

Signed Language Linguistics

Lecture 2

What is language?

What are signed
languages?



Collecting Butterflies



Collecting Butterflies



Collecting Butterflies

“They’re not butterflies.”

What are signed
languages?

“They’re not language.”

Milan Conference 1880

It is doubtful that sign can engender thought. It is concrete. It is not truly connected with feeling and thought. ... It lacks precision. ... Sign cannot convey number, gender, person, time, nouns, verbs, adverbs, adjectives. ... It does not allow [the teacher] to raise the deaf-mute above his sensations. ... Since signs strike the senses materially they cannot elicit reasoning, reflection, generalization, and above all abstraction as powerfully as can speech.

Marius Magnat

The Psychology of Deafness

The manual language used by the deaf is an ideographic language ... it is more pictorial, less symbolic ... Ideographic language systems, in comparison with verbal systems, lack precision, subtlety, and flexibility. It is likely that Man cannot achieve his ultimate potential through an Ideographic language. . . .The manual sign language must be viewed as inferior to the verbal as a language.

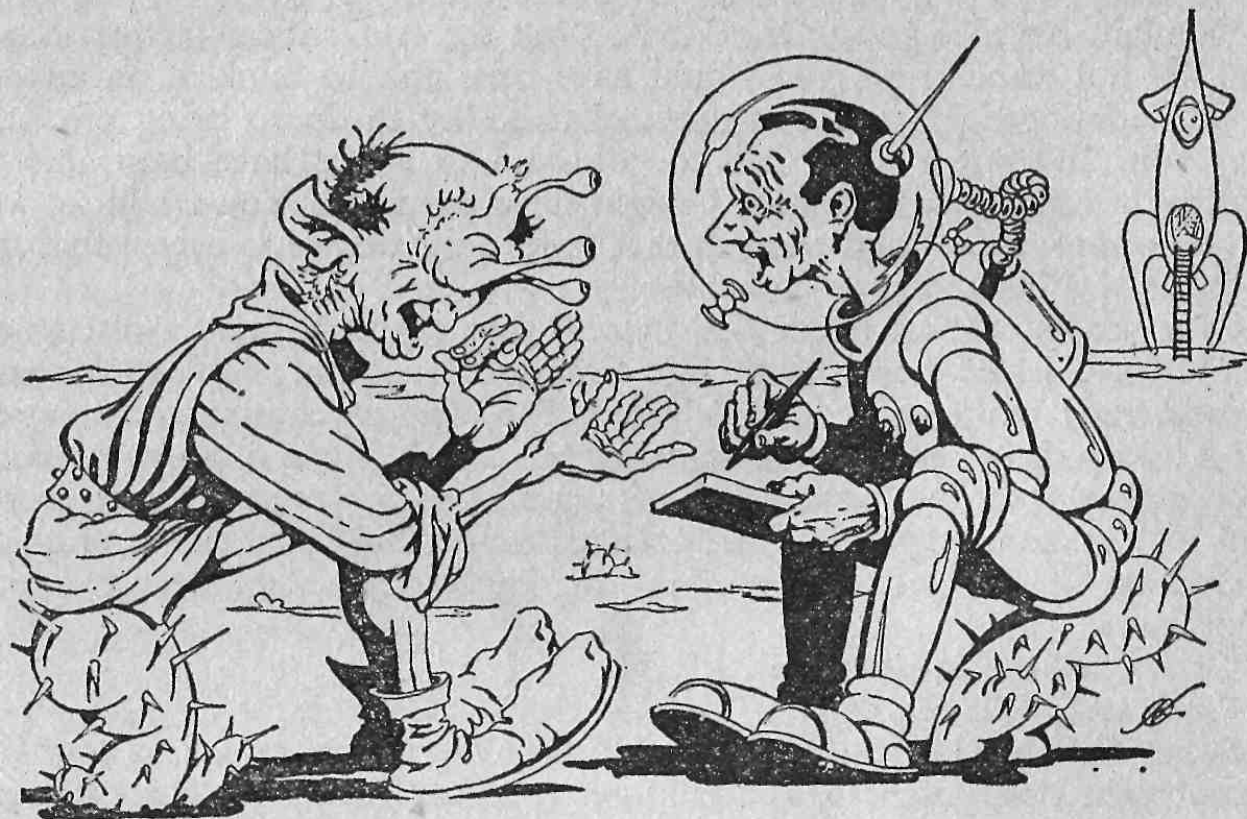
Helmer Myklebust (1957)

Design Features

- ◆ Vocal-auditory channel of transmission.
- ◆ Arbitrariness: there is no direct connection between the signal and its meaning.
- ◆ Duality of patterning: the meaningful elements of language (words, morphemes) are distinct from and composed of meaningless elements (sounds, phonemes).

