

# The derivation and interpretation of wh-coordinate complex

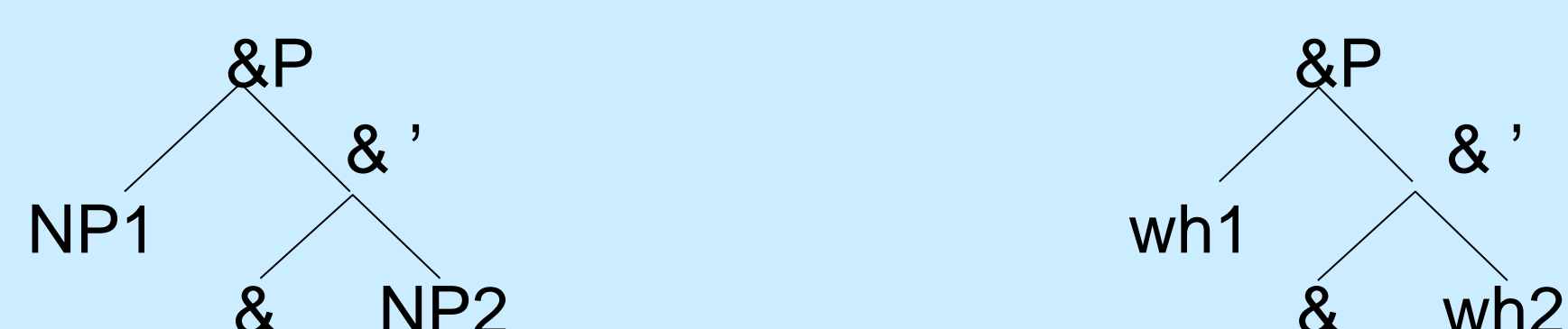
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## ABSTRACT

This study is an attempt to reanalyze the syntax of *wh*-coordinate complex in CQWC with non-movement approach. It is well-known that Chinese is a *wh*-in-situ language where *wh*-movement is not obligatory. Firstly, this study shows that the structure of Chinese CQWC is mono-clausal, which differs from English CWQC. Secondly, I provide some facts such as the lack of superiority effects and DP/PP-island effects to support the idea of non-movement approach. Furthermore, I assume *wh*-coordinate complexes in CQWC(CWHs) and left-dislocated *wh*-words in MWHs to be base-generated in Topic position, and with empty resumptive pronouns in theta positions. Lastly, I claim that *wh*-island effects in Chinese are due to improper scope interpretation of *wh*-words, rather than *wh*-movement.

## WH-COORDINATE COMPLEX & CQWC

- (1) a. Coordinate structure b. Wh-coordinate complex



### CQWC (Conjoined Question Words Construction)

- (2) [What<sub>i</sub> and when<sub>j</sub>] does John (normally) eat \_\_\_<sub>i</sub> \_\_\_<sub>j</sub>? (Zhang 2007, (1a))

- (3) a. 誰以及為什麼, 王教授昨天\_\_表揚了\_\_?  
b. 誰還有多少錢, 你打算要捐獻\_\_? (Zhang 2007,(4))

Chinese is a *wh*-in-situ language. Even though the movement of *wh*-words is optional, the *wh*-words cannot stay in-situ as coordinated complex.

- (4) a. 王教授昨天為什麼表揚了誰?  
b. \*王教授昨天[為什麼還有誰]表揚了?  
c. \*王教授昨天表揚了[為什麼還有誰]?

