Lecture 27: *v*P Shells.

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LIN 311: Syntax

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Outline

① Ditransitive Verbs
    Possible Analyses
    Double Object Constructions

② Unaccusative Constructions

③ *v*P
    Introducing *v*P-shells
    *v*P-shells and Adverbs
    Structure of Ditransitives
   Extension and Problems

Ditransitive Verbs

One Remaining Problem

The main operation which is involved in structure building is Merge:

- Take two items, α and β, and combine them.

**Problem:** We still have one construction where we seem to merge three things.

(1) a. John gave a guitar to Paul.
     b. Paul received a guitar from John.

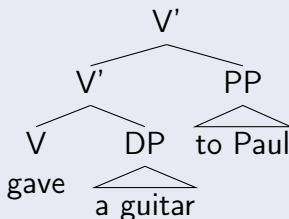- Verbs like *give* and *receive* are ditransitive: they have two internal arguments.

```
              V'
         ┌────┼────┐
         V    DP    PP
       gave  ╱╲     ╱╲
          a guitar to Paul
```
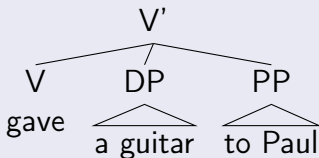
Ditransitive Verbs

So far, we used a ternary branching structure, where V' had three daughters.

```
              V'
        ┌─────┼─────┐
        V     DP    PP
      gave   ╱──╲  ╱──╲
          a guitar to Paul
```
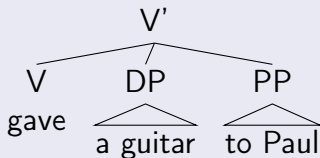
But we can have another structure with binary branching:

```
              V'
          ┌───┴───┐
          V'      PP
        ┌─┴─┐    ╱──╲
        V   DP  to Paul
      gave  ╱──╲
         a guitar
```

Constituency Tests

Binary branching structure predicts that verb and object form a constituents. Is that so?

- **Movement**:

    (2) a. John said that he would give a guitar to Paul, and [give a guitar to Paul] he did.

    b. *John said that he would give a guitar to Paul, and [give a guitar] he did to Paul.

- **Coordination**:

    (3) John gave a guitar and sent a new song to Paul.

    While it seems like an ok-ish sentence, there must be some special pauses to make it work. Maybe something else going on here (deletion?).
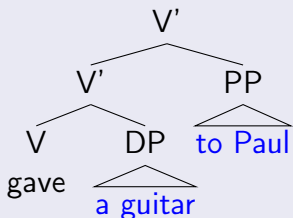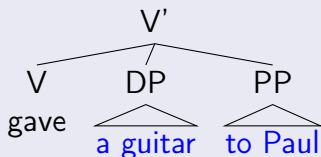
Constituency tests

So, it seems like V+object is not a very good constituent, but:

- **Coordination**:

  (4)   John gave a guitar to Paul and drums to Ringo.

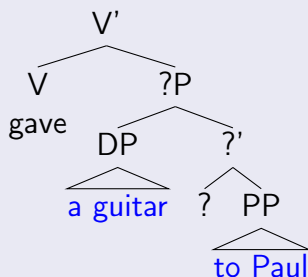 Can any of the structures we proposed above predict that?

Neither of these structures has DP + PP as a constituent!

Alternative structure

Strange alternative
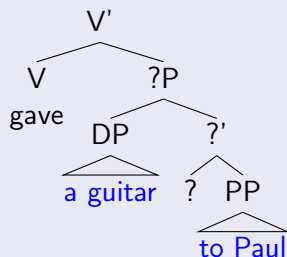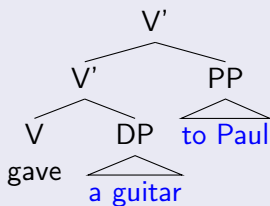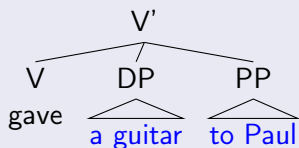
There is an alternative structure we can consider:

```
              V'
            /    \
          V       ?P
        gave     /    \
              DP       ?'
             /  \     /  \
          a guitar  ?    PP
                        /  \
                     to Paul
```

- There is a strange ?P in this structure — what is the nature of it?