Arbitrariness

◆ Arbitrariness vs. Iconicity



HOW TO LEARN MARTIAN

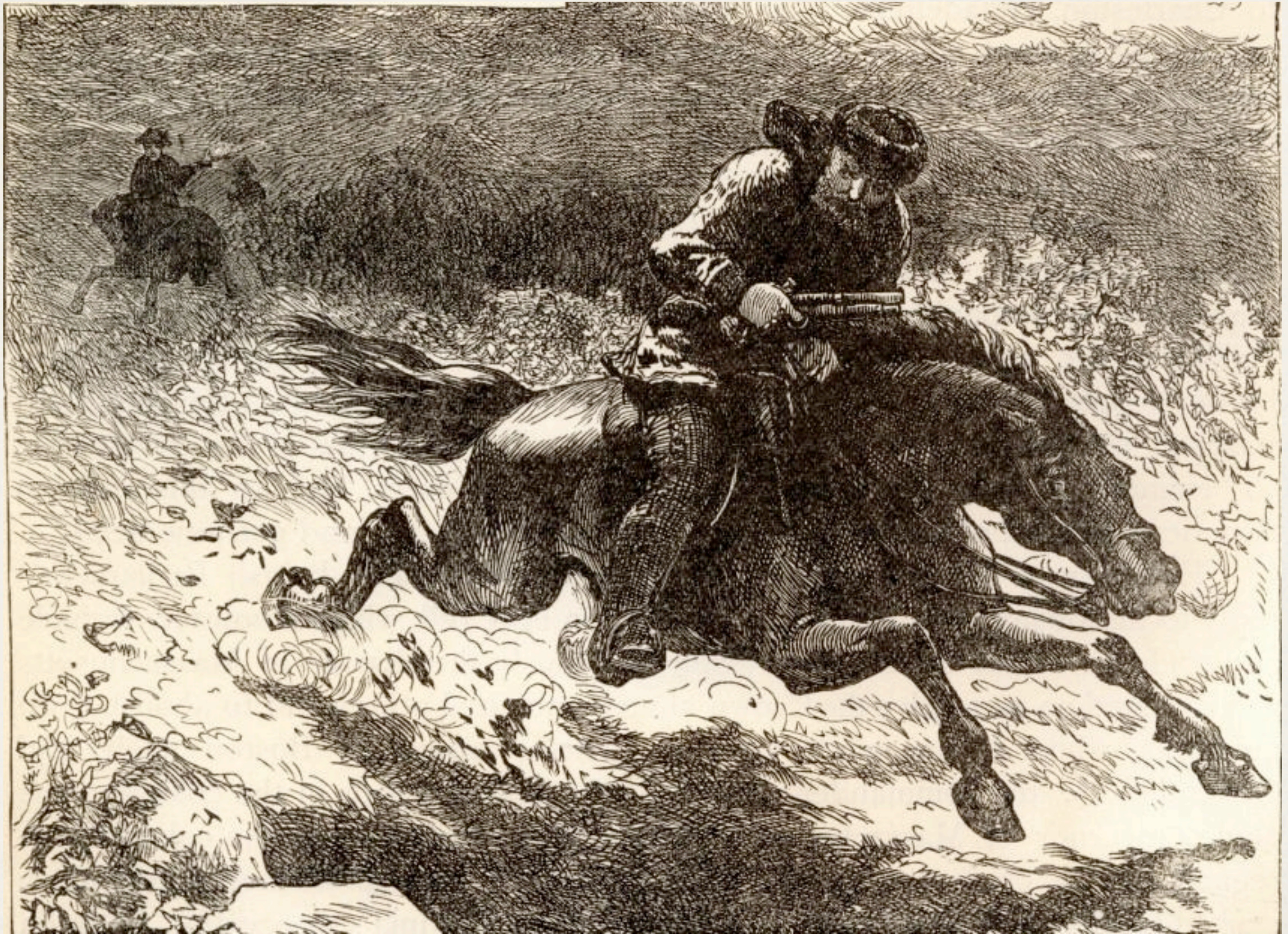
By CHARLES F. HOCKETT

What makes a good signal?

- ❖ Something people can **control**
- ❖ Something people can **observe**

A critical feature of signals

- ❖ Users of the signals must be able to tell them apart!





The system design problem

- ❖ “One if by land and two if by sea” is easy
- ❖ What about a system with hundreds of thousands of distinct signals?

