

Lec 2

Formal Syntactic Structure from Context? ↙ Some toy games

Dialogue game } → Lead to surprisingly similar syntactic structure
Epistemic

Formal criteria for sentence?

1. Contains verb?

← But need to know what verb is

↳ Are there classes like "verb"?

Methods of
Structural Linguistics

→ 1951 Book. Some tests? For behaviour of this group

- Inflection changes
- Replacements

A simple solution:

V → lay

↙ Chomsky's big move.
This is a "hypothesis"

For now, look at written language

We should leave without ^{layover} delay. ↙ Not same as lay

→ Well... delay don't mean the same as lay? X No good

→ Use method — replace lay with sit ... desit?

I lay down

We lay the table

Different tokens. Not enough to say lay and delay are different tokens.

These tests are weak and have problems...

I lay the tools

⋮

sit?

rest?

uh oh...

↑
ppl back in 1950
very confused.

Chomsky: we need hypothesis instead.

Hypothesis: lay could be a verb.

Try: $S \rightarrow NP VP$
 $NP \rightarrow Det N$
 $VP \rightarrow V NP$
 $V \rightarrow \underline{\text{lay}}$
⋮

} But only in this context
can we say lay is a verb

There sentences

Very common when ppl
↓ describe still scene.

→ There's a figurine on top of a block.

→ Zellig, Harris 1956: there's transformation going on.

N + V ↔ there + V N + : tense
Kernel transformation

A ghost appeared ↔ There appeared a ghost

→ A figurine is on top of a block.

But why do this? Try to figure out the function of there?

Helps to get away from deriving all forms independently from grammar?

So now we only need to worry about the kernel sentence.

Another transformation use case

kernel 1: The dog barked.

The dog barked

↔

and

kernel 2: The cat meowed.

the cat meowed.

kernel 1: The dog barked.

↔

If the dog barked,
then the cat meowed.

kernel 2: The cat meowed.

But...

My socks go.

↔

There go my socks.

↓
But this there seems to refer to place...

One more thing from dialogue

- B: Do you see a dark spot...?
A: No, I see a light spot.
C: That's probably the Dalmation.
 hedge?
 or adverb?
 "epistemic adverb"!

Aside [Notice silly isn't verb. Try:
There's silly, the Dalmation.
... what if silly is the Dalmation's name?
 ↑
How to prevent this situation?
 → pluralise "Dalmation"?

Some replacement:

That must be the Dalmation
could
might

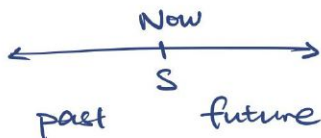
modals
(modal auxiliaries) ←

Clear class in English with predictable behaviour.

- No subject agreement
- Can start yes/no questions
 sub-aux inversion
- Negation pattern: can go before negation
 It must not be...
 *It runs not. ← wait what?

Chomsky to handle this: _____

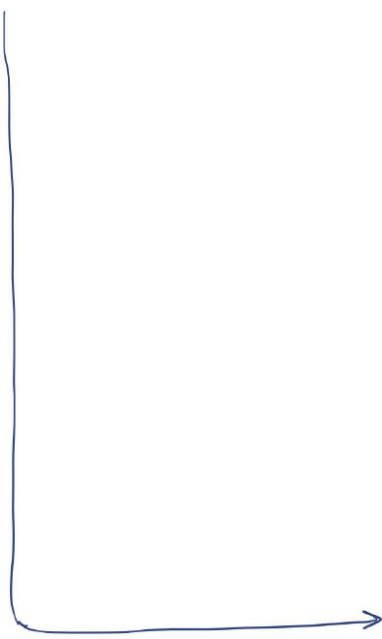
Another dialogue? with time line



E = event
R = reference time
S = now

Affix hopping rules

Silly will be eating at 3 o'clock.



Chomsky:

Verb \rightarrow Aux + V

V \rightarrow eat

Aux \rightarrow C (M) (have + en)
(be + ing) (be + en)

C ... -s will be ing eat
Af V V Af V

Transformation:

Af + V \leftrightarrow V + Af

We get:

will -s be eat ing
V Af V V Af

↓
will be eating

A bit complicated.