Three hypotheses

Possible structures for ditransitives

(5)   John gave a guitar to Paul.

- So far it is not so easy to distinguish between these three constructions.
- Need additional evidence!

Double object constructions

Double Object Constructions: Ditransitives without PP, but with two DPs.

(6) a. John gave Paul a guitar.
     b. Pete sent Roger a new song.
     c. Bob showed the audience his back.

Two types of objects:

- **Direct Object**: THEME — *a guitar*, *a new song*, *his back*.
- **Indirect Object**: GOAL — *Paul*, *Roger*, *the audience*.

Double object constructions

Coordination

Coordination facts seem to be similar:

(7) a. John gave Paul a guitar and Ringo drums.
     b. Pete sent Roger a new song and Keith a new record.

Reflexives

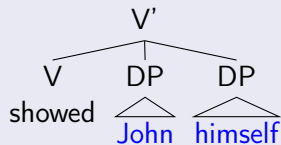But there is an interesting asymmetry with respect to anaphors:

(8) a. Sally showed John$_i$ himself$_i$ in the mirror.
     b. *Sally showed himself$_i$ John$_i$ in the mirror.

- What do the three structures predict about the grammaticality of these sentences?
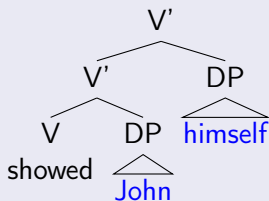
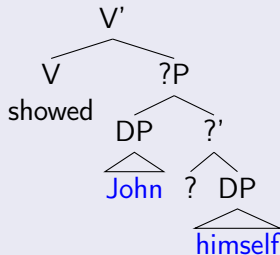# Double object constructions: Anaphor binding

Grammatical example

(9)   Sally showed John$_i$ himself$_i$ in the mirror.

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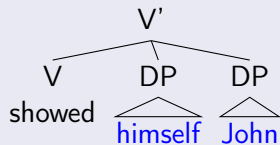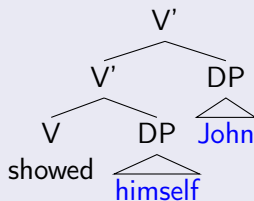
Double object constructions: Anaphor binding

Grammatical example

(10)   *Sally showed himself$_i$ John$_i$ in the mirror.
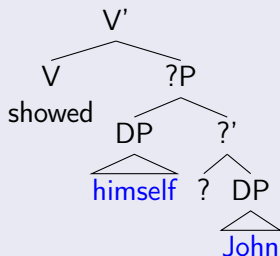
Double object constructions
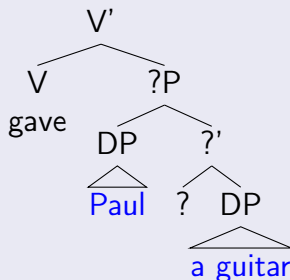
- The only structure which makes correct predictions for Double object constructions is the last one:

- Note, the ditransitive construction with a PP will also work with ternary branching analysis — check it yourself!

Unaccusative Constructions

Unaccusative constructions

Reminder: Unaccusative verbs allow the THEME argument to be either a subject or an object:

(11)   a.   The door closed.
        b.   Sue closed the door.

(12)   a.   The ball rolled.
        b.   James rolled the ball.

Ditransitive unaccusative constructions

Some unaccusative constructions are also ditransitive:

(13) a. John rolled [the ball] [down the hill].
       b. Sally filled [the bath] [with water].
       c. Chris broke [the vase] [into pieces].

- Both bracketed constituents are complements to the verb.
- Coordination is also similar to ditransitive constructions:

(14) a. John rolled [the ball] [down the hill] and [the acorn] [up the mountain].
       b. Sally filled [the bath] [with water] and [the sink] [with acid].
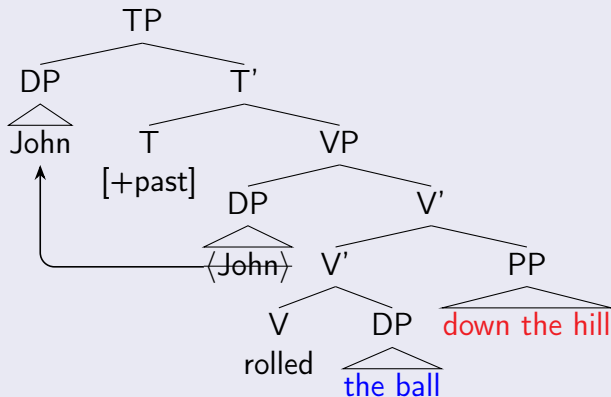
Unaccusative constructions: Reminder

