Case and agreement
Passives and adverbs
Possessors and types of D
Prepositional objects and summary

Case and agreement, passives, possessives

CAS LX 422 ∼ GRS LX 722 Intermediate Syntax

Lecture 6

Case and agreement
Passives and adverbs
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Case
Subject agreement
She likes them

Case

Pronouns in English show distinctions in case:

- Subject pronouns are in *nominative* case
- Object pronouns are in *accusative* case

(1)   I saw her.

(2)   She saw me.

(3)   They saw him.

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Nominative

Nominative subjects generally appear in the specifier of a finite T.
(Finite T is pretty much any kind of T except the infinitive.)

We can treat case like we treated tense inflection:

- Suppose T has a [*u*case:nom] feature.
- Suppose DPs have a [*u*case:] feature.
- Suppose the [*u*case:nom] on T can value [*u*case:] on the DP, checking both.
- Thus: T needs a nom DP, and a nom DP needs T. 1-1.

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Accusative

Subjects check nominative case with T. Objects have accusative case, we can treat in the same kind of way.

- Suppose *v* has a [*u*case:acc] feature.
- Suppose DPs have a [*u*case:] feature.
- Suppose the [*u*case:acc] on *v* can value [*u*case:] on the DP, checking both.

Thus: nominative case is a relation between (finite) T and a DP, accusative case is a relation between *v* and a DP.

Also: Given that plenty of languages show case marking on all their DPs, we're going to assume that's true in English too, even if you don't *see* it on anything but the pronouns. And in fact, the default assumption is that case marks DPs crosslinguistically too.

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Subject-verb agreement

The ϕ-features of the subject have an effect on the morphology of the verb.

   (4)   Fans were rioting on Comm Ave.

   (5)   A fan was rioting on Comm Ave.

While we're here, may as well account for this too. It's another kind of agreement relation that involves the subject position. This time not with T but with the verb or topmost auxiliary.

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Subject-verb agreement

What we're after: The subject (thing getting nominative case) should share/check the ϕ-features with the thing that gets inflection from T.

- The ϕ-features are on the DP that checks nominative case with T
- The relevant inflection is valued by T
- Maybe it's "passed" from the DP to T and then from T to the [*u*Infl:] below.

(6)   Fans riot on Comm Ave.

(7)   A fan riots on Comm Ave.

(8)   Fans were rioting on Comm Ave.

(9)   A fan was rioting on Comm Ave.

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Subject-verb agreement

The verb gets its tense inflection specified by T when, e.g., the [–past] feature of T values the [*u*Infl:] feature of *v*.

Since the subject already agrees with T (the [*u*case:nom] feature of T values and checks the [*u*case:] feature of the subject), we'll incorporate subject agreement into this process.

Notice that we still want this agreement to be mediated by T (since sometimes it values, e.g., Perf):

(10)   They have been reading novels.

(11)   She has been reading novels.

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Subject-verb agreement

Suppose that T has a [$u\phi$:] feature as well.

The subject has (interpretable) ϕ-features that value the [$u\phi$:] feature of T.

They were rioting on Comm Ave.

- T [T, uD*, $u\phi$:, $u$case:nom]
- *they* [D, ϕ:3pl, $u$case:]
- ↓
- T [T, uD*, ~~$u\phi$~~:3pl, ~~$u$case:nom~~]
- *they* [D, ϕ:3pl, ~~$u$case~~:nom]

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Subject-verb agreement

Finally, we suppose that the (checked) [$u\phi$:3pl] feature of T also values a [uInfl:] feature on a lower v (or Perf, or Prog).
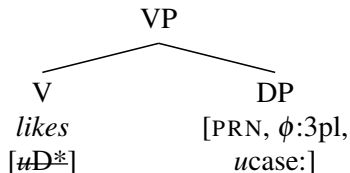
The rules of pronunciation will tell us that a v with the verb *riot* adjoined to it sounds like:

- "riots" if v has the feature [uInfl:–past,–pl]
- "riot" if v has the feature [uInfl:–past]
- "rioted" if v has the feature [uInfl:+past]

Notice that T values a [uInfl:] feature all at once, with any relevant features(s) that it has (so, tense and ϕ-features both).

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Start by merging *like* and the 3pl pronoun.

```
         VP
        /  \
       /    \
      V      DP
   likes  [PRN, φ:3pl,
   [uD*]     ucase:]
```

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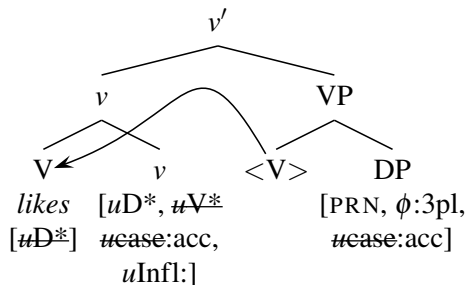She likes them

She likes them

Merge *v* with VP (HoP). The [*u*case:acc] feature on *v* matches, values, and checks the [*u*case:acc] feature on the pronoun, checking itself as well.

```
                    v′
            ┌───────┴───────┐
            v               VP
      [uD*, uV*         ┌────┴────┐
      u̶c̶a̶s̶e̶:acc,        V         DP
        uInfl:]      likes    [PRN, φ:3pl,
                     [u̶D̶*̶]    u̶c̶a̶s̶e̶:acc]
```

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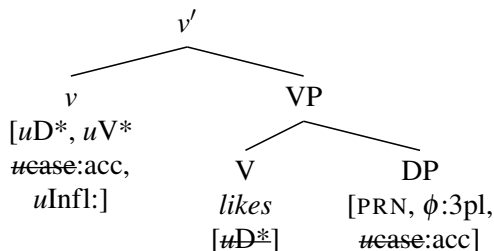
She likes them

The V moves up to adjoin to *v* to check the [*u*V*] feature of *v*.

