Processing Focus Intervention Structures in Mandarin Chinese

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Introduction

Focus intervention
*Q...[F...XP$_F$ …WH]

*Zhiyou Yuehan$_F$ chi-le shenme?
Only John$_F$ eat-Asp what?
Intended: What is the thing x such that only John ate x?' (Mandarin)

Focus intervention is a locality constraint on Q-WH dependencies (Beck 96, 06; Beck & Kim 97; Yang 12).

Broad Research question:
How does focus intervention compare to another locality constraint, islands?

Two types of localities

	Island	Focus intervention
Degradedness	✅ (Hofmeister & Sag, 10; Philips, 13; Sprouse et al, 13 & 16)	✅ (Li & Law, 2016; Beck, 1996, 2006; Beck & Kim, 1997)
Informativity	✅ (Alexopoulou & Keller, 13; Goodall, 15)	❌ **Present study**
Parsing	✅ (**Crain & Fodor**; Fodor 83; Stowe 86; Freedman & Forster 85)	❌ **Present study**

Similarities and differences

Similarities

Both are grammatical constraints that disrupt dependencies:

- Islands disrupt filler-gap dependencies;
- Focus intervention disrupts Q-WH dependencies.

Differences

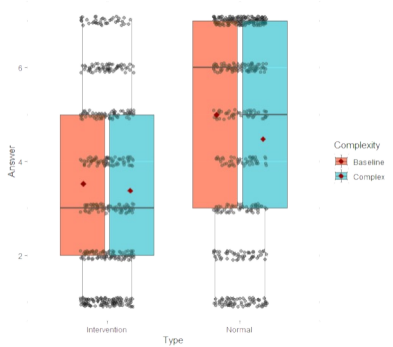
- **Different interveners:**
  Presence vs. absence of focus
- **Different dependencies:**
  Overt vs. covert dependencies

Experiment 1 (n=34) & 2 (SPR, n=33)

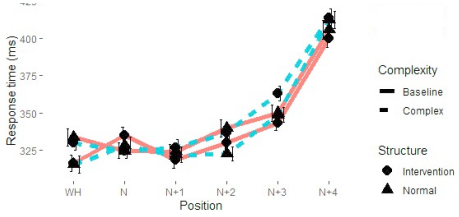
	Structure	
Complexity	Normal Baseline XP…WH…	Intervention Baseline F…XP…WH…
	Normal Complex XP…RC+WH	Intervention Complex F…XP…RC+WH

Factorial design in Experiment 1 & 2 — Link to sample stimuli

Experiment 1: Acceptability judgment



Experiment 2: Response time in target regions



Results from Experiment 1 & 2

Experiment 1

- Main effect of **Structure**
  Intervention < < Normal
- Interaction
  The effect of **Complexity** is neutralized in **Intervention**.

Experiment 2

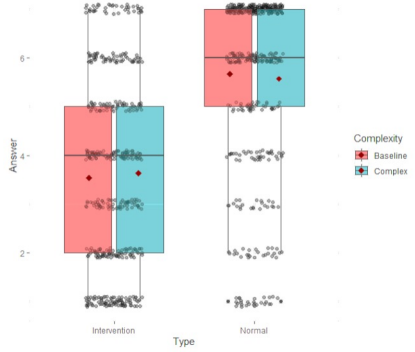
- No main effect of **Structure**
- Interaction in WH-region: **Complex** leads to longer reading time in **Intervention**.

Experiment 3 (n=43) & 4 (SPR, n=40)

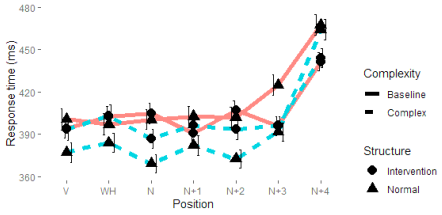
	Structure	
Complexity	Normal Baseline XP…WH…	Intervention Baseline F…XP…WH…
	Normal Complex RC+ XP…WH	Intervention Complex F…RC+ XP…WH

Factorial design in Experiment 3 & 4

Experiment 3: Acceptability judgment



Experiment 4: Response time in target regions



Results from Experiment 3 & 4

Experiment 3:

- Main effect of **Structure**
  Intervention < < Normal

Experiment 4:

- No main effect of **Structure** in anticipated direction (**Intervention >> Normal**)
- Marginal main effect of **Complexity** at N+3 region: **Baseline** is read slower than **Complex**.
- Marginal main effect of **Structure** at N+4 region: **Normal << Intervention.**

Discussion

Major findings:

Focus intervention in Mandarin influences offline judgment, but not online parsing. This contrasts with:

- islands, which influence both, and
- grammaticality illusion, which influence neither.

Possible reasons:

Possibility 1: **Preceding context** gives cues to the presence of a WH-expression.

Possibility 2: **No retrieval** or no cost of retrieval (of Q). Scope parsing may not be subject to the [+F] interference, c.f. Xiang Ming (14, 15).

Possibility 3: **D-linkedness** of WH-expressions
D-linked *wh*-phrases repair disrupted *Q-WH* dependencies, (see also Hofmeister & Sag (2010) for similar effects in *wh*-islands.)

Possibility 4: **Pragmatic sources**
Focus intervention is not a locality violation, but pragmatic infelicity, c.f. Tomioka 2007, Eilam 2011.

Future research

Direction 1:
Presence vs. absence of context

Direction 2:
Bare wh-phrase vs. D-linked expression

Direction 3:
Prosodic manipulations of [+F] of focused NP, including pitch value, amplitude, duration, etc.

Direction 4:
More fine-grained time measure like eye-tracking

Selected references

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