The derivation of an unaccusative construction:
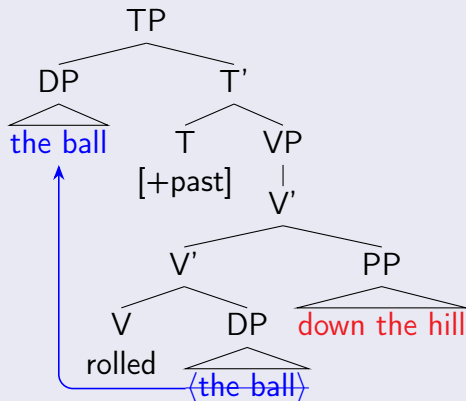
Problem: How do we get constituent *"the ball down the hill"*?

Unaccusative constructions: Reminder

The derivation of an unaccusative construction:

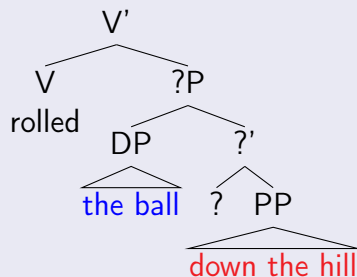
Problem: How do we get constituent *"the ball down the hill"*?

Constituency in unaccusative constructions
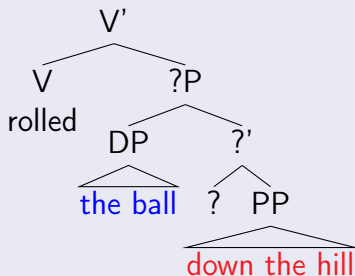
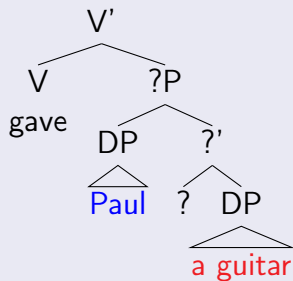(15)   John rolled the ball down the hill.

- We saw that *"the ball down the hill"* forms a constituent.
- Very similar to ditransitive constructions!
- Similar solution:

*v*P

Ditransitive structures so far

- So far we saw that in ditransitive constructions we need to postulate a structure of the following type:

Question: What is **?P**?

*v*P-shell

## Introducing *v*

Let us first look at unaccusative constructions.

- Assume that the verbs starts at the ? position, and ?P is in fact a VP: [$_{VP}$ the ball rolled down the hill].
- This VP is merged with the light verb *v*, also known as "little *v*".
- This little *v* has causative interpretation:

  (16) John rolled the ball down the hill =
        John caused the ball roll down the hill.

- Main verb then moves and adjoins to *v*.
- *v*P is known as a *v*P-shell.

*v*P structure

(17)　John rolled the ball down the hill.
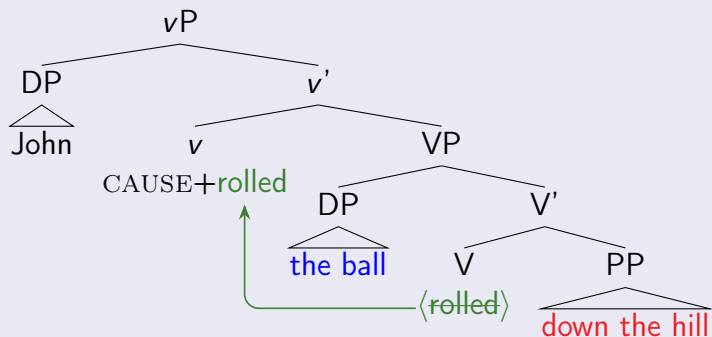
- As before, after *v*P is completed, it merges with T, and eventually the subject moves to Spec,TP: nothing new!

Support from French

French

(18)   John rolled the ball down the hill.

