LING 001
Introduction to Linguistics

Lecture #4

General Features of Human Languages

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Announcements

- For those just joining us, **welcome**! You can catch up with the **recorded lectures** and **study guides**.
- My **office hours are cancelled today**.
- **Exam 1** is just 2 weeks away!
- **A/V issues are being resolved** and the loud heater is being fixed.

How to do well this week

- Do the assigned reading (~1 hour)
- Attempt the practice problems (~2 hours)
  - Go to recitation!
- Briefly review the past study guides (~20 min)

Main points on Acquisition

- Children **impose structure** and derive underlying rules on their linguistic input that goes way beyond what is present in the input
    - They will **do things** that adults would not
    - The range of their errors is quite limited & revealing
- The nature of language acquisition thus further supports the idea of **a Language Instinct**
- Link back to Critical Period Hypothesis:

  The capacities at play are only present during a certain developmental time window

All Languages are equal

- All human languages share fundamental properties
- **In a deep way**, they are all equal
- But they are of course not identical

- They are **equal** in
    - Acquisition
    - Complexity
    - Expressiveness

Equality in...

- **Acquisition**:
  All human languages are acquired by children in the same general way, using their language instinct

- **Complexity**:
  All human languages have complex rules for phonology, morphology, and syntax

- **Expressiveness**:
  All human languages are equally capable of expressing complex thoughts

Acquisition as Re-invention

- A family of '**natural experiments**':

  What happens when children are in an environment without a fully formed language?

- **3 case studies**:
  - Pidgins vs. Creoles
  - Nicaraguan Sign Language
  - Deaf children without native signer contact

Pidgins vs. Creoles

- Various historical contexts led to groups of people from different backgrounds having to work together
- Lacking a common language, a so-called pidgin language emerges
- Features:
  - No fully fleshed out grammatical system
  - Strong dependence on context to infer meaning
- **Miraculous next step**:
  Children exposed to pidgin turn it into a creole - with a fully fleshed out grammatical system

Illustration: Pidgin vs. Creole

- **Pidgin (Hawaii):**

  Me cape buy, me check make

  Intended:
  'He bought me coffee; he made me out a check'

- **Hawaiian Creole:**

  Da firs japani came ran away from japan come

  `The first Japanese who arrived ran away from Japan to here.'

  (from Lee Bickerton's work, reported in Pinker)

Where did the Creole come from?

- The children were not exposed to any full-fledged language with a standard, complex grammar
- Nonetheless, their mental acquisition device turned what they heard into such a system
- So creoles would seem to be excellent case studies providing a perspective on what the language instinct contributes in language acquisition!

Nicaraguan Sign Language

Background:

- Up to Sandinista take-over in 1979, deaf children were at home, **isolated** from other deaf people
- **Deaf children** typically had their own rudimentary gestural signing system to communicate with their families
- The Sandinista created first schools for the deaf
- Some efforts were made to teach the children lip reading and speech, but without much success

However…

What happened - Part I: LSN

- Being thrown into a community of other deaf children, conventions about some of the home signs quickly evolved
- **Result**: equivalent of a pidgin

  Lenguaje de Signos Nicaraguense (LSN)

- This pidgin **continues to be used** by those children that were already into their early teens when they started school
- Typical **limitations of pidgin**:
  no full grammatical system, many circumlocutions, substantial variation...

What happened - Part II: ISN

- The **younger children** (4+) that entered the schools observed their older peers communicating in their pidgin
- Their own use of the signing system quickly took on a new life of its own
- They soon exhibited a far richer morphological and syntactic system, which evolved into

  Idioma de Signos Nicaraguense (ISN)

