

Mandarin CECs under the microscope

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1 Introduction

Our concern are Chinese conditionals like the following:¹

- | | | | |
|-----|----|--|----------------|
| (1) | a. | Yu ting-le jiu hao (le)! | |
| | | rain stop-ASP JIU good (CRS) | |
| | b. | ‘If only it had stopped raining!’ | counterfactual |
| | | (‘If only it stopped raining!’) | hypothetical |
| | | (‘It fortunately stopped raining!’) | factual |
| | c. | lit. $\approx$ ‘If it stops raining (which is little), it will be good.’ | |

The pattern underlying (1-a):

- (2) $[_p \text{ rain stop}] \text{ jiu } [_q \text{ good (CRS)}]$
 p = the *antecedent*-proposition: that it stopped raining
 q = the *consequent* “clause” (denotation)

We follow Kaufmann 2017 in calling sentences like (1-a) **conditional evaluative constructions (CECs)**

- conventionalized conditional constructions serving to make a modal statement
- (1-a) is a bouletically flavored CEC amounting to a desire ascription: the speaker has a desire for the rain to (have) end(ed)
- this example is semantically underspecified, as witnessed by the range of possible translations given in (1-b)

CECs are also attested in

- Japanese (Kaufmann 2017, Yang 2020 a.o.)
- Korean (Chung 2019, 2020)
- Vietnamese (Trần Phan, pc),

pointing towards a *Sprachbund* phenomenon (Haspelmath 1998):

- slightly different functional elements
- constants being conditional form + evaluative predicates as consequents

¹ We rely on Xuotong Yuan’s (pc) intuition that sentence-final *le* excludes the factual reading, and is required for the counterfactual one; cf. also Mizuno 2024. Following a classic generalization due to Li & Thompson 1981, we gloss sentence-final *le* as a *currently relevant state* marker (CRS), without thereby committing to a specific analysis.

- (3) Ano hito motto okanemoti-nara ii noni.
that person more rich-if good PRT
lit.: ‘If that person were richer, it would be good.’
‘I wish that person were richer.’ **Japanese**; cf. Ogiwara 2014: (36a)
- (4) John-un maykcwu-lul masi-**{eto, eya}** toy-n-ta.
John-TOP beer-ACC drink-**{EVEN.IF ONLY.IF}** good-PRES-DECL
lit.: ‘Even if John drinks beer, good.’
‘John **{may, must}** drink beer.’ **Korean**, cf. Chung 2019: (1)+(2)

- bouletic (desire-related) eg. (1-a), (3)
- deontic (norm-related)
- teleological (goal-related) eg. (13)

- Abstracting away from (2) and even beyond Mandarin:

- the consequent predicate represented by PRIOR determines the respective modal flavor
- in line with early ideas in Hole 2004, 2006, where these predicates are taken to denote Kratzerian *ordering sources*

The pieces to be put together:

- An illustration of (iv):

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- considerable inter-speaker variation regarding (7)
- **but:** the examples from Hole 2004 stem from reliable sources with an educational purpose for the general public, including
 - Taiwanese radio plays [rp]
 - a function word dictionary [hx]

Roadmap

1. more data
2. our working hypotheses in a nutshell
3. conclusion

2 Data

At least three ways of manipulating a Chinese CEC, leaving aside the sentence-final particle *le*:

(8) (MOD) *p*, {*cai*, *jiu*} PRIOR ...

This section:

1. variation in flavor, via variation of PRIOR
2. modal concord between MOD and PRIOR

2.1 Flavors

Choices for PRIOR discussed by Hole 2004:

(9) $p, \{cai, jiu\} \left\{ \begin{array}{l} hao \text{ 'good'} \\ dui \text{ 'correct'} \\ xing \text{ 'okay'} \\ shi \text{ 'right'} \\ keyi \text{ 'possible'} \end{array} \right\}$

Hole tentatively classifies

- *hao* ‘good’ as bouletic
- *dui* ‘right’ as deontic
- *xing*, *shi* and *keyi* as ‘purposive’/‘implementational’ $\Rightarrow$ teleological

We offer a re-evaluation of this classification.

