ICFAMC4

Ungrammatical or infelicitous? Licensing condition for Mandarin wh-indefinites

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18-19 Dec, 2025 The Chinese University of Hong Kong



Introduction

Mandarin wh-phrases

- Like many other languages (e.g., German, Korean; cf. Japanese), Mandarin wh-phrases are ambiguous between interrogative and indefinite readings.
- (1) 張三沒吃什麼東西 (2) 張三在看什麼電視劇 Zhangsan mei chi **shenme** dongxi Zhangsan zai kan shenme dianshiju. Zhangsan Prog watch what Zhangsan NEG eat what thing i. "What didn't Zhangsan eat?" i. "What TV program is Zhangsan watching?" [wh-Q] [wh-Q] ii. "Zhangsan didn't eat anything." ii. "Zhangsan is watching some TV program.

TV.program

[E]

Restrictive occurrence in simple positive context

- Liu & Yang (2021) observe that while (3) sounds odd for an indefinite reading, (4) is better.
- Stress/F-marking might play a role in modeling the contrast (Liu & Yang, 2021; Shi & Pan, 2023).
- (3) 張三喜歡誰/什麼人
 Zhangsan xihuan shei/shenme ren
 Zhangsan like who/what person
 i. ? "Zhangsan likes someone."
 ii. ☑ "Who does Zhangsan like?"
- (4) 張三喜歡語言學系的誰/什麼人
 Zhangsan xihuan yuyanxuexi de shei/shenme ren
 Zhangsan like Ling.Dept POSS who/what person
 i. ☑ "Zhangsan likes someone from the Ling Dept."
 ii. ☑ "Who from the Ling Dept does Zhangsan like?"

Restrictive occurrence in simple positive context

- Question: How to account for the oddness of the indefinite reading in (3)?
- (3) 張三喜歡誰/什麼人
 Zhangsan xihuan shei/shenme ren
 Zhangsan like who/what person
 i. ? "Zhangsan likes someone."
 ii. ☑ "Who does Zhangsan like?"

Restrictive occurrence in simple positive context

Shi & Pan (2023): The De-focusedness Condition due to informativity.

De-focusedness: $\#[XP] = Wh_F [NP_{Given}]_F Given$

Informativity: Asserting what is being presupposed leads to infelicity.

→ Given the default focus on the rightmost object, the default (implicit) Question under discussion (QUD) is *Who does Zhangsan like?*, following Büring (2003).

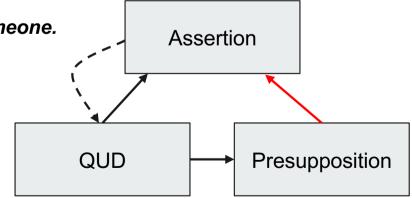
$$[shei_{indefinite}]^{F} \supseteq [who_{interrogative}]^{O}$$

- → Existential presupposition of QUD: **Zhangsan likes someone.**
- → The assertion is not informative.
- (5) Q: Who does Zhangsan like?

A:#張三喜歡誰/什麼人

Zhangsan xihuan shei/shenme ren Zhangsan like who/what person

"Zhangsan likes someone."



Ignorance inference

- Mandarin wh-indefinites trigger ignorance inference under non-DE environment (Liu & Yang, 2021; cf. Chen, 2018), like other epistemic indefinites (Kratzer & Shimoyama, 2002; Alonso-Ovalle & Menéndez-Benito, 2010; a.o.)
- (6) carries a non-cancellable ignorance inference, as indicated by the *namely*-continuation (7).
- (6) 張三在看什麼電視劇。
 Zhangsan zai kan **shenme** dianshiju
 Zhangsan PROG watch what TV.program
 "Zhangsan is watching some TV program, (and that's all I know.)"
- (7) 張三在看什麼電視劇,名字 #(好像) 是「繁花」。
 Zhangsan zai. kan **shenme** dianshiju mingzi #(haoxiang) shi Fanhua
 Zhangsan PROG watch what TV.program name seem be Blossom.Shanghai
 'Zhangsan is watching some TV program, and the name {#is, seems to be) Blossom Shanghai.'

Ignorance inference

- The inference is derived via grammatical exhaustification over a knowledge claim (Liu & Yang, 2021; Shi, 2025).
- The prejacent is an existential statement.
 - (8) 張三在看什麼電視劇。

LF: [Exh K (= I know) [Zhangsan is watching **shenme** TV program]]

= I know Zhangsan is watching **some** TV program, and,

I don't know if Zhangsan is watching Blossom Shanghai, and

I don't know if Zhangsan is watching Severance, and

I don't know if Zhangsan is watching ...

