

Clausal parentheticals in Chinese: the semantics of *which* in code-mixing speech

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Table of Contents

① Introduction

② Not relative clauses

③ Semantic properties

④ Analysis

⑤ Consequences

⑥ Conclusions

Introduction

- **Which-constructions**

→ the use of English *which* in code-mixing speech in Chinese.

(1) Cantonese

佢見到部電話 *which* 佢話想買喎。 (T. C. Leung (2001), p.58)

Keoi gin-dou bou dinwaa [*which* keoi waa soeng mai] wo5.

3SG see-ASP CL telephone WHICH 3SG say want buy SFP

‘He has seen a telephone, which he says he wants to buy.’

(2) Mandarin

常見的只有越南粉 *which* 我不喜歡 (Social media)

Changjian de zhiyou Yuenanfen [*which* wo bu xihuan].

common DE only Vietnamese.noodle WHICH I not like

‘Only Vietnamese noodle is common, which I do not like’

- This talk discusses the semantic contribution of *which*.

Backgrounds of *which*-constructions

- *Which*-constructions receive very limited attention in the literature.
- But examples in Cantonese have been noticed in 1990s.

(3) 我唔中意佢嘅意見， *which* does not mean 我憎佢。 (Chan (1993), p.9)

Ngo m-tungji keoi ge jigin, [which does not mean ngo zang
I not-agree 3SG GE opinion WHICH DOES NOT MEAN I hate
keoi].
3SG

'I do not agree to his opinions, which does not mean I hate him.'

- There are speaker variations, and *which*-constructions are most acceptable among college students.

Backgrounds of *which*-constructions

- Recent internet searches reveal that the prevalence of *which*-constructions may be underestimated.
 - More than 400 instances in Cantonese and Mandarin are collected in Nov-Dec, 2022,
 - from the internet of different sources, including forums, social network services, blogs, interviews, etc.
- Although *which*-constructions have not been documented in Mandarin so far, they are commonly spotted on the internet.

Backgrounds of *which*-constructions

- Cantonese examples:

聽講老闆入嘅貨都係新鮮同埋高質嘅貨, *which* 我食親都覺得係正 !