Bouletic

Bouletic cases involving *hao* ‘good’:

(10) Yu ting-le jiu hao (le)!
 rain stop-ASP JIU good (CRS)
 lit. $\approx$ ‘If it stops raining (which is little), it will be good.’ from (1-a)

- (11) Ni zhidao jiu hao le!
 you know JIU good CRS
 a. (i) ‘I wish you knew it!’
 (ii) (to be checked: ‘I hope you’ll know it!’)
 b. lit.: ‘You know (it) (which is little), good!’
 cf. Hole 2004: 258

A potential other candidate: *xing* ‘okay’, though this remains to be checked

Teleological

In the *anankastic conditional* (12) from Yuan 2024, *hao* has a teleological reading:

- (12) Xiang chi hao zhongcan, qu niuyue jiu hao.
 want eat good Chinese.food go New.York JIU good
 ‘(If you) want to eat good Chinese food, you only have to go to New York.’
 lit.: ‘(If you) want to eat good Chinese food: if you go to New York (which is close), good.’
 cf. Yuan 2024: (90)

⇒ *hao* is not purely bouletic

Teleological readings via *shi* ‘right’, *xing* ‘okay’ and *keyi* ‘possible’:

- (13) Zouguoqu jiu shi le.
 walk.over JIU right CRS
 ≈ ‘We can just walk over [to attain our goal].’
 lit.: ‘(If) we walk over (there), (it’s) already right.’ cf. Hole 2004: 263
- (14) Wushi-kuai jiu {xing, keyi} le.
 fifty-CL:MU JIU okay possible CRS
 ‘Just pay 50 Kuai, and it’s yours.’
 lit.: ‘(If you pay) 50 Kuai (which is little), (it’s) {okay, possible}.’
 cf. Hole 2004: 264

To be further investigated: differences in interpretation between *shi*, *xing* and *keyi*

Peng Liu points out to us teleological cases with *dui* ‘correct’:

- (15) Xiang wan reqiqiu, dao Tainan jiu dui le.
 want play hot.air.balloon go.to Tainan JIU correct CRS
 ‘If you want to experience hot air ballooning, you only need to go to Tainan.’
 lit.: ‘Want to play hot air balloon, go to Tainan, right.’

⇒ *dui* is not purely deontic

Deontic

Dui's classification as deontic is motivated by examples like the following:

- (16) Ni juan qian jiu dui le!
 you donate money JIU correct CRS
 lit.: '(If) you donate money, it's already correct.'
 'You can just donate money.' cf. Hole 2004: 264

Deontic uses seem also attested for *shi*:²

- (17) Ta ruci qingyan kandai ni, ni (gai) gengjia nuli cai shi.
 he so favorably look.upon you you should more try.hard CAI right
 'He admires you so; you should really try harder.'
 lit.: 'He admires you so; only if you (should) try harder, right.' (naver)

What about *keyi* 'possible', which clearly has deontic uses like the following?

- (18) Ni keyi kan dianshi.
 you can watch TV
 'You can/may watch TV.'

2.2 Interim conclusion

The following table tentatively answers the question which range of flavors is covered by which PRIOR-predicate; dotted lines indicate a degree of uncertainty as to whether the predicate can express the adjacent flavor or not:

bouletic	teleological	deontic
<i>hao</i> 'good'		
<i>xing</i> 'okay'		
	<i>dui</i> 'correct'	
	<i>keyi</i> 'possible'	
	<i>shi</i> 'right'	

A factor left out of the picture so far: potential deviations in modal *force*, in addition to flavor.

Peng Liu (pc) points out the following contrast between *hao* and *xing*:

- (19) a. Xiang jie jue zhe ge wen ti, ni qu zhao Zhangsan jiu hao.
 want solve this problem you go search Zhangsan JIU good
 'If you want to solve this problem, you go to Zhangsan, good.' (Zhangsan is very kind and willing to help.)
 b. ... Ni qu zhao Lisi ye xing.
 ... you go search Lisi also okay
 'You go to Lisi, also okay.' (But Lisi is not very nice.)
 (Peng Liu, pc)

²With the bracketed *gai* 'should', the sentence exhibits the kind of *modal concord* to be further discussed in the next subsection.

2.3 Modal concord (MC)

Deontic (28-a) and what look like teleological cases (21):

- (20) Nimen **yinggai** jiao wo ‘ayi’ cai **dui**.
 you.PL should call me ‘aunt’ CAI correct
 ‘You should really call me ‘aunt.’
 lit.: ‘Only if you [should] call me ‘aunt’ is it correct.’ cf. Hole 2004: 260
- (21) **Xuyao** tongxuemen tuanjie-qilai cai **shi**.
 need fellow.students unite-start CAI right
 ‘The fellow students need to unite [in order for a solidary society to come into being].’
 lit.: ‘Only if the fellow students [need to] unite, (will it be) right.’ cf. Hole 2004: 263

At least some modals induce a non-factual reading of their prejacent, i.e. the CEC’s antecedent.