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The 3sg feminine pronoun is Merged to check the [*u*D*] feature of *v*.

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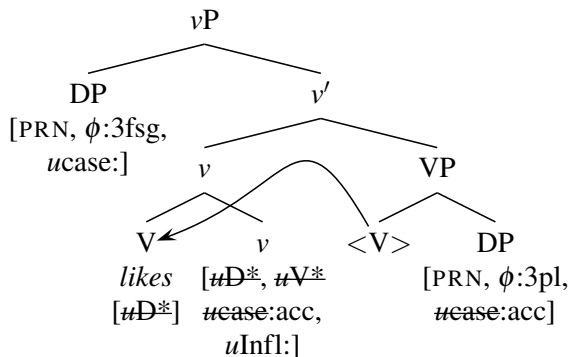
She likes them

The T is Merged with *v*P (HoP). The [*u*case:nom] feature of T
matches, values, and checks the [*u*case:nom] feature of the pronoun,
checking itself in the process.

T′
├── T
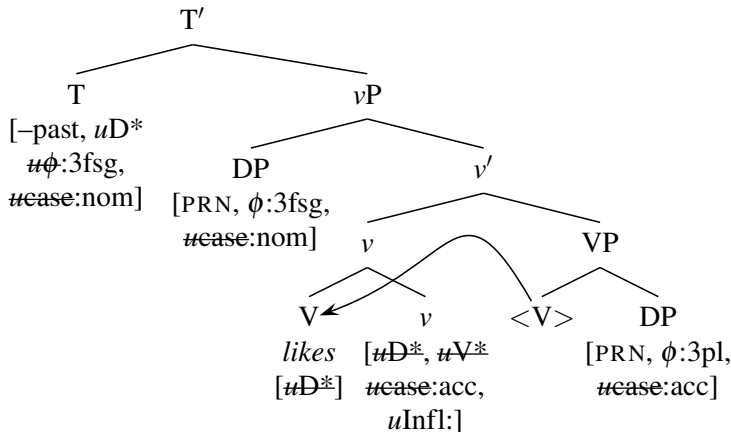│   [–past, *u*D*
│   *u*φ:,
│   ~~*u*case~~:nom]
└── *v*P
    ├── DP
    │   [PRN, φ:3fsg,
    │   ~~*u*case~~:nom]
    └── *v*′
        ├── *v*
        │   ├── V
        │   │   *likes*
        │   │   [~~*u*D*~~]
        │   └── *v*
        │   [~~*u*D*~~, ~~*u*V*~~
        │   *u*case:acc,
        │   *u*Infl:·]
        └── VP
            ├── <V>
            └── DP
                [PRN, φ:3pl,
                ~~*u*case~~:acc]

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T′

T
[–past, uD*
$u\phi$:3fsg,
$u$case:nom]

vP

DP
[PRN, ϕ:3fsg,
$u$case:nom]

$v′$

v

VP

V
likes
[uD*]

v
[uD*, uV*
$u$case:acc,
uInfl:]

$<$V$>$

DP
[PRN, ϕ:3pl,
$u$case:acc]

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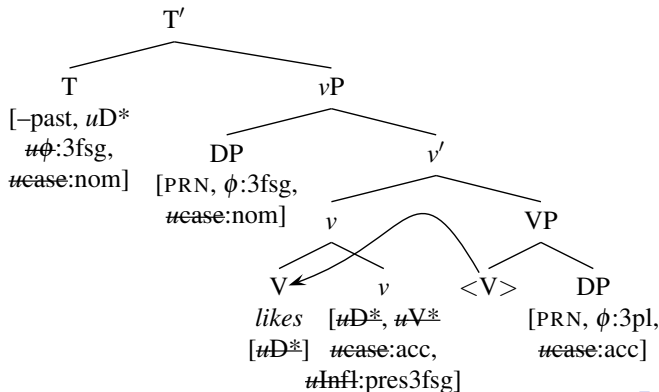Prepositional objects and summary

Case
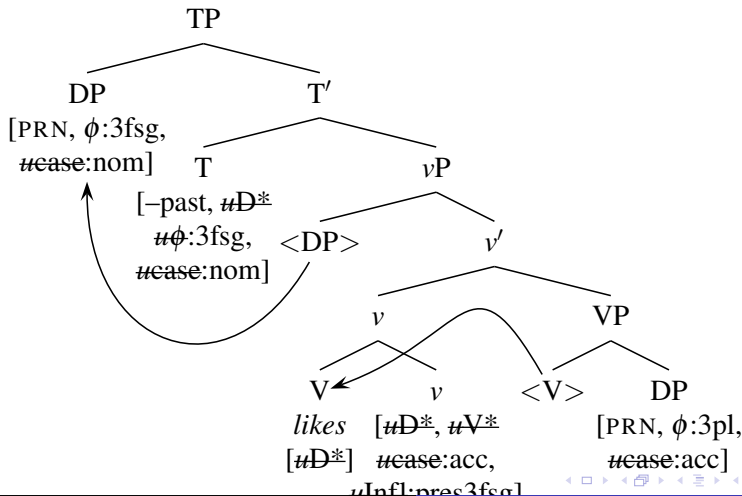Subject agreement
She likes them

She likes them

The [$u\phi$:3fsg] and [–past] features of T value and check the [uInfl:] feature of v. (NB: Finite T will always wait until it has a value for [$u\phi$:] to value a lower [uInfl:].)

