research assistants Aquila Simmons and Kitty Zeng for their help. Thanks are also due to Athulya Aravind, Charles Chang, Edward Flemming, Martin Hackl, Michael Kenstowicz, David Pesetsky, Roger Schwarzschild and the audience of MIT Phonology Circle for feedback.

References are available by email on request.