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.
  - The passive participle in English sounds just like the perfective participle.
- Pat took pretzels. **active**
- Pretzels were taken (by Pat). **passive**

---

Passives

- Pat stole books.
- Books were taken (by Pat).
- In both cases, books is getting the Theme/Patient 0-role. By UTAH, it must be originally Merged as NP 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.

---

_{Lunch was eaten_}

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

```
  vP
   v [v, uV*, uInfl:]
       VP
          [V, N*:3sg, case]
          [N, φ:3sg, case]

  [Pass, uInfl:] v
    Pass be
    vP
      v
        v
          v
            v
              v
```

---

_{Lunch was eaten_}

- The **V** moves up to adjoin to **v** to check the [uV*] feature of **v**.
- The Pass auxiliary is Merged (HoP).
- [Pass] matches, values, checks [uInfl:] on **v**.
Lunch was eaten
• T is Merged (HoP).
• [nom] on T matches, values, checks [case] on lunch.
• [ψ:3sg] on lunch matches, values, checks [ψ] on T.
• [past] on T matches, values [ulinfl] on Pass.

Lunch was eaten
• T is Merged (HoP).
• [nom] on T matches, values, checks [case] on lunch.
• [ψ:3sg] on lunch matches, values, checks [ψ] on T.
• [past] on T matches, values [ulinfl] on Pass.

Lunch was eaten
• T is Merged (HoP).
• [nom] on T matches, values, checks [case] on lunch.
• [ψ:3sg] on lunch matches, values, checks [ψ] on T.
• [past] on T matches, values [ulinfl] on Pass.

Lunch was eaten
• T is Merged (HoP).
• [nom] on T matches, values, checks [case] on lunch.
• [ψ:3sg] on lunch matches, values, checks [ψ] on T.
• [past] on T matches, values [ulinfl] on Pass.

Lunch was eaten
• T is Merged (HoP).
• [nom] on T matches, values, checks [case] on lunch.
• [ψ:3sg] on lunch matches, values, checks [ψ] on T.
• [past] on T matches, values [ulinfl] on Pass.

Lunch was eaten
• Pass moves to T (checks [ulinfl:pass*]) on Pass.

Lunch was eaten
• Lunch moves to SpecTP (checks [uN*] on T).

Ditransitive passives
• Consider again Pat gave Chris books.
• Chris was given books.
• *Books were given Chris.
• Pat gave books to Chris.
• Books were given to Chris.
• *Chris was given books to.
**Where does the by-phrase attach?**

- Adverb tests can give us a hint…
- The sandwich was eaten by Pat today at noon
- The sandwich was eaten by Pat at noon today
- The sandwich was eaten today by Pat at noon
- The sandwich was eaten at noon by Pat today

- The dishes were washed by Pat poorly yesterday
- The dishes were washed poorly by Pat yesterday
- The sandwich was eaten by Pat sloppily at noon
- The sandwich was eaten sloppily by Pat at noon

**Conclusion?**

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**Japanese Numeral Quantifiers**

- Gakusei ga hon o 4-satu katta
  
  students nom book acc 4-cl bought
  
  ‘The students bought four books.’

- Gakusei ga hon o 4-nin katta
  
  students nom book acc 4-cl bought
  
  ‘Four students bought books.’

- Gakusei ga kyoo 3-nin kita
  
  students nom today 3-cl came
  
  ‘Three students came today.’

- Hon o Taroo ga 2-satu katta
  
  books acc T nom 2-cl bought
  
  ‘Books, Taroo bought two.’

- Yuube, kuruma ga doroboo ni 2-dai nusum-are-ta
  
  last night cars nom thief by 2-cl steal-pass-past
  
  ‘Last night, two cars were stolen by a thief.’ (Miyagawa 1989)

---

**Italian ne-cliticization**

- Maria ha visto Gianni. Maria lo ha visto.
  
  M has seen G. M him has seen.

- Gianni trascorrerà tre settimane a Milano.
  
  G spend.fut3sg 3 weeks in M

- Gianni ne trascorrerà (*ne) a Milano.
  