The solution

- ❖ Set up some fairly small inventory or repertory of basic elements, each quite different physically from any of the others
- ❖ Arrange for the actual signals to consist of some sort of arrangement or combination of the fundamental elements



243 combinations

Duality of Patterning

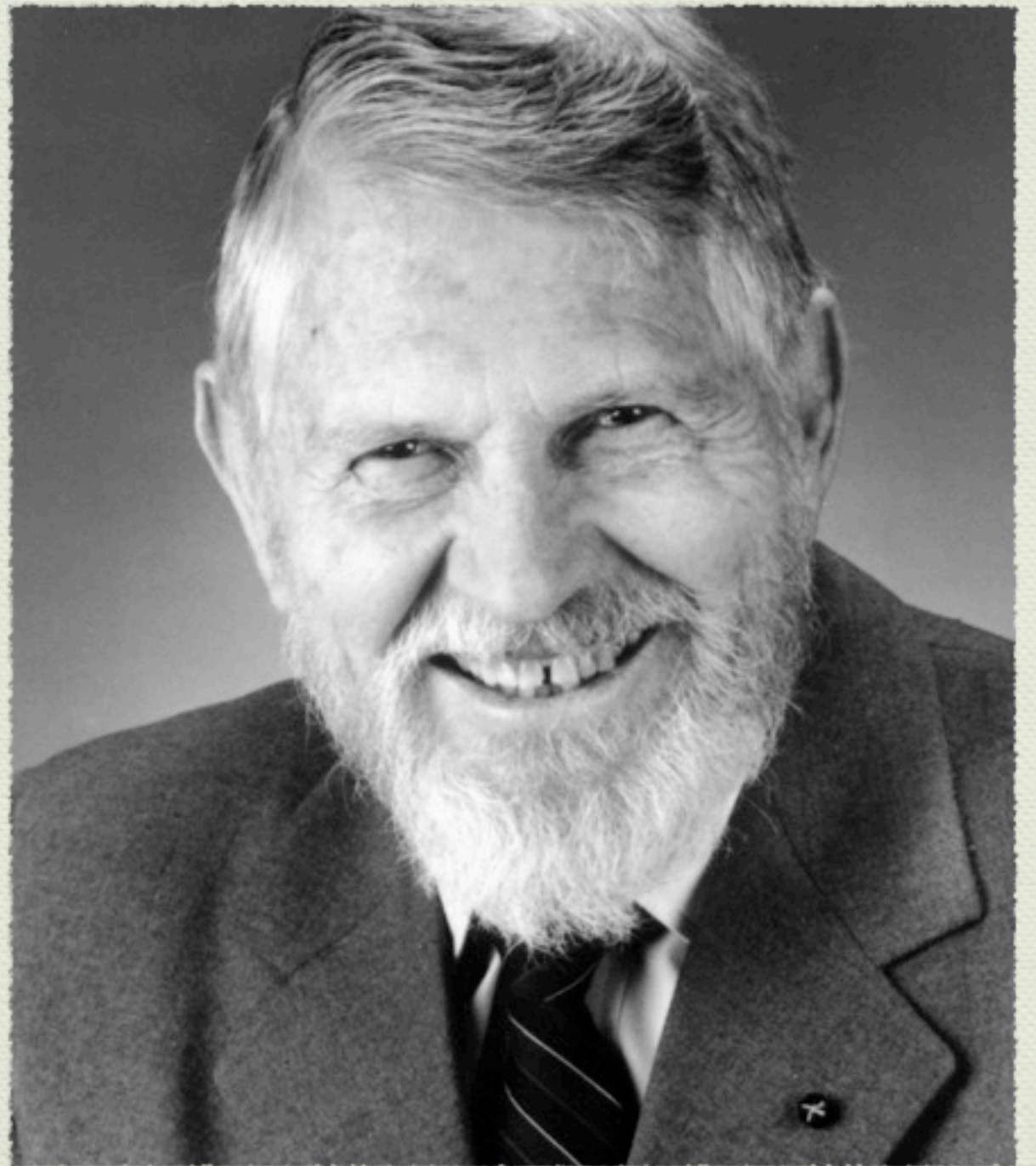
Words have parts

- ◆ Limited inventory of phonemes
- ◆ Phonemes are selected and then arranged to form words

Do signs have parts?

Sign Language Structure

◆ William C. Stokoe (1919-2000)



In producing a sign language utterance, some part (or parts) of the signer's body acts. If the active part is mobile enough, there are various places in which the action may occur, i.e., begin, take place, or end. But the action, the active part, and the place are all present simultaneously. The problem is to see what composes a sign (i.e. what elements they can be decomposed into) when signs are taken as equivalents of words or morphemes of spoken languages.

Signs cannot be performed one aspect at a time, as speakers can utter one segment of sound at a time. Signers can of course display handshapes of manual signs *ad libitum*, but they cannot demonstrate any significant sign action without using something to make that action somewhere.

By an act of imagination, however, it is possible to “look at” a sign as if one could see its action only or its active element only or its location only. In this way three aspects of a manual sign of sign language are distinguished, not by segmentation, it must be reemphasized, but by imagination.

Semantic phonology

◆ “Something that acts together with its action.”

