On Variation in WH and COMP Coordination Structures
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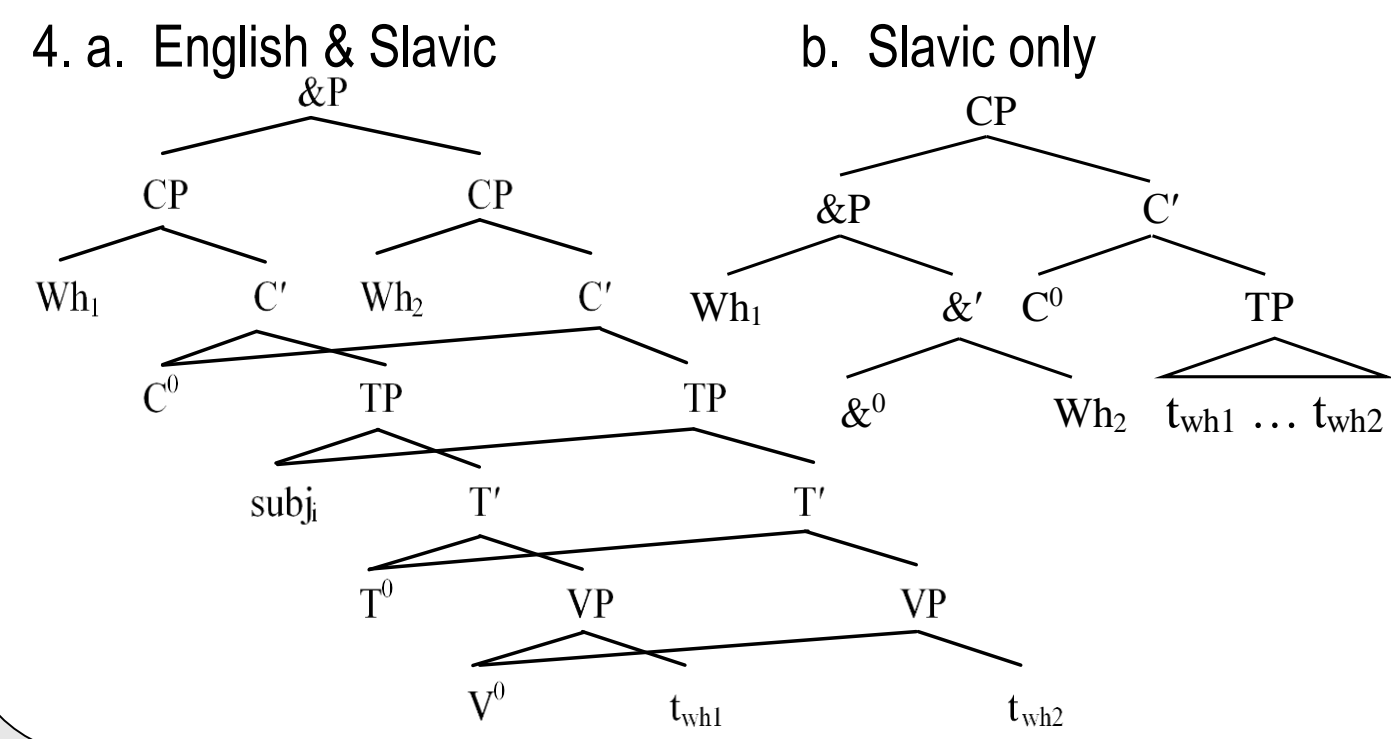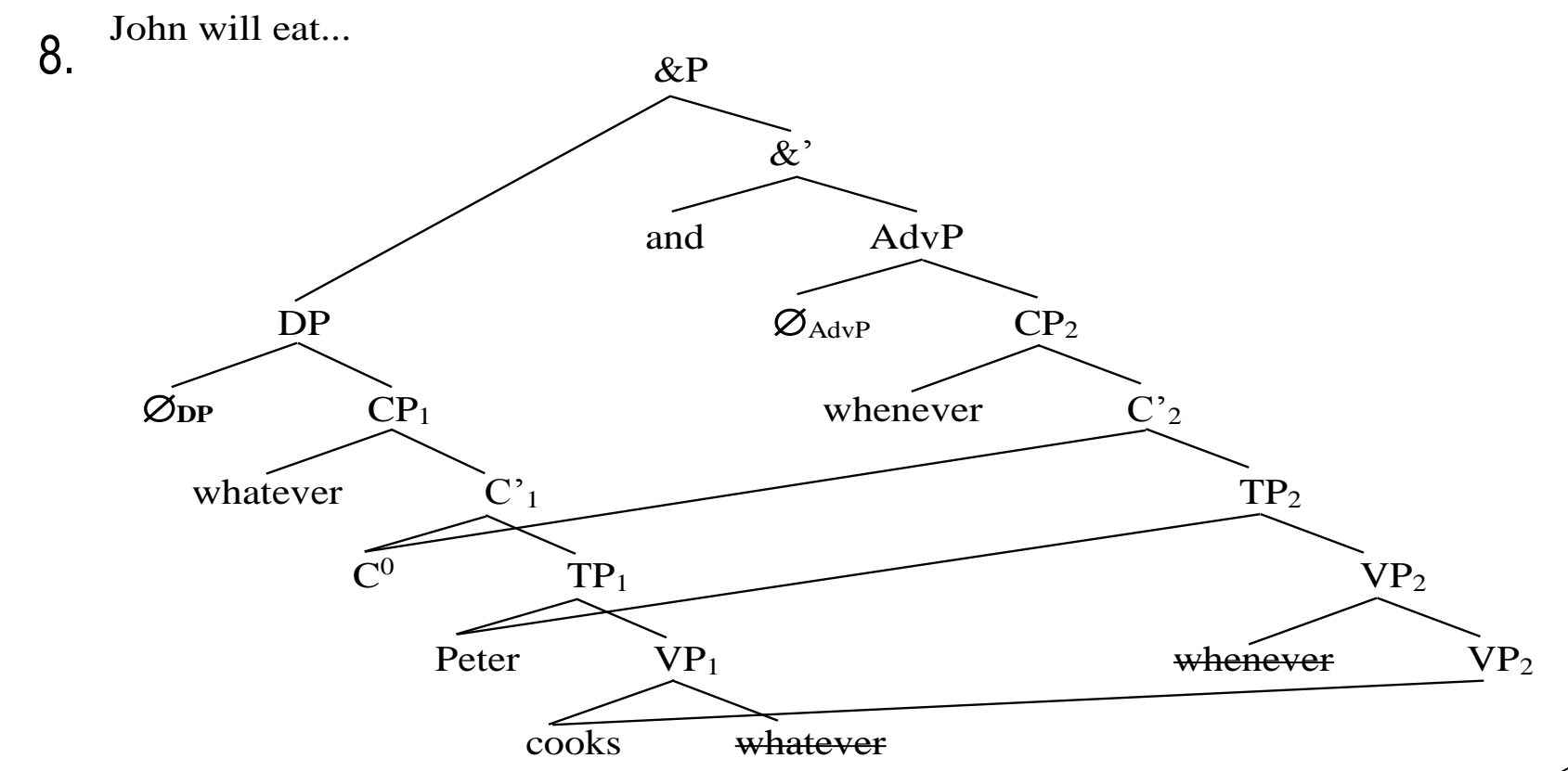
WH & WH Coordination