Remember (1-a), a bouletic CEC without *xiwang* that is open to all kinds of belief states w.r.t. $[_p$ rain stop]:

- (22) a. Yu ting-le jiu hao (le).
 rain stop-ASP JIU good CRS
 lit.: ‘(If) it stopped raining, it’s already good.’ from (1-a)
- b. ‘I wish it had stopped raining.’ counterfactual; #(-le)
 ‘It’s good if it stopped raining.’ hypothetical
 ‘It’s good that it stopped raining.’ **factual**; (#-le)

Modalizing $[_p$ rain stop] with *xiwang* has the effect of excluding the factual reading:

- (23) a. **certainty that** $[_p$ rain stop] It rained this morning, but it stopped. Xiao Wang is looking through his window at the clear blue sky, a sight filling him with joy.
- b. (#Xiwang) yu yijing ting-le jiu hao (#le).
 hope rain already stop-ASP JIU good CRS
 (intended:) ‘If only it had already stopped raining.’

The ‘hope’-sentence in (23-b) improves under contextual uncertainty whether p and under belief that $\neg p$.³

- (24) a. (i) **uncertainty whether** $[_p$ rain stop] It rained this morning. Xiao Wang doesn’t know whether it’s still raining, but he would prefer it if it had stopped raining.
- (ii) **certainty that** $\neg[_p$ rain stop] It’s raining. Xiao Wang is looking out of the window at the pouring rain, and he would prefer it if it had stopped raining.
- b. %Xiwang yu yijing ting-le jiu hao le.
 hope rain already stop-ASP JIU good CRS

³It still received mixed judgments in both cases, which was partly due to the orthogonal reason that this kind of MC-CEC sounds slightly off to some speakers to begin with; see the discussion surrounding (7).

3 Working hypotheses

For a given CEC $[p, \{cai, jiu\} \text{ PRIOR}]$, p is

- a semantic **argument**
- a syntactic **complement**

of PRIOR

3.1 The syntactic side

In a CEC $[p, \text{PRIOR}]$, the p -denoting clause is a **complement** of PRIOR

CEC-antecedents appear to the left, but reconstruct as sisters to PRIOR at LF:

$$(25) \quad [p, \dots \text{PRIOR}] \Rightarrow_{\text{LF}} [\text{PRIOR} [\text{IF}_{st,s} p]]$$

Towards a substantiation of this claim

- (26) a. It is good that you came.
 b. $[\text{That you came}]_i$ is good t_i .

Lack of expletive subjects in Chinese leads to obligatory raising:

- (27) a. $[\text{Ta lai-le}]_i$ zhen zaogao t_i .
 $[\text{he come-ASP}]$ really terrible
 ‘It’s really bad that he came.’
 b. *Zhen zaogao $[\text{ta lai-le}]$.
 really terrible $[\text{he come-ASP}]$
 (Jun Chen, p.c., in a joint ms. with Daniel)

In line with this, Niina Zhang (p.c.) translates the CEC in (28-a) as in (28-b-i)

- (28) a. Nimen yinggai jiao wo ‘ayi’ cai dui.
 you should call me ‘aunt’ CAI correct
 b. (i) ‘It would be more accurate if you called me ‘aunt’.
 (ii) lit.: ‘Only if you [should] call me ‘aunt’ is it correct.’
 cf. Hole 2004: 260

3.2 The semantic side

In a CEC $[p, \text{PRIOR}]$, p is an **argument** of PRIOR
 (Kaufmann 2017, Yang 2020 on Japanese)

The view is rooted in a treatment of *conditionals as definite descriptions* (Stalnaker 1968, 1981, Schlenker 2004, Schulz 2015 a.o.):

- a conditional antecedent $[\text{IF } p]$ describes a unique closest [plurality of] world[s] in which p is true (semantic type s) – closeness wrt the world of evaluation, typically the actual world @
- the s, t -typed consequent q and $[\text{IF } p]$ can hence compose via *Functional Application*
- definiteness comes about via an st, s -typed operator IF which takes p and selects the closest p -world

(29) **The referential approach to conditionals**

- a. [if p , q] has the LF $[[_s \text{IF}_{st,s} p_{s,t}] q_{s,t}]$
- b. $[[\text{IF } p] q] = 1$ iff $q(\iota w[p(w)]) = q(\text{the unique closest } p\text{-world})$

