

Mandarin *even*, *all* and the Trigger of Focus Movement

Noah Constant (UMass Amherst)
<constant@linguist.umass.edu>

Chloe Chenjie Gu (UMass Amherst)
<cgu@linguist.umass.edu>

Penn Linguistics Colloquium 33 (March 29, 2009)

I. Overview

- Provide syntax for Mandarin *even/all* constructions.
- Movement driven by “maximality” feature, *not* focus or prosody.
- A-bar “focus movement” is operator-driven.

II. Focus and Focus Movement

(1) ‘even’, Semantic Focus []_F, Scalar Meaning (Rooth 1985, Rullmann 1997)

I even introduced [John]_F to Mary. (stress)

Entails: I introduced John to Mary.

Presupposes: $\forall x (x \neq \text{John})$: it is more likely I introduce *x* to Mary than introduce John to Mary.

(2) Focus Ambiguity

I even introduced John to Mary. (stress)

a. I even introduced John to [Mary]_F. (not to mention introducing him to others)

b. I even [introduced John to Mary]_F. (not to mention doing other things)

- Type I Focus Movement (Horvath 2006): Clause internal prosody-motivated scrambling.
 - What moves has no relevant feature, can be *out of* stress position, PF prefers one syntax over another.
 - *Spanish* (Zubizarreta 1998), *German* (Büring 2001), *Japanese* (Ishihara 2001), ...
- Type II Focus Movement (Horvath 2006): A-bar movement of focused phrase to focus position.
 - Long distance, island sensitive, licenses parasitic gaps.
 - *Hungarian* (Brody 1995; É. Kiss 1998), *Basque* (Ortiz de Urbina 1995), *Korean* (Choe 1995), ...
 - Covert focus movement in English? (Krifka 2006)

III. Mandarin ‘even’

- Mandarin = SVO

(3) ‘even’ = *lián* + *dōu*

tā lián [DP fùmǔ] dōu bù dǎsuàn jiàn ____ .
she LIAN parents DOU not plan see
‘She doesn’t even plan to see [her parents]_F.’

- *dōu* (required) — adverbial, ≈ ‘all’.
- *lián* (optional) — attaches (roughly) to semantic focus, regardless of category.

- (4) subject > [*lián* + XP] > *dōu* > VP ('even' default order)
 (5) [*lián* + XP] > subject > *dōu* > VP ('even' topical focus order)

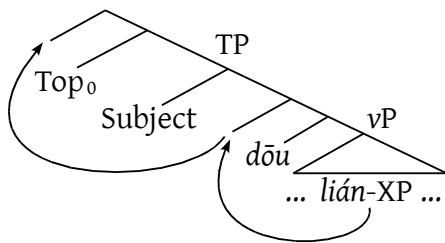
(6) 'even' Default Order

tā lián [_{DP} píngguǒ] dōu bù chī ____ .
 she LIAN apple DOU not eat
 'She doesn't even eat [apples]_F.'

(7) 'even' Topical Focus Order

lián [_{DP} píngguǒ] tā dōu bù chī ____ .
 LIAN apple she DOU not eat
 'Even apples, she doesn't eat.'

(8) *lián*-phrase A-bar moves to spec-*dōu* (and further under topicality)



(9) Movement Mandatory

- a. tā lián běijīng dōu qù guò.
 he LIAN Beijing DOU go ASP
 'He's even been to [Beijing]_F.'
- b. * tā dōu qù guò lián běijīng.
 he DOU go ASP LIAN Beijing
 'He's even been to [Beijing]_F.'
- c. * tā (lián) dōu qù guò běijīng.
 he LIAN DOU go ASP Beijing
 'He's even been to [Beijing]_F.'

(10) Unbounded

lián lú ròu [_{CP} wǒ dōu néng xiǎngxiàng [_{CP} zhāngsān huì chī ____]].
 LIAN donkey meat I DOU can imagine Zhangsan would eat
 'I can even imagine that Zhangsan would eat [donkey]_F.'