Coordinated Wh-Questions (CWHs) can be bi-clausal or mono-clausal, depending on the availability of multiple wh-fronting (Gračanin-Yuksek 2007, Citko & Gračanin-Yuksek 2013):

1. **What and where** did John sing?
2. **Što i gdje** Jan pjeva? *Croatian*
   what and where Jan sings
   'What and where does Jan sing?'
3. **Co i gdzie** Jan zaśpiewał? *Polish*
   what and where Jan sang
   'What and where did Jan sang?'
4. a. English & Slavic   b. Slavic only

Coordinated Free Relatives (CFRs) are always bi-clausal (Citko & Gračanin-Yuksek 2015):

5. John will eat **whatever and whenever** Peter cooks.
6. Ivan jede **štogod i kadgod** Jan kuha. *Croatian*
   Ivan eats whatever.ACC and whenever Jan cooks.
   'Ivan eats whatever and whenever Jan cooks.'
7. Jan je **cokolwiek i kiedykolwiek** Piotr gotuje. *Polish*
   Jan eats whatever and whenever Piotr cooks
   'Jan eats whatever and whenever Piotr cooks.'
8. John will eat...

IF & WH Coordination

All three languages allow *if & wh* coordination:

9. I wonder **if and when** John left.
10. Pitam se **da li i kada** je Jan izašao. *Croatian*
    wonder.1SG REFL that-Q and when aux.3SG Jan left
    'I wonder if and when Jan left.'
11. Zastanawiam się, **czy i kiedy** Jan wyszedł. *Polish*
    wonder.1SG REFL if and when Jan left
    'I wonder if and when Jan left.'

12. **Our proposal**

***If & wh* coordination is NOT reverse ellipsis (contra Merchant and Giannakidou 1998)**

13. I wonder **if** <John left> **and when** John left. *Reverse Ellipsis*

- **STRANDING:** Complementizers cannot be stranded by deletion (Abels 2003), but are possible in RNR:
14. *John knows that Maria is coming but I wonder **if**.
15. a. No one wonders **if** since everyone knows **that** the earth is round.
    b. No one is sure **that** and therefore everyone wonders **if** the earths is round.

- **INTERPRETATION:** The wh-phrase is absent from the first conjunct → only interpreted in the second conjunct:
16. a. I wonder if and when John left.
    b. #I wonder if John left **at a certain time** and I wonder when that time was.