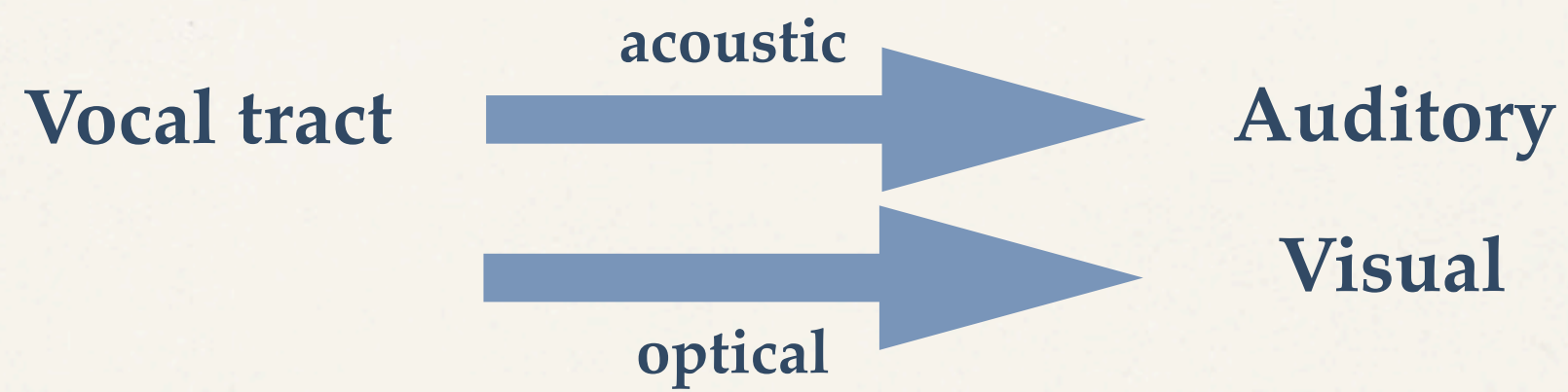
How are signals made?

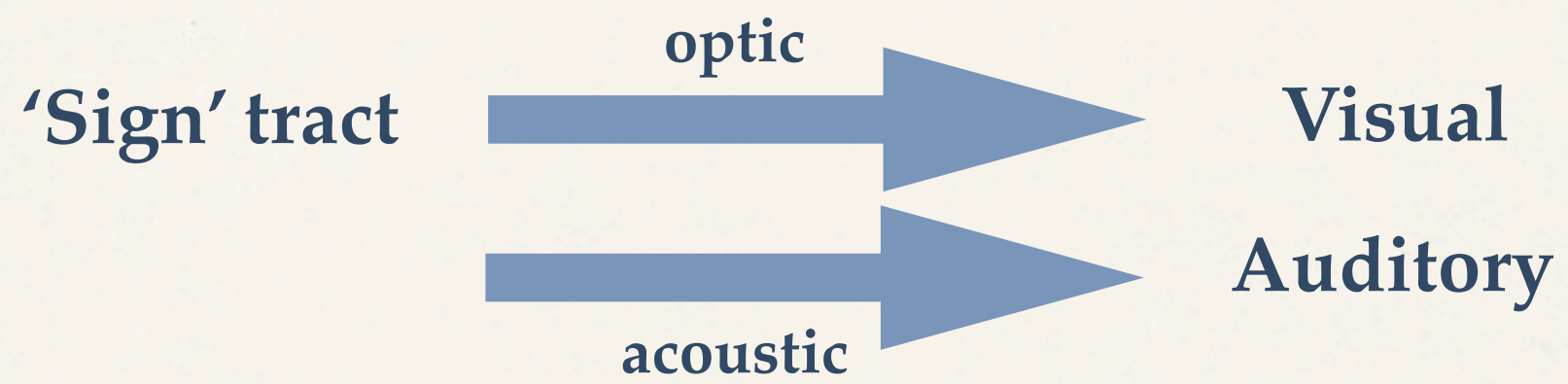
**Body
movement**



**Perceptual
system**

Name the parts!