= I know Zhangsan is watching **some** TV program, and I don't know which one exactly.

Licensing conditions for Mandarin wh-indefinites

Mandarin wh-indefinites cannot be F-marked (to be revised).

Pragmatically, assertions with F-marked Mandarin *wh*-indefinites are not informative.

Mandarin wh-indefinites trigger ignorance inference in non-DE environment.

Grammatically, Mandarin *wh*-indefinites require Exh and K (= epistemic necessity modal) operators.

Puzzle 1: Default F-marking

(9) Q: Who does John like? A: #John likes someone.

(10) Q: Who does Zhangsan like?

A: #張三喜歡一個人。

Zhangsan xihuan yi-ge ren Zhangsan like one-CL person "Zhangsan likes someone."

- Informativity predicts that sentences including English *someone* as in (9) or Mandarin 一個人 (*yi-ge ren*) "a person" as in (10) are odd.
- Out of the blue, asserting (9A) and (10A) seems good.

Puzzle 2: Question denial

- (11) Q: Who does John like?
 - A1: I don't know.
 - A2: #He likes someone, but I don't know who.
 - A3: I (do) know he likes someone, but I don't know who.
 - A4: He does like someone, but I don't know who.
- (12) Q: What did Mary have for breakfast?
 - A: She had SOMETHING!
 - ~~> i. ...but I don't want to tell you.
 - ~~> ii. ...but I don't know what exactly.
 - ~~> iii. ...but I don't care what exactly.

Puzzle 2: Question denial

(13) Q: 張三喜歡誰呢? Who does Zhangsan like?

A1: #張三喜歡一個人。

Zhangsan xihuan yi-ge ren

Zhangsan like one-CL person

"Zhangsan likes someone."

A2: #張三喜歡什麼人。

Zhangsan xihuan shenme ren

Zhangsan like what person

i. "Zhangsan likes someone."

ii."I know Zhangsan likes someone, but I don't know who."

 The enriched meaning via exhaustification in (13A2-ii), if spelled out, would felicitously deny the question.

Question: What makes Mandarin wh-indefinites special?

- How comes the informativity condition only rules out the use of Mandarin *wh*-indefinites?
 - o Cf. English someone and Mandarin 一個人 (yi-ge ren) 'a person.'
- Why can't the grammatically enriched meaning deny the question?
 - o Cf. English SOMETHING!

Solutions

- We revise the pragmatic licensing condition of wh-indefinites:
 - Mandarin wh-indefinites intrinsically cannot bear stress, but may be F-marked.
 - F-marking is in general avoided due to informativity violation, but not always.
- We argue that the informativity condition is reinforced by the grammatical requirement on whindefinites.
 - Ignorance inference blocks follow-up interpretation.
 [Exh K(=I know) [... wh ...]] ~~~> no specific interpretation of wh-indefinites
 - There is a difference between the enriched meaning via grammatical tools and the meaning via pragmatic reasoning.
 - Silent grammatical inference cannot deny a question.

Default QUD given default focus

- We assume that (14) is odd because in Mandarin the default focus is on the object DP.
 - The implicit QUD presupposes (14).
- With an explicit QUD where a different constituent is in focus, the use of *wh*-indefinites becomes more acceptable.
- (14) 張三喜歡[誰/什麼人]_F
 Zhangsan xihuan shei/shenme ren
 Zhangsan like who/what person
 ? "Zhangsan likes someone."
 - (15) a. Q: 怎麼了,這麼高興? What's up? You look so happy?
 A: 我發現[張三喜歡誰/什麼人]_F呢。
 Wo faxian [Zhangsan xihuan shei/shenme ren]_F ne.
 I discover Zhangsan like who/what person SFP

 ✓"I found out that Zhangsan liked someone."
 - b. 張三喜歡[語言學系]_F的誰/什麼人。
 Zhangsan xihuan [yuyanxuexi]_F de shei/shenme ren
 Zhangsan like Ling.Dept POSS who/what person

 ✓"Zhangsan likes someone from the Ling Dept."