雙層咖啡都有同啲奶撈埋一齊 *which* 我自己個人來講唔係太鍾意

我發現就算係落到嚟呢度嘅人, 都未必對呢度有positive嘅感覺, *which* 我有時都明。

果位唯一一位正常既同事已經頂唔順, 比左 *notices* 一月會走, *Which* 我完全明白。

話我架車有味, 係因為佢要 *sell* 我買汽車香精, *which* 我完全冇話要就畀佢插咗喺車頭。

因為我見有啲文章提到做BA最好識SQL, R, Python, Tableau (*which* 我全部都係識少少),

喺活動贏左新Wifi router禮物, *which* 我而家拎黎自用

我手上的是比較適合油性肌膚, *which* 我都算是個油面人

如果 905 拆線後, 做到荔枝角道西行及/或海壇街附近一段南昌街北行 (*which* 我兩樣都做到), 914 無必要再

佢話只有打 *filler* 才可以~ *which* 我覺得無謂

然後又拎左個牛角包俾胖胖, *which* 佢其實唔食得

個水樽只用再生嘅 plastic 去造, 係好神奇好magic 嘅一件事嚟, *in which* 佢地唔用石油

我同佢都鍾意食榴槤, *which* 佢比我更鍾意

宮崎粒聲唔出, 一係就係積犯有經驗俾人審慣, *which* 佢唔係, 一係就收埋更多秘密, 驚一講嘢會漏更多口風。

據hehe朋友所講 佢睇到好虐心, *which* 佢真係唔靚仔 嘸呢個圈唔係好搵到想搵到嘅嘢

佢ig po同你親密selfie, 十成九想引佢 *ex reply story* 要佢attentionO:-), *which* 佢成功咗

Day6 呢一晚我地轉地方, 住喺之前去錯果間, *which* 佢既scale係大好多

佢有時係唔係好識處理呢啲事 *which* 佢會幾蝕底

佢就答我, 依家獅一個更重要既人... *which* 佢既意思係我。

師姐同陳師父間唔中指導我同阿媽一啲步法同手勢, *which* 比起喺課堂上一個導師對咁多人, 宜家變咗你有乜唔明

<https://www.openrice.com/en/hongk>

<https://www.openrice.com/en/hongk>

<https://www.facebook.com/FormSoc>

<https://www.facebook.com/Montessa>

<https://hk.sports.yahoo.com/news/香港>

https://www.onmygrad.com/question

https://www.carousell.com.hk/p/links

https://blog.ulifestyle.com.hk/article/

https://www.hkitalk.net/HKtalk2/thread

https://beautytalk.com.hk/頸紋/

https://www.openrice.com/en/hongk

https://m.facebook.com/kingjerenter

https://www.instagram.com/p/CiFUV

https://medium.com/@rwaterblow/粵

https://lihkg.com/thread/332838/page

https://lihkg.com/thread/2743190/page

https://blog.ulifestyle.com.hk/article/

https://m.hkgolden.com/thread/6164

https://community.she.com/topic/20

https://hyacinthlam.wordpress.com/

Backgrounds of *which*-constructions

- Mandarin examples:

P2.2 的 RSI 有 38.5, which 即係表示近期股價或有上升趨勢

<https://crocodileson.wordpress.com>

NFT是在公链上链，而数字藏品则是自己编织的联盟链，which它没有得到国际的认可。

http://www.sqxb.com/2022/sqyj_1114/2808.html

Millions of家庭农场主which已经绝迹

<https://blog.wenxuecity.com/myblog/47609/201112/7251.htm>

life is a struggle when 我不知道要劝自己去还是劝自己不去

<https://x.com/baeksmuurf/status/1706558466998104540?st=s>

Jellycat 发福小狗，[which像极了假期的我。]

<http://xhslink.com/Kma9sv>

Here, 有個活生生的例子 which 是反面教材

<https://crocodileson.wordpress.com/tag/車路士/>

Gay Times雜誌稱他是中國LGBT的平權大使，是中國Gay圈的Icon。（Which 其實並沒

<https://ppfocus.com/hk/0/faf2ef1e1.html>

fill 就吹得有点拖沓，和音也稍微有点不准 which 已经经过了后期修音）

https://cremosin69.rssing.com/chan-67966132/all_p4.html

CIC发信通知申请状态更新（which昨天就查到了呵呵）。

<https://www.uscardforum.com/t/topic/34284/477?page=24>

China不在openai提供服务的范围内，超范围使用是违反用户协议的，[which 你注册时必

https://x.com/Aer0_X1/status/1643299147364306944?s=20

Ben问的却是我朋友被抓去非法矫正了或卖药被抓了这些[in which法律根本没有半点用的

<https://weibo.com/7832640538/4957152180963151>

Angelica Ross表示Emma Roberts和Billie Lourd（which她很喜欢）都是会在充斥着白人

<https://weibo.com/7811626607/NkEPJrXQr>

讓消費者開心地以「打折後」的可愛價格（which其實就是合理版的原價）購入商品。

<https://www.frecklstudio.com/journal-ch/discounting-ch>

露西喜欢她的新裙子[which她妈妈买给她的]

還有如果你是耶穌[which 你不是]你是個混蛋

<https://exchristian.hk/forum/viewthread.php?tid=3494>

飙车顺序是Bat→WW到WW→Bat，which你要说这是互攻我竟无法反驳

https://lantheo.lofter.com/post/39d362_b5e91dc

整个过程从来都不公开透明，which刚刚好违背了区块链的本质

<https://zhuanlan.zhihu.com/p/45486279>

影射也非常多which我觉得还蛮精彩的。

https://movie.douban.com/review/12969947/?dt_dapp=1

增高鞋唯一不好的点就是在地铁里会被把手撞到头 [which没穿增高鞋的时候从未发生过

<https://m.weibo.cn/status/4958282205627375?jumpfrom=we>

需要复习之前讨论过的理论[which完全没想法]。

<https://x.com/evelyn6162/status/1460266385448353798?s=2>

Backgrounds of *which*-constructions

Remark: *which*-constructions do not exclusively appear in written forms.