(11) Island Sensitive

- a. * lián [_{DP} Lǚ Xùn] wǒ dōu bù xiǎng kàn [_{DP} (tā) xiě de shū].
 LIAN Lu Xun I DOU not want read he write DE book
- b. lián [_{DP} Lǚ Xùn xiě de shū] wǒ dōu bù xiǎng kàn ____ .
 LIAN Lu Xun write DE book I DOU not want read
 'I don't even want to read the books [Lu Xun]_F writes.'

(12) Locating *lián* (Descriptive Generalization)

lián attaches to smallest constituent that both:

- a. contains the semantic focus
- b. is able to move

- *lián* “marks” moving element, is not a focus marker (contra Wu 1999).

IV. What Drives Focus Movement?

- Focus features? (Bródy 1995: *Hungarian*)
- Prosodic constraints? (Szendrői 2003: *Hungarian*, Arregi 2001: *Basque*, Koch 2008: Nɛʔkepmxcin)
- Mandarin focus movement not driven by focus or stress (underlined).

(13) ‘even’ — Movement, Stress, Focus

tā lián píngguǒ dōu chī wán le.
He LIAN apple DOU eat finish ASP
‘He even finished [the apples]_F.’

(14) ‘all’ — Movement without Stress & Focus

tā píngguǒ dōu chī wán le.
He apple DOU eat finish ASP
‘He finished all the apples.’

(15) ‘only’ — Stress & Focus without Movement

tā zhǐ chī wán le píngguǒ.
He only eat finish ASP apple
‘He only finished [the apples]_F.’

- Movement facts with *even/all* nearly identical.
- Plural or Wh- indeterminate quantified by ‘all’ raises to *dōu*.

(16) Movement of Quantified Phrase Mandatory

tāmén dōu kàn guò nèi sān běn shū.
they DOU read ASP that three CL book
a. ‘They’ve all read those three books.’
b. ≠ ‘They’ve read all of those three books.’

(17) Movement of Wh- Indeterminate Pronouns

zhāngsān shénme dōu xǐhuan ____.
Zhangsan what DOU like
‘Zhangsan likes anything.’

(18) Unbounded

wǒ shéi dōu bù xiǎng ràng lǐsì dézui
I who DOU not want have Lisi offend
‘I don’t want Lisi to offend anyone.’

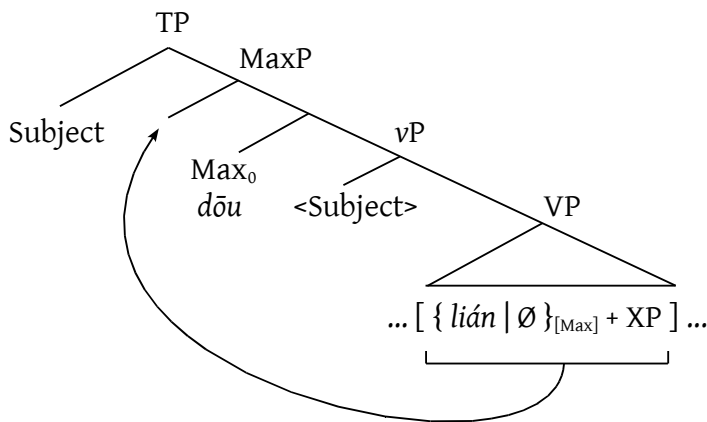
(19) No Definite Reading Without Movement (or demonstrative)

a. wǒ kàn le [DP sān běn shū].
 I read ASP three CL book
 'I read three books.'
 ≠ 'I read the three books.'

b. wǒ [DP sān běn shū] dōu kàn le ____.
 I three CL book DOU read ASP
 'I read (all of) the three books.'

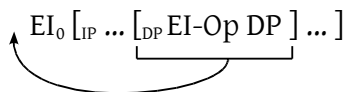
- Null “maximality” operator turns indefinites to definite when *dōu* is present.
- *lián* is an overt focus operator with [Max] feature.
- *dōu* synonymous in *even* and *all* structures (Shyu 1995, Wu 1999, Giannakidou and Cheng 2006).
- *dōu* probes for [Max] feature on operator phrase (which may *not* contain focus).

(20)



- [Max] marked operators:
 - *lián* (optionally null) produces scalar meaning from argument with semantic focus value.
 - \emptyset_{MAX} attaches to phrase quantified by ‘all’, gives definite reading.
- Horvath 2006
 - Hungarian moves focus of (i) *only* (ii) exhaustive answers to Wh- question.
 - Movement driven by Exhaustive Identification operator on focus.