- Today, this is is a full-blown sign language of its own

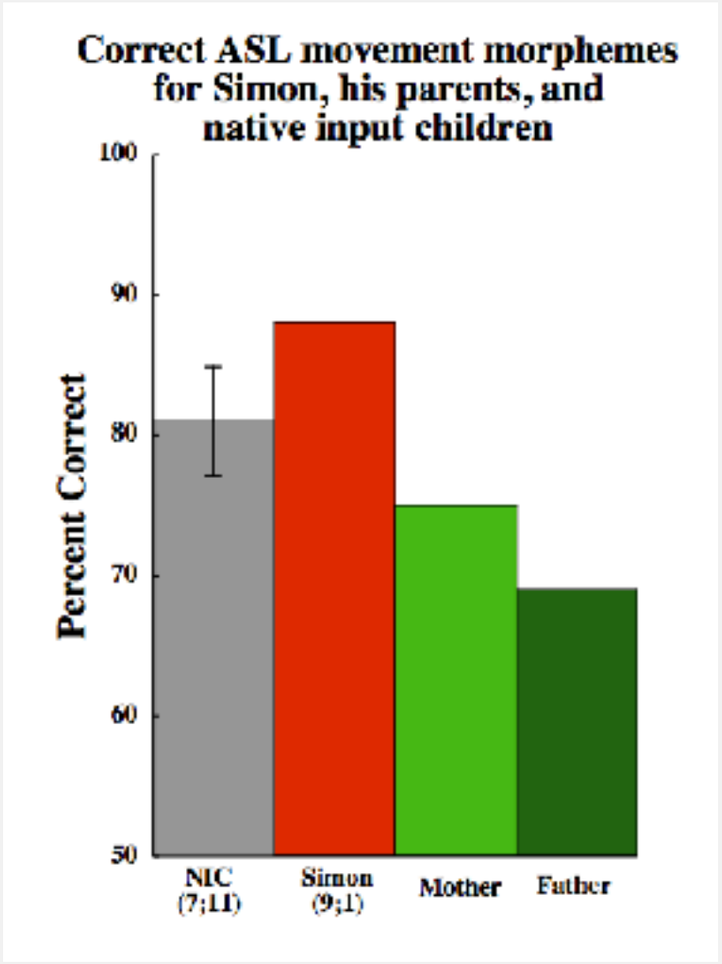
Same trick all over again

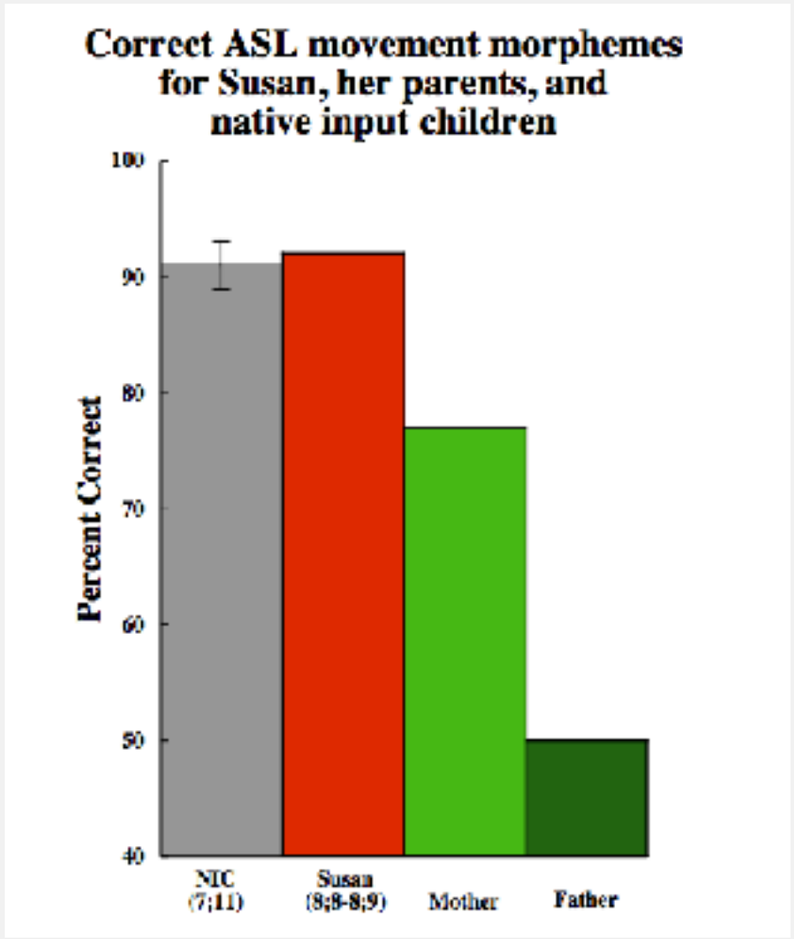
- The younger children had no exposure to a language with a fully developed grammar
- They turned what they saw into such a language
- Once again, this provides evidence for an innate language acquisition device at work