- ① K. W. Leung (2010) recorded 20 spontaneous/naturalistic examples in a dairy kept for three months.
- (4) 我講緊係SPACE 嗰北角嘅 campus, **which** 佢係接觸唔到嘅。
'I am talking about the SPACE campus in North Point, which they cannot reach.'
- ② An interview transcript in this 2015 HKU BA thesis:
- (5) 其實都包咗有values 呢樣嘢囉, **in which**
其實可以幫到佢地去develop 一個creative...critical thinking 嘅
'(It) includes values, which can foster their creative thinking.'

Backgrounds of *which*-constructions

- I therefore assume that *which*-constructions has gradually become part of Chinese.
- Most of the reported data today are based on these instances, with slight modifications in some cases.
 - Unacceptable cases are based on three native speakers who self-identify themselves as users of *which*-constructions.

Goals

- I argue that *which* is lexically borrowed from English, and it introduces a **parenthetical clause**.
 - *which*-constructions involve *no relative structures, contra* syntactic borrowing as suggested in T. C. Leung (2001) and Chan (2022).
 - *Which*-constructions are similar to English clausal parentheticals.

(6) We do not need to begin with the children – [they will follow] – but with the adults. (Blakemore:2006)

- The difference is that *which* denotes an **overt parenthetical force operator** in the sense of Koev:2022.
- But it similarly introduces a proposition that is *projective, declarative and non-obligatorily at-issue*.

Table of Contents

1 Introduction

2 Not relative clauses

3 Semantic properties

4 Analysis

5 Consequences

6 Conclusions

Not relative clauses

- Earlier characterazations suggest that *which*-constructions involve a postmodifying structure (Chan 1993).
- K. W. Leung (2010) explicitly argues that

"The relative construction follows English grammar, forming a post-modifying relative clause with an English relative pronoun which pre-posed to the beginning of the clause" (p.63; emphases mine)
- It has been taken as an instance of **lexicosyntactic transference** (Li 1999; K. W. Leung 2010; Chan 2022).
 - Lexical borrowing of the relative pronoun *which*
 - Syntactic borrowing of the post-modifying relative structures of English

Not relative clauses

- However, at least two observations show that *which*-constructions should be differentiated from relative structures.
- ① **Gap-less cases:** there is no gap in the *which*-construction. Rather, it is merely discourse-related with the host clause.

(7) 佢有時係唔係好識處理呢啲事 which 佢會幾蝕底 [C], Forum
Keoi m-hai housik cyulei ni-di si [which keoi wui gei
3SG not-be know handle this-CL thing WHICH 3SG will quite
sitdai].

disadvantaged

‘S/he doesn't handle these things well. S/he would be quite disadvantaged.’

Not relative clauses

② **Cross-utterance cases:** they can be used sentence-initially (and contain a different SFP).

(8) a. 我聽過你用過一次喎。 (K. W. Leung 2010, p.35)

A: Ngo teng-gwo nei jung-gwo jatci wo3.
1SG hear-EXP you use-EXP once SFP
'I heard you using (it) once..'

b. which is 有可能嘅。

B: [which is mou honang ge3].
WHICH IS not possible SFP
'which is impossible.'

- As such, *which*-clauses introduce a propositional meaning distinct from the matrix clause, rather than contribute to modification (LeeTTM:2025).

Table of Contents

① Introduction

② Not relative clauses

③ Semantic properties

④ Analysis

⑤ Consequences

⑥ Conclusions

Semantic properties

- The propositional meaning brought along with the *which*-constructions is conventionally triggered.
- Moreover,
 - ① it is projective
 - ② it is illocutionary independent
 - ③ it is obligatorily discourse-new (not presupposition)
 - ④ it disallows any binding relations from the matrix clause

① Projective

- The content in *which*-constructions escape the scope of different operators.
- E.g., It projects from conditional clauses.