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Checking [*u*D*] of T, and we're done.

TP

DP   T′
[PRN, ϕ:3fsg,
 *u*case:nom]   T   *v*P
                  [–past, *u*D*
                   uϕ:3fsg,   <DP>   *v*′
                   *u*case:nom]

                                            v   VP

                                      V   *v*   <V>   DP
                                    likes [*u*D*, *u*V*   [PRN, ϕ:3pl,
                                    [*u*D*] *u*case:acc,   *u*case:acc]
                                            *u*Infl:pres3fsg]

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Passives

The **passive construction** is one where

- The original subject disappears (or becomes a *by*-phrase)
- The original object becomes the subject
- The verb appears as *be*+passive participle

(12) Pat took pretzels

(13) Pretzels were taken (by Pat)

In both cases *pretzels* is getting the Theme/Patient θ-role. By UTAH, it must be originally Merged as the DP daughter of VP, in both the active and the passive. (In fact, the passive is a lot like the unaccusative. An "underlying object" becomes the subject.)

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be: [Pass, Aux, *u*Infl:], selects v_{unacc}.

- By selecting for v_{unacc}, the passive auxiliary "removes" an Agent.
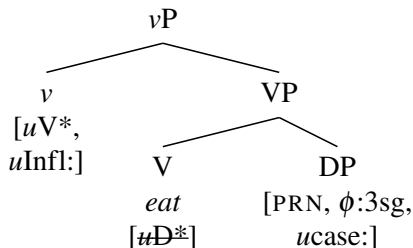- Not allowed for intransitives, an open mystery. (*It was danced (by Pat).)

The passive auxiliary works like other auxiliaries: Pass can value a lower [*u*Infl:] feature, and if Pass' own [*u*Infl:] feature is valued by T, it is valued as strong. (Lunch was not eaten.) Pass is the last auxiliary in the HoP. (Lunch may not have been being eaten.)

Hierarchy of Projections

T > (Neg) > (M) > (Perf) > (Prog) > (Pass) > *v* > V

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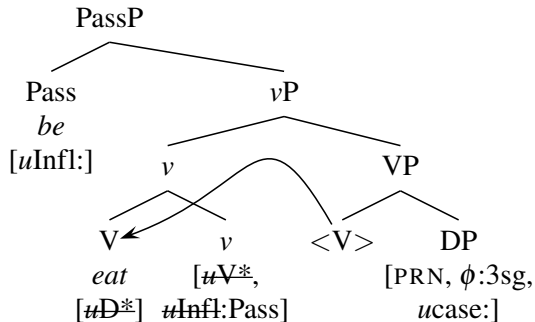Prepositional objects and summary

Passives
It was eaten
Ditransitive passives
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It was eaten

For *it was eaten*, we Merge *eat* and *it* to build the VP, then Merge an unaccusative *v*...

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Passives
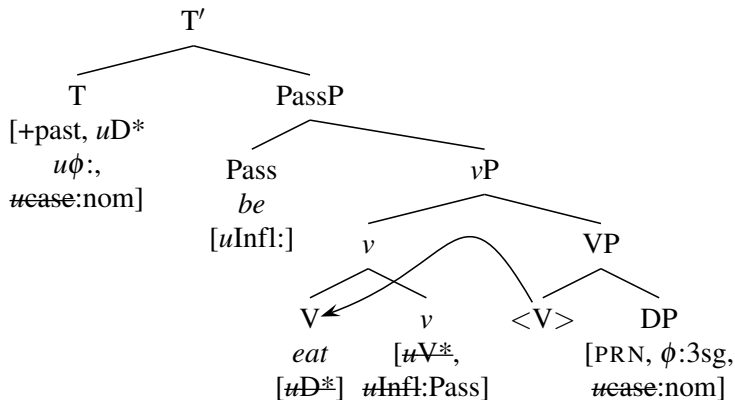**It was eaten**
Ditransitive passives
Adverbs

It was eaten

The V moves up to adjoin to *v* to check the [*u*V*] feature of *v*. The Pass auxiliary is Merged (HoP). [Pass] matches, values, checks [*u*Infl:] on *v*.
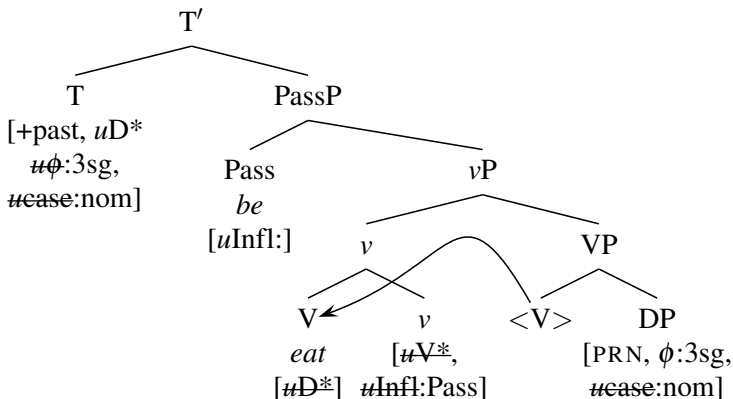
PassP
- Pass
  - *be*
  - [*u*Infl:]
- *v*P
  - *v*
    - V
      - *eat*
      - [*u*D*]
    - *v*
      - [*u*V*,
      - *u*Infl:Pass]
  - VP
    - <V>
    - DP
      - [PRN, φ:3sg,
      - *u*case:]

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T is Merged (HoP). [*u*case:nom] matches, values, checks [*u*case:nom] on *it*.

