



Teasing apart the prosodic effects of focus and of defocus: syntax-prosody mismatches in right dislocation

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Introduction

#1 Focus vs. defocus in prosody

- Focus has prosodic effects like postfocal compression (PFC) [1,2]
- Whether the lack of focus in a clause (**Defocus**; different from givenness, [3,4]) has prosodic roles is relatively unknown.

#2 Right dislocation in Cantonese & Mandarin

- Dislocated elements in **right dislocation (RD)** in Cantonese and Mandarin resist focus interpretation and manifest defocus [4,5].
- RD has two variants with a **different number** of syntactic clauses:
 - **Gapped RD**: involves displacement of a phrase with a gap and a **one-clause** structure [4,6].
 - **Copying RD**: Another one involves copying of a phrase and a **two-clause** structure [7,8]

Research question

- Does the phrasing of gapped and copying right dislocation show a mismatch with their syntactic structure, in having one or two intonational phrases (IPs) [9]?
 - Since focus does not trigger rephrasing/mismatch in both languages (Cantonese lacks PFC [10]; PFC in Mandarin preserves prosodic phrasing [11], i.e., PFC is not a result of prosodic phrasing, [12])
 - Tease apart focus and defocus in prosody

Design & Stimuli

- Readaloud sentences with a given context
- Participants: 13 native speakers of Cantonese (F: 7), 13 native speakers of Northern Mandarin (F: 9), recorded in New Haven or Storrs (2023)
- Target sentences: 12 items x 4 conditions = 48 (plus 24 fillers)
- Total: 48 sentences x 3 repetitions x 13 subjects x 2 languages = 3744 tokens

One-clause

Canonical (1) $S_{\sigma\sigma} Adv_{\sigma\sigma} V_{\sigma\sigma} O_{\sigma\sigma} SFP_{\sigma}$
 老師唔係啊。宋智放假去過泰國嘅。富俊(.....)
 (Lou5si1 m4-hai6 aa3.) Sung3Zi3 fong3gaa3 heoi3-gwo3
 Taai3gwok3 ge3. (Fu3zeon3 ...)
 '(No, teacher.) Sungzi has been to Thailand on holiday. (Fuzeon ...)'

Dislocated (3) $Adv_{\sigma\sigma} V_{\sigma\sigma} O_{\sigma\sigma} SFP_{\sigma} S_{\sigma\sigma}$ (gapped RD)
 老師唔係啊。放假去過泰國嘅宋智。富俊(.....)
 (Lou5si1 m4-hai6 aa3.) Fong3gaa3 heoi3-gwo3
 Taai3gwok3 ge3 Sung3Zi3. (Fu3zeon3 ...)
 '(No, teacher.) Has been to Thailand on holiday, Sungzi. (Fuzeon ...)'

Two-clause

(2) $S_{\sigma\sigma} Adv_{\sigma\sigma} V_{\sigma\sigma} O_{\sigma\sigma} SFP_{\sigma} S_{\sigma\sigma} Adv V O SFP$
 我知啊。秀燕放假去過泰國嘅。宋智都去過泰國嘅。
 (Ngo5 zi1 aa3.) Sau3jin3 fong3gaa3 heoi3-gwo3
 Taai3gwok3 ge3. Sung3Zi3 fong3gaa3 dou1 heoi3-gwo3
 Taai3gwok3 ge3.
 '(I know.) Saujin has been to Thailand on holiday. Sungzi also has been to Thailand on holiday.'