Kaufmann 2017 and Yang 2020

- apply the referential approach to Japanese CECs of the (strongly simplified) form [p -if good]
- ‘good’ as a proposition-typed *predicate of worlds* (Sode 2018)
- a crucial argument: CECs are consistently interpreted as ‘non-logical’ conditionals in the sense of Williams 1974 and Pesetsky 1991

We adopt the referential approach for Chinese CECs, adding our syntactic assumption that the antecedent reconstructs as a complement to the consequent:

- (30) $[[\text{PRIOR } [\text{IF}_{s,t} p]]] = 1$ iff
 $[[\text{PRIOR}]](\iota w[p(w)])$
 $= [\iota w[p(w)]] \in [[\text{PRIOR}]]$ (taking PRIOR to denote a set of worlds)

Semantics [p as argument to PRIOR] and syntax [p as complement to PRIOR] thus nicely converge

What is the semantics of PRIOR?

A simple solution (to be refined for individual cases): each PRIOR-predicate denotes a specific **accessibility relation** R (von Fintel & Heim 1997–2021) with a more specific flavor of its own

- (31) $\left\{ \begin{array}{l} hao \text{ ‘good’} \\ dui \text{ ‘correct’} \\ keyi \text{ ‘possible’} \\ \dots \end{array} \right\} = [[R_{\text{PRIOR}}]] = \lambda w. \lambda w'. w \text{ is compatible with the priorities in } w'$

3.3 CECs and desire-ascriptions

The CEC-antecedent’s complement-/argumenthood – indirectly supports a conditional semantics for desire verbs

(H1) converges with a treatment of desire reports as “hidden conditional[s]” (Heim 1992; see also Sode 2021, 2023, Grano & Phillips-Brown 2022):

- (32) *John wants you to leave* means that John thinks that **if** you leave he will be in a more desirable world than **if** you don’t leave. Heim (1992): 193; our emphasis

Sode 2023 $\approx$ bouletic CECs featuring *hao* ‘good’ may reveal the conditional structure Heim 1992 takes to be encoded by desire verb like *want*, *wish* and *glad*.

- (33) $[(\text{if } p, \text{good}_{\text{to } x})] \equiv [x \{ \text{wants, hopes, is glad, ...} \} (\text{that } p)]$
 $[(\text{if } p, \text{DES}_x)] \equiv [x V_{\text{des}} (\text{that } p)]$

Further strengthening the connection: CECs behave like certain desire verbs in licensing the modal negator *bie*

Unembedded *bie*-uses vary between

- prohibitive (imperative), (34-a)
- optative (wishes), (34-b)

- (34) a. (Ni) *bie ku le!*
 (you) BIE cry ASP
 ‘Don’t cry!’ **prohibitive**
- b. *Mingtian ke *bie* xiayu!*
 tomorrow PRT BIE rain
 ‘May it not rain tomorrow!’ **optative** (ex. from a dictionary)

But *bie* is also licensed both

- under a desire verb like *xiwang* ‘hope’ (35-a)
- in the antecedents of bouletic CECs like (35-b-ii)

- (35) a. *Xiwang [mingtian **bie** xiayu].*
 hope [tomorrow BIE rain]
 ‘(I) hope it won’t rain tomorrow.’
- b. [*Mingtian **bie** xiayu*] *jiu hao le.*
 [tomorrow BIE rain] JIU good CRS
 (i) ‘If only it doesn’t rain tomorrow!’
 (ii) lit.: ‘If it doesn’t rain tomorrow, it will be good.’

Yip 2016 and Meisterernst 2022: *bie* as a [deontic] subjunctive marker; see also Liao & Wang 2022, Wimmer 2025.

4 Conclusion

We looked into varieties of *conditional evaluative constructions* (CECs) in Mandarin, schematized as follows:

- (36) (MOD) *p*, {*cai*, *jiu*} PRIOR ...

- We offered an investigation into the building blocks of Mandarin CECs
- refinement of the inventory of PRIOR-predicates
- antecedents as arguments/complements of PRIOR, in line with a referential approach to conditionals
- a ‘conjunctive’ take on modal concord cases

Loose ends

- further refinement of PRIOR-predicates in both flavor and force
- contributions of the scalar particles *cai* and *jiu* (left out of the picture here)
- modal concord and the restrictions it faces:

- (37) *Xiwang mei-you shi cai {hao, *dui, *keyi, *xing, *shi}.*
 hope not-exist thing CAI good correct possible okay right
 lit.: ‘Only if hopefully nothing is the matter (will it be) good {good, correct, possible, okay, right}.’
 cf. Hole 2004: 263/Zhaole Yang, pc

Can these be accounted for without assuming some form of grammaticalization?

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