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Passives and adverbs   It was eaten
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Prepositional objects and summary   Adverbs

It was eaten

[ϕ:3sg] on *it* matches, values, checks [$u\phi$:] on T.

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It was eaten

[past] and [*uφ*:3sg] on T matches, values [*u*Infl:] on Pass, as strong.

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Passives and adverbs   It was eaten
Possessors and types of D   Ditransitive passives
Prepositional objects and summary   Adverbs
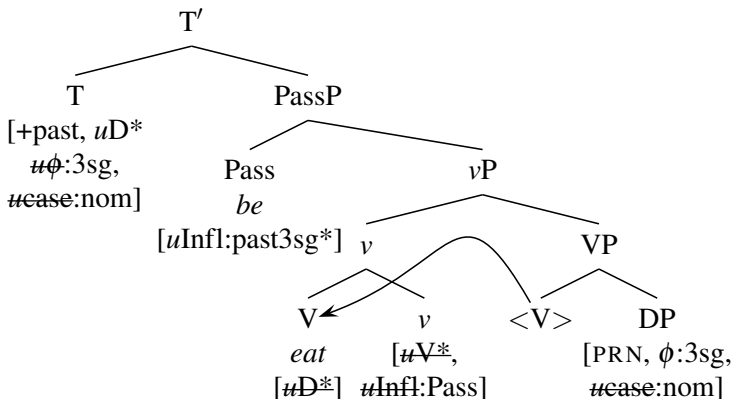
It was eaten

Pass moves to T (checks [*u*Infl:past3sg*] on Pass).

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Passives
It was eaten
Ditransitive passives
Adverbs
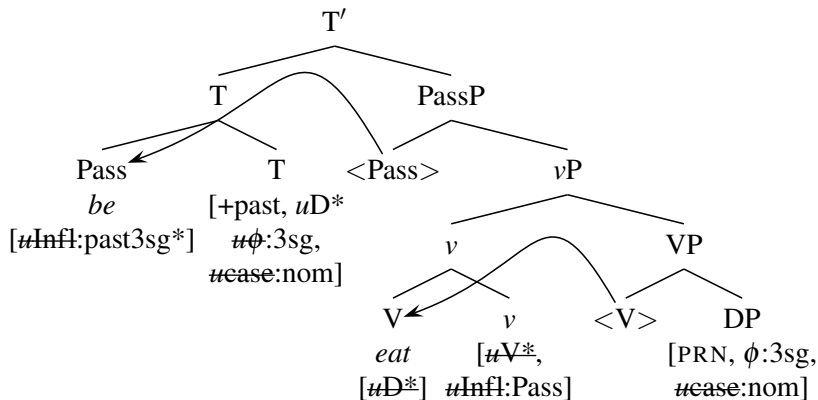
It was eaten

It moves to SpecTP (checks [*u*D*] of T).

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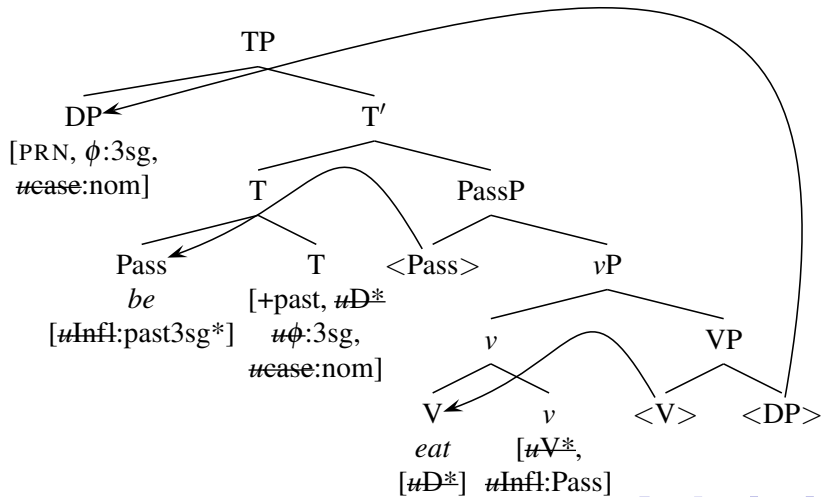
Ditransitive passives

(14) a.   Pat gave Chris books.

     b.   Chris was given books.

     c.   * Books were given Chris.

(15) a.   Pat gave books to Chris.

     b.   * Chris was given books to.

     c.   Books were given to Chris.

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Adverbs

Adjuncts can be adjoined to *v*P, can be either on the left or right.