Default QUD given default focus

- Not yet clear how a default QUD is determined, but when the wh-indefinites are not at the
 default focus positions, the judgment improves.
- (16) 張三被什麼東西**蟄**了一下。
 Zhangsan bei shenme dongxi zhe le yi-xia
 Zhangsan PASS what thing sting PFV once
 "Zhangsan was stung by something."
- (17) 有什麼東西把張三給**蟄**了。
 You shenme dongxi ba Zhangsan gei zhe le have what thing BA Zhangsan GEI sting PFV "Something stung Zhangsan."

Default QUD given default focus

- Not yet clear how a default QUD is determined, but when the wh-indefinites are not at the
 default focus positions, the judgment improves.
- (18) 張三這麼著急,可能是[丟了什麼東西]_F。
 Zhangsan zheme zhaoji, keneng shi [diu le shenme dongxi]_F
 Zhangsan so nervous possibly COP lose PFV what thing
 "Zhangsan was so nervous. He probably has lost something."
- (19) 你功夫這麼厲害,應該找誰/什麼人切磋切磋。
 Ni gongfu zheme lihai, yinggai zhao shei/shenme ren qiecuo qiecuo you kung fu so excellent should find who/what person compete compete "Since you excel at kung fu, you should find someone for a competition."

F-marking wh-indefinites might still be informative.

- The pragmatic informativity story indicates that all things being equal, an informative assertion should be (more) acceptable.
- (20Q) does not carry an existential presupposition, (20A1-A2) are both good.

(20) Q: Did he eat **nothing** last night?

A1: No, he did eat something.

A2: No, he ate **something**.

F-marking wh-indefinites might still be informative.

- Unlike English someone, there is no way one can stress wh-indefinites.
- Given the overt QUD, (21A1-A2) are both felicitous answers, though (21A2) sounds bad (at least the judgment is iffy).
- (21) Q: 張三昨晚沒吃任何東西嗎? Did Zhangsan not eat anything last night?

A1: 沒有,他(是)[吃了什麼東西]的。

Meiyou, ta (shi) chi-le shenme dongxi de.

No he COP eat-PFV what thing FOC

"No, he did eat something./No, he ate something."

A2: Х沒有,他吃了[什麼東西]_F。

Meiyou, ta chi le shenme dongxi.

No he eat PFV what thing

Int. "No, he ate **something**."

F-marking wh-indefinites might still be informative.

- Possible explanation: Existential wh-indefinites intrinsically cannot be F-marked.
 → Informativity is a byproduct.
- However, it might be too strong. (22A) is acceptable.
- (22) Q: 張三沒去過任何國家旅遊的嗎?
 Zhangsan mei qu-guo renhe guojia lüyou de ma?
 Zhangsan NEG go-EXP any country travel FOC SFP
 "Has Zhangsan not been to any country for travel?"
 - A: 沒有,他去過[什麼國家]_F旅遊的。
 Meiyou, ta qu-guo shenme guojia lüyou de.
 No he go-EXP what country trave FOC
 Int. "No, he has been to some country for travel."

F-marking wh-indefinites might still be informative.

- Possible explanation: Existential wh-indefinites intrinsically cannot be F-marked.
 → Informativity is a byproduct.
- However, it might be too strong. (23A) is also acceptable.
- It seems that the head noun cannot be too general (e.g., *thing, person*, cf. *country, whiskey*).
- (23) Q: 張三沒開任何威士忌嗎?
 Zhangsan mei kai renhe weishiji ma?
 Zhangsan NEG open any whiskey SFP
 "Has Zhangsan not opened any whiskey?"
 - A: 沒有,他開了[什麼威士忌]_F。
 Meiyou, ta kai-le shenme weishiji.
 No he open-PRF what whiskey."

F-marking wh-indefinites might still be informative.

- Notably, even in the out-of-the-blue contexts, it seems like the more specific the head noun is, the more acceptable the sentence is.
- However, specific head nouns may themselves bear the focus too generic a head noun would also result in informativity violation.
- (24) a. 張三喜歡什麼/哪個韓國組合。

Zhangsan xihuan shenme/ nage Hanguo zuhe

Zhangsan like what/ which Korean Group

✓ "Zhangsan likes some K-Pop group."

b: 張三討厭什麼/哪個[來自語言學系的學生]。

Zhangsan taoyan shenme/ nage laizi yuyanxuexi de xuesheng

Zhangsan hate what/ which from Ling. Dept DE student

"Zhangsan hates some student from the linguistics department."

F-marking wh-indefinites might still be informative.

