AM3a: Typology of A-bar constructions

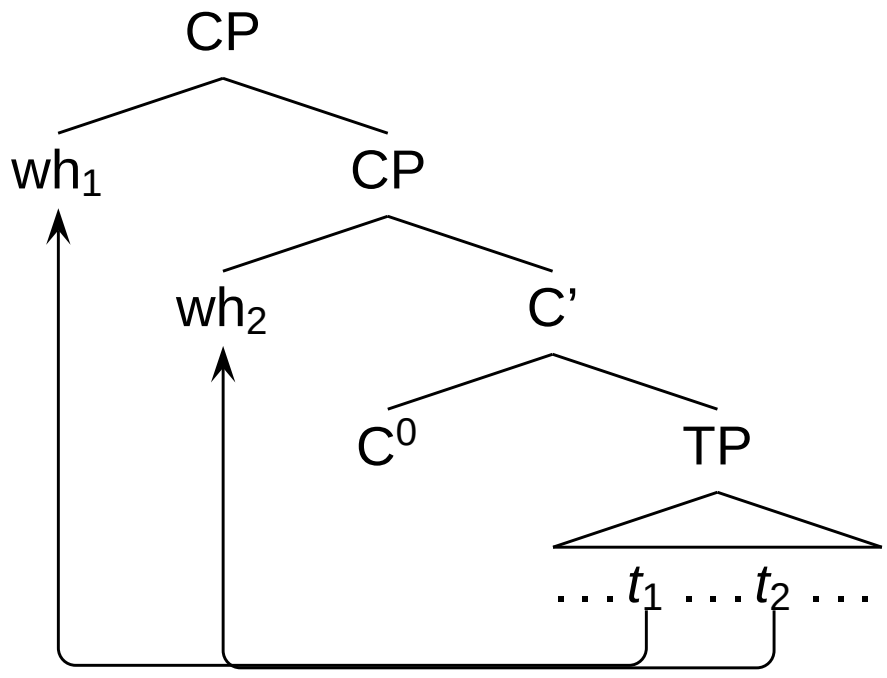
Week 5
Readings of multiple questions.

Types of multiple questions (by syntax)

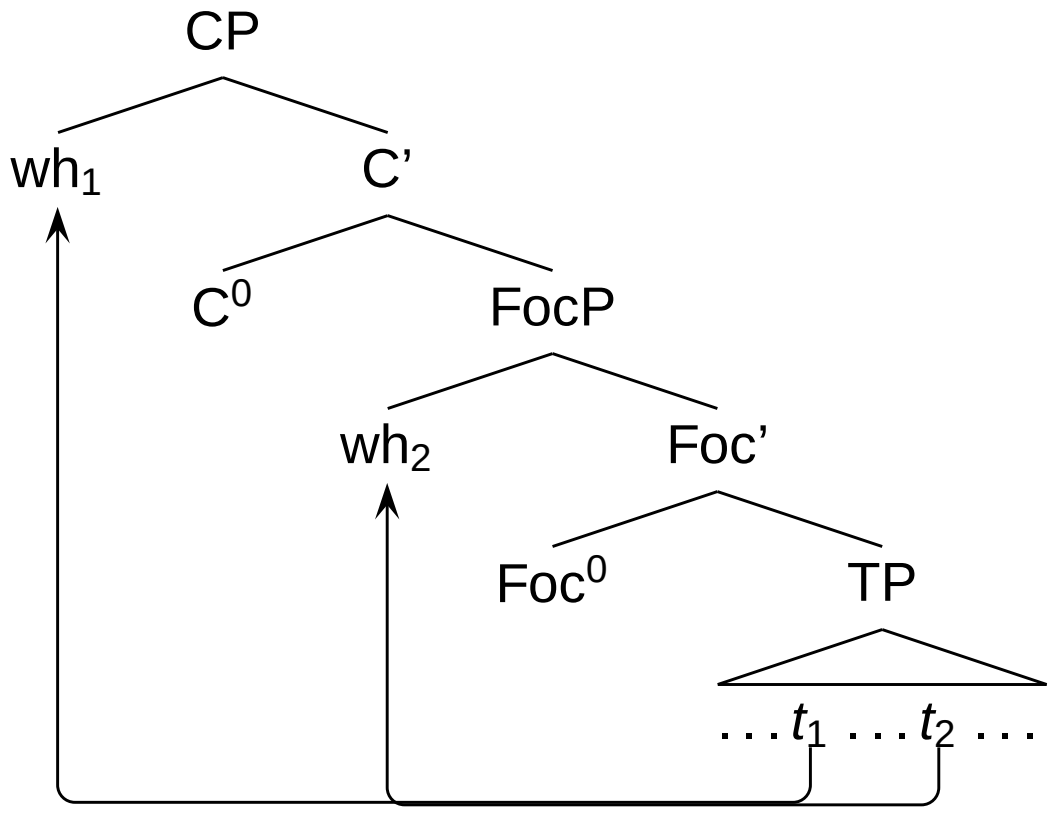
- Multiple in situ.
- Single fronting and the rest in situ.
- Multiple fronting
  - [+MSF] languages (Bulgarian, Romanian)
  - [-MSF] languages (Serbo-Croatian, Czech, Polish)