  G of-them spend.fut3sg 3 in M.

- Alcuni {persone/*ne} trascorreranno tre settimane a Milano
  
  some people/of-them spend.fut3pl 3 weeks in M.

- Telefoneranno tre persone domani

- *Ne telefoneranno tre domani

- Ne arriveranno tre domani

- Ne furono arrestati molti.

---

**Determiners vs. adjectives**

- There are a number of things that can come before nouns in a noun phrase:

  1) fluffy bunny
  2) that bunny
  3) the bunny
  4) a bunny
  5) every bunny
  6) big fluffy bunny
  7) that fluffy bunny
  8) the fluffy bunny
  9) a fluffy bunny
  10) every fluffy bunny

  11) *fluffy the bunny
  12) *that the bunny
  13) *a the bunny
  14) *every the bunny
  15) *fluffy every bunny
  16) *a every bunny
  17) *the every bunny
  18) *that every bunny

- There seem to be two classes, things like fluffy that can iterate, and things like the that must be first and must be unique.

---

**Determiners**

- The class that includes the, every, that, and so forth are called the **determiners**. They come in several subtypes, but they form a category, which we designate with the **category feature [D]**.

- * Cf. the [V] feature of verbs, the [T] feature of T.

- There can be only one D in a noun phrase, and it must come first.

- Adjectives come after D and before N, and can iterate.
Adjective iteration

- We've seen the iteration property elsewhere (PP adjuncts, for example):
  1) Pat ate lunch on the hill by the tree in the rain.
- Or adverbs (VP adjuncts):
  2) Pat deliberately completely ate the sandwich.
- So, it makes sense to suppose that adjectives are also adjuncts. But to what?
  3) The big fluffy bunny.
- Notice that if big and fluffy are adjoined to NP, it suggests that the must also be, if the whole thing is an NP. But then why can there be only one, and why must it be first?

D vs. N

- Also, notice that D doesn't stand alone.
- The feels incomplete. It needs a noun.
- Student does not feel similarly incomplete.
- Like (the prepositions) to, beside, or with feel incomplete, they also need something.
- Or (the verbs) sink, kick, dance.
- All of these are sort of "completed" by nouns. For P and V, we understand how: They select for a noun as their complement. (They have a [uN]\* feature.)
- So, maybe D is something like a P, selecting for a noun phrase complement…

The students is a DP

- Perhaps the students is not an NP but rather a DP.
- It's head-initial, like English is everywhere else.
- D selects for N ([uN]\*), accounting for
- the inability to "stand alone"
- the inability to have more than one (it selects for N, not D)
- the fact that it must come before adjectives (joined to NP)
- Since D forces the Merge, it is D that projects.
- The NP can be modified by (iterating) adjectives: big fluffy pink bunny.

The students arrived

- Ah, but there's a problem.
- Why is The students arrived grammatical?
  - Arrive is unaccusative, which we've formalized as a V with a single [uN]\* feature and associated with a special "inert" v.
  - T also has a strong [uN]\* feature (the EPP feature), bringing the subject to SpecTP.
- How can either of those be satisfied?
  - If we suppose arrive has a [uD]\* feature instead, why isn't it *Students arrived the?
  - Are there two different versions of arrive, one for students arrived, and one for students arrived?

They were always DPs

- We can bring a degree of order to this chaos if we shift our thinking about "noun phrases": Those things we called “noun phrases” before were always actually DPs.
- So, T doesn't have a [uN]\* feature—rather, it has a [uD]\* feature.
- Prepositions don't have a [uN]\* feature, they have a [uD]\* feature.
- No "version" of arrive has a [uN]\* feature, it's just the one arrive, but it has a [uD]\* feature.
- The basic form of a "noun phrase" is not students, but rather a student, the students. A determiner phrase.

Students arrived

- Having taken that step, we have (the specter at least) of the opposite problem: If arrive has a [uD]\* feature and T has a [uD]\* feature, how come Students arrived is grammatical? How are those features checked?

