

Mandarin *ne* as Contrastive Topic

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1. Overview

- Mandarin *ne* = CT
 - Topic-final and sentence-final *ne*
 - CT as strategy marker (Büring 2003)
 - Diagnostics for CT
 - Adjust Büring's model to accommodate *ne* in questions
- Implications
 - CT occurs at a distance from focalized constituent, *not* type of focus marking
 - English invisible CT, and CT imposters
 - Clarifications are not sub-questions

2. Büring 2003

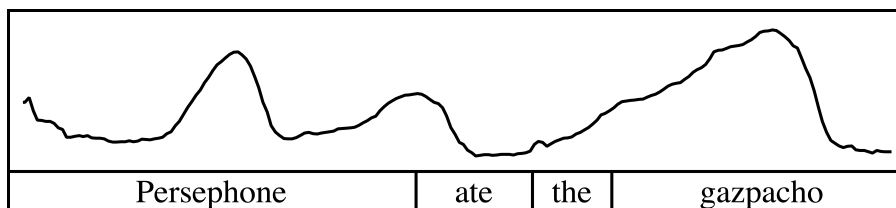
- CT marks *strategies* (sets of questions)
- Büring 2003
 - Discourse as d-tree; conditions on well-formed d-trees
 - CT marks response to sub-question within strategy
 - Shape of strategy is constrained by *CT-value* of response

(1) CT Contour (CT+F)

A: Well, what about PERSEPHONE? What did SHE eat?

B: [PERSEPHONE]_{CT} ... ate [the GAZPACHO]_F.

[(L+)H* L⁻ H%]_{IntP} [H* L⁻ L%]_{IntP}
[TOPIC] [COMMENT]



(2) CT-Value (informal)

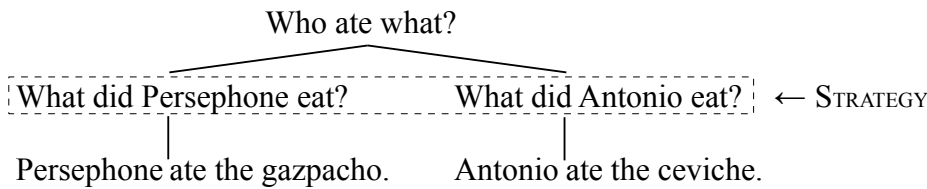
CT-value of utterance is set of alternatives given by substituting in *first* focus position, *then* the topic position.

- (3) $\llbracket [\text{Persephone}]_{\text{CT}} \text{ ate } [\text{the gazpacho}]_{\text{F}} \rrbracket^{\text{ct}}$
 $= \{ \{ x \text{ ate } y \mid y \in D_e \} \mid x \in D_e \}$
 $= \left\{ \begin{array}{l} \{ \text{Antonio ate the ceviche, Antonio ate the gazpacho, ...} \} \\ \{ \text{Persephone ate the ceviche, Persephone ate the gazpacho, ...} \} \\ \dots \end{array} \right\}$
 \approx For each person, what did they eat?

(4) CT-Congruence (informal)

CT marks response to question within larger strategy.
 Questions in strategy are contained in CT-value of response.

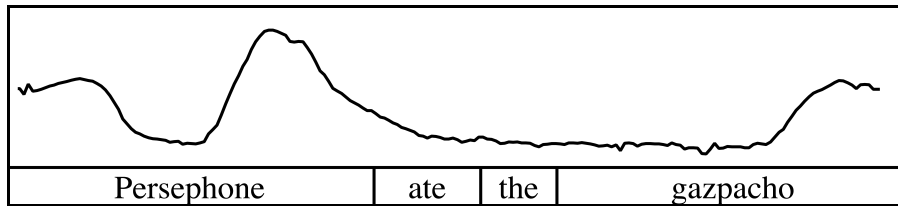
(5) d-tree for (1)



- Q: Who ate what?
 Sub-Q: What did Persephone eat?
 Sub-A: Persephone ate the gazpacho.
 Sub-Q: What did Antonio eat?
 Sub-A: Antonio ate the ceviche.

(6) Sole CT

- A: Did Persephone and Antonio eat the gazpacho?
 B: [PERSEPHONE]_{CT} ate the gazpacho... (... but Antonio didn't.)
 $[\quad (L^+)H^* \quad L^- \quad H\% \quad]_{\text{IntP}}$



- (7) $\llbracket [\text{Persephone}]_{\text{CT}} \text{ ate the gazpacho...} \rrbracket^{\text{ct}}$
 $= \{ \{ x \text{ ate the gazpacho} \} \mid x \in D_e \}$
 $= \{ \{ \text{Persephone ate the gazpacho} \}, \{ \text{Antonio ate the gazpacho} \}, \dots \}$
 \approx For each person, did they eat the gazpacho?