- **TRANSITIVITY RESTRICTIONS:** *If & what* coordination is only possible with optionally transitive verbs:
17. a. I wonder **if and what** John sings.
    b. *I wonder **if and what** John devours.
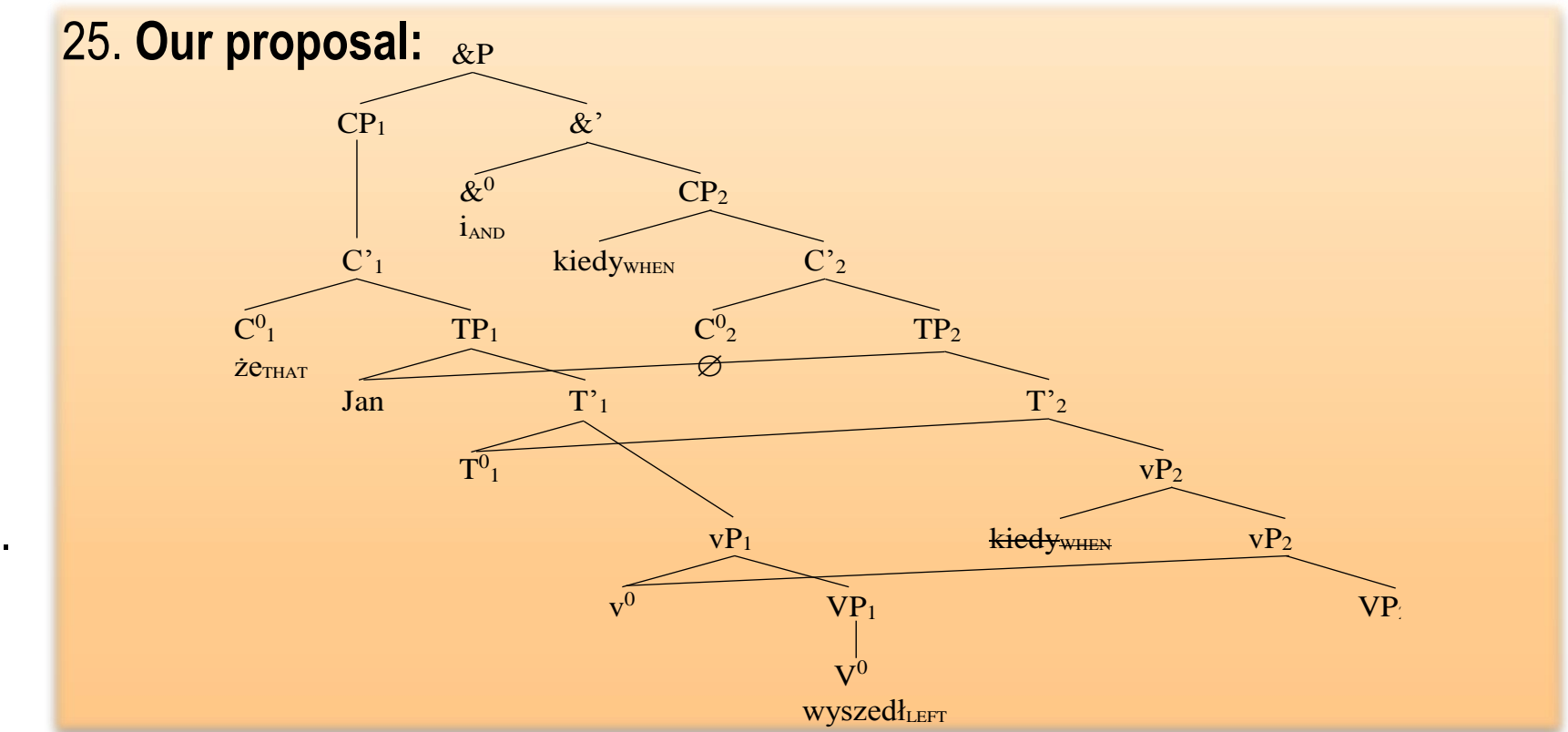
THAT & WH Coordination in Polish and Croatian

Croatian and Polish, but not English, also allow *that & wh* coordination:

18. *I know **that and when** John left.
19. Znam **da i kada** je Jan izašao. *Croatian*
    know.1SG that and when aux.3SG Jan left
    Lit. *I know that and when Jan left.*
20. Wiem, **że i kiedy** Jan wyszedł. *Polish*
    know.1SG that and when Jan left
    Lit. *I know that and when Jan left.*

Restrictions on *that & wh* are the same as those on *if & wh* (illustrated with Polish below)

