

# E105

## 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

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DRINK WATER (JIL17)  
'(I want) to drink water'  
DAD WORK++ (ABY29)  
'Dad is working'

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## Topicalization of Object

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

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## Other Aspects of ASL Syntax

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- 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

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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

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Aspectual inflection on the verb

CLOTHES WASH-asp  
'(I) washed and washed clothes'

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## Non-basic word order in ASL: OV

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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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## Embedded Topicalization: CP

GOOD

(Peter doesn't) believe

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## Embedded Topicalization: IP

BAD

(Peter doesn't) believe

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