◦ Assumption: $\llbracket \text{Is it raining?} \rrbracket = \{ \llbracket \text{It's raining.} \rrbracket \}$

(8) d-tree for (6)

Q: For each person, did they eat the gazpacho?

Sub-Q: Did Persephone eat the gazpacho?

Sub-A: Persephone ate the gazpacho.

Sub-Q: Did Antonio eat the gazpacho?

Sub-A: No, Antonio didn't eat the gazpacho.

(9) Minimality (informal)

A sub-answer can't single-handedly resolve a super-question.

(10) *Q: Who ate the gazpacho?

Sub-Q: Did Persephone eat the gazpacho?

Sub-A: Yes, Persephone ate the gazpacho.

Sub-Q: Did everyone eat the gazpacho?

Sub-A: Yes, everyone ate the gazpacho.

(11) Corollaries (from CT-Congruence + Minimality)

I. CT illicit on assertion that resolves all questions in its CT-value.

II. CT illicit on complete answer to QUD, unless QUD construed as part of larger strategy.

(12) #[EVERYONE]_{CT} ... ate [the GAZPACHO]_F.

[[(12)]]^{ct} ≈ { What did Persephone eat?, What did Antonio eat?, ... }

(13) #[EVERYONE]_{CT} ate the gazpacho...

[[(13)]]^{ct} ≈ { Did Persephone eat the gazpacho?, Did Antonio eat the gazpacho? ... }

(14) A: Who spilled coke on my computer?

B: ??[JOHN]_{CT} did...

(15) A: Where were you (at the time of the murder)?

B: [I]_{CT} was [at HOME]_F.

[Büring 2003: 523; Roberts 1996: 122]

◦ Sole CT can be propositional

(16) A: Is John home?

B: [His LIGHTS are on]_{CT} ... (but then, maybe he went out and forgot to turn them off.)

[[(16B)]]^{ct} = { { p } | p ∈ D_(s,t) }

◦ CT-Congruence: Discourse contains at least one polar question sister to the immediate QUD.

◦ Prediction: Broad CT marks partial answer to question that breaks into set of polar questions.

(17) d-tree for (16)

Q: Is John home?

Sub-Q: Are his lights on?

Sub-A: His lights are on.

Sub-Q: Can we infer from the fact that his lights are on that he's home?

Sub-A: ...

3. Mandarin *ne* as CT

- Discourse particles (e.g. -lǎ, -nǎ, -mǎ, -bǎ): toneless, enclitic, stack in order (Chao 1968, Li 2006)
- Focus prominence: pitch range expansion, articulatory strength, duration (Chen 2002, Xu 2004)
- *ne* [nǎ] occurs in just two places, following extracted topic, and sentence-finally.

(18) Topic-Final *ne* (CT+F)

māma měi-tiān wǎnshàng hěn wǎn cái huí-jīā.
 mom every-day night very late only.then return-home

[BÀBA]_{CT} **ne**, [gāncuì jiù bù HUÍ-lái]_F. [Shao 1989: 174]
 dad _{NE} simply just not return-come

‘Every day mom doesn’t come home until late. Dad NE, doesn’t even come back at all.’

[[(18)]]^{ct} = $\left\{ \begin{array}{l} \{ \text{Mom returns on time, Mom returns late, Mom doesn't return, ...} \} \\ \{ \text{Dad returns on time, Dad returns late, Dad doesn't return, ...} \} \\ \dots \end{array} \right\}$

≈ For each person, when do they get home each day?

- Many observe topic-marking *ne* involves contrast. Lee (2003: 357) – Topic-marking *ne* is CT.

(19) Sentence-Final *ne* (Sole CT)

A: zhāngsān yào qù kāi-huì ma?
 Zhangsan will go have-meeting Q
 ‘Is Zhangsan going to the conference?’

B: tā [SHUŌ yào qù]_{CT} **ne**... dànshì tā hái méi mǎi jī-piào.
 he say will go _{NE} but he still have.not buy plane-ticket
 ‘He *said* he’s going NE... but he hasn’t bought a plane ticket.’