- (16)   Pat sloppily ate lunch.
- (17)   Pat ate lunch sloppily.
- (18)   Pat has sloppily eaten lunch.
- (19)   Pat has eaten lunch sloppily.

Sloppily also seems to be able to adjoin to PerfP or ProgP, at least marginally. But it can't be between a subject and a T.

- (20)   ? Pat might sloppily have eaten lunch.
- (21)   ? Pat should sloppily be eating lunch.
- (22)   * Pat sloppily might eat lunch.

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Manner vs. propositional adverbs

sloppily, *slowly*, *quickly*—all describe the *manner* in which an action takes place. **Manner adverbs** adjoin to *v*P (that's what they modify semantically).

Propositional adverbs, e.g., *perhaps*, *fortunately*, *interestingly* express a kind of attitude on the part of the speaker toward the content of the sentence. Propositional adverbs seem to adjoin to TP. **Temporal adverbs** also seem to adjoin high.

(23) a. Fortunately, Pat ate lunch.

b. Pat ate lunch, fortunately.

c. ? Pat fortunately ate lunch.

d. ? Pat might have fortunately eaten lunch.

(24) a. Today Pat ate lunch.

b. Pat ate lunch today.

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Adverb positions

Generally speaking, where an adverb attaches depends on its meaning. *v*P for manner adverbs, TP for temporal adverbs, ...

Which means that we predict this:

(25)   Yesterday [Pat [completely [finished lunch]]].

(26)   Yesterday [Pat [[finished lunch] completely]].

(27)   [Pat [[finished lunch] completely]] yesterday.

(28)   [Pat [completely [finished lunch]]] yesterday.

(29)   * Pat [finished lunch] yesterday completely.

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Where does the *by*-phrase attach?

Adverb tests can give us a hint. . .

(30) a. The sandwich was eaten by Pat today at noon.
      b. The sandwich was eaten by Pat at noon today.

(31) a. The sandwich was eaten today __ by Pat __ at noon.
      b. The sandwich was eaten at noon __ by Pat __ today.

(32) a. The dishes were washed by Pat __ poorly __ yesterday.
      b. The dishes were washed poorly by Pat yesterday.

Conclusion?

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Possessors

Consider the genitive (possessive) *'s* in English:

(33)   John's sandwich

(34)   the student's sandwich

(35)   the man from Australia's sandwich

(36)   the man on the hill by the tree's sandwich

The possessor can be a full DP (inside another DP). The *'s* attaches to the whole possessor phrase. This is not a noun suffix. It's more like a little word that signals possession. (It's a clitic.)

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Possessors

Determiners like *the* and the possession marker *'s* seem to be in complementary distribution.

(37) * the building's the roof
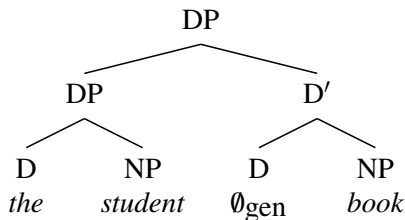
(38)   the roof of the building

(39) * the hurricanes's the eye

This suggests a structure where the possessor is a DP in the specifier of a larger DP. Perhaps even headed by the *'s*? That would be cute, but there is a wrinkle. We can say *their book* and it acts as if there is an *'s* but yet there is no *'s*. Two ways to go: a) it's like French *au* or English *eats*, b) it's abstract, and the genitive case form of *John* is *John's*. We'll go with option b, for a reason we turn to shortly.

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Possessors and the null D

We will suppose that there is a null D, $\emptyset_{gen}$, that checks genitive case. The genitive case form on a non-pronominal DP is realized in English as *DP's*, and as the genitive form on pronouns (like *my*). We accordingly suppose that $\emptyset_{gen}$ has a [*u*case:gen] feature.

```
                    DP
            _____|_____
           |                 |
          DP                 D′
        ___|___          ____|____
       |       |        |         |
       D       NP       D         NP
      the   student   ∅_gen      book
```

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Possessors
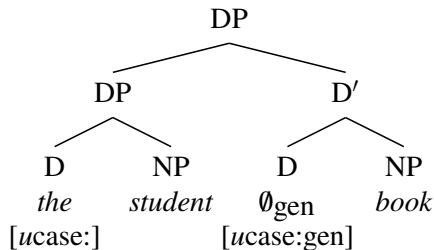Types of D

The king's every whim

- (40) a whim
- (41) the king's whim
- (42) the king's every whim

Presuming that *every* is a D, this indicates two things.

- The king is to the left of the D; really, the specifier of DP is the only place it could be.
- The genitive case *'s* isn't *always* incompatible with an overt D (hence better to think of *'s* not as a D but rather as a case marker on the possessor DP). We take this (marked) use of *every* to be an exceptional overt determiner that can still check [*u*case:gen].
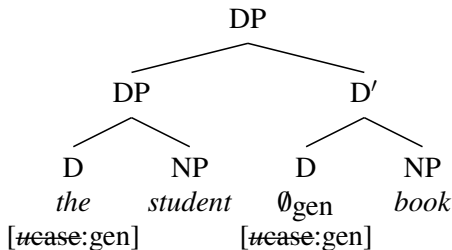
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Checking genitive case

The checking of genitive case in the DP works exactly like the checking of nominative case in the TP does.

```
                    DP
              ┌──────┴──────┐
            DP              D'
         ┌───┴───┐      ┌───┴───┐
        D       NP     D        NP
       the   student  Ø_gen     book
     [ucase:]        [ucase:gen]
```

