Main Point
With psycholinguistics, we look at how brains produce and make sense of language. We aren't born understanding and producing language. Our brains must grow and mature first. Nevertheless, we are born with an innate sense for language, and this innate sense is called universal grammar (UG).

Basic Questions
- How do our brains make sense?
  - HOW DO WE *** L ANGUAGE?
- Acquire
- Produce
- Lose
- Understand
- Store

Psycholinguist
- A psychologist who studies how people understand, produce, or learn language.
- Psycholinguists look at
  - How humans acquire language
  - How we comprehend language

Psycholinguist
- Psycholinguists look at
  - How we produce utterances
  - How we lose language

Psycholinguist
- Psycholinguists look at
  - How humans acquire language
  - How we comprehend language
  - Two main ways to research.
    - Look at spontaneous utterances, for example, mistakes.
    - Make psycholinguistic experiments.

Aims of Psycholinguistics
- Look at spontaneous utterances, for example, mistakes.
- Fix this: This class is MASTLY/mean MOSTLY about linguistics.
- Fix this: This class is MAINLY/mean MOSTLY about linguistics.
- Mistakes show us how people produce language.

Generation Question
1. In YOUR brain, where do you produce language?
2. With generation, you try to solve a problem before you see the answer. Generation helps you learn.

Language and Brain
- Psycholinguists are also interested in your brain.
  - Left controls right side of the body.
  - Right controls left side of the body.
  - 95% of us process L in the left brain.

Left brain
- 95% of right handers...
- 5% of right handers...

Right brain
- 75% of left handers...
- "25% of left handers...
  - Bilateral or both!

Language and Mind (Psycholinguistics)
by Joseph Poulshock PhD
A man was having problems with his memory, so he went to the doctor.
The doctor said, "What's the problem?" The man said, "I can't remember anything."
The doctor said, "When did this problem start?" And the man said... "What problem?"

**Brain and Aphasia**
- Aphasia weakens a person's ability to process language.
- But it generally does not affect intelligence.

**Brain and Aphasia**
- Aphasia weakens a person's language ability.
- It affects our ability to speak, listen, read, write, and sign.
- Brain injury or a stroke can cause aphasia.

**Timing of Acquisition**
- Language is maturationaly controlled behavior.

**Generation Question**
1. With generation, you try to solve a problem before you see the answer. Generation helps you learn.

**Timing of Acquisition**
- Language is maturationaly controlled behavior.
- Language is innate and instinctive.
- But what exactly about language is innate?

**Chomsky and UG**
- Chomsky is probably the most famous living linguist in the world today.

**Chomsky Interview.**

All G: Why is studying language important?
Chomsky: Language is the core property that basically defines human beings.

**Chomsky and UG**
- The rest of the Ali G/Chomsky is inappropriate, so DON'T watch it!
- Chomsky proposes Universal Grammar (UG).
- UG is a bio-innate grammar acquiring ability – Seeds of Grammar.

**(1) Poverty of the Stimulus**
- The Poverty of the Stimulus.
- Children produce more language than they hear.
- They seem to learn language instinctively.

**Say the COLOR, not the word.**
(1) Poverty of the Stimulus

- We don't learn grammar from +/- input alone.
- There's not enough -/+ input, so...
- Some grammar may be innate.
- Born with UG, a universal grammar acquiring ability.

(2) Uniqueness of Language

- First, language is unique to humans.
- We teach primates language.
- They cannot do recursive language.
- But children learn extremely complex recursive language without trying.
- The idea of an innate grammar acquiring ability: UG.
- Only humans have the language instinct -- part of our genetic code.

(3) Timing of Acquisition

- Timing of acquisition supports UG.
- All normal children learn complex recursive language.
- Children pass through language stages.
- The later we start, the less we learn.
- Language learning has biological timing.
- It's like puberty or growing teeth.

- If we miss this timing, we won't grow language like natives.
- If a deaf person learns sign late, he lacks fluency and complex grammar.

- Example, Genie.
- No human contact from 2-13.
- Then intensive L training.
- Learned vocabulary, not complex grammar.

- Thus, L-learning is a maturationally controlled process.
- Such processes follow an innate genetic program.

(4) Localization/Lateralization

- Language localizes in the brain.
- Sign language and spoken language use the same part of the brain.
- Many behaviors localize in the brain (playing guitar).
- But aphasia affects signers and speakers in the same way.

- Signers use hands and eyes.
- Speakers use mouths and ears.
- Both use the same part of the brain.
- Brains are bio-specialized for language.
- Brains designed by a genetic recipe.
- Language has a genetic basis.

(5) Language vs. Intelligence

- Language is (partly) separate from general intelligence.
- Especially if language is partly innate.
- Language savants show linguistic genius.
- But they have low IQ in other areas.

- Christopher is brain-damaged.
- He cannot live by himself.
- But he learned 15 languages.
- His language ability is separate from his general intelligence.

(6) Language Creation

- Language creation supports UG.
- Children of pidgin speakers create a creole -- a complex language from a simpler one.

- Complex creole grammar does not come from the pidgin.
- Children create this language.
- They naturally know what a language has to look like.
- Thus, UG.

- In 1980s, a school for the deaf was made in Nicaragua.
- Deaf children from many places came together at school. From their Home Sign, they made a pidgin.
(6) Language Creation

- Younger signers came to the school.
- Their signs became more and more complex.
- Children created the language because they biologically knew how.

Support for UG

- Innate Grammar Acquisition Ability – Seeds of Grammar
  - (1) Poverty of Stimulus
  - (2) Uniqueness
  - (3) Biological Timing
  - (4) Localization, even with different modalities
  - (5) Separate from general intelligence
  - (6) Language Creation (creolization)