[[(19B)]]^{ct} = { {He said he will go}, {He will go}, ... }

- Mandarin [·]_{CT} does not entail any special prosody (though see Wang and Xu 2006 for contrary view)

◦ Mandarin *ne* resists assertions that resolve all questions in CT-value:

- (20) a. [DÀBÙFEN]_{CT} de shìqǐng **ne** [dōu hěn nán-bàn]_F.
 most DE matter NE DISTR very difficult-manage
 ‘Most of these things NE are hard to deal with.’
- b. [SUǒYŌU]_{CT} de shìqǐng (#ne) [dōu hěn nán-bàn]_F.
 all DE matter NE DISTR very difficult-manage
 ‘All of these things (#NE) are hard to deal with.’

$$\llbracket (20ab) \rrbracket^{\text{ct}} = \left(\begin{array}{l} \{ \text{Some of these things are hard, Some of these things are easy, ...} \} \\ \{ \text{Most of these things are hard, Most of these things are easy, ...} \} \\ \{ \text{All of these things are hard, All of these things are easy, ...} \} \\ \dots \end{array} \right)$$

≈ How difficult are (each subset of) these things?

◦ Note, without *ne*, (20b) is felicitous, as contrastive *focus*:

- (21) A: nǐ xiǎo shìqǐng bǐjiào nán-bàn?
 which few thing fairly difficult-manage
 ‘Which of these things are relatively hard to deal with?’
- B: SUǒYŌU de shìqǐng dōu hěn nán-bàn.
 all DE matter DISTR very difficult-manage
 ‘All of these things are hard to deal with.’

◦ Mandarin *ne* resists completely resolving answers, unless some larger issue remains unresolved:

- (22) A: tā shuō shénme le?
 he say what PRT
 ‘What did he say?’

B: tā shuō yào qù (#ne).
 he say will go NE
 ‘He said he’s going (#NE).’

(23) Context: A wants to find out if Zhangsan will present a paper at the conference.

A: tā shuō shénme le?
 he say what PRT
 ‘What did he say?’

B: tā shuō [yào QÙ]_{CT} **ne**... dànshi tā jiǎng bù jiǎng wǒ bù quèdìng.
 he say will go NE but he speak not speak I not certain
 ‘He said he’s going NE, but I’m not sure whether he’ll give a talk.’

4. CT Questions

(24) Context: A calls B on the phone out of the blue.

A: nǐ xiǎng bù xiǎng jīntiān wǎnshàng chū-qù chī huǒguō (??ne)?
 you want not want today night out-go eat hotpot NE
 ‘Do you want to go out for hotpot tonight (??NE)?’

B: bù tài xiǎng.
 not too want
 ‘Not really.’

A: (nà) nǐ xiǎng bù xiǎng chī [SHUǐ-ZHǔ-YÚ]_{CT} ne?
 then you want not want eat water-boil-fish NE
 ‘Then do you want to have *boiled fish* NE?’

◦ Hypothesis: CT on questions marks sub-questionhood within a strategy

(25) CT-Congruence (revised, informal)

CT marks **question** within larger strategy **or response** to such question.
 Questions in strategy are contained in CT-value of utterance.

◦ Büring (2003: 519 ff. 7) suspects CT questions impossible, claims questions have no CT-value.

◦ Yet nothing stops us from cranking out CT-values:

(26) $\llbracket C_Q [[John]_{CT} \text{ dances }] \rrbracket^{ct} = \{ \{ \{ John \text{ dances} \} \}, \{ \{ Mary \text{ dances} \} \}, \{ \{ Fred \text{ dances} \} \}, \dots \}$

◦ Problem: These CT-values are unusable; $\{ \{ John \text{ dances} \} \}$ is not a question denotation.

◦ Solution: Redefine CT-value so $\llbracket \text{“Does } [John]_{CT} \text{ dance?”} \rrbracket^{ct} = \llbracket \text{“} [John]_{CT} \text{ dances.”} \rrbracket^{ct}$

(27) (nà) nǐ xiǎng bù xiǎng chī [SHUǐ-ZHǔ-YÚ]_{CT} ne?
 then you want not want eat water-boil-fish NE
 ‘Then do you want to have *boiled fish* NE?’

$\llbracket (27) \rrbracket^{ct} = \{ \{ You \text{ want hot pot} \}, \{ You \text{ want boiled fish} \}, \{ You \text{ want Peking duck} \}, \dots \}$

◦ Q: Why can’t A’s *initial* question in (24) also satisfy CT-congruence?