- **STRANDING:**
21. *Jan nie wie czy Maria przyjdzie, ale ja wiem, **że**.
    Jan not know if Marija comes but I know that
    Lit. *Jan doesn't know if Maria is coming but i know that.*
22. Wszyscy wiedzą, **że** i nikt nie pyta **czy** ziemia jest okrągła.
    all know that and noone not asks if Earth is round
    'Everyone knows that and no one wonders if the earth is round.'
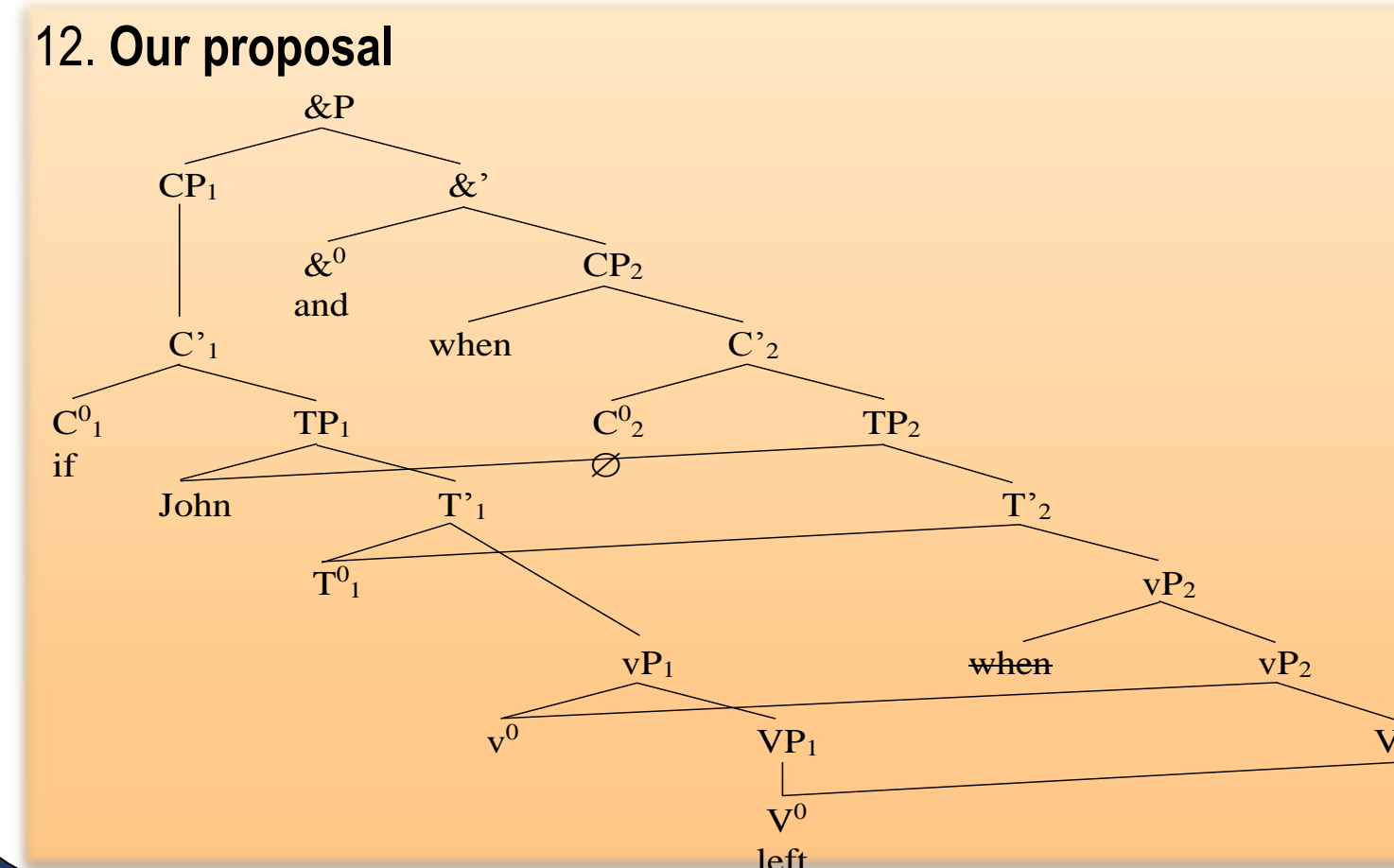
- **INTERPRETATION:**
23. Wiem, **że i kiedy** Jan wyszedł. *Polish*
    know.1SG that and when Jan left
    'I know that Jan left and when Jan left.'
    #'I know that Jan left **at a certain time** and I found out when that time is.

- **TRANSITIVITY RESTRICTIONS:**
24. a. Wiem, **że i co** Jan studiuje/*naprawił. b. Jan studiuje/*naprawił.
    know.1SG that and what Jan studies/*fixed   Jan studies/*fixed
    'I know that and what Jan studies.'   'Jan studies/*fixed.'

25. **Our proposal:**

Lack of THAT & WH Coordination in English

Given the availability of CWHs, CFRs, and *if & wh* coordination in English, why is *that & wh* coordination out?