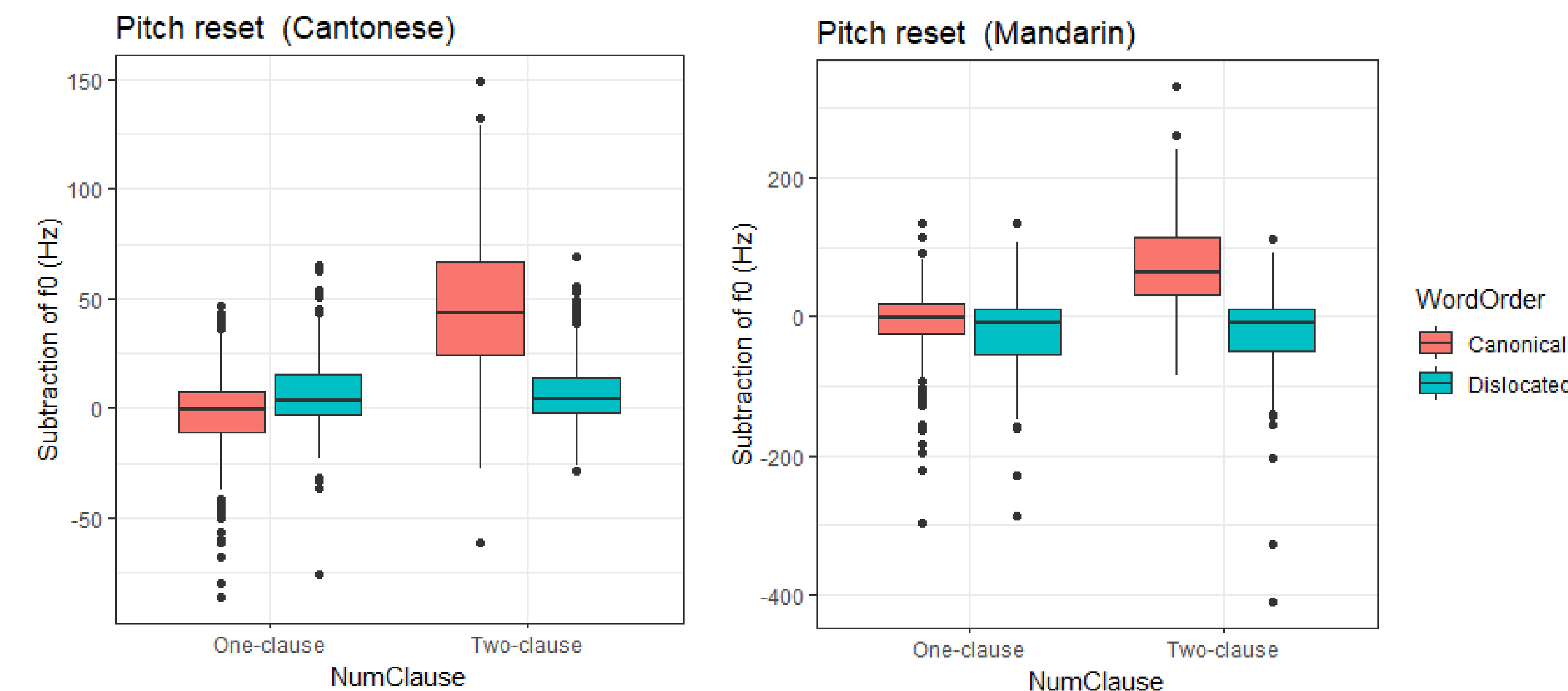
(4) $S_{\sigma\sigma} Adv_{\sigma\sigma} V_{\sigma\sigma} O_{\sigma\sigma} SFP_{\sigma} S_{\sigma\sigma}$ (copying RD)
 我知啊。宋智放假去過泰國嘅宋智。富俊(.....)
 (Ngo5 zi1 aa3.) Sung3Zi3 fong3gaa3 heoi3-gwo3
 Taai3gwok3 ge3 Sung3Zi3. (Fu3zeon3 ...)
 '(I know.) Sungzi has been to Thailand on holiday, Sungzi. (Fuzeon ...)'

Results

#1 Pitch reset (subtracted f0 = max. f0 of 8th/10th syll. - max. f0 of 7th/9th syll.)