◦ A: On utterance, user of CT must intend for (potentially upcoming) discourse to satisfy CT-congruence.

◦ The same pattern holds generally over all A-not-A and wh- questions:

(28) A: *lǐsì dài shá le (#ne)?*
 Lisi bring what PRT NE
 ‘What did Lisi bring (#NE)?’

B: *lǐsì dài-le yú.*
 Lisi bring-PERF fish
 ‘Lisi brought fish.’

A: *nà [ZHĀNGSĀN]_{CT} dài shá le ne?*
 then Zhangsan bring what PRT NE
 ‘And what did *Zhangsan* bring NE?’

$$\llbracket (28A_2) \rrbracket^{ct} = \left\{ \begin{array}{l} \{ \text{Zhangsan brought fish, Zhangsan brought lamb, ...} \} \\ \{ \text{Lisi brought fish, Lisi brought lamb, ...} \} \\ \dots \end{array} \right\}$$

◦ Broad CT in questions just marks sub-questionhood, without constraining strategy:

(29) A: *I’m the smartest person in the world! I can answer any question!*

B: *nà [yī yì chéng-yǐ YĪ YĪ děngyú duō-shǎo]_{CT} ne?*
 then one hundred.million times-by one hundred.million equal much-little NE
 ‘Then what’s 100,000,000 times 100,000,000 NE?’

$$\llbracket (29B) \rrbracket^{ct} = \{ Q \mid Q \subseteq D_{\langle s,t \rangle} \}$$

◦ Prediction: Any Mandarin question with broad focus allows *ne*, as long as discourse contains some sister Q.

◦ Problem: Why can’t Y/N questions with *ma* take *ne*?

(30) Context: *He can play violin.*
Nǐ huì { ma | #ne | #ne ma | #ma ne } ?
 you can MA NE NE MA MA NE
 ‘Can you?’

◦ Solution: Haplology

(31) LF: *huǒ miè-le le.* ☞ “*huǒ miè le.*”
 fire go.out-ASP PRT
 ‘The fire has now gone out.’

(32) LF: *[[hǎo-chī de]_{DP} de wèidào]_{DP}* ☞ “*hǎo-chī de wèidào*”
 tasty NOM POSS aroma
 ‘[the aroma of tasty things]_{DP}’

- Problem: Some uses of *ne* fail CT diagnostics.

(33) A: yàoshi dài-zhe **ne ma**?
 key carry-ASP NE Q
 ‘Are you carrying the keys NE?’

B: dài-zhe **ne**.
 carry-ASP NE
 ‘Yeah, I’m carrying them NE.’

- Solution: These uses are the aspectual *ne* described by Chan (1980).
 Contra Li and Thompson (1981), Lin (1984), Wu (2005), Chu (2006), Li (2006) and others.
- Isolating CT *ne* requires selecting predicates that either:
 - (a) describe events lacking duration
 - (b) describe situations which have terminated, or
 - (c) contain complements denoting frequency, extent, or duration of action.

4. Suggestions for CT in English and Cross-linguistically

- Question: Which parts of (L+)H[★] L⁻ H% do what?
- Pierrehumbert and Hirschberg (1990) argue meaning built up compositionally from parts
- Büring (2003: 537) identifies CT meaning with *edge* of IntP: L⁻ H%
 However he claims boundary tone appears *on the constituents so marked*
- CT *ne* appears exactly where English CT L⁻ H% does!
- L⁻ H% or *ne* cue presence of CT, but don’t reveal which constituents are CT-marked.
- (L+)H[★] accent shape within CT has no meaning beyond marking (alternative) focus.

(34) Hypothesis

- a. CT operator binds focus from a distance (e.g. Wagner 2008ab, Tomioka 2010)
- b. CT constituent is garden-variety focus.
- c. Differences in accent shape are allophonic, conditioned by IntP phrase properties

- Suggestion: English has CT questions, but L⁻ H% CT particle incompatible with H⁻ H% question particle.

(35) (And) is [PERSEPHONE]_{CT} going?
 L[★] H⁻ H%

- Wagner (2008ab) treats complex focus examples as CT, based on prosody:

(36) Single Pair Answer

A: I know one of the visitors attacked one of the zookeepers, but I don't know which visitor attacked which zookeeper.

B: PERSEPHONE attacked the LION trainer.

