Agenda Wednesday Week 11

- Reminders:
  - Second paper
  - Don't forget to post FRIQUES tonight
- American Sign Language
  - ASL has structure, like spoken language
  - ASL is a natural human language
  - ASL obeys principles of Universal Grammar
  - UG is modality independent

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Overview of ASL

- ASL is simply a language expressed in a different modality
- ASL has UG-based structure
  - ASL obeys X'-syntax
  - ASL has the same kind of rules and constraints as spoken languages
  - Very different structure than English
  - Signs are words, abstract just as words in spoken languages are

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The human language capacity is modality independent

- Left hemisphere brain damage produces sign aphasia
  - Broca's type: slow awkward signing
  - Wernicke's type: fluent but senseless
- Right hemisphere damage
  - Severe spatial deficits, however
  - Signing is not impaired (even devices that involve spatial syntax!)

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Grammar of ASL: Phonology

- Handshape
  - Only a limited set of hand configurations are used, just like sounds
  - Non-standard use is an "accent"
- Movement
  - Handshape undergoes movement in some location

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Grammar of ASL: Morphology

- Verb agreement
  - Movement of handshape for verbs indicates subject and object agreement
  - Not all verbs show agreement
    - HATE does, but LOVE does not
    - Pronouns not ordinarily expressed when the verb shows morphological agreement
- Verbs also show other morphological properties, and these are all found in some spoken language

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Grammar of ASL: Syntax

- Word order
  - Basic: SVO
    - This is the most neutral order
  - Various non-basic
    - Topicalization (movement to left edge) is a very common order
    - When a constituent is topicalized, this is grammatically marked, by a facial expression and head position: eyebrows raised, head tilted forward

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Example of basic word order

DRINK WATER (JIL17)
'(I want) to drink water'

DAD WORK++ (ABY29)
'Dad is working'

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Topicalization of Object

_____top

TEST, ME FAIL
'(As for) the test, I failed (it)'

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Other Aspects of ASL Syntax

- Relative clauses, conditionals, negation, and questions also non-manually marked
- Repetition at end of sentence possible, to indicate focus

neg
– CHRIS NOT PASS TEST NOT
  - Chris really didn't pass the test.
– BOY EAT THREE ICE-CREAM THREE
  - The boy ate THREE ice-creams!'

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Non-basic word order in ASL: (S)VS

IX(she) SICK IX(she)

'She's sick (she is)/She is really sick.

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Non-basic word order in ASL: OV

Aspectual inflection on the verb

CLOTHES WASH-asp

'(I) washed and washed clothes'

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Non-basic word order in ASL: OV

Spatial inflection on the verb

CLOTHES THROW-there

'Just throw the clothes there'

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Non-basic word order in ASL: OV

Handling inflection on the verb

BABY FEED-with-spoon

'(I) spoon-fed the baby'

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Acquisition of ASL

- Language is essentially the same in deaf children, learning ASL, as in hearing children, learning spoken language
  - Babbling
  - First signs, gestures early, but real words produced at around 11 months
  - First word combinations at around 1,6, but missing morphology, topic marking, etc.

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Acquisition: specific features

- Grammatical morphology
  - Verb agreement from around 2,6
    - First with present referents
    - Later with non-present referents
    - Spontaneous, accurate usage by 4 or 5
- Pronouns
  - ME and YOU confused, as with hearing children
- Syntax
  - Complex features acquired by around age 5

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Non-basic word order in child data:

IX(picture) WET IX(picture) (SAL08)
'He's wet (he is)'

PULL-ON-SHIRT CAN YOU (SAL08)
'You can put your own shirt on (you can)'

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Variable word order in child data

BAG IX(bag) PICK-UP-by-handle (SAL03)
'Pick up that bag over there

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WH-Questions in ASL

- Indicated with furrowed brows and head tilted back:

  WH-Q
  ———————

  – WHO BILL SEE YESTERDAY?
  – 'Who did Bill See yesterday?'

- Movement to front (Specifier of CP) optional:

  WH-Q
  ———————

  – BILL SEE WHO YESTERDAY?

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Long Distance Questions in ASL

- ASL shows the same kinds of restrictions as spoken language:

I DON'T-KNOW WHO LIKE CHOCOLATE
'I don't know who likes chocolate.'

WH-Q

?*WHAT YOU DON'T-KNOW WHO LIKE?
'?*What don't you know who likes?'