(9) 如果Allen有十個子女(which 他沒有)... [M], Blog

Ruguo Allen you shi ge zinü [which ta meiyou], name
if Allen have 10 CL children (WHICH he not.have), then
'If Allen had 10 children (he didn't), then '

- The *which*-construction contradicts the antecedent clause, but it does not give rise to infelicity.

① Projective

- When embedded under intensional contexts with an epistemic agent, the content are still **oriented to the speaker**, but not the matrix subject.

(10) 阿明擔心 Peter 做咗會長，which 佢唔會選到，
會令個組織冇晒支持者。

Aaming daamsam Peter zou-zo wuizoeng, [which keoi m-wui
Aaming worry Peter be-PFV president WHICH 3SG not-will
syun-dou], wui ling go zouzik mou-saai zicize
elect-able will make CL group lose-all supporter

(Lit.) 'Aaming worries that Peter serving as the president, which he will not be elected, will make the group lose all its supporters.'

- It still indicates that the speaker thinks that Peter won't be elected as chairperson.
- The *which*-RC is interpreted beyond the scope of *daamsam* 'worry'.

② Illocutionary independent

- *Which*-constructions can occur after SFPs, and contain a different SFP.

(11) 你啲手勢唔乾淨喎 which 你自己已經承認咗啦 [C], Forum

Nei di sausai m-gongzeng wo3 [which nei zigei jijing
You CL skill not-clean SFP WHICH you self already
singjing-zo laa1].
admit-PFV SFP

(Lit.) 'Your skills are not good enough. Which you also admitted already.'

② Illocutionary independent

- Matrix = interrogative

which-constructions = declarative

(12) 是不是要先有一個心智圖 (which我從來沒畫過) [M], Social media
shi-shi-shi yao xian you yi-ge xinzhitu (which wo conglai mei
be-not-be need first have one mind.map WHICH I never
hua-gwo)?
draw-EXP

(Lit.) 'Do (we) need a mind map first, which I have never drawn?

- Which*-constructions are thus be illocutionarily independent from the matrix clause.

③ Discourse-new

- Unlike presupposition, *which*-constructions introduce discourse-new information, and obey a triviality condition.
- **Presupposition** allows the presupposed to be discourse-old/ trivially true.

(13) *[Context: The speaker said that Mr. Wong is a linguist.]*

而同學都知道王老師係一個語言學者。

Ji tunghok dou zidou Wong Lousi hai jat-go jyujinhokze.
and student all know Mr. Wong be one-CL linguist
'And all students know that Mr. Wong is a linguist.'

- Although the presupposition is trivially true in (a), it is felicitous.

③ Discourse-new

- However, when the content in **which-constructions** is trivially true in, it results in infelicity/redundancy.

(14) *[Context: The speaker said that Mr. Wong is a linguist.]*

當記者訪問王老師，which 係一個語言學家，
記者嘅態度好友善。

Dong geize fongman Wong Lousi, [which hai jat-go
when reporter interview Mr. Wong WHICH be one-CL

jyujinhokge], geize ge taaidou hou jausin.
linguist reporter GE attitude very friendly

(Lit.) 'When the reporter interviewed Mr. Wong, which is a linguist, the attitude of the reporter is pretty friendly.'

③ Discourse-new

- One more difference with presupposition: the projection of presupposed content can be blocked if it is entailed by the conditional antecedent (**Koev:2022**).

(15) a. Hillary regrets she kissed Obama.
(*presupposed: Hillary kissed Obama*)

b. If Hillary kissed Obama, then she regrets she kissed him.
(*Not presupposed: Hillary kissed Obama*)

- The content in *which*-constructions remain strongly projective despite the presence of an entailing conditional antecedent.

(16) a. 阿明想做老師，which 會受人尊敬。

Aaming soeng zou lousi, **which** wui saujan-zyunging.

Aaming want be teacher WHIHC will be-respectable

‘Aaming wants to be a teacher, which is respectable.’

b. #如果老師會受人尊敬，阿明想做老師，which 會受人尊敬。

#Jyugwo lousi wui saujan-zyunging, Aaming soeng zou lousi,
if teacher will be-respectable Aaming want be teacher

which wui saujan-zyunging.