- As we saw, in English, the structure of (18) has an unpronounced *v* with causative meaning:

    (19)   [$_{v}$P John CAUSE+rolled [$_{VP}$ the ball ~~rolled~~ down the hill]]

- Interestingly, in French, such causative is pronounced:

    (20)   Jean fait   rouler la   balle en bas   de la   colline.
            J.   makes roll$_{INF}$ the ball in bottom of the hill
            'John makes the ball roll down the hill.'
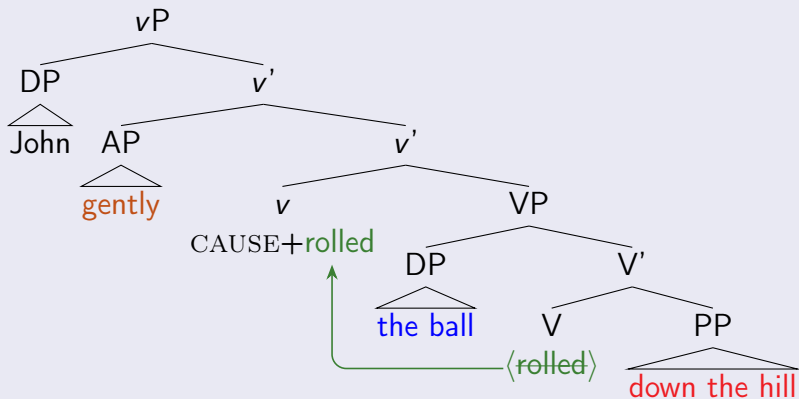
Sidenote: Adverbs

Two positions for adverb placement:

(21)   a.   John gently rolled the ball down the hill.
        b.   John rolled the ball gently down the hill.

- *Gently* is an adverb that can adjoin to either a *v*P or VP.
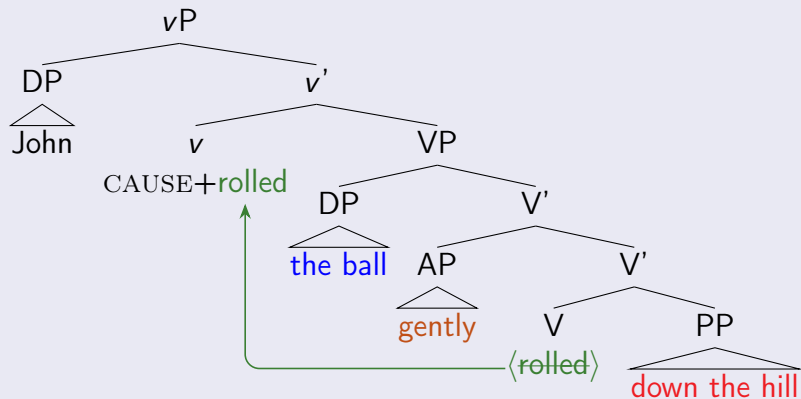
Sidenote: Adverbs

*v*P adjunction of adverbs

(22)   John gently rolled the ball down the hill.

Sidenote: Adverbs

VP adjunction of adverbs

(23)   John rolled the ball gently down the hill.

Sidenote: Adverbs

Some adverbs allow only one position:

(24)   a.   John deliberately rolled the ball gently down the hill.
        b.   *John gently rolled the ball deliberately down the hill.

- *Deliberately* is an adverb that can only adjoin to *v*P.
- It has an *agentive* meaning, so it can only be adjoined to an agentive projection, which is *v*P.

Sidenote: Adverbs

Some adverbs allow only one position:

(25)   a.   Mary jumped the horse perfectly over the last fence.
         b. *Mary jumped perfectly the horse over the last fence.

- *Perfectly* is an adverb that can only adjoin to VP.

Structure of ditransitives

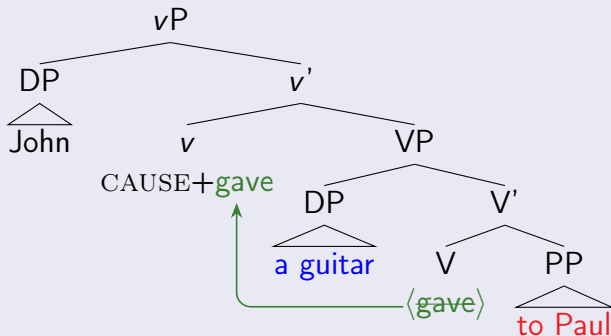The same analysis can be extended to both types of ditransitive verbs:

(26)   a.   John gave a guitar to Paul.
            b.   John gave Paul a guitar.

