

Linguistics: Theories of form and rules

LINGUIST201
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Agenda

- The nature of linguistic research
 - *Our goal of a theory of linguistic form*
- The value of such a theory
 - *Evidence for rule-governed language*
 - *a Big Question*
- Language, languages, and related ideas
- How to answer the Big Question

The nature of linguistic research

- Linguistics is the **scientific study of language**
 - We observe language, hypothesize generalizations about it, and test those hypotheses to build theories of language
- This class will be about **theories of language**
 - Answers to the question of why language is the way it is and why people use it the way they do

The nature of linguistic research

- Linguists may study any number of **subfields** of linguistics.
 - **Acquisition**: How children come to know their native language(s)
 - **Historical linguistics**: How languages change over time, what it means for languages to be related
 - **Sociolinguistics**: What social factors cause divisions and distinctions in people's speech

The nature of linguistic research

- Any subfield can (and will) make reference to particular linguistics **forms and patterns**
 - **Acquisition**: How and when do children know that “some mango” doesn't mean “some mangoes”?
 - **Historical linguistics**: Why do English speakers say 'Gus has read the book' and Dutch speakers say 'Gus has the book read'?
 - **Sociolinguistics**: What subpopulations of English speakers pronounce 'caught' and 'cot' differently?

The nature of linguistic research

- These questions are about particular instances of language and linguistic use
- Before tackling such a problem, we will want to develop a broader **theory of form** which tells us what sorts of linguistic forms naturally occur, and how to describe forms that are related to each other.

The nature of linguistic research

- To do this we will require a sort of *meta-language* to talk about language and discuss forms and patterns abstractly.
- We cannot rely on conscious knowledge to do this, so we will have to develop new tools.
 - Is this true, and is this a good plan? The next section suggests that the answers are yes and yes!

The value of theories

- **First observation**: Not every utterance is considered acceptable/grammatical.
 - Not just in a **Prescriptive** sense, where some authority has decided what is poor or proper grammar,
 - But in a **Descriptive** or **Naturalistic** sense, where native speakers of a language consistently judge some utterances as good and reject or fail to produce others without ever having actually been taught.

The value of theories

- Evidence that this is true: Rules exist even when they are not taught
 - Many languages are never written or formally taught, but speakers of these languages accept or reject sentences in much the same way as speakers of English, Arabic, French, etc.
 - The most dependably followed rules in English are not often formally taught.

The value of theories

- Consider these sentences:
 1. Vlad made the students look at each other
 2. The students made Vlad look at each other
 3. Who did you read a book by?
 4. Who did a book by impress you?
- Some of these sentences are better than others, but not in any way that English classes tend to talk about.

The value of theories

- Consider these other sentences
 1. Who did you borrow that book from?
 2. From whom did you borrow that book?
 3. Whom from did you borrow that book?
- One of these you may have been taught not to say, and one of them you would never say; these aren't the same.
 - *Prescriptive rules* are often not absorbed and frequently disobeyed; *descriptive rules* not so much.

The value of theories

- **Second observation:** Sentences aren't good or bad because of whether we've heard them before.
 - **That is, we can judge a sentence we've never heard before as good or bad.**

The value of theories

- The sentence is probably novel to you:
 - In a small town in New England, a monster with many tentacles of strange space colors drove everyone in the local book store insane.
- But likely you can still assign it meaning and judge it to be acceptable (presumably)
- Since you aren't doing this based on familiarity, you must be doing it based on its **form** in some sense.

The value of theories

- We can do the same thing with words we've never heard. Consider these:
 - wusk nrood
 - blet proam
 - thrish ngith
 - tleb obtk
- Some of these sound more or less likely to be an English word, but they're all new.

The value of theories

- Why is blet better than tleb?
 - They have the same individual sounds as each other, but the sounds are arranged differently in the word.
 - Thus, the goodness of a word is sensitive to something structural within the word.

The value of theories

- **Third observation:** Sentences are not good or bad simply because they do not "make sense".
 - It's true that ungrammatical sentences can be hard to make sense out of, but not always impossible
 - "The students made Vlad look at each other"
 - More importantly, though, sentences may be sound of form but still nonsense.

The value of theories

- Consider this contrast:
 1. Colorless green ideas sleep furiously
 2. Vivid blue flowers grow slowly
- Two sentences with very similar forms, but one is acceptable and the other is gobbledegook.
- Thus the goodness of the form must be independent from the goodness of the meaning.

The value of theories

- **Fourth observation:** Utterances are not restricted in size – they can be infinitely big.
 - The young chef from the old house where no one ever goes that studied in France thinks that the cops who wear their uniforms every day are planning to say something about how The Pope is visiting just when he needed to talk to his new boss about the reason that...

The value of theories

- If the utterances we are capable of producing/accepting as grammatical are not bounded in size, then the *set* of these utterances is also infinite.
 - We can't be learning an infinite list of utterances, that makes no sense.
 - To know a language then is to know **a system for making utterances**
 - A **Generative** system.

The value of theories

1. Not every utterance is allowed by speakers
 2. Utterances are not considered good or bad based purely on novelty/familiarity
 3. Utterances are not considered good or bad based purely on "making sense"
 4. Natural utterances are unbounded in length
- Four observations leading us to conclude that language is subject to **Structural rules**

The goal of theories

- This is a pretty big observation and it leads to a **Big Question** which we will spend the semester attempting to answer:
 - **How do we describe the natural structural rules which govern the form of linguistic utterances?**

(That is, we are developing a descriptive theory of language)

The goal of theories

- Answering this question allows us to ask other big questions like “where do these rules come from” and “are some rules common to all languages and language users”

(These would help us develop an “explanatory” theory of language)

The object of study

- Something important to keep in mind here is what we mean by words like “language”. Note the following distinction:
 - **Language** is verbal communication, spoken or signed, the form of communication unique to humans, broadly.
 - **A language** is the speech of a particular group of speakers, characterized by emergent, intuitively agreed-upon sets of rules and words.

The object of study

- There is no important (for us) distinction between “a language” and “a dialect”
 - Languages are sometimes said to be dialects “with an army and a navy” – that is, this is a socio-political distinction.
 - Other times the difference is said to be “mutual intelligibility” – differences aside, if two people understand each other, they're speaking versions of the same “language”.

The object of study

- Every speaker acquires their own internal set of rules and words – some are just very similar to each other.
- These systems are our object of study. We typically call them **grammars**
 - A **grammar** is a system that generates a specific set of utterances.
 - We are interested in natural, subconscious, mental grammars, not “school grammars” (prescriptive).

How to answer the Big Question

- Make little questions!
 - We will endeavor to answer the Big Question in a bottom-up fashion: describe the smallest isolable pieces of language and then see how they combine
 - Sounds combine with each other to make words; words combine with each other to make phrases and sentences.

How to answer the Big Question

- Use the scientific method
 - We don't have direct access to our internal mental grammars.
 - But we can think about particular utterances and attempt to generalize about what makes them good or bad
 - These generalizations function as hypotheses.
 - Gathering more data tests the hypotheses and helps us develop better ones.

How to answer the Big Question

- To be useful in general, hypotheses might have to get quite abstract.
 - After all you'll be trying to figure out how two things like this come from the same system:
 - Please move your car.
 - Javier might take me to the movies again.
 - कितने आदमी थे ?
 - These things obviously don't resemble each other until you start abstracting away from surface facts.