	[+MSF]	[-MSF]
all wh- phrases in the same projection	yes	no
multiple extraction from embedded clauses	yes	no
extraction out of wh- islands	yes	no
clitics can break wh- cluster	no	yes
parentheticals can break wh- cluster	no	yes

A [+MSF] language



A [-MSF] language



Pair-list (PL) vs. single-pair (SP) readings

(1) *Pair-list:* I see Jack, Sally, and Betty walk out of a shoe store, each holding a shopping bag. I walk into the store and ask the clerk:
✓ Who bought what?

(2) *Single-pair:* A guy I don't recognize walks out of a shoe store holding a shopping bag. I walk into the store and ask the clerk:
Who bought what?

SP reading ok	SP reading bad
Japanese	English
Chinese	German
Serbo-Croatian	Bulgarian

(3) *Bulgarian*

Koj kakvo e kupil?
who what AUX bought
[✓ PL / # SP]

(4) *Serbo-Croatian*

Ko je šta kupio?
who AUX what bought
[✓ PL / ✓ SP]

Bošković's generalization: a SP reading is possible if no wh-phrase moves across C^0
(this requires a certain reanalysis of [-MSF] languages)

Counterexamples to Bošković's generalization (I)

(5) *Russian (a [-MSF] language)*

Kto kogo priglasil na užin?
who.NOM who.ACC invited to dinner?
[✓ PL / # SP]

[Stepanov 1998, Grebenyova 2006]

Counterexamples to Bošković's generalization (II)

(6) *Icelandic (same wh- syntax as German)*

Hver bau hverjum í veisluna?
who.NOM invited who.ACC in dinner
[✓ PL / ✓ SP]

[Grebenyova 2006]

Counterexamples to Bošković's generalization (III)

(7) *Serbo-Croatian: an overt Q morpheme bleeds the PL reading*

Ko li koga pozva na večeru?
who.NOM Q who.ACC invited to dinner
[?# PL / ✓ SP]

[Grebenyova 2006]

Towards a solution: we need to take the semantics of (multiple) questions and the contribution of the Q particle seriously.

A simple question is a set of propositions:

(8) Who bought a pair of sandals?

$$= \left\{ \begin{array}{l} \text{Jack bought a pair of sandals} \\ \text{Sally bought a pair of sandals} \\ \text{Betty bought a pair of sandals} \\ \ldots \end{array} \right\}$$

A multiple question is a set of sets of propositions:

(9) Who bought what?

$$= \left\{ \begin{array}{l} \left\{ \begin{array}{l} \text{Jack bought a pair of sandals} \\ \text{Jack bought a pair of cowboy boots} \\ \text{Jack bought a pair of running shoes} \\ \ldots \end{array} \right\} \\ \left\{ \begin{array}{l} \text{Sally bought a pair of sandals} \\ \text{Sally bought a pair of cowboy boots} \\ \text{Sally bought a pair of running shoes} \\ \ldots \end{array} \right\} \\ \left\{ \begin{array}{l} \text{Betty bought a pair of sandals} \\ \text{Betty bought a pair of cowboy boots} \\ \text{Betty bought a pair of running shoes} \\ \ldots \end{array} \right\} \\ \ldots \end{array} \right\}$$

Hagstrom 1998, Grebenyova 2006, Cable 2010: the Q particle is an existential quantifier over choice function variables.