- Similarly, (23A) is also more acceptable.
- (23) Q: 張三昨晚沒吃任何東西嗎?Did Zhangsan not eat anything last night?
 A: 沒有,我記得很清楚,他吃了[什麼東西]_F。
 Meiyou, wo jide hen qingchu, ta chi le shenme dongxi.
 No I remember very clear he eat PFV what thing Int. "No, I remember it clearly. He ate **something**."

Existential wh-indefinites (a) reject stress, and (b) may still be F-marked if deemed informative.

- Existential wh-indefinites might be intrinsically anti-stress.
- We maintain that informativity is a relevant pragmatic licensing condition for Mandarin whindefinites, which is not subsumed by anti-stress.
- F-marking of *wh*-indefinites is possible only if the resulting assertion is informative.
 - E.g., When the QUD does not have an existential presupposition.

Puzzle 1: Default F-marking

(24) Q: Who does Zhangsan like?
A: #張三喜歡什麼人。
Zhangsan xihuan shenme ren
Zhangsan like what person
"Zhangsan likes someone."

- (25) Q: Who does John like? A: #John likes someone.
- (26) Q: Who does Zhangsan like?
 A: #張三喜歡一個人。
 Zhangsan xihuan yi-ge ren
 Zhangsan like one-CL person
 "Zhangsan likes someone."
- None of the answers is felicitous due to informativity violation.
- Out of the blue, (25A) and (26A) are good but using *wh*-indefinites (24A) results in oddness.
- If by default, F-marking targets the object, then informativity cannot explain the contrast.

Puzzle 1: Default F-marking

- We claim that informativity violation is avoidable.
- For example, someone and 一個人 (yi-ge ren) "a person" can be specific, though wh-indefinites cannot, given obligatory ignorance (Liu & Yang, 2021).
- (27) Q: Who does John like?A: John likes someone, namely, Mary.
- (28) Q: Who does Zhangsan like?
 A: 張三喜歡一個人,名字叫李四。
 Zhangsan xihuan yi-ge ren, mingzi jiao Lisi.
 Zhangsan like one-CL person name call Lisi "Zhangsan likes someone, namely, Lisi."
- Even with default F-marking, *someone* and 一個人 *(yi-ge ren)* "a person" have pathways to avoid informativity violation. *Wh*-indefinites do not.

- Recall that (29A) is a good response to (29Q), refusing to answer the question.
- (29) Q: Who does John like?
 - A: I do know he likes someone, but I don't know who.
- Somewhat rude, (30A) also works, carrying some additional inferences.
- (30) Q: What did Mary have for breakfast?
 - A: SOMETHING/ WHATEVER she had!
 - ~~> i. ...but I don't want to tell you.
 - ~~> ii. ...but I don't know what exactly.
 - ~~> iii. ...but I don't care what exactly.

- Given the ignorance inference, (31A1) should have been a good question denial.
- The enriched meaning via exhaustification in (31A1-ii), if spelled out in (31A2), would **felicitously** deny the question. (31A3) is also a felicitous answer, with an overt copula indicating verum focus.
- (31) Q: 張三喜歡誰? Who does Zhangsan like?

A1: X 張三喜歡什麼人。

Zhangsan xihuan shenme ren

Zhangsan like what person

i. "Zhangsan likes someone."

ii."I know Zhangsan likes someone, but I don't know who."

A2: ▼張三喜歡什麼人我知道,具體是誰就不清楚了。

Zhangsan xihuan shenme ren wo zhidao. Juti shi shei jiu bu qingchu le.

Zhangsan like what person I know exactly be who JIU NEG. clear SFP

"As for that Zhangsan likes something, I know it, but I don't know exactly who."

A3: ▼張三是喜歡什麼人,但我不知道是誰。

Zhangsan shi xihuan shenme ren, dan wo bu zhidao shi shei.

Zhangsan COP like what person but I NEG know be who

"Zhangsan does like someone, but I don't know who."

- A parallel case is observed in disjunctions.
- (32A1) under grammatical exhaustification would amount to (32A2) (Meyer, 2013).

(32) Alternative question-answer pair

Q: Does John prefer coffee or tea?

A1: X He prefers coffee or tea.

A2: I know he prefers coffee or tea, but I don't know which exactly.

A3: We He does prefer coffee or tea, but I don't know which exactly.

- We seem to independently observe a general constraint for the implicit/exhaustified meaning.
- The enriched meaning cannot be used to deny a question.

