



New evidence on D-linking

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D-linking

The phenomenon: D-linking increases acceptability of extraction out of certain islands.

- (1) * What do you wonder who will buy ___?
- (2) ?? Which car do you wonder who will buy ___?

A semantic account

- D-linking allows for individuation of extracted *wh*-phrase.
- Facilitates Boolean operation required by island-inducing operator (e.g., Szabolcsi & Zwarts (1997)).

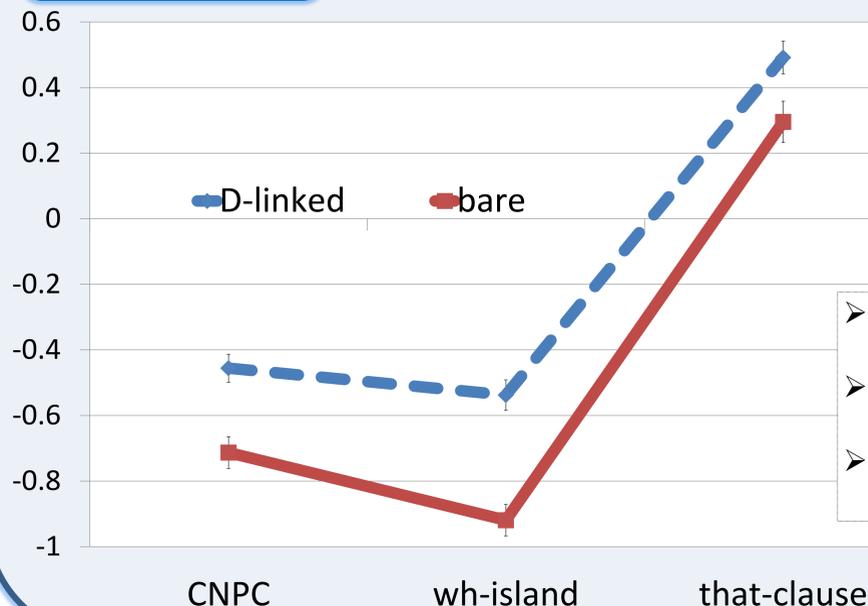
A syntactic account

- D-linked *wh*-phrase contains topic-like lexical material.
- Can bind gap without violating Relativized Minimality (e.g., Rizzi (2008)).

A processing account

- D-linking gives filler a higher activation level in working memory.
- Can be more easily reintegrated into structure at point of gap (e.g., Kluender (1998)).

Results



Main effects:

- Filler-type ($p < .001$)
- Structure-type ($p < .001$)
- No interaction ($p = .134$)
- D-linked vs. bare difference in:
 - CNPC ($p < .001$)
 - *wh*-island ($p < .001$)
 - *that*-clause ($p = .019$).

- Test is sensitive enough to capture D-linking effect.
- D-linking effect is found in all three structures.
- **Prediction made by processing account appears to be correct.**