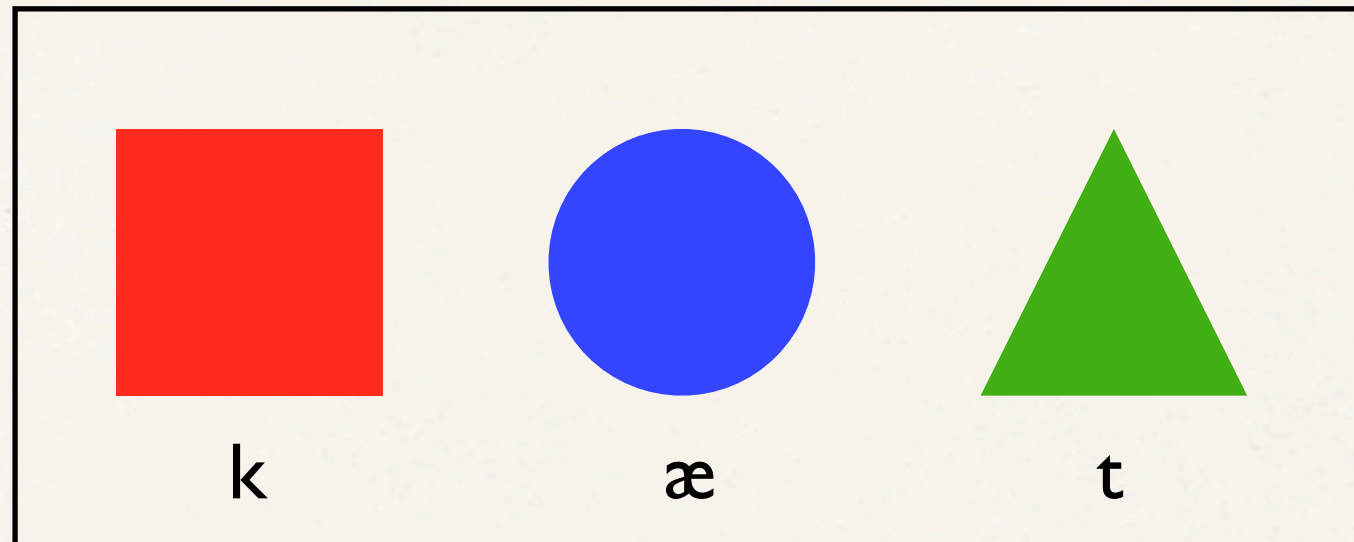
Spoken language

- ❖ Body movements (vocal tract gestures) produce sounds
- ❖ Phonetics
 - ❖ How are the sounds made?
 - ❖ Qualities of sounds
- ❖ Phonology
 - ❖ The inventory of sounds in a specific language and how they are combined to make words

How do we make words?

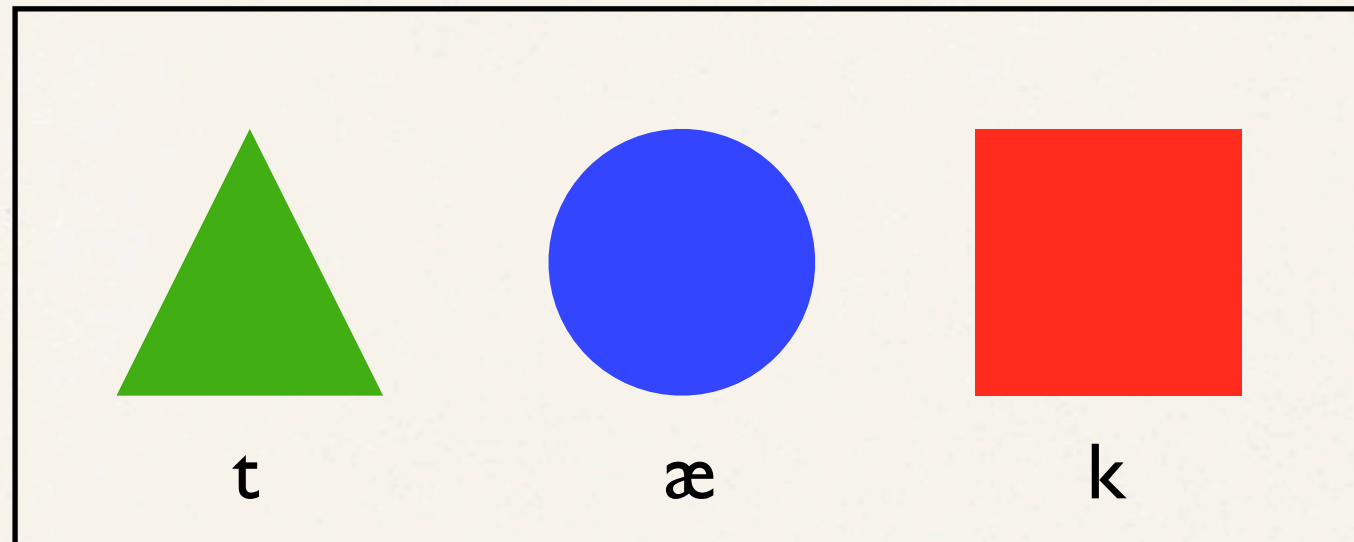
- ❖ Limited number of sounds are combined
 - ❖ How are the sounds combined?
 - ❖ Simultaneously
 - ❖ Sequentially