WHICH will be-respectable

‘If a teacher is respectable, Aaming wants to be a teacher, which is
respectable.’

- The speaker is both certain (in parentheticals) and uncertain (in conditionals), hence infelicitous.

④ No binding

- The anaphors in *which*-constructions cannot be bound by an antecedent in the host clause.

(17) *每個學生都跟我打招呼，*which* 我其實認不出他。

*Meige xuesheng dou gen wo dazhaohu, **which** wo qishi ren-bu-chu
every student all to me greet WHICH I indeed recognize-not
ta.
3SG

(lit.) 'Every student greeted me, which I didn't really recognize (him).'

(18) *會長多謝所有會員，*which* 都用自己嘅方法幫咗手。

*Wuizoeng doze soujau wuiyun, **which** dou jung zigei ge fongfaat
Chairperson thank all member WHICH all use self GE way
bong-zo-sau.
helped

(lit.): The chairperson thanked every members, which contributed in his own way."

Table of Contents

① Introduction

② Not relative clauses

③ Semantic properties

④ Analysis

⑤ Consequences

⑥ Conclusions

Analysis

The desiderata for *which*-constructions

- Syntactically, they are not relative structures.
 - The *which*-constructions are only discourse-related to the host clause.
 - *which* does not function as a relative pronoun.
- Semantically, the proposition introduced by them
 - 1 is projective
 - 2 is illocutionary independent
 - 3 is obligatorily discourse-new (not presupposition)
 - 4 disallows any binding relations from the host clause

Analysis

- I propose that *which*-constructions are indeed **clausal parentheticals**.
- *Which* in *which*-constructions
 - lexically borrowed from English
 - semantically bleached, losing anaphoricity
 - used as a **functional morpheme that introduce a Force Phrase**
(cf. the illocutionary approach to parentheticality; **Koev:2022**)
- Note that the borrowing involves a particular lexical item, rather than a whole paradigm of relative pronouns in English.
 - *who, *when, *where, etc.

Analysis

- An illustration:

(19) 佢見到部電話 which 佢話想買喎。 (T. C. Leung (2001), p.58)

Keoi gin-dou bou dinwaa [which keoi waa soeng mai] wo5.
3SG see-ASP CL telephone WHICH 3SG say want buy SFP
'He has seen a telephone which he says he wants to buy.'

- The sentence contains two Force Phrases.

(20) [ForceP1 \emptyset_{DECL} [he has seen a telephone]

[ForceP2 $\text{which}_{\text{DECL}}$ [he says he want to buy]]]

Analysis

- The meaning of *which*, as a parenthetical **force operator**

(which introduces a propositional referent, restricts its value to the content of its prejacent, and asserts its content.)

(21) a. $[\![\text{which}]\!] = \lambda p. \mathbf{P-DECL}^p_c(p)$

b. Parenthetical operator (P-DECL)

$\mathbf{P-DECL}^p_c(\phi)$ for $\exists p \wedge \phi_p \wedge c + p$

($c + p$ commits the speaker of (the referent of) context c to the proposition p)

- It contrasts with a root force operator in an at-issue condition.

(22) Root operator (R-DECL)

$\mathbf{R-DECL}^p_c(\phi)$ for $\exists p \wedge \phi_p \wedge c \oplus p$

Analysis

- Derivation

(23) a. $[\text{ForceP1 } \mathbf{R\text{-}\text{DECL}}^p_c [\text{CP } \text{he}^x \text{ saw phone}$
 $[\text{ForceP2 } \mathbf{P\text{-}\text{DECL}}^p_c [\text{CP } \text{he}^x \text{ says want buy }]]]]$

b. $\exists p \wedge \text{see}_p(x, \text{phone}) \wedge c \oplus p \wedge$
 $\exists q \wedge \text{say}_q(x, \text{want.buy.phone}) \wedge c + q$

- In the next section, I will discuss some desirable consequences of this analysis.