(21) Hungarian “Focus Movement” (Horvath, 2006)



- Cable 2007
 - Wh- movement relates interrogative C_0 with Q operator above wh- phrase.
 - Q operator is overt in Tlingit.
- EI-Op and Q can attach *higher* than focus element — no need for pied-piping.

V. Partial Movement and Copying

- Sub-focus movement challenges [Max] driven analysis.

(22) Partial Movement, VP/DP Focus Ambiguity

tā lián tóufa dōu bù shū ____ .
he LIAN hair DOU not comb

- a. 'He doesn't even [comb his hair]_F.' (not to mention *doing* other things)
- b. 'He doesn't even comb [his hair]_F.' (not to mention *combing* other things)

(23) Focus Copying

tā lián chī dōu bù chī.
she LIAN eat DOU not eat
'She doesn't even [eat]_F.'

- Solution: Copy-movement + PF deletion (c.f. Landau 2006, 2007: Hebrew partial VP fronting).

(24) Mandarin Spellout

- a. Tense/Aspect features must be realized on verbal material.
- b. spec-dōu must be pronounced.
- c. Prefer no redundancy.
- d. All else being equal, pronounce the highest copy.

(25) Spellout for Transitive [VP]_F

- a. tā lián [_{VP} jiàn fùmǔ] dōu bù [jiàn fùmǔ]. (front DP)
- b. ? tā lián [_{VP} jiàn fùmǔ] dōu bù [jiàn fùmǔ]. (? double V)
- c. * tā lián [_{VP} jiàn fùmǔ] dōu bù [~~jiàn fùmǔ~~]. (* front VP)
she LIAN see parents DOU not see parents
'She doesn't even [see her parents]_F.'

(26) Spellout for Intransitive [VP]_F

- a. tā lián [_{VP} chī] dōu bù [chī]. (double VP)
- b. * tā lián [_{VP} chī] dōu bù [chī]. (* front VP)
- c. * tā lián [_{VP} chī] dōu bù [chī]. (* VP in situ)
she LIAN eat DOU not eat
'She doesn't even [eat]_F.'

VI. Remaining Issues

- 'even' = non-focus quantifier + scalar focus operator.

- Hungarian 'even' = *még* 'yet' + *is* 'also'.

(27) English Two-Part 'even' (*even* + *still*)

- a. Even [natural]_F toothpastes still have ingredients that you really don't want in your body.
- b. Actually, even [non-smokers]_F still have a real risk of developing smoking-related illness.

- How do *lián* and *dōu* combine compositionally to mean ‘even’?

- Suppose *dōu* took nuclear scope (= predicate) as first argument, and restrictor (= *lián*-phrase) as second.
- Problem: How would *lián* get access to the predicate to produce scalar meaning?

(28) Problematic Denotations

- $[[d\dot{o}u]] = \lambda P_{\langle e,t \rangle} \lambda Q_{\langle e,t \rangle} \forall x [Q(x) \rightarrow P(x)]$
- $[[lián XP]] = [[XP]]^f$ and is defined iff $[[XP]]^o$ is least likely of $[[XP]]^f$ to satisfy some salient property.

(29) *lián* Triggers Movement with *yě* ‘also’

- tā yě chī wán le píngguǒ.
he YE eat finish ASP apple
‘He also finished [the apples]_F.’
- tā lián píngguǒ yě chī wán le.
he LIAN apple YE eat finish ASP
‘He even finished [the apples]_F.’

(30) Broad Focus with No Movement

- (*lián) dōu xià xuě le!
LIAN DOU fall snow ASP
‘[It’s (even) snowing]_F!’
- lián xuě dōu xià le!
LIAN SNOW DOU fall ASP
‘Even [snow]_F fell!’
≠ ‘[It’s (even) snowing]_F!’

VII. Conclusions

Mandarin

- *even/all* – A-bar copy-and-delete movement, sensitive to PF constraints.
- Movement not driven by focus or prosody.
- Movement triggered by a common core of maximality, independent of focus.

