

Right-node Raising and Chinese A-not-A questions

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§1 Overview. The paper provides novel data from Chinese A-not-A questions that cannot be accounted for in classical analyses of A-not-A derivations (Huang 1991; Huang et al. 2009). My analysis ultimately shows that the [V-not-VP] type of A-not-A questions (where materials are missing from the VP preceding the negator) is not derived from *reduplication* (Huang 1991) and is better captured as cases of *Right-node Raising* phenomena, constrained by general prosodic phrasing principles. The peculiar syllable-separation pattern in A-not-A questions can also be seen as a by-product of *prosodic deletion* (Booij 1985; Wiese 1996).

§2 The puzzle. An A-not-A question is interpreted similarly to a yes-no question, whose surface form consists of a repeated predicate, one of which is negated (Hagstrom, 2006). AFF and NEG in the following examples denote the affirmative and negative conjuncts:

(1) Guānzhòng [xūyào diànyǐng]_{AFF} [bù xūyào diànyǐng]_{NEG}? *Full-scale A-not-A question*
audience need movie not need movie
'Do audiences need movies?'

Previous literature treats the derivation of the [V-not-VP] pattern as reduplication (Huang 1991). Concretely, the underlying structure of (1) is a simplex sentence:

(2) [_{CP} [_{TP} Guānzhòng Q_[+A-not-A] xūyào diànyǐng]]

Q, which Huang refers to as a phonetically realised INFL component, optionally copies the partial or complete verbal phrase that follows it. A second operation 'turns the second of the identical parts into its appropriate negative form' (Huang et al., 2009, p.253). Given below are the grammatical sequences after (1) undergoing reduplication (in the following examples, the copied material is shaded, the rightmost shared element is in **bold**):

(3) a. Guānzhòng [xū-]_{AFF} [bù xūyào diànyǐng]_{NEG}? b. Guānzhòng [xūyào]_{AFF} [bù xūyào diànyǐng]_{NEG}?
audience ne- not need movie audience need not need movie

What is reduplicated must be a phonological constituent (Huang 1991:331), which is schematically illustrated as follows (the prosodic units being reduplicated in the above examples are the syllable (σ), the prosodic word (ω) and the prosodic phrase (ϕ); cf. the Prosodic Hierarchy theory in Selkirk 1984, Nespor and Vogel 2007, among others).

(4) a. Reduplicate in (3a): $[(\alpha)_\sigma] \rightarrow (\alpha)_\sigma(\alpha)_\sigma$ b. Reduplicate in (3b): $[(\alpha)_\omega] \rightarrow (\alpha)_\omega(\alpha)_\omega$
c. Reduplicate in (1): $[(\alpha)_\phi] \rightarrow (\alpha)_\phi(\alpha)_\phi$

However, the baseline established on (4) fails to capture the following contrasts:

(5) *Guānzhòng [xūyào diànyǐng]_{AFF} [bù xūyào diànyǐng-zhǎn]_{NEG}?
audience need movie not need movie-exhibition
Intended: 'Do audiences need film exhibitions?'

(6) Zuótiān [xià-guò yìchǎng]_{AFF} [méi xiàguò yìchǎng-yǔ]_{NEG}?
yesterday up-GUO one.CL not up-GUO one.CL-rain
'Did it rain yesterday or not?'

(5) is ungrammatical although what is reduplicated is a phonological phrase *xūyào diànyǐng* 'need movies', as shown in grammatical example (1). For (6), the base for reduplication *xià-guò yìchǎng* 'up-GUO one.CL' is not even a constituent (Huang 1991:331); however, the sentence is well-formed. The nonexistence of prosodic boundaries before *yǔ* 'rain' in (6) can be tested by Chinese Third-Tone Sandhi (C. Cheng 1973; Shih 1986, 1989 among others):

(7) Tone 3 \rightarrow Tone 2 / Tone 3

The Third-Tone Sandhi rule applies obligatorily within a foot domain, whereas it applies optionally across feet (Shih 1997:117; Lai and Li 2022). Third-Tone Sandhi applies necessarily before *yǔ* 'rain', which indicates that there is no prosodic boundary between *yǔ* 'rain' and *yìchǎng* 'one.CL'. Adding a prosodic boundary will yield an unacceptable sentence (see (8b)).

(8) a. ...yìchǎng(Tone 3 \rightarrow Tone 2)yǔ... b. ?? yìchǎng,, yǔ...

