

Extraction from Complex NP islands

An experimental perspective • Jake W. Vincent • LASC 2018

Main questions:

1. Does the parser form filler-gap dependencies across Complex NP island boundaries claimed to be more transparent?
2. What properties affect Complex NP island transparency?

1. Background

- Complex NP islands are claimed to be more *transparent* in certain contexts in both English [1, 2, 3, 4, 5] and other languages [6, 7]

More acceptable

(1) Isn't she **the woman** who I've heard a [rumor Amherst wants to hire _]?

(2) This is **the highway** that I actually know [someone who's had an accident on _].

Less acceptable

(3) **What** did she discuss the [claim that he stole _]?

(4) Mary bought **the house** that I work with the [person who rented _ last year].

- Properties associated with increased Complex NP island transparency:

– Definiteness of containing DP

- Indefinite DPs claimed to be more transparent [8, 9]

– Presuppositionality of containing DP

- DPs that are not existentially presupposed claimed to be more transparent [10, 7]

– Information structural properties of extracted phrase

- Extracted phrase = topic; Complex NP = comment [6]

– Matrix clause content

- Semantically minimal (e.g. copular) matrix clause content claimed to increase Complex NP island transparency [4, 7]

2. Experiment 1

Does definiteness alone modulate Complex NP transparency?

- **Design:** 2×2×2 acceptability judgment task, following [11]
 - Extraction length (**SHORT, LONG**)
 - Embedded clause (EC) type (**NON-ISLAND, ISLAND**)
 - Intervening DP definiteness (**DEFINITE, INDEFINITE**)
- **Predictions:** Indefinite embedding DPs will be rated **higher** than their definite counterparts (after considering cross-condition differences); conditions involving extraction from islands will be rated **lowest** (island constraint violation)

• Sample item set:

SHORT, NON-ISLAND: Who _ predicted [that {**the/a**} lending crisis would trigger the recession]?

LONG, NON-ISLAND: What did Peter predict [that {**the/a**} lending crisis would trigger _]?

SHORT, ISLAND: Who _ predicted {**the/a**} lending crisis [that would trigger the recession]?

LONG, ISLAND: What did Peter predict {**the/a**} lending crisis [that would trigger _]?

• Results:

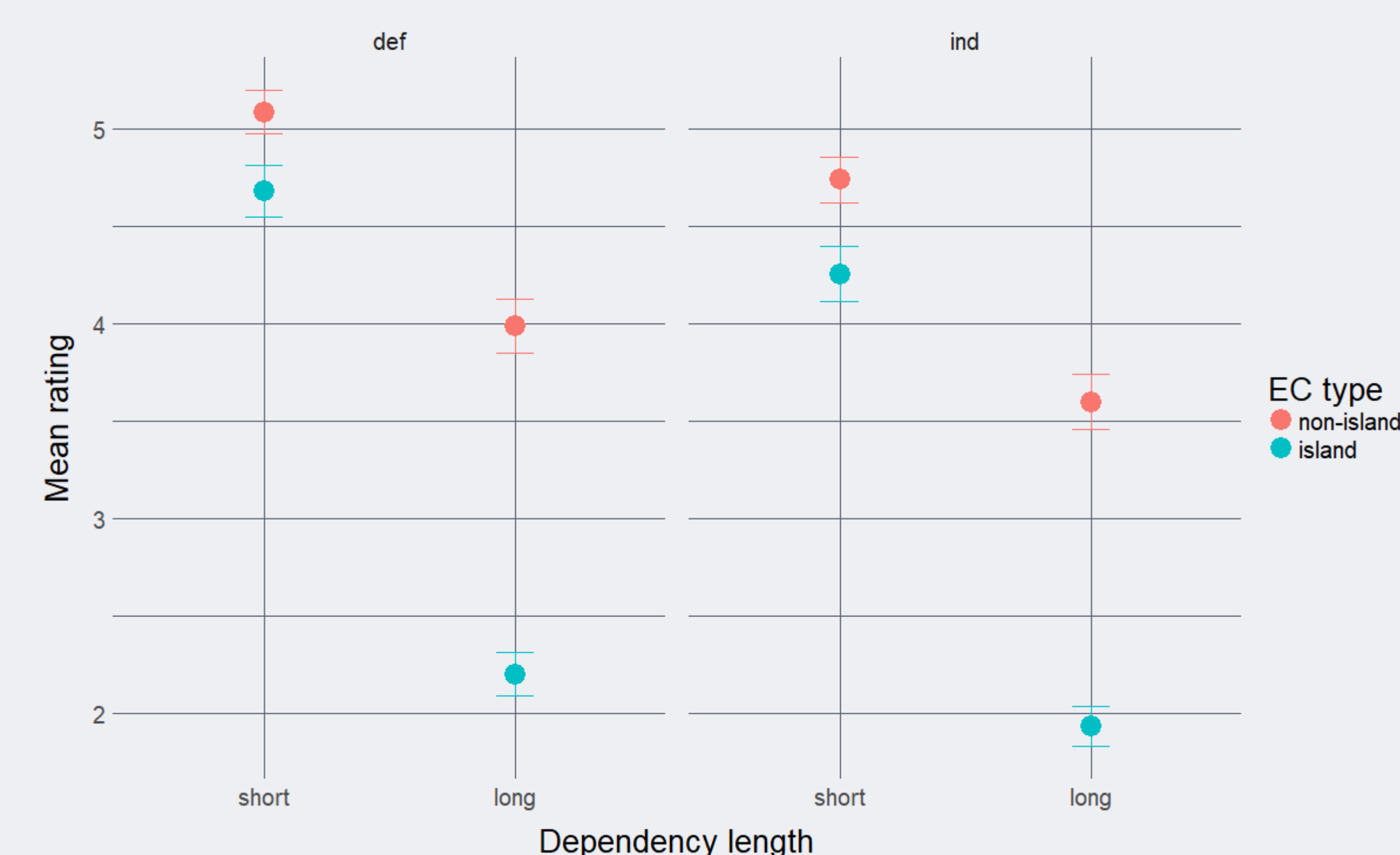


Figure 1: Mean ratings of E.C. type conditions by dependency length and definiteness

- Significant interaction ($p < 0.05$) of length with embedded clause type → **island effect (predicted)**
- No interaction ($p = 0.87$) of embedded clause type with dependency length and intervening DP definiteness → **no effect of definiteness on island transparency (not predicted)**
- Main effects of definiteness, embedded clause type, and dependency length separately ($p < 0.05$)

Definiteness alone does not affect Complex NP transparency.

3. Experiment 2

Does DP position or presuppositionality modulate Complex NP transparency?

- **Design:** 3×2 acceptability judgment task
 - Intermediate subject type (**THERE, INDEFINITE DP, DEFINITE DP**)
 - Dependency type (**MOVEMENT, ANAPHORIC**)
- **Predictions:** In situ, non-existentially-presupposed DPs (*there*-insertion sentences) will be most transparent (and receive highest ratings after considering cross-condition differences)

• Sample item set:

THERE, MOVEMENT: The president is someone that **there** are many Americans [who voted for _] living in rural areas.

THERE, ANAPHORIC: The president thinks that **there** are many Americans [who voted for **him**] living in rural areas.

INDEF, MOVEMENT: The president is someone that **many** Americans [who voted for _] are living in rural areas.

INDEF, ANAPHORIC: The president thinks that **many** Americans [who voted for **him**] are living in rural areas.

DEF, MOVEMENT: The president is someone that **the** Americans [who voted for _] are living in rural areas.

DEF, ANAPHORIC: The president is someone that **the** Americans [who voted for **him**] are living in rural areas.

• Results:

