Clause Types
A descriptive tangent into the types of clauses
Clause = subject+predicate phrase
Clause = subject+predicate phrase

subject: the NP being assigned a property
Clause = subject + predicate phrase

- subject: the NP being assigned a property
- Predicate phrase: the property being assigned to the subject

- The man left
- Susan is a linguistics student
- Bill ate a beef waffle
Main vs. Embedded
Main clause (also called Root) is the highest clause.
Main vs. Embedded

- **Main clause** (also called Root) is the highest clauses.
- **Embedded clauses** (also called subordinate clauses) are inside other clauses.
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The armadillo thinks that peanuts are for elephants.

- **Main clause**
- **embedded clause**
Peter said that Danny danced.
Peter said that Danny danced.
Peter said that Danny danced.
Peter said that Danny danced.
Peter said that Danny danced.
Important!

Main clauses CONTAIN embedded clauses

Embedded: Danny danced
Main: Peter said that Danny danced.
Types of embedded clauses
Types of embedded clauses

- **embedded clauses in specifier positions:**
  - [[People selling their stocks] caused the crash of 29]
  - [[For Mary to love that boor] is a travesty]
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  - Heidi said [that Art loves peanut butter]
  - Colin asked [if they could get a mortgage]
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  - [[For Mary to love that boor] is a travesty]

- **embedded clauses in complement positions**
  - Heidi said [that Art loves peanut butter]
  - Colin asked [if they could get a mortgage]

- **embedded clauses in adjuncts positions**
  - [The man [I saw get into the cab]] robbed the bank
Finite vs. Non-finite
Finite vs. Non-finite

Other terms: tensed/untensed, finite vs. infinitive
(there actually are differences in what these mean, but we’ll use the terms interchangeably)
Finite vs. Non-finite

Other terms: tensed/untensed, finite vs. infinitive (there actually are differences in what these mean, but we’ll use the terms interchangeably)

Finite clauses have a tensed verb

- I thought that [John left] tensed/finite
- I want [John to leave] non-tensed/nonfinite
Distinguishing finite/nonfinite
Distinguishing finite/nonfinite

I know [you eat asparagus] finite
Distinguishing finite/nonfinite

- I know [you eat asparagus]       finite
- I’ve never seen [you eat asparagus]   non-finite
Distinguishing finite/nonfinite

- I know [you eat asparagus] **finite**
- I've never seen [you eat asparagus] **non-finite**

Finite show verbal agreement & tense morphology.
Test: change the tense/person:
Distinguishing finite/nonfinite

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Distinguishing finite/nonfinite

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Finite show verbal agreement & tense morphology. Test: change the tense/person:

- I know [you ate asparagus]
- I know [he eats asparagus]
- *I've never seen [him eats asparagus]
Distinguishing finite/nonfinite

- I know [you eat asparagus] **finite**
- I’ve never seen [you eat asparagus] **non-finite**

Finite show verbal agreement & tense morphology. Test: change the tense/person:

- I know [you ate asparagus]
- I know [he eats asparagus]
- *I’ve never seen [him eats asparagus]*
- *I’ve never seen [you ate asparagus]*
Subject of finite show nominative case, subjects of nonfinite (and small) show accusative case.

- I know [he ate asparagus]
- I've never seen [him eat asparagus]

<table>
<thead>
<tr>
<th></th>
<th>Nominative</th>
<th>Accusative</th>
<th>Anaphoric</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Singular</td>
<td>Plural</td>
<td>Singular</td>
</tr>
<tr>
<td>1st</td>
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<td>we</td>
<td>me</td>
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<tr>
<td></td>
<td>myself</td>
<td>ourselves</td>
<td></td>
</tr>
<tr>
<td>2nd</td>
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<td>you</td>
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<tr>
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<td>yourself</td>
<td>yourselves</td>
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</tr>
<tr>
<td>3rd masc</td>
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<td>him</td>
<td>himself</td>
</tr>
<tr>
<td>3rd fem</td>
<td>she</td>
<td>her</td>
<td>herself</td>
</tr>
<tr>
<td>3rd neut</td>
<td>it</td>
<td>it</td>
<td>itself</td>
</tr>
</tbody>
</table>
Distinguishing finite/nonfinite

Types of $T$

Finite: tense suffixes, modals (could, should, would, might, can etc), auxiliaries (is, have)
- I think [he should go]

Non-finite: to, Ø
- I want [him to go]
Distinguishing finite/nonfinite

Types of Comp

- Finite: that, which, if, Ø
  - I think [that he should go]

- Non-finite: for, Ø
  - I want [for him to leave]
Summary
Summary

Clause = subject + predicate
Summary

- Clause = subject + predicate
- Embedded vs. Root/Main
Summary

Clause = subject + predicate

Embedded vs. Root/Main

Types of Embedded: specifier, adjunct, complement
Summary

- Clause = subject + predicate
- Embedded vs. Root/Main
- Types of Embedded: specifier, adjunct, complement
- Types of verbal: tensed/finite vs. untensed/nonfinite
Clause = subject + predicate