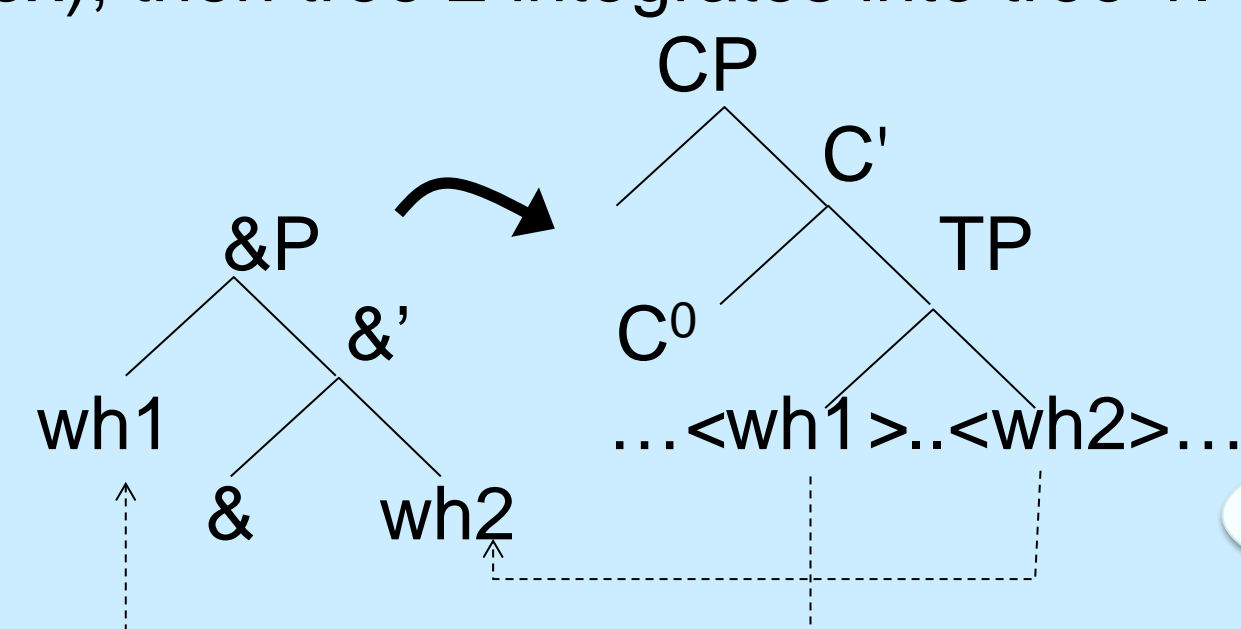
## QUESTIONS

**What is the structure of CQWC in Chinese, and how is the wh-coordinate complex derived in CQWC?**

Zhang (2007)

### Sideward movement

Wh-words undergo sideward movement to from tree 1 to tree 2 (a coordinate complex), then tree 2 integrates into tree 1.



**Sideward movement**

## CHINESE CQWC IS MONO-CLAUSAL

- (11) Both obligatorily verbs and optionally verbs are allowed in CQWC

- a. (張三下午吃了蘋果,晚上吃了桃子)  
什麼時候還有什麼,張三\_\_吃了\_\_?  
b. (昨天張三買了西瓜,李四買了蘋果)  
誰還有什麼,昨天\_\_買了\_\_?

- (12) No superiority effects appears\* & The possibility of conjoining two arguments.

- a. 誰還有什麼,昨天\_\_買了\_\_?  
b. 什麼還有誰,昨天\_\_買了\_\_?

- (13) **Mono-clausal Structure**

[<sub>CP</sub> [<sub>&P</sub> wh<sub>1</sub> [<sub>&</sub> wh<sub>2</sub>] C<sup>0</sup> [<sub>TP</sub> T<sup>0</sup> [<sub>VP</sub> t<sub>wh1</sub> t<sub>wh2</sub> ]]]]

## FACTS

- (14) 張三昨天送了瑪莉玫瑰,昨天也送了蘇珊鬱金香

- a. 張三昨天送了誰什麼?  
b. 誰,什麼, 張三昨天送了\_\_  
c. 什麼,誰, 張三昨天送了\_\_ \_\_?

**No superiority effects**

→ Both CWHs and MWHs are not derived by the strategy *multiple wh-movement*.

- (15) (昨天張三送了家電給李四,小陳送了汽車給老王)

- a. 什麼 (還有) 給誰, 昨天張三送了\_\_ \_\_?  
b. \*什麼 (還有) 誰, 昨天張三送了\_\_ 給\_\_?

**Adjacency**

→ The *wh*-word '誰' cannot stand alone without the preposition '給'.

- (17) a. 什麼還有給誰, 張三在[捐贈\_\_ \_\_]之前先問了他的喜好?

- b. 什麼還有給誰, [張三捐贈\_\_ \_\_]的謠言傳開了? **NO PP/DP island effects**

- (18) \*誰還有什麼, 你想知道[\_\_ 捐贈 \_\_ 給誰]?

**Wh-island effects**

## ASSUMPTIONS

- (19) a. **Wh-complex in CWHs and wh-words in MWHs are base-generated in left-dislocated positions. (Empty resumptive pronouns are in  $\theta$  positions)**  
b. **Case filter**  
c. **The sister of preposition cannot be empty.**

## MONO-CLAUSAL OR BI-CLAUSAL ?

### Citko & Gracanin-Yuksek (2013)

- (5) Three structures in coordinated *wh*-questions (CWHs)  
a. mono-clausal CWHs  
b. bi-clausal CWHs with non-bulk sharing  
c. bi-clausal CWHs with bulk sharing.
- (6) Three diagnosis to determine whether a CWH is mono-clausal or bi-clausal  
a. **Superiority effects** between CWHs and MWHs  
b. The grammaticality of mixed CWHs with **obligatorily transitive verbs**  
c. The possibility of **conjoining two arguments**

Ex. **What and where did you sing?**

**ENGLISH CQWC IS BI-CLAUSAL** (Citko & Gracanin-Yuksek 2013)

- (7) a. No multiple *wh*-fronting  
\*What, where did you sing?  
b. Two arguments with different theta roles and different grammatical functions cannot be conjoined  
\*What and (to) whom did John give?