- The analysis also involves little *v*.
- The meaning of these sentences can also be rephrased with a causative light verb:

(27)   a.   John caused a guitar to go to Paul.
            b.   John caused Paul have a guitar.
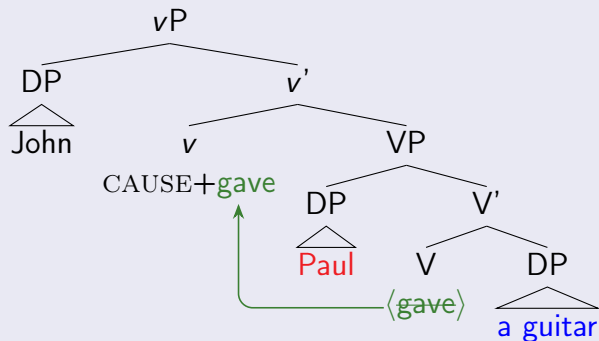
*v*P structure
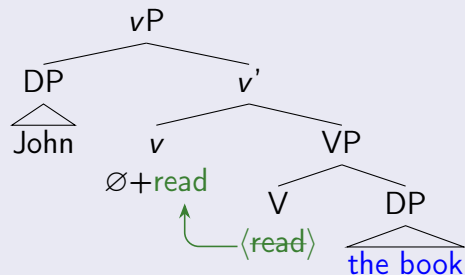
(28)   John gave a guitar to Paul.
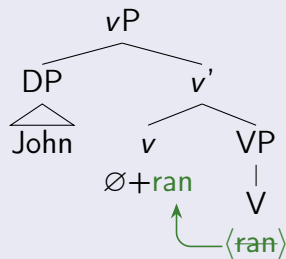
*v*P structure

(29)   John gave Paul a guitar.

Transitive/Unergative verbs

It is now assumes that the same structure is at work with all verbs, and not only ditransitive.

(30) John read the book. (31) John ran.

Some problems

(32) a. John gave a guitar to Paul.
   b. John gave Paul a guitar.

- The *v*P structure we adopt has many advantages:
  - Adverb placement
  - Binding in double object constructions
  - Binary merge
  - etc.

- However, there is a (potential) **Problem:**
  θ-roles are not assigned uniformly:
  - In (32-a), the GOAL is a complement of V, and the THEME is in Spec,VP.
  - In (32-b), the GOAL is in Spec,VP, and the THEME a complement of V.

Some problems

- There are numerous proposals in the current literature, trying to solve this (potential) problem, notably by Richard Larson from SBU (1988, 1990, and some recent work).

- The main goal is to show that prepositional ditransitives (*gave a guitar to Paul*) and double object constructions (*gave Paul a guitar*) are related and derived from the same underlying structure.

- His idea is to uniformly have the GOAL argument start as a complement of the verb, and move it to some intermediate position in Double Object constructions, deriving the correct word order.

Indirect Object Raising

- According to Larson, the indirect object *Paul* raises to a position between *v* and the direct object to get an accusative case – process called dative shift.
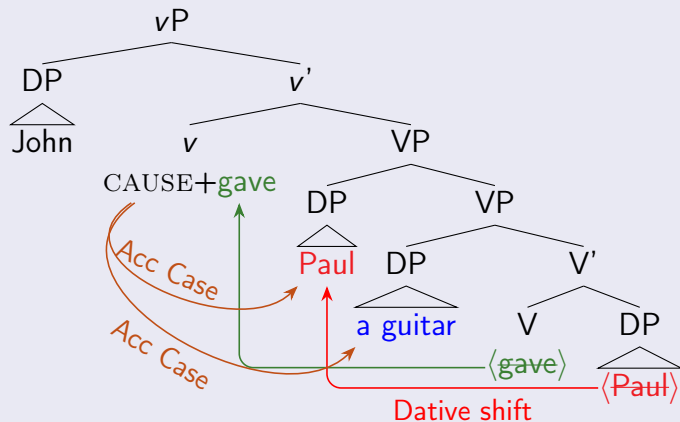
Indirect Object Raising

- If the preposition *to* is present, there is no need to move anything, since *Paul* gets an accusativepres

- case from *to*.