Embedded vs. Root/Main

Types of Embedded: specifier, adjunct, complement

Types of verbal: tensed/finite vs. untensed/nonfinite

Tests of finiteness: inflection, case, C, T
Extending X-bar Theory

DPs, TPs, and CPs
The Puzzle of Determiners

• Specifier Rule \( XP \rightarrow (YP) X' \)
  • requires the specifier to be phrasal
  • *That the book (however cf. Those two books)

• Only example of a specifier we’ve seen.
The DP proposal

Abney 1987

DP
  └── D
    └── D'

D
  └── NP
    └── N'
      └── N
The DP hypothesis

- Explains why D isn't a phrase (it is a head of its own phrase!)
- (Notice we now have NO examples of specifiers!!)
- Evidence????????

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’s Genitives

• The man’s coat

• Not a suffix:
  • [The man standing over there]’s coat
  • [The dancer from New York]’s shoes

• ’s attaches to phrases.
‘s Genitives

• The man’s coat
• The coat of the man

‘s is in complementary distribution with determiners:
• [The man standing over there]’s coat
• *The man standing over there’s the coat

• Complementary distribution means: two items are examples of the same thing!
’s Genitives

• ’s is a determiner
’s Genitives

• ’s is a determiner

If ’s is a determiner, where does the possessor go? (Remember the possessor modifies hat).
’s Genitives

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If ’s is a determiner, where does the possessor go? (Remember the possessor modifies hat).
’s Genitives

• Problem solved by DP hypothesis
’s Genitives

• Problem solved by DP hypothesis

the man standing over there

\[
\begin{array}{c}
\text{DP}_2 \\
\text{DP}_1 \\
D' \\
\begin{array}{c}
D \\
\text{'s} \\
\text{NP} \\
\begin{array}{c}
\text{N} \\
\text{hat}
\end{array}
\end{array}
\end{array}
\]

the man standing over there
’s Genitives

- Problem solved by DP hypothesis

```
  DP
   |
  DP1
       |
       DP2
       |
       D’
           |
           D
               |
               NP
                   |
                   N
                       hat
```

the man standing over there

notice this is in the specifier of DP1. Is this the subject of the DP1?
Two other rules that don’t fit X-bar theory

- TP $\rightarrow$ NP (T) VP
- CP $\rightarrow$ (Comp) S

Problems:
- Category Specific
- No intermediate structure
- What are the heads, complements, adjuncts?
The TP Rule \( TP \to NP \ (T) \ VP \)

- What is the head?
  - NP? not a head; it’s a phrase!
  - VP? not a head; it’s a phrase!
  - T? This is the obvious head, but it’s optional!

- HMMMM! Let’s think about headedness...
Heads

• Give their category to the phrase
  • $[_{NP}\text{The big linguist}_N\text{ from Calgary}]$

• Contribute other features to their phrase
  • Linguist [+animate]
  • [The linguist from Calgary] is pregnant
  • Fridge [-animate]
  • [The fridge from Calgary] is pregnant

• The predicate “is pregnant” selects for an animate subject.
Heads of Clauses

• What are the relevant features of clauses?
  • Tense/Finiteness
  • Some examples
    • I think [that Bill should leave]
    • *I think [Bill to leave]
    • ?I asked [that Bill leave]
    • I asked [Bill to leave]
  • The main verb is said to select for certain types of embedded clause, based on finiteness.
The head of clauses

• Tense is represented in inflection, so perhaps $T$ is the head of the sentence:

```
TP
  /\      
DP  T'    
  \  /      
subject T   VP
```
TP, IP, AgrP

• In the syntax literature you will see references to S, IP and AgrP. These are (essentially) the same thing as TP.

• Infl is another name for T.
We’ve only seen T in clauses with auxiliaries!!
What about sentences without auxiliaries??
- John loves peanut butter sandwiches
- If T is optional, how can it be the head?
- Maybe T is obligatory in all sentences!
T = Auxs, and suffixes

- Observation: auxiliaries and inflectional suffixes on verbs are in complementary distribution:
  - I will dance
  - I danced
  - *I will danced
  - I can dance
  - I can danced
  - *I can danced
Proposal

• Inflectional tense & agreement suffixes are also instances of T. T is obligatory in all clauses.
WAIT A MINUTE!

- The SUFFIX appears before the Verb? HUH?
- Well the suffixes are in complementary distribution with the auxiliaries...
- What is the difference between an inflectional suffix and an Aux?
  - suffixes must be attached to something
  - Auxes are free (don’t have to be attached)
suffixes as $T$

- Proposal: Inflectional suffixes are generated under $T$, but they must be attached to a verb, so they move by lowering and attaching to the verb.
suffixes as T

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<table>
<thead>
<tr>
<th>TP</th>
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<tbody>
<tr>
<td>DP T’</td>
</tr>
<tr>
<td>John T’-ed</td>
</tr>
<tr>
<td>V’ V dance</td>
</tr>
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</table>
suffixes as T

- Proposal: Inflectional suffixes are generated under T, but they must be attached to a verb, so they move by lowering and attaching to the verb.

