# From gesture to sign language

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## Two approaches to language analysis

Language in the brain: system of rules and operations

Language and cognition are *embodied*: the body of the speaker and signer interact with the world

#### Ideas about gesture and sign

Sign language is separate from gesture.

Sign languages are conventional, community languages. Sign languages have lexicons, syntactic rules, and phonological structure.

Gesture is holophrastic and less conventional.

#### Gesture - sign language continuum

Gesticulation > Pantomime > Emblems > Sign language

global	global	segmented	segmented
synthetic	analytic	synthetic	analytic
not conventional	not	partly	fully conventional

Kendon, in McNeill, 2000

## Sign languages around the world

National sign languages: large languages with regional, social and class variation

Established sign languages like ASL are at least 7 generations old, and likely more

Village sign languages: small languages

New and young sign languages: 0-3 generations

#### Two young sign languages

Al-Sayyid Bedouin Sign Language (southern Israel): about 80 years old, 100-120 deaf signers, and many more hearing signers

Work with Mark Aronoff, Irit Meir and Wendy Sandler

Central Taurus Sign Language (southern Turkey): used in several small villages where have intermarriage and frequent travel between them

With Rabia Ergin, Naomi Berlove, Ray Jackendoff and Ariel Goldberg

## Ideas about meaning and structure in languages

Meaning and structure are independent of the other.

Meaning can be studied apart from structure, and structure can be studied apart from meaning.

### Language is embodied

Gesture, speech and sign are embodied; they reflect how language is used by humans in their environments.

## Meaning and structure are studied together

In new languages, meaning is shared, even as language structure emerges.

How can a community have shared meaning, if they do not have a conventional lexicon?

### From gesture to sign

Our goal is to study gesture to sign as an emerging system, not as separate systems.

We study hearing non-signing gesturers, signers of different new and emerging sign languages, and signers of different established sign languages.

### Building a lexicon

Tools: hammer, screwdriver, mascara, fork, knife

Fruits and vegetables: apple, banana, bean sprouts, eggplant, cauliflower

Animals: lion, bear, scorpion, fish, snake, dog

#### Pictures of objects

Tools





Fruits & vegetables





Animals





#### Tools

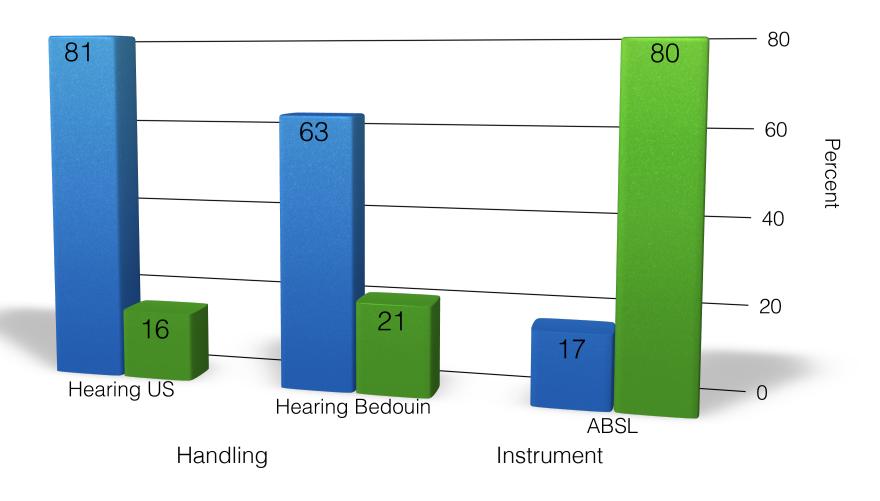
Overton & Jackson (1973): imagined object, bodypart-as-object

Young children are more likely to use body-part-as-object.

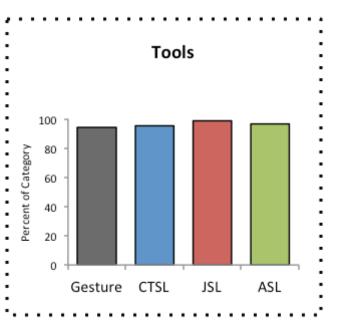
Adults are more likely to use imagined object.

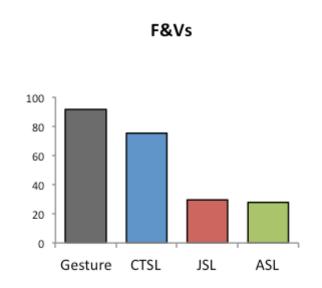
## Type by gesturers and signers when describing pictures of tools

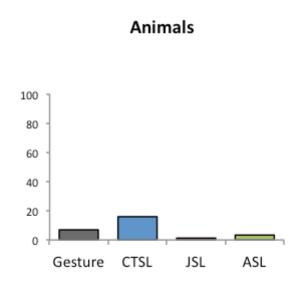




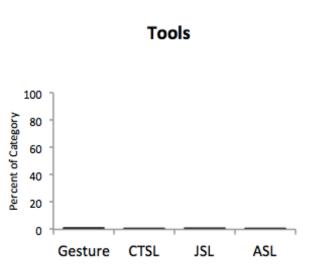
#### Human action

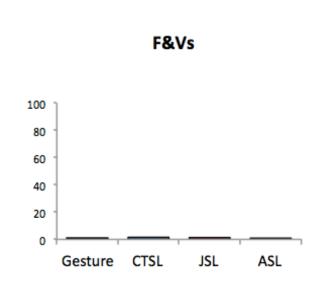


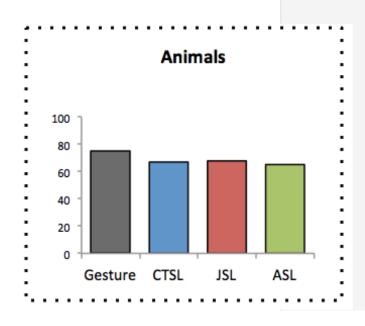




### Body as animate







### Hands as object