- Stand firm, brave syntacticians.
- We grit our teeth, and conclude what we must: Students in Students arrived is in fact a DP. It has a determiner, which heads the DP. That determiner just happens to be silent.
[DP Ø students ] arrived

• The silent D (null determiner) “shows up” with certain kinds of nouns, most notably the bare plurals (Ø books, Ø students) or mass nouns (Ø lunch) that we’ve mostly been using up until now.

• There are no “bare singulars” in English: you can’t use Ø book or Ø student (as in *Ø student arrived). The null determiner seems to be incompatible with singular nouns— it shows a kind of number agreement. The related singular form would use the indefinite article a: A student arrived.

There is still an NP

• What we’re doing now suggests that all of those places in previous trees where we wrote “NP”, we should have written “DP” instead.

• But there still is a category N, and there still are phrasal NPs, of course. We just find them in the complement of D, rather than on their own.

• That is, “N comes with D.”

• Hierarchy of Projections (relevant to nouns): D > N

But those were DPs

• What we’re doing now suggests that all of those places in previous trees where we wrote “NP”, we should have written “DP” instead.

Just to be clear on that point: When you draw structures for the very same sentences that we drew structures for in the past, those structures should now contain DPs, not just NPs. Keep that in mind as you review past handouts.

one-replacement

1) This book or that one
2) This book or the one about cats

• It appears that in English, the word one can replace something smaller than the DP (hence evidence for the DP having an NP inside it.)

3) The big green book of poetry on the shelf
4) This one on my desk
5) This small one on my desk
6) This small red one on my desk
7) *This small red one of riddles on my desk

Proliferating PPs

1) The book of poetry on my desk in the corner under the coffee
2) The book of poetry in the corner on my desk under the coffee
3) The book of poetry under the coffee in the corner on my desk
4) *The book under the coffee of poetry in the corner on my desk

• Any number of PPs can appear here, in any order, except of poetry seems to need to be first.

one-replacement again

1) This book of poetry on my desk
2) *This book on my desk of poetry.
3) *This book of poetry of riddles.
4) That one on the floor.
5) *That one of riddles on the floor.
6) This book on my desk by the coffee.
7) This book by the coffee on my desk.
8) That one by the pencils.

• What’s the pattern? Whence the pattern?

• Of the PPs, one kind (of poetry) seems to have to come first.

• There cannot be more than one of the of poetry type PPs.

• One seems to replace N and any number of PPs— but must replace the of poetry type PP if it is there.
PP adjuncts

- The fact that we can have any number of PPs and they can come in any order (momentarily ignoring of poetry type PPs), suggest that they are adjuncts. Just like with vP. So what does one stand in for?

![](image1.png)

PP adjuncts

- What kind of explanation can we offer for the facts about of poetry type PPs that...
  - Must be closer to the noun than the other PPs, and
  - Of which there can be only one, and
  - Get replaced by one?

![](image2.png)

Differentiating poetry from pencils

- It's somewhat tricky to pin down a good diagnostic for which kinds of PP count as of poetry type PPs and which count as by the pencils type PPs.
  - Of poetry PPs generally start with of:
    1) The book of great importance by the pencils.
    2) The book by the pencils of great importance.
  - Of poetry PPs generally describe a fairly intrinsic property of the N.
    3) The student of physics in the hall.
    4) The student in the hall of physics.

Of poetry PPs aren't obligatory

- NPs don't necessarily have an of poetry type PP, but they can.
  2) The book on the table.
- We'll analyze this essentially like Adger analyzed letters to Peter on p. 109 (though we may revise this slightly next week). An N has the option of having a \([u^P]\) feature, and if it does, the PP that satisfies it must have this “intrinsic property” characteristic (and will generally be an of-PP).

![](image3.png)

UTAH

- Adger does treat this as such (actually, he doesn’t treat this at all), but we can understand the restriction to “intrinsic properties” in somewhat the same way we treat the oddity of these:
  1) #The room learned Chinese.
  2) #I sent Chicago letters.
- Here, there’s something about being an Agent or a possessor that requires cognitive capacity. There’s an intrinsic property of the role assigned.
- If intrinsic property can be thought of as a \(\Theta\)-role, N can optionally assign this role.
- PP sister of N: Property

![](image4.png)

pned

- So book of poetry with the red cover would look something like this. One can replace any NP.