Word



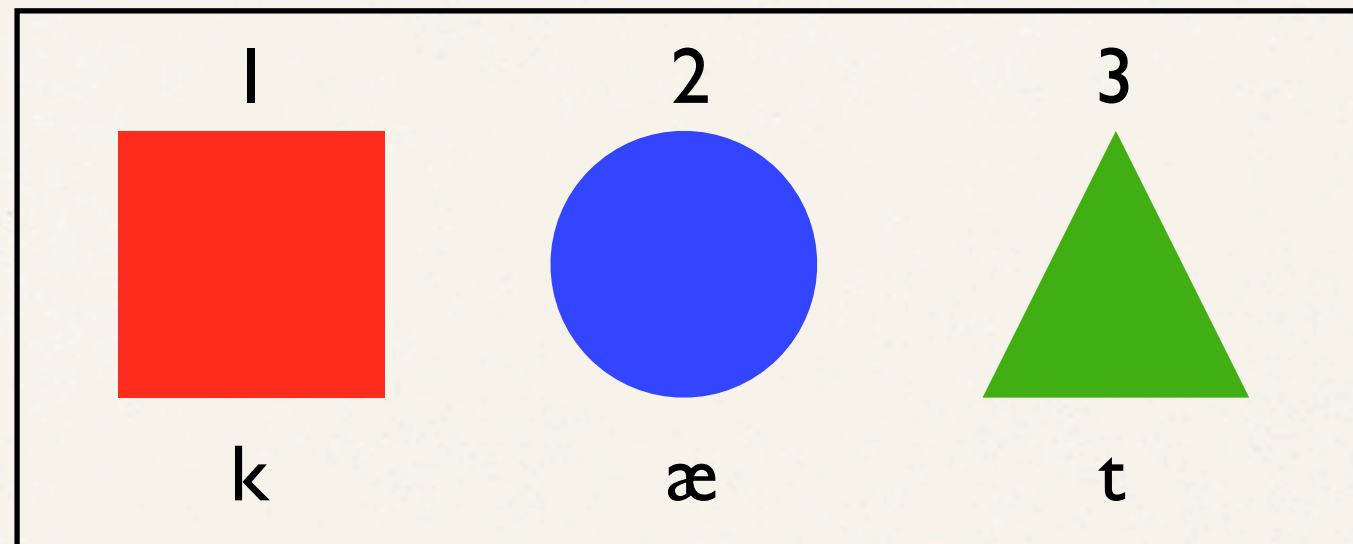
This sequence of sounds makes the word 'cat'

Word



Using the same sounds in a difference
sequence makes a new word: 'tack'

Word



In speech, the phonemic components of a word are segmented in time...”

What about signed words?

Signed language

- ❖ Body movements (hand-body-facial gestures) produce visible shapes, in certain locations, that move in various ways
- ❖ Phonetics
 - ❖ How are these elements made?
 - ❖ What qualities do they have?
- ❖ Phonology
 - ❖ The inventory of elements in a specific language and how they are combined to make words

How do we make words?

- ❖ Limited number of elements are combined

What are the elements

- ❖ Aspects or parameters
 - ❖ handshapes
 - ❖ movements
 - ❖ locations
- ❖ Robbin Battison: hand orientation

How do we make words?

- ❖ Limited number of elements are combined
 - ❖ How are they combined?
 - ❖ Simultaneously
 - ❖ Sequentially

How do we make words?

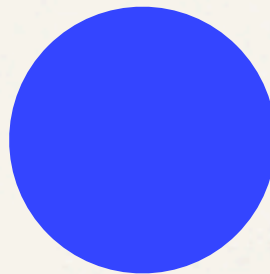
- ❖ Limited number of elements are combined
 - ❖ How are they combined?
 - ❖ Simultaneously
 - ❖ Sequentially
 - ❖ We can't reorder the elements sequentially!