That & wh coordination is not possible in English because **the structure required to derive it is not linearizable.**

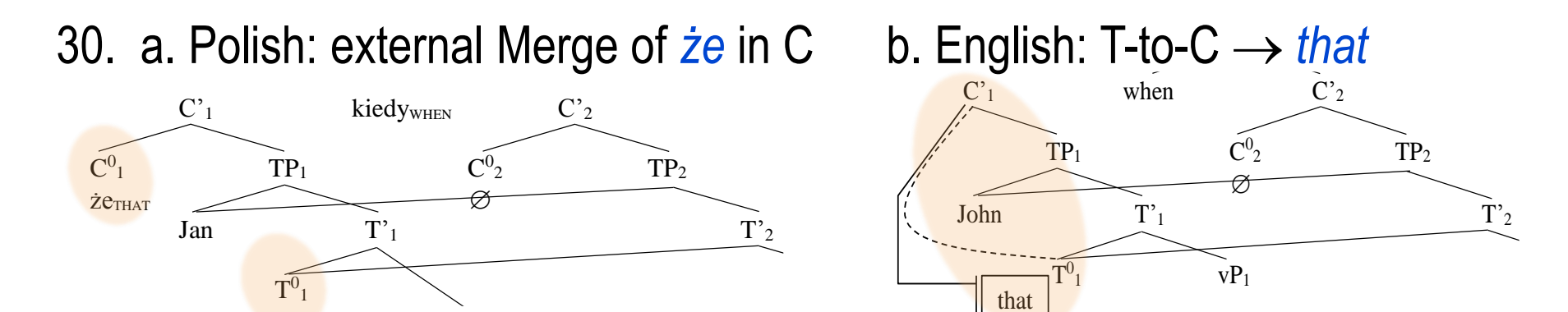| Croatian *da* / Polish *że*	English *that*
lexical complementizers	Spell-out of T-to-C movement (Pesetsky & Torrego 2001)

In Polish and Croatian, the complementizer is obligatory. In English, it is optional:

26. Znam ***(da)** je Iva završila članak. *Croatian*
    know.1SG that aux.3SG Iva finished article
    'I know that Marija finished the article.'
27. I know **(that)** Mary finished the article.

In Polish and Croatian, there is no *that*-trace effect; in English, there is:

28. Kto chcesz, **żeby** __ skończył artykuł? *Polish*
    who want.2SG that.COND finished article
    'Who do you want to finish the article?'
29. *Who do you think **that** __ left?

Derivation of *that & wh* coordination:

30. a. Polish: external Merge of *że* in C   b. English: T-to-C → *that*

- Since T is shared, *that* is necessarily part of both conjuncts.
- The subject *John* is also shared between both conjuncts.
    Inside First Conjunct: *that* < *John* (the higher occurrence of *that* (in C) c-commands *John*)
    Inside Second Conjunct: *John* < *that* (*John* c-commands the only occurrence of *that* (in T))
- The subject *John* cannot both follow *that* and precede *that*.
- **Thus, the sharing of T makes *that & wh* structure non-linearizable.**

References: Abels, K. 2003. Successive cyclicity, anti-locality and adposition stranding. Doctoral dissertation, University of Connecticut. **Citko, B. & M. Gračanin-Yuksek. 2013.** Towards a new typology of coordinated wh-questions. *Journal of Linguistics* 49: 1-32. **Citko, B. & M. Gračanin-Yuksek. 2015.** Multiple (Coordinated) (Free) Relatives. *Natural Language and Linguistic Theory*, 34: 393-427. **Giannakidou, A & J. Merchant. 1998.** Reverse sluicing in English and Greek. *The Linguistic Review* 15: 233-256. **Gračanin-Yuksek, M. 2007.** About Sharing. Doctoral dissertation, MIT. **Pesetsky, D. and E. Torrego. 2001.** T-to-C movement: Causes and Consequences. In Michael Kenstowicz (ed.) *Ken Hale: A life in language*, 355-426. Cambridge: MIT Press.