(L+)H* L- H% H* L- L%

B': ?? H* L- L% H* L- L%

(37) Switched Arguments

A: Did John insult Mary?

B: No, MARY insulted JOHN.

(L+)H* L- H% H* L- L%

B': ?? H* L- L% H* L- L%

- Suggestion: These *do* sound like CT (contra Büring), but should *not* be analyzed as CT (contra Wagner).

(38) A: tīng-shuō jīntiān yǒu rén bèi bié-rén dǎ-le, dànshì wǒ bù-zhīdào shì shéi dǎ-le shéi.
hear-say today have man by other-man hit-ASP but I not-know be who hit-ASP who
'I heard someone hit someone today, but I don't who hit who.'

B: (shì) zhāngsān (#ne) dǎ-le lǐsì (#ne).

be Zhangsan NE hit-ASP Lisi NE

'Zhangsan (#NE) hit Lisi (#NE).'

(39) A: jù-shuō lǐsì dǎ-le zhāngsān.
according-say Lisi hit-ASP Zhangsan
'I heard Lisi hit Zhangsan.'

B: bù bù bù, (shì) zhāngsān (#ne) dǎ-le lǐsì (#ne)!

no no no be Zhangsan NE hit-ASP Lisi NE

'No, Zhangsan (#NE) hit Lisi (#NE)!'

- Mandarin *ne* provides a diagnostic for formal sub-questionhood

- Finding: Questions of *clarification* are not sub-questions

(40) A: zěnme lǚ dàhǎi hái zhèr děng-zhe yào jiàn nǐ ne?
how Lu Dahai still here wait-ASP want see you NE
'Why is Lu Dahai still waiting for you here?'

B: shéi shì lǚ dàhǎi (??ne) ?

who be Lu Dahai NE

'Who is Lu Dahai (??NE) ?'

[Shi 1997: 134]

(41) Problematic d-tree for (40)

Q: Why is Lu Dahai still waiting for you here?

Sub-Q: Who is Lu Dahai?

Sub-A: Lu Dahai is the tax collector.

Sub-Q: Is it that I forgot to pay him?

Sub-A: ...

◦ Where does the interruption hang in the d-tree?

(42) d-trees for (40)

a. Primary d-tree:

① Q: Why is Lu Dahai still waiting for you here?

④ Sub-Q: Is it that I forgot to pay him?

⑤ Sub-A: ...

b. Secondary d-tree:

② Q: Who is Lu Dahai?

③ A: Lu Dahai is the tax collector.

5. Conclusions

- Mandarin *ne* can and should be analyzed as a CT morpheme, but CT-congruence and CT-value need adjusting.
- CT assertions *answer* sub-questions; CT questions *are* sub-questions.
- CT binds focus from a distance.
- English prosody is not a robust cue to CT pragmatics.

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Appendix

(43) CT-Congruence (Büring 2003: 520)

An utterance U containing a contrastive topic can map onto a move M_U within a d-tree D only if U indicates a strategy around M_U in D .

U indicates a strategy around M_U in D iff there is a non-singleton set Q' of questions such that for each $Q \in Q'$ —

- (i) Q is identical to or a sister of the question that immediately dominates M_U , and
- (ii) $\llbracket Q \rrbracket^o \in \llbracket U \rrbracket^{ct}$

(44) CT-Value (Büring 2003: 539)

$\llbracket A \rrbracket^{ct} =$

- a. if A is F-marked, $\{ D_{\text{type}(A)} \}$
- b. otherwise, if A is CT-marked, $\{ \{ \alpha \} \mid \alpha \in D_{\text{type}(A)} \}$
- c. otherwise, if A is a terminal, $\{ \{ \llbracket A \rrbracket^o \} \}$
- d. otherwise, if $A = [B]$, $\llbracket B \rrbracket^{ct}$
- e. otherwise, if $A = [B C]$, $\{ \beta \mid \exists b, c [\begin{array}{l} b \in \llbracket B \rrbracket^{ct} \\ \& c \in \llbracket C \rrbracket^{ct} \\ \& \beta = \{ \alpha \mid \exists b', c' [\begin{array}{l} b' \in b \\ \& c' \in c \\ \& \alpha = b' + c' \end{array}] \}] \}$

(45) Minimality (Büring 2003: 534, 540)

If M is a complete answer to Q (i.e., if $\llbracket M \rrbracket^o$ logically entails p or $\neg p$ for every $p \in \llbracket Q \rrbracket^o$), Q immediately dominates M .