

Mandarin Object Movement in Relation to Duration Phrase

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Introduction

Mandarin shows a seemingly flexible order between **O**(bject DP) and **Dur**(ation phrase):

(1) linear orders between O and Dur in Mandarin:

- a. O Dur: ta kan-le [zhe ben shu] [san tian]
3sg read-PERF this CL book three day
‘S/he read this book for three days.’
- b. Dur O: ta kan-le [san tian] [zhe ben shu]
3sg read-PERF three day this CL book
‘S/he read this book for three days.’ = (1a)

- Huang, Li and Li (2009) suggests that an **O Dur** order is yielded by O moving above Dur, otherwise a **Dur O** order will be derived. But empirically, not all O can occur either before or after Dur.

(2) O Dur order preferred:

a. O Dur: ta ma-le [wo] [san tian]
 3sg scold-PERF 1sg three day
 ‘S/he scolded me for three days.’

b. *Dur O: *ta ma-le [san tian] [wo]

(3) Dur O order preferred:

a. *O Dur: *ta kan-le [shu] [san tian]

b. Dur O: ta kan-le [san tian] [shu]
 3sg read-PERF three day book
 ‘S/he read book for three days.’

Investigation

- 101 Mandarin speakers
- 18 types of object DP \times 2 orders = 36 tested sentences
- Judgement: The sentence is
 - (a) very natural;
 - (b) not so natural but acceptable;
 - (c) unnatural and kind of unacceptable;
 - (d) totally unacceptable.

Investigation

- Converting judgements into scores:

$$\text{the score of a sentence} = a\% * 2 + b\% * 1 + c\% * (-1) + d\% * (-2)$$

- $a\%$, $b\%$, $c\%$ and $d\%$ are the percentages of option (a) very natural, (b) not so natural but acceptable, (c) unnatural and kind of unacceptable and (d) totally unacceptable.
- positive scores—grammatical;
- negative scores—ungrammatical
- scores between 0 ± 0.10 —undecidable/vague sentence.

