The Prosody of English Contrastive Topic
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November 13, 2012

1. Overview
◦ What is contrastive topic (CT)?
◦ How is CT realized cross-linguistically?
◦ How should we represent CT structurally?
◦ Present new account of English CT prosody in a framework that
  • doesn’t exempt CT from standard interface mechanics,
  • could plausibly extend to CT facts in other languages.

2. Background on Prosody
◦ Standard assumptions about English prosodic structure:
  • IntP > PhonP > … > PWord > Foot > Syllable
  • One boundary tone (L% or H%) per IntP.
  • One phrase tone (L- or H-) per PhonP.
  • Head of PhonP is pitch accented (e.g. H*).
  • Head of IntP is nuclear pitch accent.
◦ Focus can manifest in accenting, phrasing, word order
◦ These effects all stem from FOCUS PROMINENCE (Büring 2010)
◦ English focus is realized by a strong pitch accent.
◦ Following material is deaccented.

(1) A: a. What do you put in your pasta sauce?
  b. Do you put tarragon, or thyme in your pasta sauce?
  c. Do you put tarragon in your pasta sauce?
  d. First, I put tarragon in my pasta sauce, then…
  B: I put [thyme] in my pasta sauce.
      H* L- L%
◦ Focus can be narrow or broad, possibly even sentential.
◦ Cues to size of focus can be subtle or absent.

(2) a. I bought a [bats] . (Q: What kind of book did you buy?)
  (after Selkirk 1995)
  b. I bought a [book about bats] . (Q: What did you buy?)
  c. [I bought a book about bats] . (Q: What’s up?)
◦ Standard cases of focus have single nuclear accent with “falling intonation”: H* L- L%
◦ What determines the pitch accent, phrase, and boundary tone shape?
◦ What happens when we have more than one nuclear accent?

3. Exhaustive Focus and Contrastive Topic
◦ Typical cases of focus answer a single explicit or implicit question.
◦ Exhaustive Focus (Exh) is constituent that answers question.
◦ In examples below, we answer one question while leaving another unanswered.
◦ Contrastive Topic (CT) is what current question is about, implies question(s) about different topic.
◦ Examples adapted from Jackendoff (1972: 261):

(3) A: What about Persephone and Antonio? What did they bring?
   B: [Persephone] CT … brought [the gazpacho] Exh.
       H* L- L%  H* L- L%
◦ What happens when we have more than one nuclear accent?

(4) A: What about the gazpacho and the salad? Whose brought those?
   B: [Persephone] Exh brought [the gazpacho] CT …
       H* L- L%
       L+H* L- H%
◦ Exh+CT is often dispreferred. Better examples:

(5) [Nobody] Exh solved all of the problems CT …
       H* L- L%
       L+H* L- H%
◦ I assume underlying contour is the same, even if it’s reduced.

(7) (Fred won’t, but…)
   Anh Exh  will Exh
   L+H* L- H%  H* L- L%
◦ Some authors allow for CT without Exh (Jackendoff 1972, Büring 2003)
◦ Others treat this separately as “Rise-Fall-Rise” (Wagner 2012, Constant to appear)

(8) A: What about Persephone and Antonio? Did they bring anything?
   B: [Persephone] CT brought something…
       L+H* L- H%
◦ Some allow sentential CT (Constant in prep.)

(9) A: Is John home?
   B: [His lights are on] CT…
       L+H* L- H%
◦ How do presence and location of CT and Exh affect prosody?

Hashed accent marks.

Büring 2003

[·]F → H* L- L% (A accent)
[·]CT → L+H* L- H% (B accent)
◦ But by what mechanism do [·]CT and [·]Exh translate into these contours?
◦ More recent accounts of CT aim to do without [·]CT marks.
◦ CT’s are just F-marked phrases in specific configurations:
  • Tomioka 2010: CT = focus associate of one operator (CT) not in scope of another (Exh).
  • Wagner 2012: CT = focus associate of higher of two FOCUS operators.
  • Constant 2012: CT = focus associate of CT operator.
4. Contrastive Topic Cross-Linguistically

4.1. German Bridge Contour

○ Bridge Contour
  - Rising pitch accent (L* H) on CT
  - Falling pitch accent (H* L) on Exh
  - High plateau in between