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Possessors

This would work, but notice that it isn't *quite* the same as how nominative case gets assigned within TP. In TP, the subject DP moves up to the specifier of TP from somewhere lower. Maybe the semantics just "knows" somehow that the thing in the specifier of DP is a possessor?

```
              DP
          ┌────┴────┐
         DP          D′
       ┌──┴──┐     ┌──┴──┐
      D    NP     D     NP
    the  student  Øgen  book
[ucase:gen]    [ucase:gen]
```

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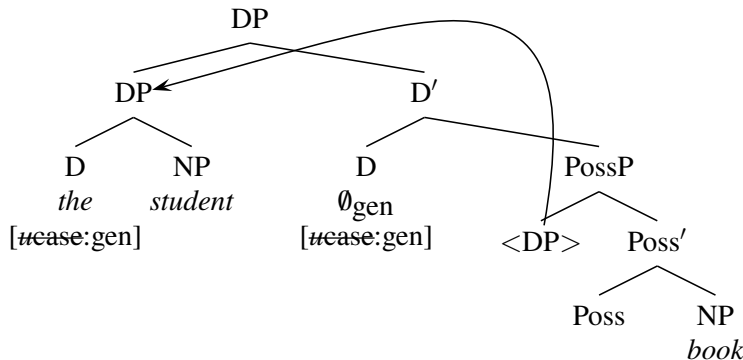**Possessors**
Types of D

Possessors

What makes something a possessor? A possessor is kind of semantic relation. And in fact, a genitive in the front of a DP need not be a possessor. It only sometimes is.

(43)	Pat's sidewalk	possessor
(44)	Pat's destruction of the sidewalk	agent
(45)	The sidewalk's destruction (by Pat)	theme

Idea: Possessor is a θ-role, like Agent is, or Theme is. It is introduced by a specific head (like v introduces Agents). We'll call it Poss. It introduces possessors. And it is between the NP and the DP.

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Now this works, at least so long as we assume something is strong, requiring moving the possessor DP up. We could analogously assume that $\emptyset_{gen}$ has a [uD*] feature, like finite T does. We also need to assume a HoP within the DP: D > (Poss) > N.

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Hungarian Possessors

(46)	Az en kalapom the I hat 'my hat'	(48)	A te kalapod the you hat 'your hat'
(47)	A Mari kalapja the Mary hat 'Mary's hat'	(49)	Marinak a kalapja Mary the hat 'Mary's hat'

Assuming the DP in Hungarian has the basic structure we've been discussing, what is the structure of this kind of possessive construction? Also, check out the (person?) agreement on 'hat.'

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Proper names

As for proper names like *Pat*, we will assume that they have a structure something like *students*.

(50) The Pat we respect came to the party.

(51) O   Giorgos ephuge
the George   left
'George left.'

$\emptyset_{\text{proper}}$ is definite, mostly the same as *the* but silent. Let's say it has a [*u*proper] feature and proper names like *Pat* have a [proper] feature that distinguishes them as proper names.

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A few null Ds

We have by now a couple of different null determiners. They are as different as *the* is from *a* or from *that*, they just happen to be pronounced the same way (like this: " ").

- One is $\emptyset_{gen}$, which has a [*u*case:gen] feature and a [*u*D*] feature, and in whose specifier we find possessors.
- One is $\emptyset_{indef}$, which is a nonsingular indefinite article, in whose complement we find plurals and mass nouns. $\emptyset_{indef}$ Milk spilled. $\emptyset_{indef}$ People cried.
- One is $\emptyset_{proper}$, which is a definite article, in whose complement we find proper names.

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Number agreement on D

What's wrong with the DPs below?

(52)   * a students
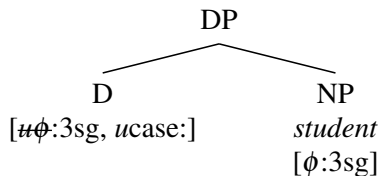
(53)   * student

It can be viewed as a lack of agreement in number. That is, it might be the same kind of problem as in (54).

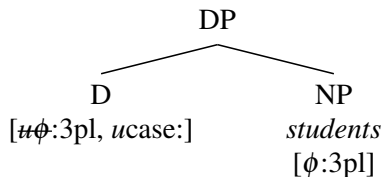(54)   * Students eats lunch.

We could encode this the same way: the indefinite determiner has a [$u\phi$:] feature, and the N has ϕ-features (including a number feature). The [$u\phi$:] feature is valued and checked by the ϕ-features of N.

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Indefinite determiners

This means that *a* and $\emptyset_{\text{indef}}$ are in fact pronunciations of the same D (in much the same way *me* and *I* are pronunciations of the same D).

DP   a student

```
         DP
        /  \
       D    NP
[uφ:3sg, ucase:]  student
              [φ:3sg]
```

DP $\emptyset_{\text{indef}}$ students

```
         DP
        /  \
       D    NP
[uφ:3pl, ucase:]  students
              [φ:3pl]
```

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The case of prepositional objects

One other place where we find case on pronouns in English is in the object of prepositions.

(55) Computers break near me.