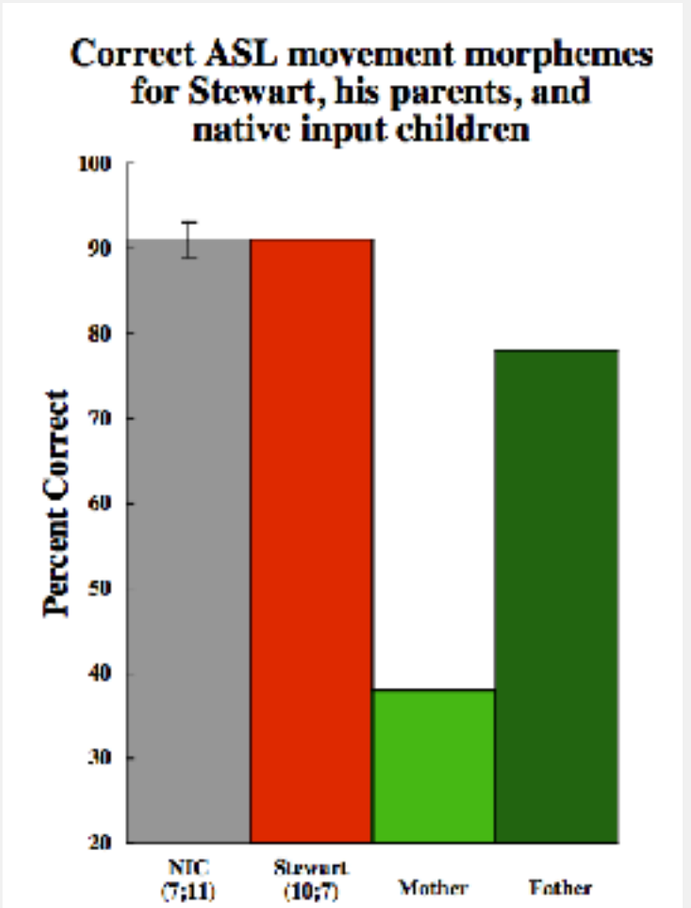
Another story of a deaf child: Simon

- The Nicaraguan case is an extreme version of a much more common situation
- Deaf children are commonly born to
  - hearing parents that do not know sign language
  - deaf parents that only acquired sign language later in life
- Thus, many deaf children grow up without much, or any, native sign language input
- **Extreme case**: Simon (Singleton and Newport)
- **Long story short**:
  Simon was a much better signer than his parents without any substantial native signing input

Simon, Susan, and Stewart







A far more common pattern

- In many ways, the situation of hearing children in standard linguistic environments is not principally different
- They, too, do not get exposed to the full grammar of their language in what they hear
- '**Poverty of the Stimulus**' argument:
  Children's linguistic knowledge couldn't possibly be derived entirely from their linguistic experience
- **Bottom line**:
  Language acquisition quite generally involves what essentially amounts to **reinvention** of the language

Equivalence in Acquisition

- Because all languages are acquired the same way, they share core features

- The **deeper structural commonalities** of the world's languages thus reflect the constraints that `Universal Grammar' places on **possible human languages**

Equality in...

- **Acquisition**:
  All human languages are acquired by children in the same general way, using their language instinct

- **Complexity**:
  All human languages have complex rules for phonology, morphology, and syntax

- **Expressiveness**:
  All human languages are equally capable of expressing complex thoughts

Equivalence in Complexity

- All languages exhibit **comparable structural complexity** based on rules on multiple levels:
  - The level of **sounds** (Phonology)
  - The level of **word** formation (Morphology)
  - The level of **sentence** formation (Syntax)
- Languages vary in **how much complexity** is present on each level
- **Example**:
  - English has little morphology, and depends on word order to encode crucial information
  - Yupik Eskimo encodes most information with suffixes

Yupik Eskimo

Equivalence: Dialects

- **Dialects** are languages of their own
- **No** linguistically **special status** for 'standard' dialects
- **Example**: AAVE
  (see discussion of Larry, interviewed by Labov, in Pinker, pp. 16-19)
  - AAVE has its own intricate grammatical system, which in some ways diverges substantially from standard English
  - You'll hear more about this when we talk about dialects and socio-linguistics in more detail

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Equivalence in Expressiveness

- All human languages are equally capable of expressing complex thought
- Famous counter-hypothesis by Sapir and Whorf: **Language determines thought**
- **Example**: Whorf claimed that Hopi has no tense marking on verbs and no word for time, thus Hopi people have no sense of time!
- **But Malotki's rebuttle**: "Then indeed, the following day, quite early in the morning at the hour when people pray to the sun, around the time then he woke up the girl again."
- Incorrect claims about grammar, faulty arguments

Equivalence in Expressiveness

- **Apache**
  - The boat is on the beach | ‘It is on the beach point wise as an event of canoe motion’
  - He invites people to a feast | ‘He, or somebody, goes for eaters of cooked food”.
- “How utterly unlike our way of thinking!” - Whorf
- But consider **English** translation
  - He walks | ‘As solitary masculinity, leggedness proceeds’

Expressiveness: Vocabulary

- **The worry**:
  don't some languages have simpler, less complex vocabularies than a language like English?
- **The reassurance**:
  Vocabulary is closely linked to culture. Complex areas of culture have complex vocabularies.
- All languages readily add new words when culture changes.
- This is different from rules of language, which change much more slowly.

Expressiveness - Words for Snow

- Popular Myth:
  The Eskimo have 100 words for ‘snow’

Expressiveness - The truth about ‘snow’

- Eskimos have only **two words for snow**:
  - **qanik** ‘snow in air/snowflake’
  - **aput** ‘snow on the ground’.
- Of course, they can say many more things about the properties of snow, but so can **avid skiers**, **extreme mountain climbers**, etc. in English

- See links on Perusall
  - to ‘The Great Eskimo Vocabulary Hoax’

Equivalence of Languages

- Languages are equivalent in various ways
- This is so because all human languages are acquired in the same way, using the language instinct
- Language is as much a shared characteristic of humans as bipedal locomotion, manual dexterity, or sophisticated visual perception
- Thus, linguists primary interest is in '**Language**' as opposed to '**Languages**'!

  We ultimately want to understand what the shared biological make-up reflected in the shared properties of all languages consists of.

Up Next

- **Animal Communication**
  - The sophistication of honey bees
  - The limits of primates
  - And more!