In (5), a Third-Tone Sandhi also occurs between *diànyǐng* ‘movie’ and *zhǎn* ‘exhibition’, suggesting that, similar to *yìchǎngyǔ*, *zhǎn* needs to be prosodically incorporated with *diànyǐng*:

(9) a. ...diànyǐng(Tone 3 → Tone 2)**zhǎn**... b. ??...diànyǐng., **zhǎn**...

Although *yìchǎng* in (6) and *diànyǐng* in (5) are both prosodically bound, the reduplication analysis fails to explain why the former can be reduplicated on its own while the latter cannot. Unlike Huang’s proposal, I argue that the syntactic structure of different A-not-A variants is a full-size asyndetic coordination with an aspect-sensitive negator (*bù* or *méi* ‘not’) that feeds into the semantics (McCawley, 1994), as shown in (1). The correct [V-not-VP] patterns are generated via Right-node Raising (RNR), under a prosodic deletion analysis (Chaves 2008, 2014; Hartmann 2001; Wilder 1997; Booij 1985). **§3 Right-node raising analysis**. An RNR pivot is an element that is shared by both conjuncts and shown in bold in the rightmost position:

(10) Leslie wrote, and Terry reviewed, **a new manuscript**. (Citko 2017)

Similarly, the rightmost element is shared by two conjuncts in an A-not-A coordination, as shown in (3a-c). Compare the declarative RNR constructions of (5-6):

(11) #Guānzhòng xūyào diànyǐng, yě xūyào měishù-**zhǎn**
 audience need movie also need art-exhibition
 Not (with RNR): ‘Audiences need film exhibitions and art exhibitions.’
 Ok (without RNR): ‘Audiences need films and art exhibitions.’

(12) Zuótiān xià-guò yìchǎng, míngtiān yě huì xià yìchǎng-**yǔ**.
 yesterday up-GUO one.CL tomorrow also will up one.CL-rain
 ‘It rained yesterday, and it will rain tomorrow.’

In (12), the ill-formed syntactic constituent only containing *xià-guò yìchǎng* can nevertheless form a prosodic constituent via RNR (*flexible constituency* in Wilder 2018), whereas *xūyào diànyǐng* in (11) cannot. The difference between (11) and (12) explains the difference in grammaticality between (5) and (6): As long as materials can be legally retained in RNR structures, they can be legally retained in the [V-not-VP] type of A-not-A questions.

§4 Backward prosodic deletion. Since Ross (1967), RNR has gradually evolved into a phenomenon rather than a specific rule. In the present study, along the lines of Hartmann (2000) and Chaves (2008, 2014), I argue that the [V-not-VP] type of A-not-A questions can be captured by prosodic deletion: what can be left out is any pair of strings occurring on the edge of the conjunct when their syntactic and semantic forms are the same as their antecedent, and what remains must be able to stand alone phonologically. (Chaves 2014; Booij 1985).

§5 Word-part deletion. Word-part deletion is considered a typical case that can be captured using a prosodic deletion account of RNR (Chaves 2008; Booij 1985; Hartmann 2000). The word-part deletion in the [V-not-VP] type again provides evidence that it can be accounted for via RNR. Similarly, the word remnant after word-part deletion in A-not-A questions should be adjacent to the coordinator (Smith 2000), and since there is no coordinator, the word remnant is adjacent to the right conjunct. However, unlike typical word-part ellipsis, **1)** A-not-A word-part deletion seems to occur freely not only in structures involving compounds, but also in structures involving affixes. It behaves differently from word-part deletion in other languages, e.g., in Dutch (Booij 1985), where some structures involving cohering affixes cannot undergo word-part deletion. The following example shows that the derivational suffix -RAN can be deleted separately from the preceding stem:

(13) Jīhuì lái-de [tū-]_{AFF} [bù tū-rán]_{NEG?}
 opportunity come-DE su- not sudden-RAN
 ‘Did the opportunity come suddenly?’

2) Similar patterns can only be found in structures where word-part deletion occurs just before a marker for emphasis or focus (see 14a-b), and so I argue that the negator appearing after the word remnant in A-not-A questions plays the role of a focus marker licensing the word-part deletion:

(14) a. [lí-][**jiù** líkǎi]! b. [piào-] [**shì** piàoliang]
 lea- FOC leave ‘Just leave!’ bea- FOC beautiful ‘although it is beautiful...’

Selected references Huang, C-T. James, 1991. Modularity and Chinese A-not-A questions. In *Interdisciplinary approaches to language: Essays in honor of S.-Y. Kuroda* (pp.305-332). Dordrecht: Springer Netherlands. Chaves, Rui P, 2014. On the disunity of right-node raising phenomena: Extraposition, ellipsis, and deletion. *Language*, 834-886.