(10) And Fred? What did he eat?
  a. Fred hat die bohnen gegessen.
     Fred has the beans eaten
     '[Fred]CT ate [the beans]Exh.'
  b. #Die bohnen hat Fred gegessen.
     the beans has Fred eaten

(11) And the beans? Who ate those?
  a. Die bohnen hat Fred gegessen.
     the beans has Fred eaten
     '[The beans]CT, [Fred]Exh ate.'
  b. #Fred hat die bohnen gegessen.
     (any contour)
     Fred has the beans eaten

4.2. Japanese CT -wa

○ -wa marks topics generally
○ CT = -wa-marked phrase with prominence
○ No special prosody distinct from focus (Tomioka 2010: 115)

(12) A: Who ate what?
    B: Erika-wa mame-o tabe-ta (kedo)...
    Erika-TOP beans-ACC eat-PAST but
    '[Erika]CT ate [beans]Exh. (but ...)'

(13) A: Did both Erika and Ken pass?
    B: Erika-wa ukat-ta.
    Erika-TOP pass-PAST
    '[Erika]CT passed...'

○ Any argument can get CT -wa?

(14) Boku-wa ano-mise-de John-wa nani-o kat-ta ka kii-ta.
    I-TOP that-shop-at John-TOP what-ACC buy-PAST que ask-PAST
    'I asked what (at least) [John]CT bought at that shop...'

○ -wa can appear CT-internally:

(15) Ame-wa hutte imasu ga (taisita koto-wa arimasen).
    rain-TOP falling is but important matter-TOP exists.NEG
    'It [is]Exh [raining]CT... but it's [not]Exh [so much]CT...'

4.3. Mandarin CT -ne

○ Positions of -ne
  - Directly following topicalized CT phrases
  - Sentence-final when CT remains in situ (Constant 2011)
  - Always followed by a large prosodic break (IntP?)

    mom every-day night very late only then return-home
    Bāba ne, gāncuì jiù bù huí-lái.
    dad CT simply just not return-come
    'Every day mom doesn't come home until late. [Dad]CT NE, doesn't even come back at all.'

(17) A: Are you going to the show?
    B: Qǐ, Nǐ ne?
      go you CT
      'Yeah. [You]CT NE?'

(18) A: His family is poor, so you'd do better not to have dealings with him.
    B: Tā jiā yǒu sān tōu niú ne.
      His family have three CL cow CT
      '[His family has three cows]CT NE... (!)' (Isn't that proof that they're not poor?)

(19) Qǐ Dēgùo pà shòu guàitiānhuìxiān, nánǐ biède guójū xiāng-bū-xíng ne?
    go Germany fear receive suspicion then other country okay-not-okay CT
    'If going to Germany would arouse suspicion, would [other countries]CT be okay NE?'

4.4. Paraguayan Guarani -katu

○ Second position clitic =katu marks utterance containing CT.
○ Word order does not determine which phrase is CT.

(20) A: Juana was born in Argentina. Where was Bob born?
    B: Bob-katu o-nasē Estado Unido-pe.
    Bob-CT o-born America-in
    '[Bob]CT was born in [the US]Exh.'

(21) A: Juana was born in Argentina. Who was born in the US?
    B: Bob-katu o-nasē Estado Unido-pe.
    Bob-CT o-born America-in
    '[Bob]Exh was born in [the US]CT.'

4.5. Dedicated CT Positions

○ Italian (Frascarelli and Hinterholzl 2007)
  - CT occurs in fixed position in left periphery (below aboutness topic, above focus and familiar topic)
  - Always resumed by a clitic

○ Hungarian (Gyuris 2002), Czech (Sturgeon 2006)
  - CT occurs in fixed position in left periphery (below aboutness topic, above focus)
  - Optionally resumed by a clitic
  - CT or resumptive clitic usually receives rising intonation
5. Contrastive Topic Abstraction

Constant 2012
- No [·]CT marks in the syntax
- CT phrase raises to CT operator position at LF
- Rooth's squiggle (~) relates focus values to discoursephyrases

CT Operator Semantics

- Advantages of Topic Abstraction
  - Extends to CT marking in questions
  - Captures CT asymmetries in multiple CT data
  - Predicts limited island sensitivity of CT
  - Capitalizes on existing models of focus

Examples below from Ishihara (2003: §3)
- (Note Ishihara wants to account for these effects without reference to prosodic structure)
- I've added phrasing to show domain of post-focal compression
- This constraint can be satisfied by wh- movement or by adjusting prosodic structure.

