



Introduction

- D-linked *wh*-phrases have a number of special syntactic characteristics: e.g., obviation of Superiority effects (1); intervention effects; position effects in Romanian and other languages; *wh-ex situ* in Mandarin Chinese (Pesetsky 1987, 2000; Kotek 2014, 2017; Comorovski 1996; Pan 2014; a.o.)

- (1) a. *??What did who read?* Superiority obeying
 b. *Which book did which student read?* Superiority violating

- But what is D-linking, from a discourse perspective?
 - Saliency: Alternative sets saliently shared by the speaker and addressee (Comorovski 1996; Pesetsky 1987, 2000)
 - Discourse Restricted Quantification (DRQ): Alternative sets of which at least two members have been previously mentioned (Grohmann's 1998, et seq.)
 - Topicality (i.e. *wh*-topics) (Polinsky 2001; Grewendorf 2012; a.o.)

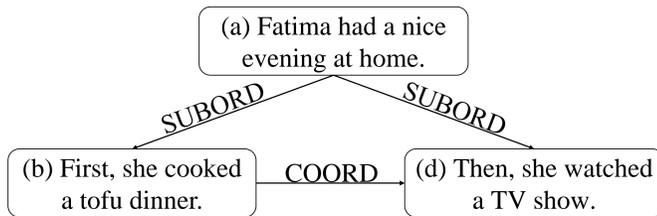
Proposal: D-linking is constrained by *discourse connectedness*, which makes new discourse structural predictions

Proposal

- D-linked *wh*-phrases must be *discourse-connected* (DC):

(2) A phrase *x* is DC iff the utterance containing *x* is *discourse subordinated* (SUBORD) by the utterance containing *x*'s antecedent
- SUBORD is a major class of relations between utterances in SDRT (Segmented Discourse Representation Theory, Asher & Lascarides 2003)
- Discourse coordination (COORD): Narration, Continuation, Result, a.o.

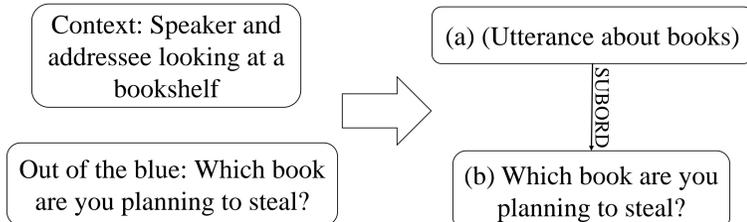
(3) For utterance pair (*α,β*), *α* SUBORD *β* iff the main eventuality described in *β* is a subset of the main eventuality described in *α* or the proposition associated with *β* defeasibly implies that associated with *α*
 Subtypes: Elaboration, Explanation, Precondition, Commentary, a.o. (Asher & Vieu, 2005: 597)



- Note: we assume that *wh*-phrases can have antecedents, provided they are subsets, supersets, or accessible phrases to the alternative set (cf. Lopez 2009: 43 on topic antecedents; Lambrecht 1994 on 'bridging', accessibility)

Problem

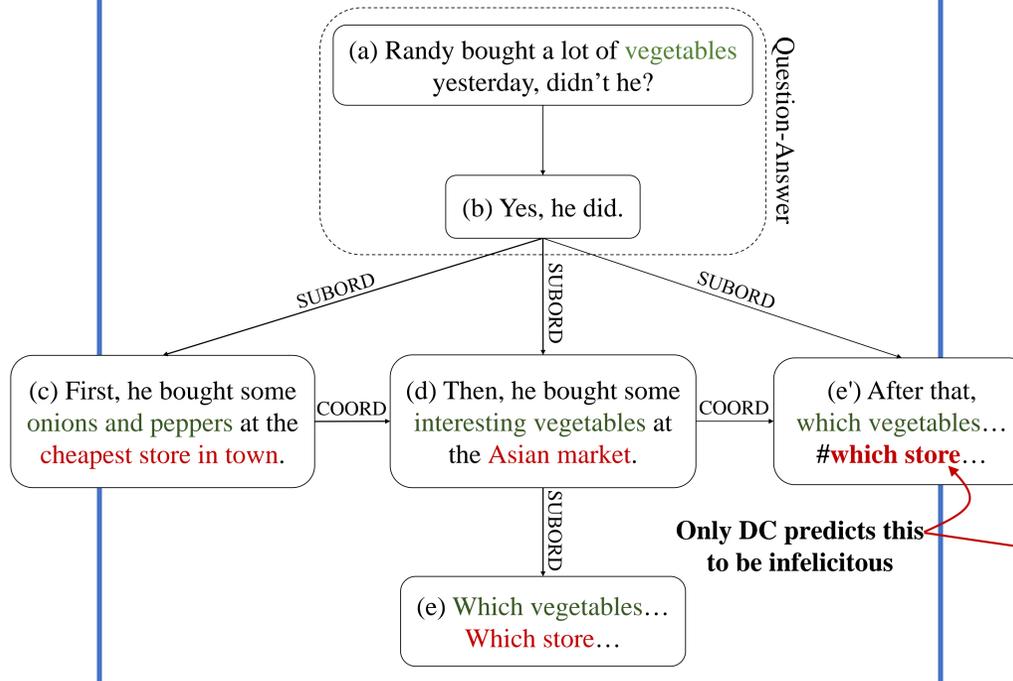
- Discourse relations can be added in the absence of the prior utterance (cf. Asher & Lascarides 2003: 63 on presupposition accommodation; ex. from Pesetsky 1987: fn. 9)