Acceptability of different DPs at pre- or post-Dur position

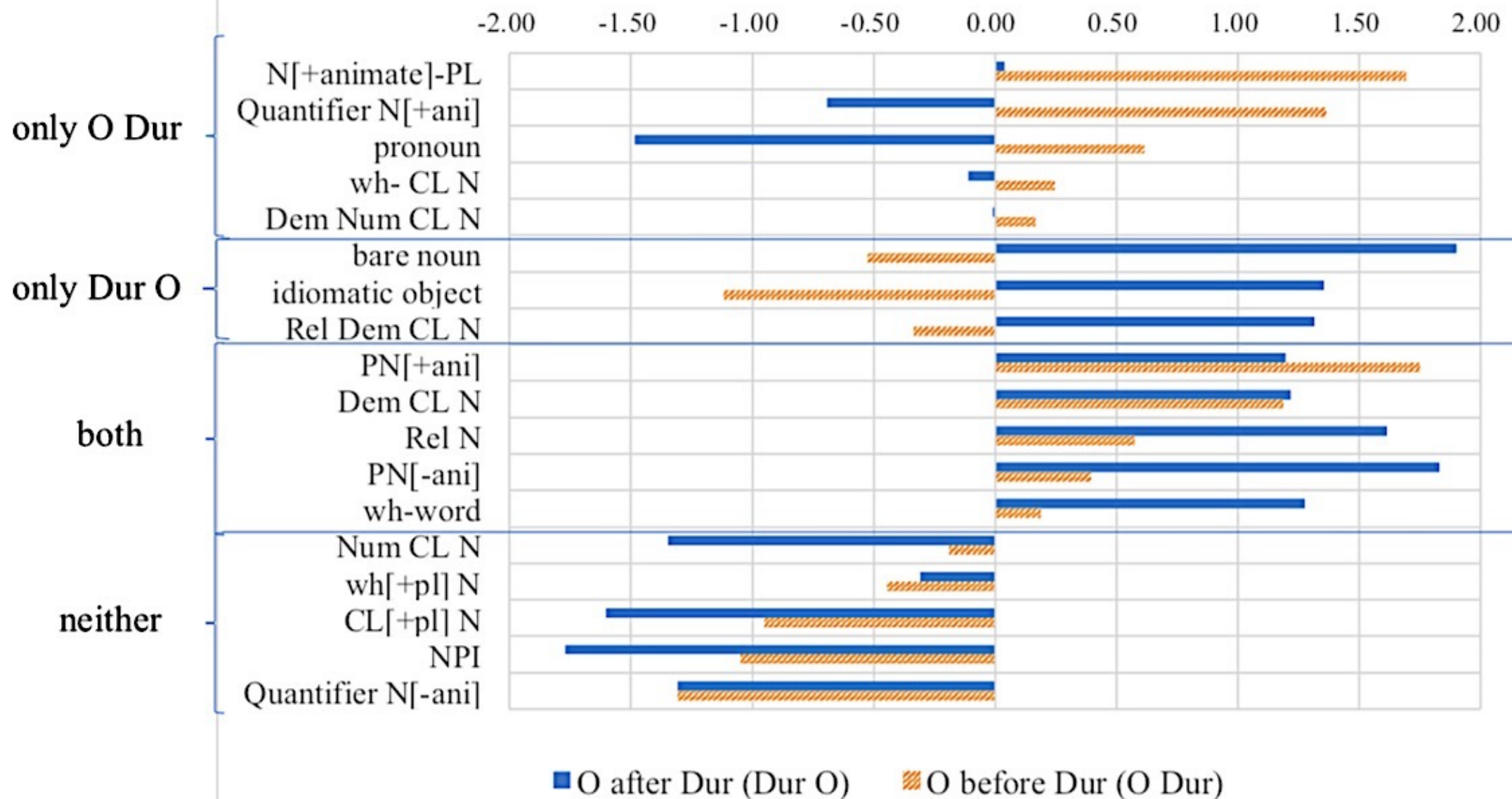


Figure 1 Acceptability of different object DPs before or after duration phrase

Results: O Dur order

Object DPs that occur only **before** duration phrase:

- $N_{[+animate]}$ -PL: 他骂了孩子们三天
- Quantifier $N_{[+animate]}$: 他骂了所有人三天
- Pronoun : 他骂了我三天
- wh- CL N : 他看了哪本书三天
- Dem Num CL N : 他看了这两本书三天

Results: Dur O order

Object DPs that occur only **after** duration phrase:

- Bare noun: 他看了三天书
- Idiomatic object: 他吃了三天醋
- Rel Dem CL N: 他看了三天上次买的书

Results: both O Dur and Dur O order

Object DPs that occur either **before or after** duration phrase:

- PN_[+animate]: 他骂了李四三天；他骂了三天李四
- Dem CL N: 他看了这本书三天；他看了三天这本书
- Rel N: 他看了上次买的书三天；他看了三天上次买的书
- PN_[-animate]: 他看了圣经三天；他看了三天圣经
- *Wh*-words: 他看了什么三天；他看了三天什么

Results: neither O Dur nor Dur O order

Object DPs that cannot occur with duration phrase:

- Num CL N: 两本书
- Wh-*xie* N: 哪些书
- *Yixie* N: 一些书
- NPI N: 任何书
- Quantifier N[-animate]: 所有书

Review on Huang, Li, and Li (2009)

- Observation:

'Bare NP objects must occur after duration adjunct while definite NPs are permitted before it. '

- Proposal:

A non-referential constituent which bears a theta-relation with a head H should be combined with H to form the smallest possible constituent.

- Prediction:

If the object DP is non-referential, it would only follow the duration phrase (*O Dur, Dur O).

Review on Huang, Li, and Li (2009)

⇒ True for the distributions of bare nouns and idiomatic objects:

(7) bare noun:

- | | | | | |
|----|---------|----------------------------------|------------|------------|
| a. | *O Dur: | *ta kan-le | [shu] | [san tian] |
| b. | Dur O: | ta kan-le | [san tian] | [shu] |
| | | 3sg read-PERF | three day | book |
| | | 'S/he read book for three days.' | | |

(8) idiomatic object:

- | | | | | |
|----|---------|------------------------------------|------------|----------------------------|
| a. | *O Dur: | *ta chi-le | [cu] | [san tian] |
| b. | Dur O: | ta chi-le | [san tian] | [cu] |
| | | 3sg eat-PERF | three day | vinegar |
| | | 'S/he was jealous for three days.' | | |
| | | | | (eat vinegar = be jealous) |

Review on Huang, Li, and Li (2009)

⇒ But not true for quantifier phrases. Prediction: *O Dur, Dur O

(9) quantifier N[+animate]: O Dur, *Dur O

- a. O Dur: ta ma-le [suoyou ren] [san tian]
 3sg scold-PERF every person three day
 ‘S/he scolded everyone for three days’
- b. *Dur O: *ta ma-le [san tian] [suoyou ren]

Review on Diesing and Jelinek (1995)

- Observation:
 - object movement/scrambling in various languages
- Proposal: there is an existential closure at the edge of VP.
 - Any NP that introduces a free variable and does not receive an existential interpretation must move out of the scope of existential closure by LF.
 - Definite NPs (introducing free variables) receive a referential interpretation which is incompatible with an existential interpretation.
 - S-structure scrambling can fix relative scope relations.
- Prediction:
 - ‘There is a strong pressure for definite NP objects to scramble (in surface structure).’

Review on Diesing and Jelinek (1995)

→ Predicting definite O to have only O Dur order in Mandarin.

(14) pronoun:

a. O Dur: ta ma-le [wo] [san tian]
 3sg scold-PERF 1sg three day
 ‘S/he scolded me for three days.’

b. *Dur O: *ta ma-le [san tian] [wo]

(15) Dem Num CL N:

a. O Dur: ta kan-le [zhe liang ben shu] [san tian]
 3sg read-PERF this two CL book three day
 ‘S/he read these two books for three days.’

b. ???Dur O: ???ta kan-le [san tian] [zhe liang ben shu]

Review on Diesing and Jelinek (1995)

→ Predicting definite O to have only O Dur order in Mandarin.