- Two-clause-canonical > Dislocated (p < .001 in both languages)
- Cantonese: Copying RD > One-clause-canonical (p < .001)
- Mandarin: One-clause-canonical > Copying RD (p < .007)

→ No pitch reset for IP boundaries before RD chunks



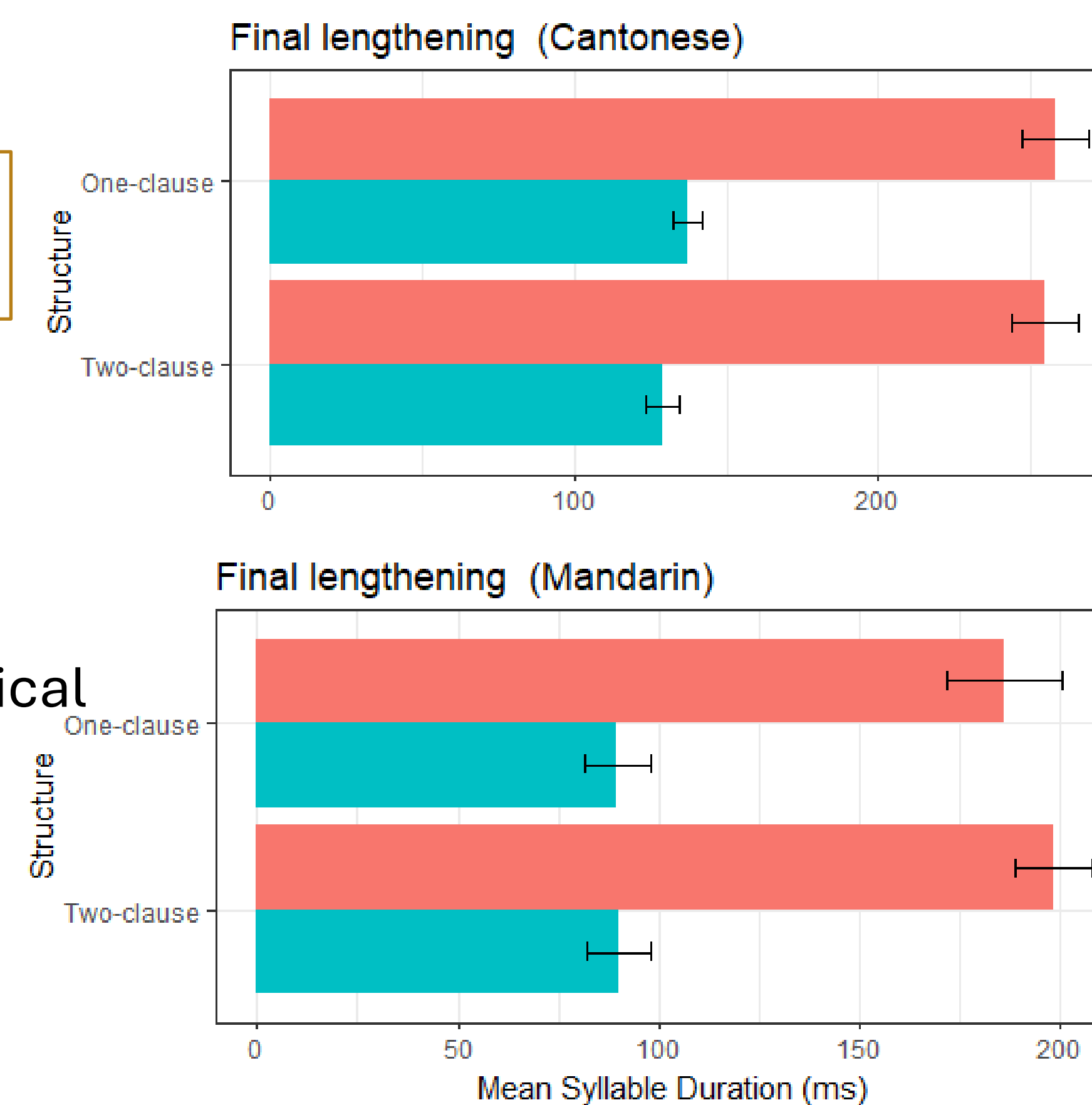
#2 Final/pre-boundary lengthening (SFP duration)