We already have a way to deal with case, we have assigned the feature [ucase:] to the pronouns ("I need case"), and so the (accusative) value must be coming from somewhere. And there aren't many candidates—it really must be coming from the P *near*. It's not coming from the unaccusative *break*, and *computers break* (without *near me*) already assigns all the cases it had around. So it must be that the case *me* gets is coming from the *near*.

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P checks accusative

So in general, a preposition P. . .

- Has a [P] category feature
- Has a [*u*D*] feature (motivating Merge with its object)
- Has a [*u*case:acc] feature, valuing and checking the [*u*case:] feature of its object

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Summary of features on various things
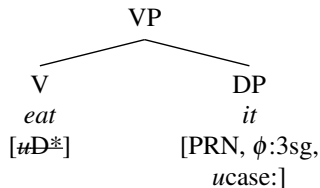
So far (there are still a few things to add later):

- P has [P, uD*, $u$case:acc]
- T has [T, uD*, $u$case:nom, $u\phi$:, *some tense feature*]
- v has [v, uInfl:, uV*] and, if it assigns a θ-role, also [$u$case:acc, uD*]
- D has [D, $u$case:, $u\phi$:]
- N has [N, ϕ:*something*]
- V has [V] and, if it assigns a Theme or Possessee θ-role also [uD*] for each, and, if it assigns a Goal θ-role also [uP*], and, if it assigns a Proposition θ-role also [uC*] or [uT*].
- Poss has [Poss, uD*]

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Students ate it
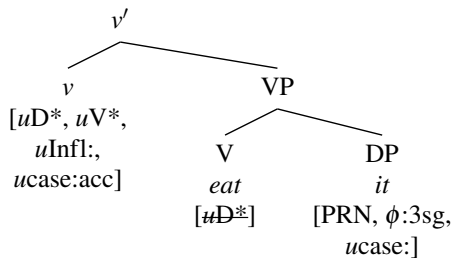
Let's walk through the derivation of *students ate it*.

First, merge *eat* with *it*, checking [*u*D*] on V.

```
              VP
         ╱         ╲
       V             DP
      eat            it
    [uD*]        [PRN, φ:3sg,
                    ucase:]
```
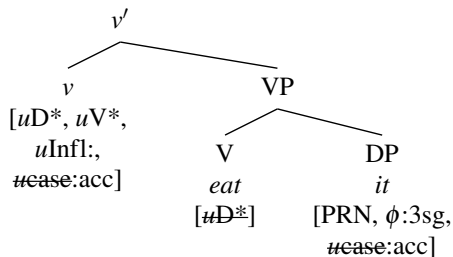
Case and agreement
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Students ate it

Then Merge v (HoP)

```
              v′
         ╱         ╲
       v              VP
  [uD*, uV*,      ╱      ╲
   uInfl:,      V          DP
  ucase:acc]   eat          it
              [uD*]    [PRN, φ:3sg,
                         ucase:]
```

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v values and checks the [*u*case:] feature on *it*.

```
            v′
          /    \
         v       VP
  [uD*, uV*,    /   \
   uInfl:,     V      DP
  ucase:acc]  eat     it
             [uD*]  [PRN, φ:3sg,
                     ucase:acc]
```

Case and agreement
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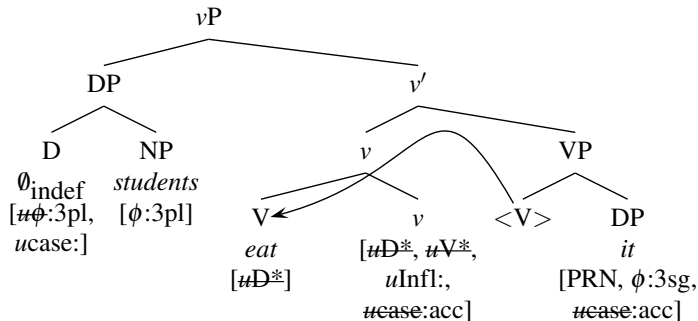Double object constructions

Students ate it

Merge D (indefinite) with NP *students* (HoP). Once there, the [$u\phi$:] feature on D is valued and checked by the [ϕ:3pl] feature on N.
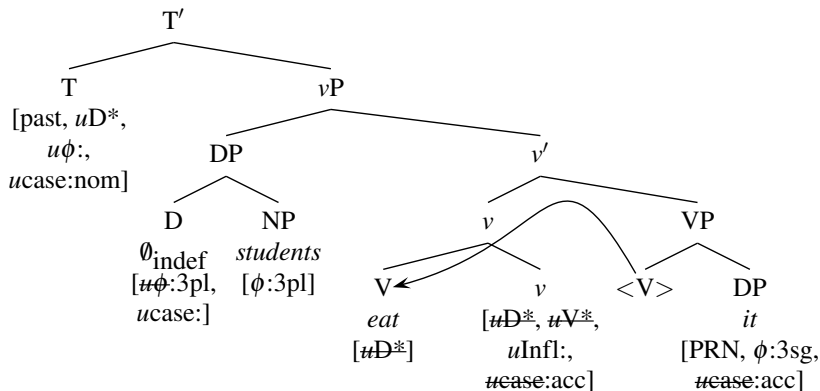
Move V up to v, checking [uV*] on v.