Choice function: a function that returns one member (and always the same member) of a set.

Let A be the set $\{a, b, c \ldots\}$. Then

- $cf_1(A) = a$
- $cf_2(A) = b$
- $cf_3(A) = c$
- $\ldots$

A choice function variable ranges over all the possible choice functions over a given set.

Choice function: a function that returns one member (and always the same member) of a set.

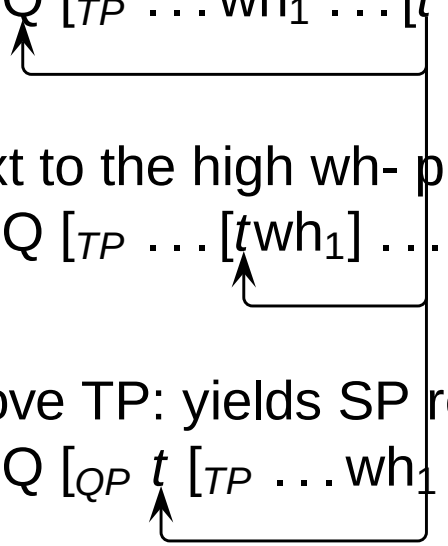
Let A be the set $\{$ Jack, Sally, Betty$\ldots\}$. Then

- $cf_1(A) =$ Jack
- $cf_2(A) =$ Sally
- $cf_3(A) =$ Betty
- $\ldots$

A choice function variable ranges over all the possible choice functions over a given set.

Possible base positions for the Q particle

- Next to the low wh- phrase: yields PL reading
  $[_{CP}$ Q $[_{TP} \ldots \text{wh}_1 \ldots [t\ \text{wh}_2] \ldots]$
- Next to the high wh- phrase: yields PL reading
  $[_{CP}$ Q $[_{TP} \ldots [t\text{wh}_1] \ldots \text{wh}_2 \ldots]$
- Above TP: yields SP reading
  $[_{CP}$ Q $[_{QP}\ t\ [_{TP} \ldots \text{wh}_1 \ldots \text{wh}_2 \ldots]$



Case #1: Q-particle next to the low wh- phrase

- [t_Q what]
  $=$ a set of things
- [$_{VP}$ bought t_Q what]
  $=$ a set of [buy(thing)] relations.
- [$_{CP}$ who bought t_Q what]
  $=$ a set of sets of [buy(person,thing)] relations
- Q [$_{CP}$ who bought t_Q what]
  $=$ pick a member of each set of sets of [buy(person,thing)] relations

Case #2: Q-particle next to the high wh- phrase

- [what]
  $=$ a set of things
- [$_{VP}$ bought what]
  $=$ a set of [buy(thing)] relations.
- [$_{CP}$ t_Q who bought t_Q what]
  $=$ a set of sets of [buy(person,thing)] relations
- Q [$_{CP}$ who bought t_Q what]
  $=$ pick a member of each set of sets of [buy(person,thing)] relations

The meanings of Case #1 and Case #2 are distinguishable.

(10) *Navajo*

a. Háí **lá** ha'át'íí nayiisnii?
who Q what bought

b. Háí ha'át'íí **lá** nayiisnii?
who what Q bought

(11) *Okinawa Japanese*

a. Taa-ga-**ga** nuu kam-ta-ra?
who-NOM-Q what eat-PST-M

b. Taa-ga nuu-**ga** kam-ta-ra?
who-NOM what-Q eat-PST-M

Hagstrom 1998, Grebenyova 2006:

- (11a)/(12a) require a reading enumerating for each food, who ate that food
- (11b)/(12b) require a reading enumerating for each person, what that person ate.

Case #3: Q-particle above TP

- [$_{TP}$ who bought what]
  = a set of [buy(person,thing)] relations
- [$_{CP}$ Q [$_{QP}$ t_Q [$_{TP}$ who bought what]]]
  = pick a member of the set of [buy(person, thing)] relations

Distribution of PL and SP readings: languages that allow a SP reading are those that allow the Q particle to be merged above TP.

Most of the material of today's class is taken from this thesis, which you can get from the course website.

- Grebenyova, Lydia. 2006. Multiple interrogatives: syntax, semantics, and acquisition. Doctoral dissertation, University of Maryland, College Park.