Word

Handshape



Movement



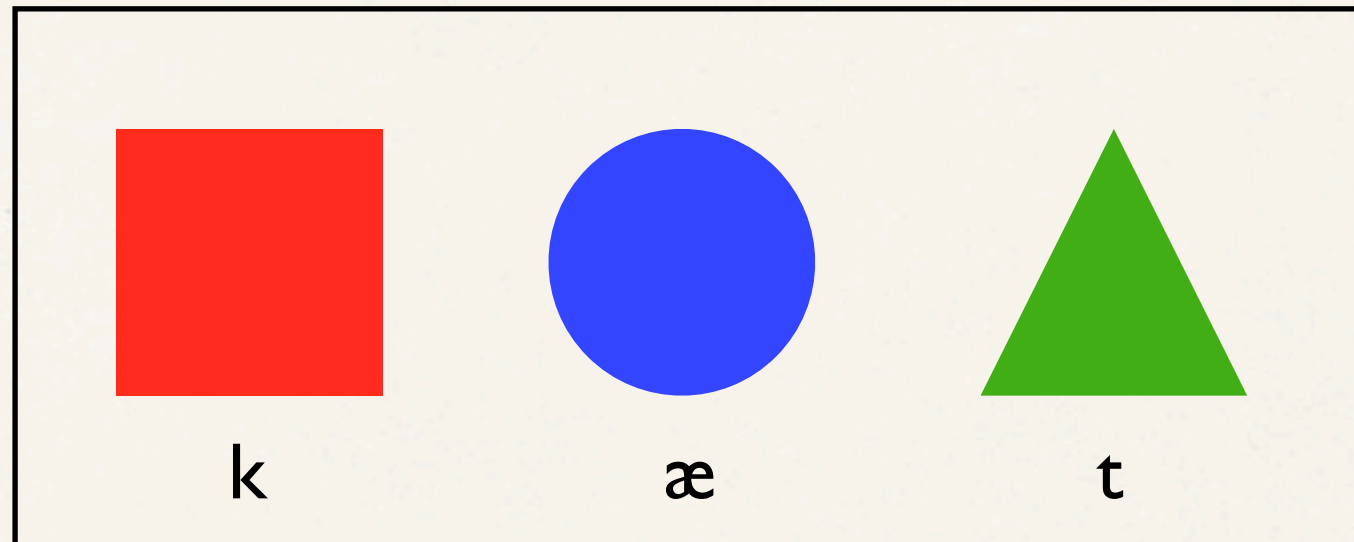
Location



- ❖ Stokoe's insight was pioneering because people said that signs were not composed of parts (phonemes) that are combined to form words
- ❖ They said that signs are holistic images, not analyzable into linguistic elements

- ❖ Signs are holistic, not analyzable into parts
- ❖ Signs are analyzable, but simultaneously (Stokoe)
- ❖ Sign are analyzable sequentially (Liddell & Johnson)

Spoken Word 'cat'



Consonant

velar
unvoiced
stop

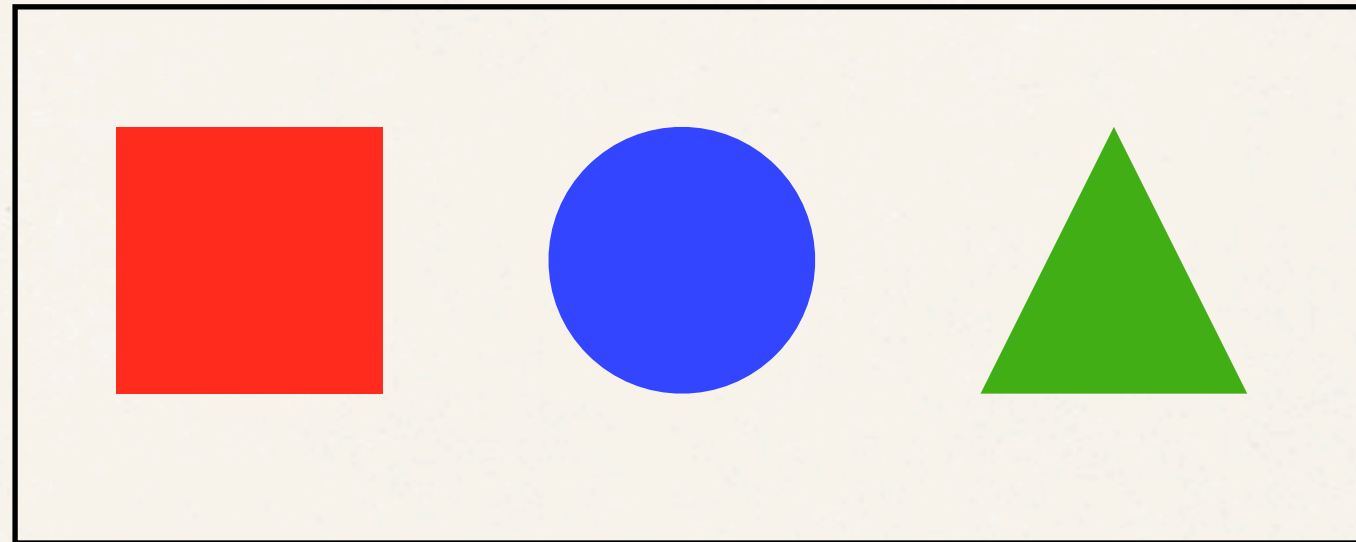
Vowel

near-open
front
unrounded

Consonant

alveolar
unvoiced
stop

Signed Word 'I-GIVE-YOU'



Hold

flat-O
chest
up

Movement

away from S
...
...

Hold

flat-O
distal Ø
up

Signed Language Linguistics

Part 2: Morphology

Date

❖ 'tree'

❖ 'trees'?