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Topicalization: A demonstration of UG in ASL

- Topicalization is movement by adjunction (attachment) to the left edge of the sentence
  - Mary, John likes.
  - Peter doesn't believe that Mary, John likes.
  - * Peter doesn't believe Mary, John likes.
- Why is the third sentence bad?
  - Clauses can be IPs or CPs; they are CPs only when CP is needed (economy)

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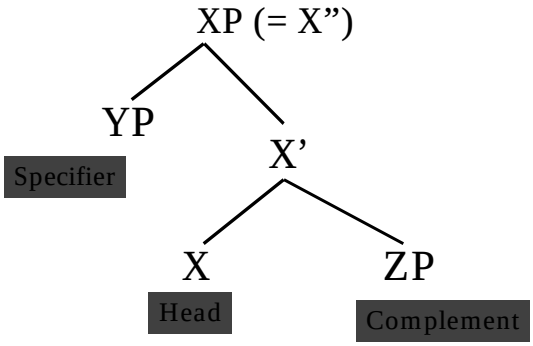
Recall X-bar Tree Structure



"X" means any category

Lexical: N, V, A, …

Functional: C, I, D, ...

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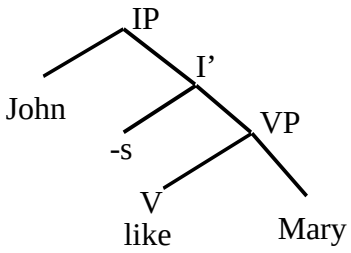
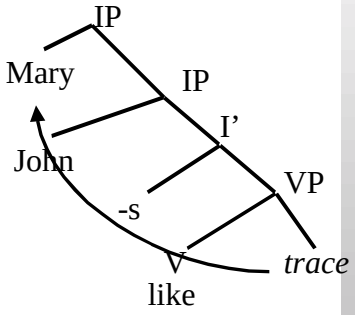
Simple Topicalization

Deep Structure



Surface Structure



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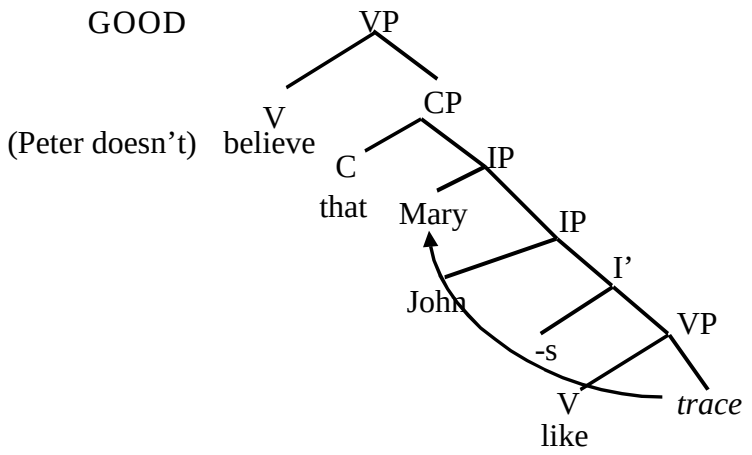
Enbedded Topicalization: CP

GOOD



(Peter doesn't)

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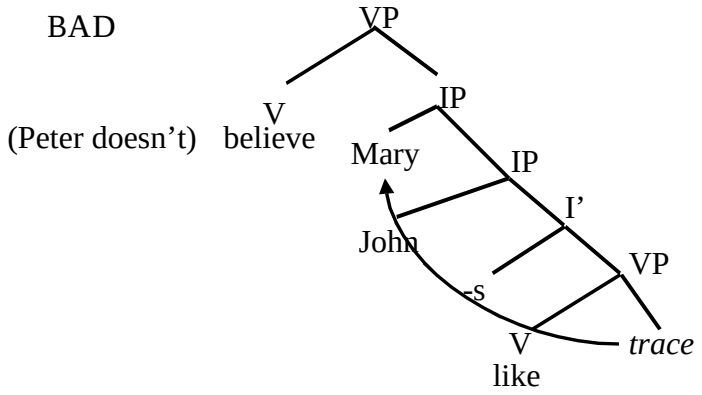
Enbedded Topicalization: IP

BAD



(Peter doesn't)

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Conclusion about UG

Topicalization is adjunction to IP

Adjunction (attachment to the left edge) directly to a complement (embedded) clause is not allowed.

Therefore, topicalization in a complement clause can only apply to move (adjoin) the topic to the left edge of IP if that IP is contained within a CP!!!

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ASL also shows this principle: *Wh*-movement only out of IP

- Two classes of verbs:
  - Wh-Q
    ?*WHO BILL FEEL [JOHN LIKE *trace*]
  - Wh-Q
    WHO BILL THINK [JOHN LIKE *trace*]
- Hypothesis:
  - ASL FEEL takes a CP complement, THINK takes an IP complement

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ASL also shows this principle: Adjunction only to embedded IP

- Two classes of verbs:

  topic

  BILL FEEL [[MARY [JOHN LIKE *trace*]]] –

  topic

  ➢ *BILL THINK [MARY [JOHN LIKE *trace*]]

- Hypothesis supported:
  - ➢ Since FEEL takes a CP complement, embedded topicalization is possible. Since THINK takes an IP complement, it is not.

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