6. Japanese Wh- Prosody

  - Material between a wh- word and its binder is compressed.
  - Transcribing Exh+CT as one IntP is fairly standard (Pierrehumbert and Hirschberg 1990: ex. 33, Steedman 2000: ex. 4, Steedman 2008: ex. 34b). But it would be nice to have empirical support that this break is shorter than CT+Exh.
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Wh- Indefinite

- 'What did Naoya drink at the bar?'
- 'Naoya drank something at the bar.'

Wh- Bound by Q

- 'What did Naoya drink at the bar?'

Wh- Indefinite

- 'What did Naoya drink at the bar?'
- 'What does Naoya still think that Mari drank at the bar?'

Wh- Bound by Matrix Q

- 'What does Naoya think that Mari drank at the bar?'

Wh- Bound by Embedded Q

- 'What does Naoya still think that Mari drank at the bar?'

Condition on Phrasing Wh- and C (Richards 2010: 151)

- Given a wh-phrase α and a complementizer C where α takes scope, α and C must be separated by as few minor phrase boundaries as possible, for some level of minor phrasing.
- This constraint can be satisfied by wh- movement or by adjusting prosodic structure.
7. Wrapping CT and its Associate

- **Constraints**
  - **HEAD-INTP-R**: IntP head is rightmost.
  - ***INTP**: Penalize each IntP (cf. Féry 2007)
  - **STRESS-FOCUS**: Focus (XP) is maximally prominent within its focus domain.
    (cf. Truckenbrodt 1995: 160)
  - **WRAP- [CT XP] IntP**: The CT operator and its associate occur in the same IntP.
    (cf. Richards’ 2010 condition on C [+wh] and wh-phrase)

(33) **CT+Exh**

<table>
<thead>
<tr>
<th>CT I gave [Fred] [the beans]</th>
<th>[CT XP] IntP</th>
<th>Stress-Foc</th>
<th>*INTP</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. ( ) ( ) ( * )</td>
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<td>b. ( ) ( ) ( * )</td>
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(34) **Exh+CT**

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(35) **CT Raised Over Exh**

<table>
<thead>
<tr>
<th>[The beans] CT I gave [Fred]</th>
<th>[CT XP] IntP</th>
<th>Stress-Foc</th>
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(36) **Lone CT**

<table>
<thead>
<tr>
<th>CT I gave him [the beans]</th>
<th>[CT XP] IntP</th>
<th>Stress-Foc</th>
<th>*INTP</th>
<th>*Move</th>
</tr>
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<td>a. ( ) ( * )</td>
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(37) **Lone CT Raised**

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7.1. Multiple CT

(38) For each day, what does everyone do on that day?

<table>
<thead>
<tr>
<th>What does everyone do Sunday?</th>
<th>What does everyone do Monday?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fred on Sunday?</td>
<td>Mary on Sunday?</td>
</tr>
<tr>
<td>Mary on Sunday?</td>
<td>Fred on Monday?</td>
</tr>
<tr>
<td>He rests.</td>
<td>He works.</td>
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<tr>
<td>She works.</td>
<td>She swims.</td>
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</tbody>
</table>

(39) a. On [Sundays] CT [Fred] [rests] Exh
   { But Mary works (on Sundays). }
   .
   ?? But on Mondays, he works.
   }
   b. [Fred] CT [On Sundays] [rests] Exh
   { But on Mondays, he works. }
   ?? But Mary works (on Sundays).

(40) **CT+CT+Exh (CT’s Raised)**

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(41) **CT+CT+Exh (Inverse Scope)**

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(42) **CT+Exh+CT (Surface Scope)**

<table>
<thead>
<tr>
<th>[Fred] CT CT [rests] Exh [on Sundays] CT</th>
<th>Wrap- [CT XP] IntP</th>
<th>Stress-Foc</th>
<th>*INTP</th>
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(43) **CT+Exh+CT (Inverse Scope)**

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References