Effects of Pitch Accent Position, Type, and Status on Focus Projection (Welby 2003)

Kordula De Kuthy
HS Neuere Arbeiten zur Fokusprojektion WS 09/10
January 12, 2010

Prenuclear accents

- (1) Q: What newspaper do you read?
  A: I read the [DISPATCH]F .

  In Selkirk’s model, the pitch accent on the verb F-marks
  the verb, which must then be interpreted either as New
  or as Focus. Since the verb in (1) is neither New nor
  contrastively focused, Selkirk’s model predicts that this
  answer should be inappropriate.

  Gussenhoven’s model allows the unrestricted
  assignment of pitch accents to the left of the focal pitch
  accent, so his theory predicts that the answer should be
  appropriate.

Structure of intonational patterns

Hat pattern versus two peak accent pattern

(2) a. I (read the DISPATCH)  __ Hat pattern __
  H*    H*     L-L%

  b. I (READ) (the DISPATCH)  __ Two peak pattern __
  H*  L-  H*  L-L%

  The hat pattern in (2a) contains a single nuclear accent,
  the second pitch accent. The pitch accent is nuclear
  because it is the last one in an intermediate phrase.

  The two-peak pattern in (2b) contains two nuclear
  accents: each pitch accents is the only (and therefore
  the last) pitch accent in an intermediate phrase.


- Welby (2003) investigates the influence of prosodic

  reference to pitch accent type or to prosodic phrasing.
Experiment 1: Experimental Design

- Hypothesis: Nuclear pitch accents, but not prenuclear accents, mark focus.
- Questions: VP focus (3a) or object-NP focus (3b):
  
  (3) a. What's that terrible smell coming from the neighbors' yard?
  b. There's a terrible smell coming form the neighbors' yard. What are they burning?

- There were four possible answer types:
  
  (4) a. They’re burning their garbage. (verb)  
  b. They’re burning their garbage. (obj-NP)  
  c. They’re BURNING their garbage. (“hat”)  
  d. They’re BURNING their garbage. (two peak)

Experiment 2

- Experiment 2 investigates the effect of pitch accent type on focus projection.
- No theory of focus projection so far predicts that a certain type of pitch accent should be better or less able to project focus.
- Utterance (5a) with a L+H* accent on the object NP is therefore predicted to be as appropriate as utterance (5b) with an H* accent on the object NP.

(5) Q: How do you keep up with the news?

a. I [read the dispatch]$_F$  
   L+H*  
   L-L%

b. I [read the dispatch]$_F$  
   H*  
   L-L%

Results

- The experiment used the linguistic judgment task of Birch & Clifton (1995), rating using Likert scale.
- Results for questions supporting VP-focus and for those supporting object-NP-focus were identical.

  - “hat” pattern and the object-NP-only accent pattern were rated as equally appropriate.
  - Appropriateness of hat pattern → prenuclear pitch accent does not affect focus structure interpretation.
  - Two-peak pattern was less acceptable → Two-peak pattern is disfavored for single focus interpretation (favors double focus interpretation).

Experimental Hypothesis

- H* and L+H* accents might differ in their ability to project focus.
- Answers with a L+H* accent on the object NP and no other pitch accents might be less appropriate as responses to questions calling for VP focus than the same answer uttered with an H* accent.

(6) a. Q: Do you read the Lantern?  
   b. A: I read [the dispatch]$_F$  
      L+H*  
      L-L%

(7) a. Q: How do you keep up with the news?  
   b. A: I [read the dispatch]$_F$  
      L+H*  
      L-L%

Pitch Accent Type Hypothesis: The L+H* pitch accent is not as effective as the H* pitch accent in projecting focus.
Effects of Pitch Accent Position, Type, and Status on Focus Projection

Welby (2003)

Prenuclear Accents

Intonational Phrasing

Experiment 1

Results

9 / 11

Experimental Design

- VP focus question:
  8) How do you keep up with the news?

- Three versions of each answer:
  (9) a. I read the dispatch **hat**
      H* H* L- L%
  b. I read the dispatch **object-NP H**
      H* L- L%
  c. I read the dispatch **object-NP L+H**
      L+H* L- L%

Conclusion

- In determining the focal structure of utterances, listeners are most sensitive to the presence or absence of pitch accents in expected positions.

- The results in experiment 1 and 2 showed that a pitch accent on the object NP can effectively project focus to the entire VP, as predicted by several theories of focus projection.

- The results of experiment 1 also showed that listeners may be sensitive to the status of a pitch accent as nuclear or prenuclear.

- The influence of pitch accent type, however, if present at all, is slight and variable.

Results

- The Pitch Accent Type Hypothesis was not supported, i.e. no support for the hypothesis that the L+H* accent does not project focus.

- Subjects gave numerically low (i.e. good) ratings to all of the accent patterns, indicating that all patterns were considered appropriate.

- It is possible that a normal peak height difference between the L+H* and the H* accent was suppressed in the selection of the materials.

- L+H+ accent with peaks high enough to clearly signal contrastive focus may have been excluded.

References