Optionally transitive verbs (*Sing* and *eat*) allow **NP gap**, but obligatorily transitive verbs (*buy* and *devour*) do not.

- (8) a. What and where did you sing? (Citko & Gracanin-Yuksek 2013, (13))  
b. \*What and where did you buy?

- (9) a. What did you **sing** and where did you **sing** \_\_? (NP gap)  
b. \*What did you **buy** and where did you **buy** \_\_? (\*NP gap)

- (10) **Multidominant Structure (Bi-clausal Structure)**



## ANALYSIS

- (20) = (15a) 什麼<sub>i</sub> (還有) 給誰<sub>j</sub>, 昨天張三送了 *e-Rpro<sub>i</sub>* *e-Rpro<sub>j</sub>*?

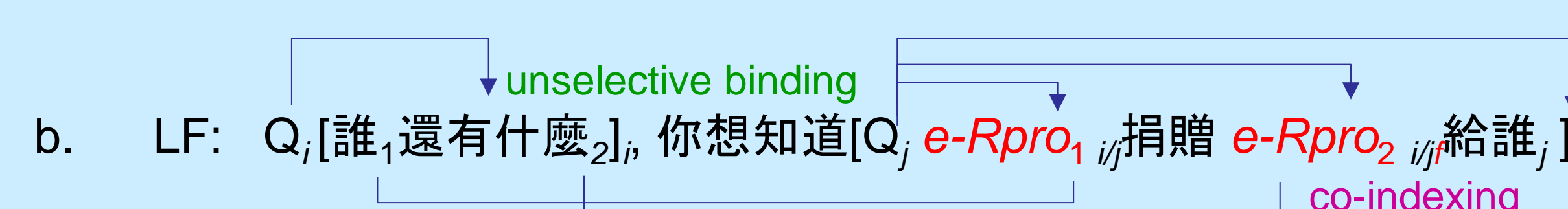
- (21) NP adjacent to a preposition cannot be empty  
a. \*什麼 (還有) 誰, 昨天張三送了很多 *e-Rpro<sub>i</sub>* 給 *e-Rpro<sub>j</sub>*? (**ruled out by (19c)**)  
b. 什麼<sub>i</sub> (還有) 誰<sub>j</sub>, 昨天張三送了很多 *e-Rpro<sub>i</sub>* 給 *他<sub>j</sub>*? (他 as a *Rpro*)

- (22) One NP only bears one case.  
\*什麼<sub>i</sub> (還有) 給誰<sub>j</sub>, 昨天張三送了很多 *e-Rpro<sub>i</sub>* 給 *他<sub>j</sub>*? (**ruled out by (19b)**)

誰<sub>j</sub> and 他<sub>j</sub> are co-indexed and both assigned [DAT] respectively from different case assigners '給': one in periphery position, the other in VP internal position.

## EXPLANATION FOR WH-ISLAND EFFECTS

- (23) a 誰<sub>1</sub>還有什麼<sub>2</sub>, 你想知道[\_\_<sub>1</sub>捐贈\_\_<sub>2</sub>給誰]?



Chain1: {Q<sub>i</sub> 誰<sub>i</sub>, 什麼<sub>i</sub>, *e-Rpro<sub>1i</sub>*, *e-Rpro<sub>2j</sub>*}  
Chain2: {Q<sub>j</sub> *e-Rpro<sub>1j</sub>*, *e-Rpro<sub>2j</sub>*, 誰<sub>j</sub>}

誰, 什麼 are bound by both sentential Q<sub>i</sub> and embedded Q<sub>j</sub> at the same time; 誰, 什麼 cannot be properly interpreted at LF. (improper scope interpretation)

## FURTHER DISCUSSION

- (24) \*什麼<sub>i</sub> (還有) 給誰<sub>j</sub>, 昨天張三送了很多 *e-Rpro<sub>i</sub>* 他<sub>j</sub>? (**ruled out by ?**)

## REFERENCES

- Cheng, L.-S Lisa (1995) On Dou-Quantification. *Journal of East Asian Linguistics* 4. 197-234  
Citko, Barbara and Gracanin-Yuksek, Martina (2013) Towards a new typology of coordinated *wh*-questions. *Journal of Linguistics*, vol. 49. pp.1-32  
Tsai, Wei-Tien Dylan. (1994). On Economizing the Theory of A-bar Dependencies. Doctoral dissertation, MIT  
Xu, Liejion and D. Terence Langendoen (1985) Topic structure in Chinese. *Language* 61. 1-27  
Zhang, Niina N. (2007) The Syntactic Derivations of Two Paired Dependency Constructions. *Lingua* 117 (12): pp. 2134-2158