DP
├── D
│ $\emptyset_{\text{indef}}$
│   [~~uϕ~~:3pl,
│ $u$case:]
└── NP
    students
    [ϕ:3pl]

v'
├── v
│   ├── V
│   │   *eat*
│   │   [~~uD*~~]
│   └── v
│   [uD*, ~~uV*~~,
│ uInfl:,
│   ~~u~~case:acc]
└── VP
    ├── <V>
    └── DP
        it
        [PRN, ϕ:3sg,
        ~~u~~case:acc]

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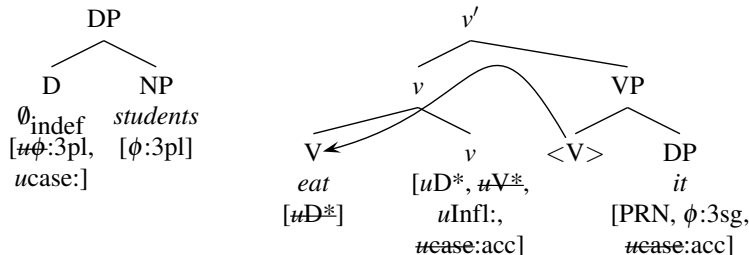
Students ate it

Merge *the students* with v', checking [uD*] on v.

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Students ate it

Merge T with vP (HoP)

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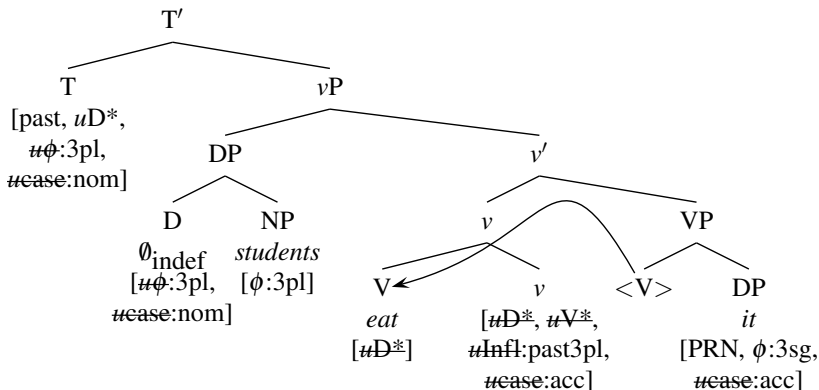## Students ate it

The [~~uϕ:~~3pl] feature on the DP *students* values the [uϕ:] feature on T
(note: we have to assume this is possible), and at the same time the
[ucase:nom] feature on T values and mutually checks the [ucase:]
feature on the DP *students*.

Case and agreement
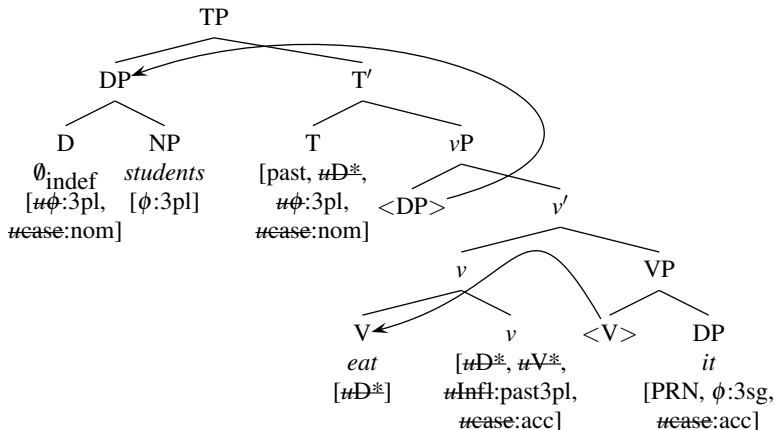Passives and adverbs
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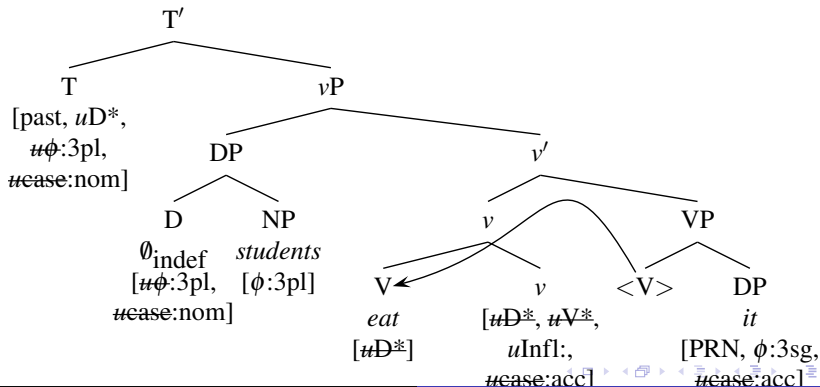
Students ate it

The [past] and [$u\phi$:3pl] features of T value and check the [uInfl:] feature on v.

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Students ate it

The DP *students* moves up to check the [*u*D*] feature of T.

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Double object constructions

One more thing. We have basically covered *Pat gave books to Chris*.
Pat, *books*, and *Chris* are all DPs and need case. Which they get:

- *Pat* gets (nom) case from T.
- *books* gets (acc) case from *v*.
- *Chris* gets (acc) case from P (*to*).

How about *Pat gave Chris books*? We no longer have a P. So, we have
to assume that the V root within the "have" type of *give* can itself
assign acc to the Possessee (*books*), while *v* assigns acc to the Theme
(*Chris*).