Hack?
maybe, but it will get us something later (chpt 9)
This is the one exception to the restriction that you not break apart words when doing syntax.
Irregular verb morphology

• John runs_ (easy case)

• John ran ???? Inflectional suffix.

```
TP
  /
DP  T'
   /
   △
   /
John  T  VP
   /
-Ø[past]
   \\
   V'
   \\
V
dance
```
Irregular verb morphology

• John runs_ (easy case)

• John ran ???? Inflectional suffix.
Irregular verb morphology

- John runs_ (easy case)
- John ran ??? Inflectional suffix.

\[
\text{run + } \emptyset_{[\text{past}]} = \text{ran}
\]
TP

• T is obligatory, occupied by Auxes or inflectional suffixes (which lower and attach to the verb.)
• The T head gives the finiteness properties to the clause.
• The specifier of TP is occupied by the subject of the clause.
• the complement of TP is the VP
C → (C) TP???

• What is the head of CP? Comp is the obvious choice!
What is the specifier of CP for? We’ll use it in chapter 11 when we look at \textit{wh}-movement. It is where question words like “what” go.

\[
\text{C} \rightarrow (C) \quad \text{TP}???
\]

- What is the head of CP? Comp is the obvious choice!

```
CP
  \( \text{C'} \)
  \( \text{C} \quad \text{TP} \)
```

What is the specifier of CP for? We’ll use it in chapter 11 when we look at \textit{wh}-movement. It is where question words like “what” go.
Is there a CP in every clause?

• We’ve claimed there is an TP in every clause. Is there a CP in every clause?
• Embedded clauses without an overt complementizer?
  • I said [Louise loved rubber duckies]
• Main clauses
  • Louise loved rubber duckies?
Evidence from Yes/No questions

• You have seen the rubber ducky.
• Have you seen the rubber ducky?
• Many languages don’t do this. Instead they have special question Cs:
  • Ar fhag Seán
  Q leave John
  “Did John leave?”
• These are in complementary distribution with Cs
Evidence from Yes/No questions

CP

C'

C[+Q]

TP

Ar

fhag Seán
Evidence from Yes/No questions

The Ø C_{+[+Q]} must be pronounced, so the T head moves to the position to fill it.
Evidence for [+Q] Cs in English

- English has a [+Q] C found in embedded clauses:
  - (if)
    - I wonder if Louise likes rubber duckies
  - SAI disallowed with if:
    - *I wonder if has Louise owned a rubber ducky.
    - I wonder if Louise has owned a rubber ducky.

- This means that SAI is a diagnostic for the presence of C in English!
Conclusion of discussion so far

• Root questions in English contain a phonologically null [+Q] complementizer.
• T raises to this [+Q] to give it phonological content.
Evidence that non-questions have null C?

• Recall that conjunction only links together items of the same category. If questions have a null C (indicated by subject/aux inversion), then anything they are conjoined with must ALSO have a C.

• You can lead a horse to water but can you make him drink?

• Second clause has a null C (indicated by subject/aux; therefore, first clause must also have a null C.)
since there must be a CP in the second clause, for SAI, then there must ALSO be a CP in the first clause. Therefore all clauses have a CP, even if the C head is null.
Specifiers!
The notion of subject
Specifier = Subject

• By creating DP, we got rid of our only example of a specifier.
• So do we need the notion specifier?
• Yes: we are going to use it for subjects
Specifier = Subject

• We’ve already seen two examples of subjects being in specifiers:
  • The subject of a clause is in the specifier of TP
  • The possessor of an ’s genitive is in the spec of DP.
• Are there other examples?
Small Clauses

- I consider [Peter a fool]
- I consider [Peter foolish]
- I want [Peter in the play]
Small Clauses

• Small clauses are characterized by having no verbal inflection (in fact they aren’t verbs), so they have no TP and no CP.
• If there is no TP, where does the subject of the small clause go? In the specifier of the predicate!
consider Bill to fool Peter a
consider

Small Clause
Bill considers Peter a fool.
Bill considers Peter foolish.
Consider foolish Peter.

Small Clause
Small clause
subject

Bill

Small Clause

Peter

consider

foolish
CP
  C′
   C
      Ø
      DP
        T′
          T
            -s
              V′
                V
                  want
                    PP
                      DP
                        Peter
                          P
                            in
                              DP
                                the play
wanted the play
Bill wants the play in Small Clause.

Small clause subject

Peter in the play
Summary

• D isn’t a specifier -- it is a head. Evidence from ’s genitives.

DP hypothesis

• The head of the sentence is T. The sentence type is determined by the finiteness of T

• The subject is the the spec of TP

• All sentences have TP, when T is suffixal it lowers to the verb
Summary

• All clauses have a C head. It may be null. Evidence comes from subject/aux inversion in yes/no questions.
Summary

• Specifiers are now limited to subjects (of any category)

• Small clauses are clauses without inflection, and ones without a verbal predicate

• The subject of small clauses resides in the specifier of the predicate’s phrase.