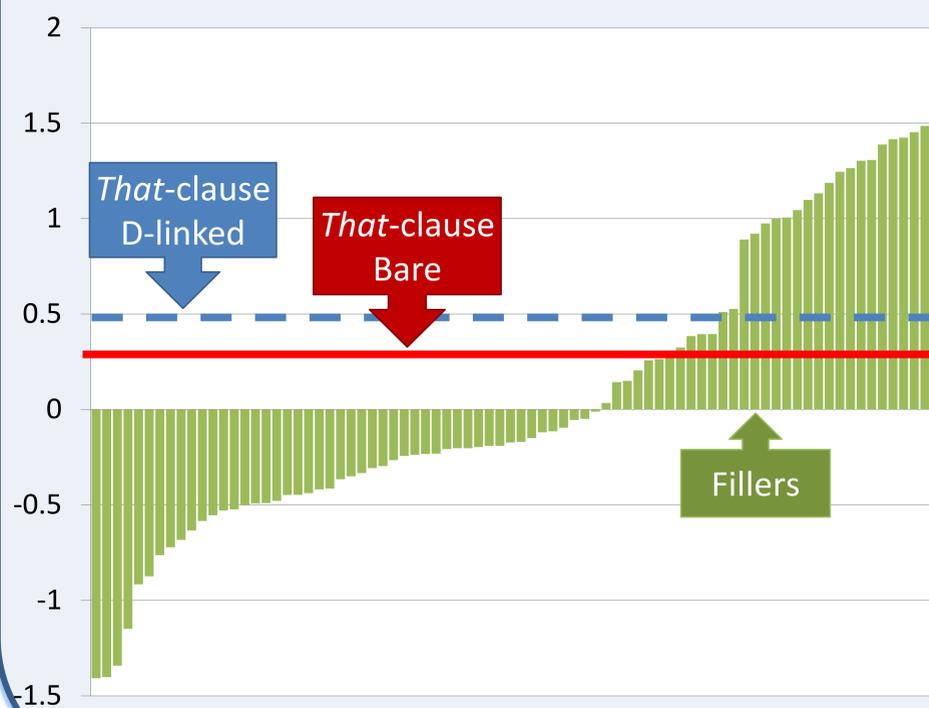
Distinguishing among accounts

Account	Predict D-linking advantage in non-islands?
Semantic	NO
Syntactic	NO
Processing	YES

Previous acceptability studies

- Hofmeister (2007): Pilot study (small # of items and subjects). Marginally significant advantage for D-linking in non-island environment.
- Alexopoulou & Keller (in press): No D-linking effect in non-islands (*that*-clauses).

Why wasn't this found earlier?



- In traditional syntax, no way to make sense of “degrees of goodness”.
- Lack of effect in A&K (in press) may be due to:
 - Likely ceiling effect
 - Insufficient sensitivity (extraction depth not detected)
- Present study designed to avoid ceiling effect and increase sensitivity:
 - Full range of acceptability in fillers
 - Fully counterbalanced design
 - Careful screening of subjects
 - In-lab experiment
- Details matter, even in acceptability studies.

Experiment

48 participants
Acceptability: 7-point scale (1 = “very bad”, 7 = “very good”)

	D-linked	Bare
	Which of the cars	What
CNPC	...do you believe the claim that he might buy ___?	...
<i>wh</i> -island	...do you wonder who might buy ___?	...
<i>that</i> -clause	...do you believe that he might buy ___?	...

- 4 tokens of each condition: Subjects see 24 experimental items
- 81 fillers (3.4 : 1 filler/experimental ratio)
- 12 lists: counterbalanced (Latin square) and pseudo-randomized
- 12 additional lists with reverse order of items
- 2 subjects randomly assigned to each list
- Subjects: native speakers, U.S.-born, English-dominant; outliers screened out based on fillers.

Cautionary notes

- Results argue **for** processing account, but not necessarily **against** semantic/syntactic accounts. These don't predict a D-linking advantage in non-islands, but don't exclude the possibility.
- The term “D-linking” is used in many ways in the literature. Here we see one type; others may be different.
- D-linking reduces severity of island effect, but doesn't erase it. Results here don't resolve the source of this residual effect.

References

- Alexopoulou, T. & S. Keller (in press). “What vs. who and which: Kind-denoting fillers and the complexity of whether-islands.” In N. Hornstein and J. Sprouse (eds), *Experimental Syntax and Island Effects*, CUP.
- Hofmeister, P. (2007). *Facilitating memory retrieval in natural language comprehension*. Stanford University: Ph.D. dissertation.
- Kluender, R. (1998). “On the distinction between strong and weak islands: a processing perspective.” *Syntax and Semantics* 29: *The Limits of Syntax*, 241-279.
- Rizzi, L. (2008). “Relativized minimality effects.” In M. Baltin and C. Collins (eds.), *The Handbook of Contemporary Syntactic Theory*, 89-110, Blackwell.
- Szabolcsi, Anna & Frans Zwarts (1997) “Weak islands and an algebraic semantics of scope taking.” In A. Szabolcsi (ed.), *Ways of Scope Taking*, 217-262. Dordrecht: Kluwer.