

INTD0111A

The Unity and Diversity of Human Language

Lecture #21
April 27th, 2009

Announcements

- Any questions on Assignment #4?
- Any LAP questions?
- The Piraha paper.
- Review session: May 9th?

More on linguistic diversity: Sign language systems

Sign language

- Sign language is the term used to refer to the system of sign communication that develops naturally by the deaf.
- Notice that in that sense sign language is different from artificial systems that are created to facilitate communication between the deaf and the hearing community, e.g., finger-spelling or Manual English.

<http://video.about.com/deafness/Sign-the-Alphabet-in-ASL.htm>

Misconceptions

- For long, people have had all sorts of wrong ideas and misconceptions about sign language systems.
- In this class we discuss these misconceptions and we show how the study of sign languages provides great insights for the study of human language in general.

Misconceptions

- Misconception #1: There is one sign language spoken all over the world.
- Wrong. There are many sign languages all over the world, quite different from one another. The relationship of sign to meaning may not be quite as arbitrary as it is for spoken language, but there is still great room for variation. American Sign Language is different from British Sign Language, and both are different from Italian Sign Language.

Misconceptions

- Misconception #2: American sign language (ASL) is just a system for spelling out English.
- Wrong again. ASL is its own language with its own lexicon and grammar, exhibiting features that bear no typological relationship to English.

Misconceptions

- Misconception #3: Sign languages are not as complex as spoken languages.
- WRONG. Sign languages are natural languages with a lexicon and a grammar. They have a phonology, morphology, and syntax. They also have the full range of expressiveness of spoken languages, as evidenced by a full range of language artifacts like stories and poems.

Sign languages are natural languages

- Modern interest in sign languages was sparked by William Stokoe's (1960) *Sign Language Structure*, where he showed how ASL have systematic organization that strongly parallels the phonological structure of spoken languages.
- From that time on, more work has been done both on ASL as well as other sign languages.

Sign language phonology

- Stokoe identified 4 components of signs in ASL:
 - a. handshape
 - b. hand orientation
 - c. location
 - d. movement
- Change any of these 4 and you change the meaning of the word. For example, The signs CANDY, APPLE, and JEALOUS, have the same location, movement, and orientation, and are distinguished only by their handshape (p. 87, Fig. 7.1).

Sign language phonology

- The signs for CHINESE and ONION have handshapes and twisting motion identical to CANDY and APPLE, respectively, but in a different location. (p. 87, Fig. 7.2)
- The signs for NAME, SHORT, and EGG are all made with the same handshape, location, and orientation. The first two are made with different motions of the right hand; the last is made with motion of both hands.

Iconicity

- A couple of quick notes here.
- Notice that signs in ASL are somewhat related to the things they refer to in the world. In that sense, they are considered *iconic*.
- Spoken languages, by contrast, are non-iconic. The relation between form and meaning is arbitrary. Onomatopoeic words represent a tiny fraction of words in a language.

Simultaneity

- Notice also that sign languages allow simultaneous articulation of signs.
- Spoken languages do not have this luxury, since sounds have to come out in sequence.
- More recently, though, researchers pointed out “sequential” features in sign languages, and “simultaneous” features in spoken languages.

Prosody in sign languages

- Like in spoken language phonology, where stress, pitch of voice, and intonation represent features of speech, sign languages use similar “prosodic” features such as *body posture, facial expression, pauses, increases and decreases of speech rate, and timing of emphasis.*

Prosody in sign languages

- For example, the following three sentences have the same sequence of hand signs in ASL:
 - a. The woman left her book.
 - b. Did the woman leave her book?
 - c. The woman didn't leave her book.
- The difference is signaled by the face. The statement in (a) is accompanied by a neutral expression. The question in (b) is signaled by a brow raise, widened eyes, and frequently a tilting forward of the head or whole body. The negative sentence in (c) is signaled by a side-to-side headshake and frequently by drawing the brows together.

Sign language morphology

- One interesting phenomenon in ASL has to do with the forms of the verb. ASL verbs will typically include much more information than what a verb in English would do.
- Fill in the blank: ASL is a _____-marking language.
- Consider the examples in the reading by Jackendoff for “I ask you” vs. “You ask me” (p. 91).

Sign language morphology

- The direction of motion in the verb's sign can be altered, so that it begins at the location in signing space for the subject and ends at that for the object. Sounds familiar, huh?
- Not only that. If the subject and object are pronouns, they can be omitted altogether as separate signs. Hmm... Should be familiar too!

“I show you” vs. “You show me”

I SHOW YOU.

YOU SHOW ME.