❖ 'cup'

❖ 'cups'

- ❖ ‘walk’
- ❖ ‘walked’
- ❖ The English word ‘walked’ has how many morphemes?
- ❖ How do we indicate “walked” ASL?

Polymorphemic verbs in ASL

mmm

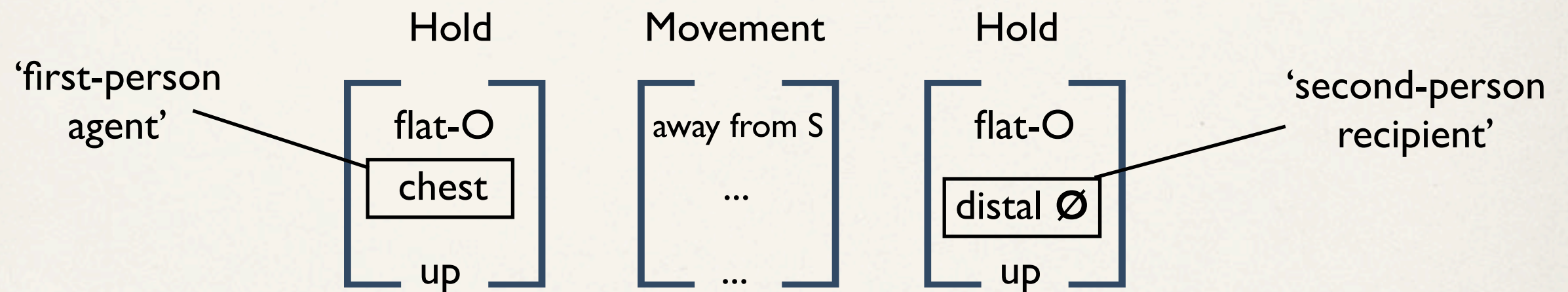
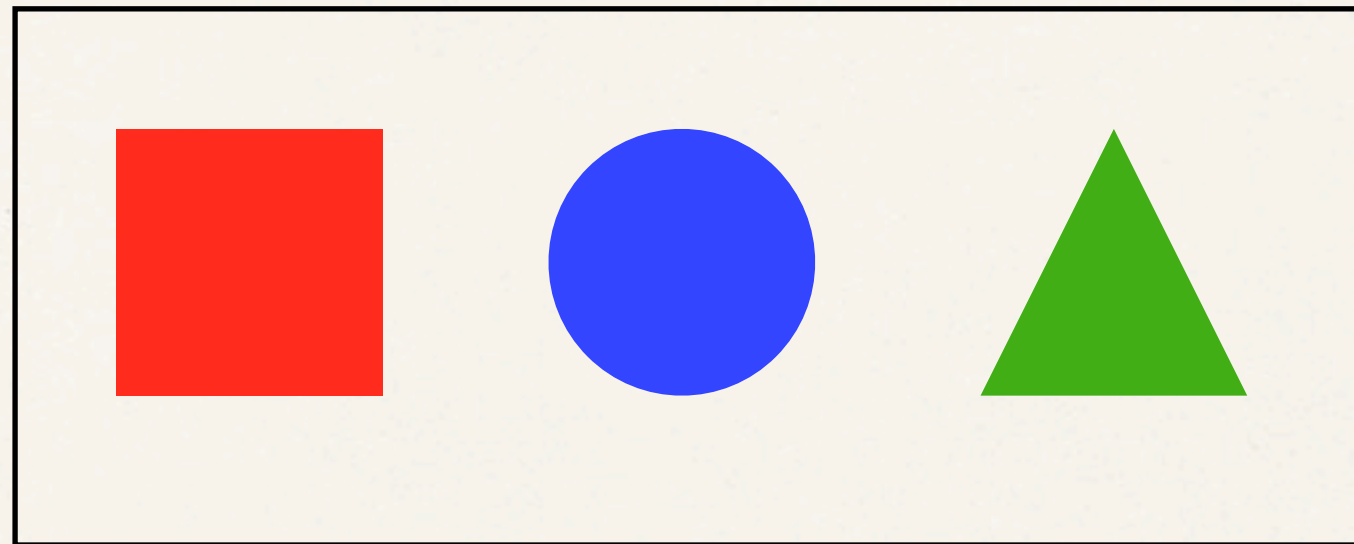
[LOOK-AT]_{hab.}

“[1p stared at 3p for a really long time.]”

✧ 'I give you'

✧ 'You give me'

'I-GIVE-YOU'



Is ASL polysynthetic?

- ❖ “I give a number of items to each individual.”
- ❖ “I give a number of items to each individual.”
- ❖ “I carefully gave a number of items to each individual.”
- ❖ “I carelessly gave a number of items to each individual.”

Lecture Three: Overview of Cognitive Grammar

Lecture Four: Cognitive Iconicity