Table of Contents

1 Introduction

2 Not relative clauses

3 Semantic properties

4 Analysis

5 Consequences

6 Conclusions

Consequence #1: declarative parentheticals

- Given *which* is an overt *declarative* operator, the parenthetical clause is always declarative.
- It is unable to host an interrogative clause.

(24) *個司機，which 佢叫咩名話，突然消失咗。

*Go sigei which keoi giu me meng waa2, datyin siusat-zo.
CL drive WHICH 3SG call what name SFP suddenly disappeared
(lit.) 'The driver – which what is his name – disappeared suddenly.'

Consequence #1: declarative parentheticals

- Different from English clausal parentheticals, which can be interrogative.

(25) The driver – what was his name again? – had disappeared.

(p.c. Daniel Plesniak)

- Note also that replacing *which* with a pause improves the sentence.

(26) 個司機，∅ 佢叫咩名話，突然消失咗。

Go sigei, [∅ keoi giu me meng waa2], datyin siusat-zo.
CL drive 3SG call what name SFP suddenly disappeared
(lit.) 'The driver – what is his name – disappeared suddenly.'

Consequence #2: non-obligatory at-issuueness

- The semantics of *which* has left at-issueness open.
- While clausal parentheticals are typically not-at-issue, it is not a must.
- ① Clausal parentheticals can be denied.

(27) 全場得一張枱係二人枱，which 佢地仲食緊主菜。

A: Cyun-coeng dak jat-zoeng toi hai ji-jan-toi, [which
whole-venue only one-CL table be two-person-table WHICH
keoidei zung sik-gan zyucoi.
they still eating main.course

(Lit.) A: 'There is only one table for two people in the venue, which they are still having the main course.'

(28) Felicitous continuations

Consequence #2: non-obligatory at-issueness

② Clausal parentheticals can also serve as an answer.

(29) *[In response to the question “Why don’t you say a word?”]*

件事好複雜，which 我冇咩精力去講。

gin si houfukzap, which ngo mou me zingsan heoi
CL matter complicated WHICH I not.have any energy to
gong.
talk.about

“The matter is complicated, and I don’t have any energy to talk about it.”

- Clausal parentheticals are open for at-issueness.
- It is root clauses that must be at-issue.

Consequence #3: the size of the parenthetical clause

- Given that *which* introduces a Force Phrase, it is predicted that the proposition can accommodate various CP-level elements.

① Focus projection

(30) 下一步就係買彈床，which 連彈床都有review Social media

Haa jat-bou zauhai maai daancong, [which [FocusP

Next one-step be buy jumping.bed WHICH

lin daancong dou jau review]] .

even jumping.bed also have review

(Lit.) 'The next step is to buy jumping bed, which even jumping bed has reviews.'

Consequence #3: the size of the parenthetical clause

② **Speaker-oriented adverbs**, presumably in the EvalP, can appear within *which*-constructions as well.

(31) 哟男人超high 超大動作地fing手 (which好在佢無擺住penlight)

Social media

Di namjan ciudaai dungzok fing sau, [which [EvalP houzoi
CL.PL man great.extent motion wave hand WHICH luckily

keoidei mou lo-zyu penlight]].

they not.have holding penlight

(Lit.) 'The men are waving their hands at full, which luckily they are not holding any penlight.'

Table of Contents

① Introduction

② Not relative clauses

③ Semantic properties

④ Analysis

⑤ Consequences

⑥ Conclusions

Concluding remarks

- I proposed to analyze *which*-constructions as clausal parentheticals.
- The illocutionary approach to parentheticality (**Koev:2022**) accurately captures the syntactic and semantics properties of the constructions.
- There is no need to invoke the two-dimensional approach (Potts 2005), which in turn lends support to a unidimensional semantics (Schlenker 2013, 2023).

Concluding remarks

Other implications

- On *parentheticals*. Parentheticality in Chinese can be grammaticality marked, thanks to lexical borrowing from English.
- On *code-mixing*. There is no syntactic borrowing at all. The relative pronoun *which* is lexically borrowed as a functional morpheme that introduce predication (*pace* K. W. Leung 2010; Chan 2022).
- Link to slides: www.tinyurl.com/Lee-which

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