- You can find the videos here:
<http://bcs.bedfordstmartins.com/linguistics/pages/bcs-main.asp?v=category&s=00020&n=10000&i=10020.01&o=1100001&ns=245>

Aspectual morphology

- The motion of the verb can be inflected to show whether the action takes place at a point in time, over a long period of time, incessantly, repeatedly, or habitually.
- Example: LOOK AT, p. 92

Distribution over time

- The motion of the verb can express how the action is distributed among a group of individuals over time.
- Example: p. 93.

I SHOWED ALL OF YOU.

Compounding

- Compounds in English have a different stress pattern from regular Adj + N strings, e.g.,
'black 'bird
'blackbird
- Same in ASL: Compounds exhibit altered timing and reduction in form, e.g.,
BLUE + SPOT "bruise"

Sign language syntax

- ASL uses both the wh-fronting and the wh-in-situ strategies to form questions (as in French):
WHO BILL SEE YESTERDAY?
BILL SEE WHO YESTERDAY?
- Wh-questions are accompanied by a facial expression with furrowed brows and the head tilted back. Cf. the role of Aux in English and similar languages.

Word order in ASL

- ASL is generally SVO in word order. However, there's also freedom of word order for different discourse and pragmatic effects.
- Topics typically occur first, while focused elements occur last.

Word order in ASL

- BOY EAT ICE-CREAM. (SVO)
- ICE-CREAM, BOY EAT. (OSV)
- BOY, ICE-CREAM EAT. (SOV)
- ICE-CREAM, EAT BOY. (OVS)
- BOY EAT. (SV)
- EAT, BOY. (VS)
- EAT ICE-CREAM. (VO)
- ICE-CREAM, EAT. (OV)

Embedding in ASL

- IX(me) TELL WOMAN TELL MAN PERSUADE GO THERE PARTY IX(me).
“I told the woman to tell the man to persuade you to go to the party.”

Sign language acquisition

- Children acquiring sign language go through the same stages that children acquiring spoken languages do.
- For example, their first word combinations occur around 18 months of age.
- Signing children make relatively few errors, typically involving substitution of one handshape or location for another.
- The core properties of the language are acquired by the age of 5.

Sign language acquisition

- In one study of the acquisition of wh-questions in ASL, researches found that children easily learned the rules associated with the wh-phrase (they would move it sometimes, or leave it in situ at other times).
- But the children typically omitted the non-manual marker, in a comparable fashion to children omitting auxiliaries from wh-questions in English and related languages.

Sign language acquisition

- Hearing children of deaf parents acquire both sign language and spoken language when exposed to both.
- For example, Canadian bilingual children who acquire *Langues de Signes Quebecoise* (LSQ), develop the two languages exactly as bilingual children acquiring French and English.

Nicaraguan Sign Language

- An often discussed case is that of the Nicaraguan Sign Language.
- When the Sandinistas came to power in 1979, one of their social reforms involved the start of two schools in Managua for the formal education of deaf children, who were brought together from all over the country.

Nicaraguan Sign Language

- The children who were brought together came without a sign language. There was no sign language of Nicaragua. At best, the children came with a limited number of “home signs,” signs that they had been using at home with their families and with their playmates.
- Once put together in the schools, the children quickly developed a kind of *sign pidgin*, based on their home signs.

Nicaraguan Sign Language

- In 1986, a linguist and a sign language expert, Judy Kegl, was invited to the school to clarify and improve the situation.
- She first analyzed the signing of teenagers, beginning with a registration of their words. Then, she looked at a group of very young children and suddenly she realized a profound difference between the way these two groups sign.
- The young group signed much better, more fluently and with a more complex grammatical structure.

Nicaraguan Sign Language

- The older generation was using what we called a pidgin last week. The crucial step of creolization was then made by the younger generation.
- Just like in the creolization of pidgins based on spoken languages, this step turned the sign pidgin into full-fledged language.

Language change of sign language

- Like spoken languages, sign languages also undergo change. ASL has actually changed from what it was at the turn of the century.
- One change has to do with the signing space in ASL. In Old ASL, all of the body and the space around it was used in signing. Today's signing space is more restricted, occurring mainly in front of the body within reach of the arms when they are bent at the elbow.

Language change of sign language

- Particular signs also undergo change. Signs that used both hands on the head (e.g., COW) now use only one hand.
- Signs that formerly used one hand on the periphery of the signing space (e.g., DIE), now use two.

Sign languages have "accents" and "dialects"

- See the "accent" difference for ABOUT, and the "dialect" difference for FOOTBALL.

Link to ASL browser

<http://commtechlab.msu.edu/sites/slweb/browser.htm>

Next class agenda

- Language death: Endangered languages. Follow the links on the syllabus table on the class website for the readings.