

1 General introduction

1. **Chomsky (1957)**: a **language** is a set of its grammatical sentences.
 - 1.1. Change “sentences” to “expressions”.
 - 1.2. Change “expressions” to “expressions with their structural descriptions”.
 - 1.2.1. String similarity is usually misleading:
 - (1) a. John is easy to please.
b. John is eager to please.
 - (2) a. I expected John to leave.
b. I persuaded John to leave.
 - (3) a. We expected several students to be at the talk.
b. We persuaded several students to be at the talk.
 - (4) a. A unicorn seems to be in the garden.
b. A unicorn tries to be in the garden.
 - (5) a. It is easy to play **this sonata** on **this violin**.
b. **This sonata** is easy to play on **this violin**.
c. **This violin** is easy to play **this sonata** on.
 - (6) a. John grows tomatoes.
b. John destroys tomatoes.
 - 1.3. Item 1.2. brings meaning into picture:

It is assumed in *LSLT* (as in *SS*) that the theory developed is to be embedded in a broader semiotic theory which will make use of the structure of *L*, as here defined, to determine the meaning and reference of expressions and the conditions on their appropriate use, and will also encompass other investigations (statistical linguistics, etc.). (**Chomsky 1975:3**)

2. **Grammar** is an explicit system of rules and representations that pairs phonetic forms (sound pathway) with logical forms (meaning pathway).
3. **Acceptability** (data) versus **grammaticality** (theory).

3.1. Factors effective in acceptability are manifold and complex.

3.2. Grammar is just one among many.

3.3. Such idealization is indispensable in science.

3.3.1. Economist Dani Rodrik:

All models are wrong. They are helpful [when] used in relevant context. Empirics without models yield no understanding.

To clarify, models are wrong in the same sense that a subway map is wrong. Leaves out, misrepresents real world details.

Simplicity in theory is a feature, not a bug. “But the real world is more complicated” is never good riposte. All causal theories simplify. (tweets, March 8, 2017)

4. **Descriptive** versus **explanatory** adequacy.

4.1. Description: “Given a language, what is possible to utter to mean what?”

4.1.1. A descriptively successful grammar for a given language has the widest possible coverage with a minimal set of rules and assumptions.

4.2. Explanation: “What is a possible human language?”

4.2.1. What is the common denominator of all the descriptively successful grammars?

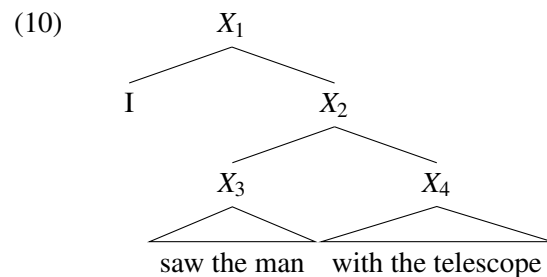
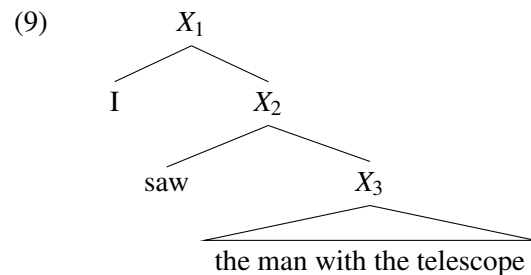
2 A basic toolbox: Phrase Structure, Categories, Features

1. “Grammar is about things that go together in meaning” (Mark Steedman)

- (7)
 - a. ((Toy car) manufacturer.)
 - b. (Toy (car manufacturer.))

2. A motivation for phrase structure: structural ambiguity.

- (8) I saw the man with the telescope.



3. A motivation for phrase structure + categories: distributional generalizations.

- 3.1. The labels X_2 and X_3 are identical when it comes to what can come in the context *I saw* ____.
- 3.2. Likewise, *I* and *saw* are instances of larger classes that can appear in the places they occupy.

4. Another motivation for phrase structure comes from the need for relational generalizations:

- (11)
 - a. John murdered Smith.
 - b. Smith was murdered by John.
- (12)
 - a. The army destroyed the city.
 - b. The army's destruction of the city.
 - c. The city's destruction by the army.
- (13)
 - a. We expected several students to be at the talk.
 - b. We expected there to be several students at the talk.
- (14)
 - a. John saw the cat that chased the dog.
 - b. Which dog did John see the cat that chased?
- (15)
 - a. John saw the man with the telescope.
 - b. Which telescope did John see the man with?
- (16)
 - a. The man_i who said he_i was tall.
 - b. *The man_i who he_i said was tall.

5. Such generalizations are best stated over phrase structures.

Complex NP Constraint (Ross 1986):

- (17)
 - a. I believed the claim that Otto was wearing this hat.
 - b. I believed that Otto was wearing this hat.
- (18)
 - a. *Which hat did you believe the claim that Otto was wearing?
 - b. Which hat did you believe that Otto was wearing?

Complex Subject Constraint (Ross 1986):

- (19)
 - a. The reporters expected [that the principal would fire some teacher].
 - b. [That the principal would fire some teacher] was expected.
 - c. It was expected by the reporters [that the principal would fire some teacher].

Noun phrases in *that*-clauses can be relativized in (19a) and (19c), but not in (19b) (Ross 1986:147).

References

Chomsky, N. (1957). *Syntactic Structures*. Mouton, The Hague.

Chomsky, N. (1975). *The Logical Structure of Linguistic Theory*. Plenum Press, New York.

Ross, J. R. (1986). *Infinite Syntax!* Ablex Publishing Corporation, Norwood, NJ.