Cross-Linguistically

- A-bar “focus movement” driven by features on (covert) focus operator.
- *even* construction = non-focus quantifier + scalar focus operator.

Selected References

- Arregi, Karlos (2001). "Focus and Word Order in Basque". Ms. MIT.
- Bródy, Michael (1995). "Focus and checking theory". In I. Kenesei, ed. *Levels and Structures, Approaches to Hungarian 5*. Szeged: JATE. 31–43.
- Büring, Daniel (2001). "Let's Phrase It! -- Focus, Word Order, and Prosodic Phrasing in German Double Object Constructions", in: Müller, G. & W. Sternefeld (eds) *Competition in Syntax (= Studies in Generative Grammar 49)*. Berlin & New York: de Gruyter. 69–105.
- Cable, Seth (2007). *The Grammar of Q: Q-Particles and the Nature of Wh-Fronting*. Doctoral Dissertation. MIT. Cambridge, MA. (399 pp.)
- Giannakidou, Anastasia and Cheng, Lisa Lai-Shen (2006). "(In)Definiteness, Polarity, and the Role of wh-morphology in Free Choice". *Journal of Semantics* 23: 135–183.
- Horvath, Julia (2006). "Separating "Focus Movement" from Focus", In S. Karimi, V. Samiian, & W. Wilkins (eds.), *Clever and right: A Festschrift for Joe Emonds*. Mouton de Gruyter.
- Koch, Karsten A. (2008). "Focus Projection in Nlhe7kepmxcin (Thompson River Salish)". *Proceedings of the 26th West Coast Conference on Formal Linguistics*, ed. Charles B. Chang and Hannah J. Haynie, 348–356. Somerville, MA: Cascadilla Proceedings Project.
- Krifka, Manfred (2006). "Association with focus phrases", in Valerie Molnar and Susanne Winkler, *The Architecture of Focus*, Berlin, New York: Mouton de Gruyter, 2006, 105–136.
- Landau, Idan (2007). "Constraints on Partial VP-fronting". *Syntax* 10: 127–164.
- Landau, Idan (2006). "Chain resolution in Hebrew V(P)-fronting". *Syntax* 9: 32–66.
- Rooth, Mats (1985). *Association with Focus*. Ph.D. Dissertation, University of Massachusetts at Amherst.
- Rullmann, Hotze (1997). "Even, Polarity, and Scope", in Martha Gibson, Grace Wiebe, and Gary Libben (eds.) *Papers in Experimental and Theoretical Linguistics*, Vol. 4, p. 40–64. Department of Linguistics, University of Alberta.
- Shyu, Shu-ing (1995). *The Syntax of Focus and Topic in Mandarin Chinese*. Los Angeles: Southern California University Dissertation.
- Szendrői, Kriszta (2003). "A stress-based approach to the syntax of Hungarian focus". *Linguistic Review* 20: 37–78.
- Wu, Jianxin (1999). "A Minimal Analysis of Dou-Quantification". Ms. University of Maryland, College Park.
- Zubizarreta, Maria-Luisa (1998). *Prosody, Focus and Word Order*. Cambridge, Massachusetts: MIT Press.

VIII. Appendix (Further Data)

(31) Bare Pronouns Can't Surface in spec-*dōu* (prosodic conflict?)

- a. zhāngsān tāmen dōu xǐhuan.
Zhangsan them DOU like
i. ?? 'Zhangsan likes all of them.' (pronoun in spec-*dōu*)
ii. 'Zhangsan, they all like.' (pronoun in subject position)
- b. zhāngsān lián tāmen dōu xǐhuan.
Zhangsan LIAN them DOU like
'Zhangsan even likes [them]_F.'

(32) Topicalization Removes VP/DP Focus Ambiguity

- a. zhāngsān jīntiān lián tóufa dōu méi shū.
Zhangsan today LIAN hair DOU not comb
(i) 'Zhangsan didn't even brush [his hair]_F today.'
(ii) 'Zhangsan didn't even [brush his hair]_F today.'
- b. lián tóufa zhāngsān jīntiān dōu méi shū.
LIAN hair Zhangsan today DOU not comb
'Zhangsan didn't even brush [his hair]_F today.'