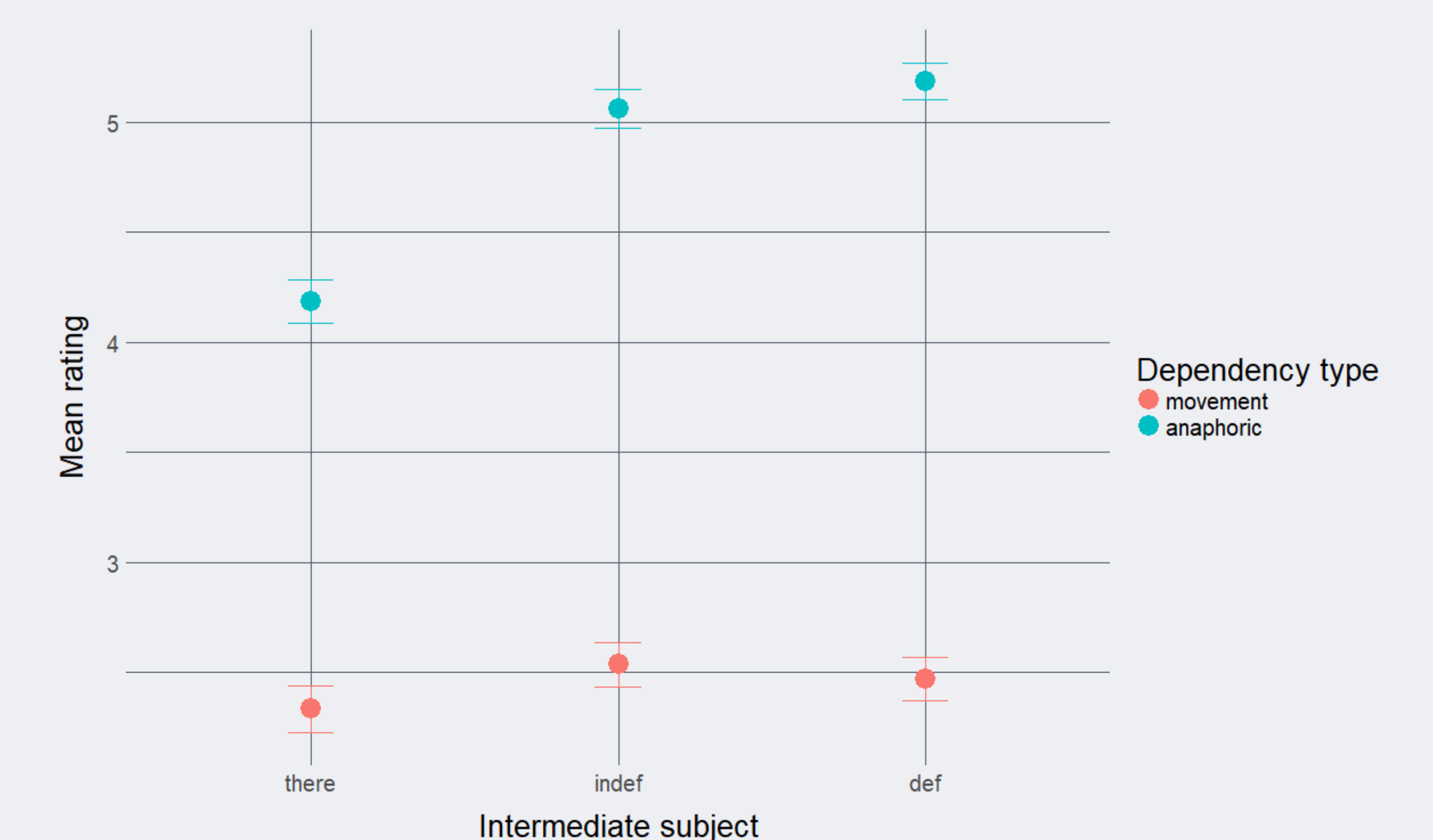


Figure 2: Mean ratings of dependency type conditions by intermediate subject type

- Main effect of dependency type ($p < 0.05$) → **isl. effect (predicted)**
- *There* conditions rated significantly worse overall ($p < 0.05$)
- Significantly lower cost of extraction in *there* conditions ($p < 0.05$) → **effect of DP position or presuppositionality (predicted)**

Main findings:

1. Comprehenders have limited willingness to form movement dependencies across Complex NP island boundaries;
2. Either DP position, DP presuppositionality, or both increase island transparency;
3. (In)definiteness does not affect island transparency

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Acknowledgements: Many thanks to Donka Farkas for leading the Winter '18 Research seminar and organizing LASC; Matt Wagers for leading Pre-290 and for many discussions of this work; and Ivy Sichel, whose DP syntax seminar inspired this project. Thanks also to the Winter '18 Research seminar participants!