- A parallel case is observed in disjunctions.
- (32A1) under grammatical exhaustification would amount to (32A2) (Meyer, 2013).

(32) Alternative question-answer pair

Q: Does John prefer coffee or tea?

A1: X He prefers coffee or tea.

LF: [Exh [K [coffee or tea]]]

= K(coffee or tea) and ~K(coffee) and ~K(tea)

= I know John prefers coffee or tea,

and I don't know if John prefers coffee,

and I don't know if John prefers tea.

= A2

A2: I know he prefers coffee or tea, but I don't know which.

- A parallel case is observed in disjunctions.
- (33A1) is bad. The Mandarin interrogative disjunction 還是 haishi "or" in positive declaratives shows the same behavior as wh-indefinites.
- The ignorance inference is also obligatory (Erlewine, 2025).

Alternative question-answer pair (33)

張三喜歡喝咖啡還是茶?

Zhangsan xihuan he kafei haishi cha?

Zhangsan like drink coffee or tea

"Does Zhangsan like drinking coffee or tea?" A1: X 張三喜歡喝咖啡還是茶。

Zhangsan xihuan he kafei haishi cha

drink coffee or Zhangsan like tea

"Zhangsan likes drinking coffee or tea, but I don't know which."

A2: < 張三喜歡喝咖啡還是茶我知道,具體是哪個我不知道。

Zhangsan xihuan he kafei haishi cha, juti shi na-qe wo bu zhidao

Zhangsan like drink coffee or tea exactly be which I NEG know

"Zhangsan likes drinking coffee or tea, but I don't know which exactly."

- Implicit meanings can be acceptable for those who accept (34A) as question denials.
- (34) Q: What did Mary have for breakfast?
 A: SOMETHING/ WHATEVER she had!
 ~~> i. ...but I don't want to tell you.
 ~~> ii. ...but I don't know what exactly.
 - ~~> iii. ...but I don't care what exactly.

Two possible explanations:

- Given the anti-stress-ness of *wh*-indefinites, one cannot use stress to invoke alternatives other than the grammatically default ones the subdomain alternatives of knowledge claims.
- Assuming that the inferences in (34) are pragmatic (cf. grammatical), then can we say pragmatic inference is easier to accommodate?

Implicit meanings can be informative.

(35) Q: Who submitted their homework #5 on time?

Existential presupposition: Some submitted their homework #5 on time.

A: Some did.

Prejacent: *not informative*

Scalar implicature: *Not all* did. ALT = {some, all}

Implicit grammatically derived meanings can be informative.

(36) Q: Do you know that John didn't go to the party?

Factivity presupposition: John didn't go to the party.

A: VI know who went to the party.

Prejacent: *not relevant*

Strong exhaustivity: → I know who didn't go to the party.

→ I know John didn't go to the party.

(Groenendijk & Stokhof, 1984; Uegaki, 2015)

Remaining question: Why can't one use ignorance for denial?

Conclusion: Ungrammatical or infelicitous?

What licenses Mandarin wh-indefinites?

- The odd examples are those that violate a pragmatic principle, namely, informativity.
 - Assuming a default QUD, F-marking the wh-indefinite results in a non-informative answer.
- Explicit QUDs may make the assertion better.
 - Shifting the F-marking from *wh*-indefinites.
 - Raising a question without the existential presupposition.
- There might still be independent prosodic properties for existential *wh*-indefinites.
 - Crosslinguistically, existential wh-indefinites tend not be stressed (Korean: Yun, 2012, 2019;
 German: Alexander Williams, p.c.; Mandarin: Dong, 2009; Liu & Yang, 2021; Shi & Pan, 2023).
- (35) **German**
 - ➤ Da kommt [wer]_F
 here came who
 Int. "Someone is coming."

Conclusion: Ungrammatical or infelicitous?

What licenses Mandarin wh-indefinites?

- Under the informativity condition, we argue that there are two possible ways to license/rescue F-marked indefinites, both failing to apply to *wh*-indefinites due to their grammatical properties.
- **First**, the enriched meaning results in ignorance inference, which blocks the possibility that the speaker may know the referent.
- Second, the grammatically derived ignorance fails to deny a question.
 - Parallelism observed in disjunctions.
 - Contrast with other kinds of inferences.

Acknowledgement

We are grateful to the anonymous reviewers, Alexander Williams, Aron Hirsch, Omar Agha, William Zumchak for their continuous help to this project, and the meaning group at UMD for the feedback. All errors are ours.

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Q&A