- Canonical > Dislocated (p < .001 in both languages)
- Gapped RD = Copying RD

→ No pre-IP-boundary lengthening before RD chunks

Note: individual differences

- For #1 & #2 variables
- Significant model improvement with by-Participant random slope
- Dislocated vs. One-clause-canonical



#3 Pause

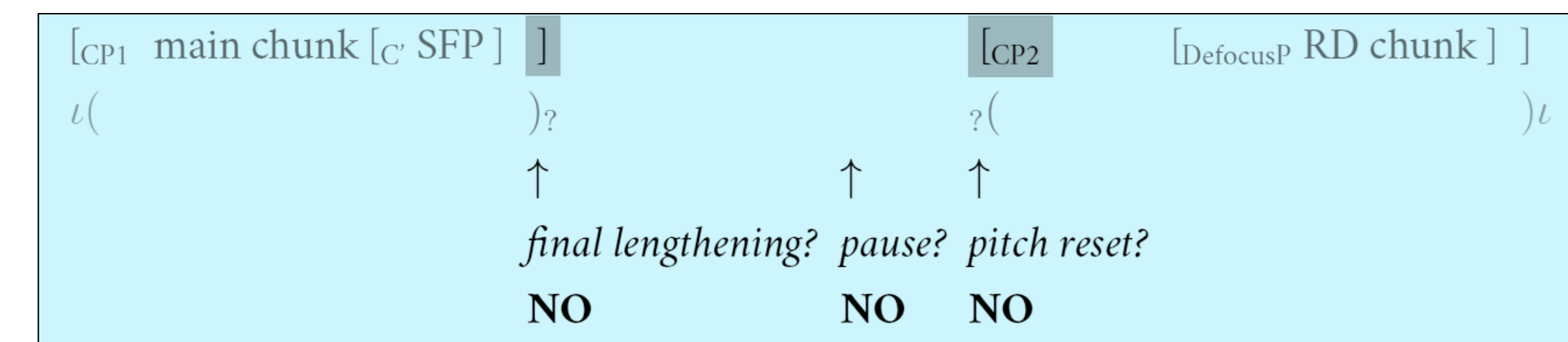
- Almost exclusively found in Two-clause-canonical (mean: 431 ms in Cantonese, 245 ms in Mandarin)
- Dislocated: only 8 tokens in Cantonese (0.008%) have a pause (mean: 64 ms).

→ No pause for IP boundaries before RD chunks

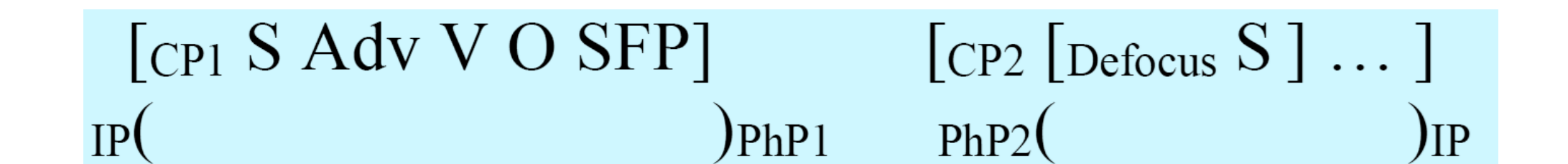
Discussion

#1 RD consists of one intonational phrase

- All 3 phonetic cues suggest the absence of IP boundaries before RD chunks



- Convergence with the phonological evidence [15]
 - Cantonese boundary tone placement: **banned** at the end of main chunks → No IP there
 - Mandarin third tone sandhi **allowed** across main and RD chunks → No IP there
- **Syntax-prosody mismatch: 2 clauses (CP), 1 IP**



#2 Defocus triggers the mismatch

- Focus independently does not trigger prosodic rephrasing in both languages [10,11]
 - the mismatch cannot be attributed to focus.
- The defocus nature of dislocated element
 - Cannot receive prosodic prominence
 - Fail to form an IP [15]
- In addition to the presence of focus [16], **the lack of focus** can also trigger syntax-prosody mismatches

→ The role of defocus in prosody should be distinguished from focus

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