(16) N[+ani]-PL:

a. O Dur: ta ma-le [haizi-men] [san tian]
3sg scold-PERF child-PL three day
'S/he scolded the children for three days.'

b. ??Dur O: ??ta ma-le [san tian] [haizi-men]

(17) wh- CL N:

a. O Dur: ta kan-le [na ben shu] [san tian]
3sg read-PERF which CL book three day
'Which book did s/he read for three days?'

b. *Dur O: *ta kan-le [san tian] [na ben shu]

Review on Diesing and Jelinek (1995)

→ Predicting definite O to have only O Dur order in Mandarin.

⇒ But the clearly definite ‘Rel Dem CL N’ construction does not follow this line:

(18) Rel Dem CL N:

a. *O Dur: *ta kan-le [shangci mai de na ben shu][san tian]

b. Dur O: ta kan-le [san tian] [shangci mai de na ben shu]

3sg read-PERF three day last.time buy DE that CL book

‘S/he read that book which s/he bought last time for three days.’

(Maybe heavy NP?)

Review on Soh (1998)

- Assumption: both orders for DFP (duration/frequency phrase)
→ overgeneralization

(19) quantifier N[-ani]:

- a. *O Dur: ta kan-le [suoyou shu] [san tian]
b. *Dur O: ta kan-le [san tian] [suoyou shu]
3sg read-PERF three day every book
intended: ‘S/he read every book for three days’

(20) quantifier N[+ani]:

- a. O Dur: ta ma-le [suoyou ren] [san tian]
3sg scold-PERF every person three day
‘S/he scolded everyone for three days’
b. *Dur O: *ta ma-le [san tian] [suoyou ren]

Puzzles and potential explanations

- What happened to **NPI**?
 - Prediction: O Dur; Dur O
 - Distribution: *O Dur; *Dur O

(22a): Indefinite DP *renhe shu* ‘any book’ is not compatible with O Dur order.

(22b): Duration phrase *san tian* ‘three days’, as a quantificational phrase, is intervening between Neg and NPI.

(22) NPI N:

- | | | | |
|------------|---|-------------|-------------|
| a. no Dur: | ta mei-kan | [renhe shu] | |
| | 3sg not.PERF-read | any | book |
| | ‘S/he didn’t read any book.’ | | |
| b. *O Dur: | *ta mei-kan | [renhe shu] | [san tian] |
| c. *Dur O: | *ta mei-kan | [san tian] | [renhe shu] |
| | 3sg not.PERF-read | three day | any book |
| | intended: ‘S/he didn’t read any book for three days.’ | | |

Puzzles and potential explanations

- Asymmetry between ‘wh-CL N’ and wh-word

(23) wh-CL N:

a. O Dur: ta kan-le [na ben shu] [san tian]
3sg read-PERF which CL book three day
‘Which book did s/he read for three days?’

b. *Dur O: *ta kan-le [san tian] [na ben shu]

(24) wh-word:

a. O Dur: ta kan-le [shenme] [san tian]

b. Dur O: ta kan-le [san tian] [shenme]

3sg read-PERF three day what

‘What did s/he read for three days?’

Puzzles and potential explanations

- Asymmetry between ‘wh-CL N’ and wh-word

(23) wh- CL N:

a. O Dur: ta kan-le [na ben shu] [san tian]
 3sg read-PERF which CL book three day
 ‘Which book did s/he read for three days?’

b. *Dur O: *ta kan-le [san tian] [na ben shu]

‘wh- CL N’ is
 D(iscourse)-linked,
 thus definite. (O
 Dur, *Dur O)

(24) wh-word:

a. O Dur: ta kan-le [shenme] [san tian]

b. Dur O: ta kan-le [san tian] [shenme]

3sg read-PERF three day what

‘What did s/he read for three days?’

Bare *wh*-word is ambiguous between
 D-linked and not D-linked.
 O Dur: *wh*-word is D-linked/definite
 Dur O: not D-linked/indefinite

Puzzles and potential explanations

- Asymmetry regarding animacy?

(25) quantifier N[-ani]:

- a. *O Dur: ta kan-le [suoyou shu] [san tian]
3sg read-PERF every book
intended: 'S/he read every book for three days'
- b. *Dur O: ta kan-le [san tian] [suoyou shu]
3sg read-PERF three day every book
intended: 'S/he read every book for three days'

(26) quantifier N[+ani]:

- a. O Dur: ta ma-le [suoyou ren] [san tian]
3sg scold-PERF every person three day
'S/he scolded everyone for three days'
- b. *Dur O: *ta ma-le [san tian] [suoyou ren]

Reference

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- Huang, C. T. J., Li, Y. H. A., & Li, Y. (2009). *The syntax of Chinese*. Cambridge: Cambridge University Press.
- Soh, H. L. (1998). *Object scrambling in Chinese* (Doctoral dissertation, Massachusetts Institute of Technology).

Thank you

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