- DC cannot be tested out-of-the-blue; the context must be made explicit

Experimental design

- State the speaker and addressee's organization of discourse (a–b) (Direct Question-Answer pairs act as one discourse unit in SDRT, Asher & Lascarides 2003: 313)
- Saliency: Make two sets saliently shared by the speaker and addressee (c)
- DRQ: Mention at least two members of both alternative sets (c–d)
- DC: Vary the *discourse-connectedness* of each phrase (e–e')



Survey

- Survey distributed through Amazon Mechanical Turk to 50 participants (8 were excluded by gatekeeper questions, leaving a total of 42)
- Participants evaluated 17 utterances in one of 5 contexts, with controls:
 - Task 1: Read target utterance out of context, rate out of 100
 - Task 2: Listen to audio context, ending with target utterance Rate utterance in context out of 100 ← "Rating"
 - [Rating out-of-the-blue – Rating in context] ← "Δ-rating" to factor out the grammaticality of individual utterances

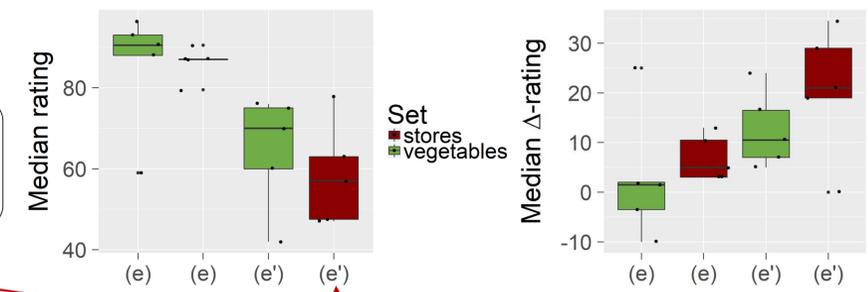


Results

- In our survey, *discourse connectedness* affects ratings and Δ-ratings
 - [–DC] lowers median ratings by about 24/100 ± 8.3 ($\chi^2 = 6.6, p < 0.05$)
 - [–DC] raises median Δ-ratings by 13.2/100 ± 5.4 ($\chi^2 = 5.8, p < 0.05$) (Likelihood ratio tests with linear mixed effects in R, using lme4, ANOVA, cf. Winter 2013) (The difference between (e) vs. (e') is also significant, included as a random effect)
- Takeaway: A *wh*-phrase must be *discourse-connected* to be D-linked

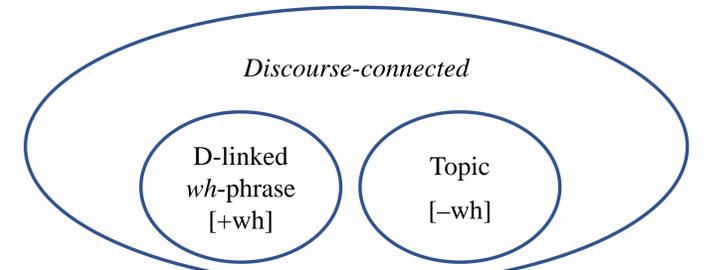
Set	Rating	(e)	(e')
<i>vegetables</i>	In context	88/100	66.5/100
	Δ-rating	3	5.5
<i>stores</i>	In context	87/100	52.25
	Δ-rating	4	22.5

–DC



Conclusion

- D-linked *wh*-phrases are constrained by *discourse connectedness*
- Saliency and previous mentions are not sufficient to license D-linking
- Why *discourse connectedness*?
 - DC has been shown to constrain topic in Catalan and Eastern Cham (Lopez 2009: 55, Baclawski Jr. 2015)
 - Topics and D-linked *wh*-phrases are in the same discourse class:



Future research

- Can use of a [DC] feature lead to new analyses of intervention effects, the interaction between D-linking and Superiority effects, etc.?
- Are there other information structure categories that are sensitive to DC?
 - Contrastive topic (compare Büring's (2001) d-trees to SDRT trees)
 - Answers to D-linked *wh*-phrases
 - Specificity (cf. Enç 1991)
- Are grammatical phenomena sensitive to other discourse relations?
 - German 'Subpart of Focus Fronting' is sensitive to SUBORD, but without reference to anaphora (Baclawski Jr. 2018)