![](image5.png)
The category of pronouns

- We said that bare plurals like students in Students arrived are really DPs, and have a null determiner.

  \[ \text{[DP } \emptyset \text{ students }] \text{ arrived.} \]

- How about pronouns, like we in We arrived?

- Although you can say The students arrived, you can’t say *The we arrived.

- You can say things like We linguists should stick together. Or You syntacticians are a crazy lot. That is, a pronoun followed by a noun.

  This only seems to work with we and you, though.

- We linguists looks rather like The linguists.

- We looks rather like a D.

- Also noteworthy:
  1) The media always disparages us linguists.
  2) Pronouns reflect case distinctions.
  3) If pronouns are just Ds, then case must be a property of D.

- Case is actually a property of D (not of N).

Possessors

- Consider the genitive (possessive) ’s in English:
  1) John’s hat
  2) The student’s sandwich
  3) The man from Australia’s book
  4) The man on the hill by the tree’s binoculars

- The possessor can be a full DP (inside another DP).

- The ’s attaches to the whole possessor phrase—it’s the man’s book and binoculars, not Australia’s or the tree’s, after all.

- This is not a noun suffix. It seems more like a little word that signals possession, standing between the possessor and the possessee. (it’s a clitic).

Possessors

- It seems to be impossible to have both a ’s and a determiner.
  1) *The building’s the roof
  2) The roof of the building
  3) *The hurricane’s the eye

- Determiners like the and the possession marker ’s seem to be in complementary distribution—if one appears, the other cannot.

- Compare:
  1) The big fluffy pink rabbit
  2) *The that rabbit
  3) *The my rabbit
  4) *Every my rabbit

Possessors and the null D

- But what then to do about DPs like his book? Or their book?

- Here the possessor DP is the genitive case pronoun, and there’s no ’s.

  1) *Their’s book
  2) *Them’s book
  3) *They’s book

- Accordingly, we will instead suppose that there is a null D, \( \emptyset_{\text{gen}} \) that checks genitive case. The genitive case form of a non-pronominal DP is audible in English, as DP’s.
The king’s every whim

1) A whim
2) The king’s whim
3) The king’s every whim

• To the extent 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 [gen].

Checking genitive case

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

• So we have at this point 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 Øgen, which has a [gen] feature and in whose specifier we find possessors.
  • Another is Øindef, which is a nonsingular indefinite article, in whose complement we find plurals and mass nouns.

A couple of null Ds

• Mass vs. count: Some nouns indicate countable things (chairs) others indicate stuff (milk). Singular/plural distinctions don’t apply with mass nouns.

Recursion

• Another noteworthy aspect of the possessor phrase is its recursive property.
  • The possessor is a DP in the specifier of DP. That means that the DP possessor could have a possessor too…

1) The student’s father’s book
2) The student’s mother’s brother’s roommate
Proper names

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

1) The Pat we respect came to the party.

2) O Giorgos ephuge the George left ‘George left.’

- Øproper (names are not indefinite; this is probably mostly the same as the, but silent).

- Implementation:
  Øproper has a \[u\text{proper}\] feature, Pat has a [proper] feature.

Number agreement on D

- What is wrong with *\([DP A \text{ students}]\) and *\([DP \text{ student}]\)? It’s a lack of agreement in number. It’s like *Students eats lunch.

- We can encode this in the same way: The indefinite determiner has a [u\phi:] feature, and the N has \phi-features as always (including a num feature).

- The [u\phi:] feature is valued and checked by the \phi-features of the N.

Number agreement

- This means a and Øindef are in fact pronunciations of the same D (Like me and I are).

- A(n) is the pronunciation when it has a \[u\phi:sg\] feature

- Ø is the pronunciation otherwise

\[
\begin{align*}
\text{[DP } \text{Øindef students]} & \text{ [DP a student]} \\
\end{align*}
\]