

CAS LX 522 Syntax I

8

UTAH (4.3-4.4)

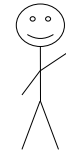


We give trees to ditransitives

- You may recall our discussion of θ -theory, where we triumphantly classified verbs as coming in (at least) three types:
 - Intransitive (1 θ -role)
 - Transitive (2 θ -roles)
 - Ditransitive (3 θ -roles)
- Theta roles go to obligatory arguments, not to adjuncts.

Verbs and participants

<ul style="list-style-type: none"> Intransitive (1-place): <i>Sleep</i> 1) Bill slept. 2) *Bill slept the book. 	<ul style="list-style-type: none"> Transitive (2-pl-cc): <i>Hit</i> 3) *Bill hit. 4) Bill hit the pillow. 	<ul style="list-style-type: none"> Ditransitive (3-place): <i>Put</i> 5) *Bill put. 6) *Bill put the book. 7) Bill put the book on the table. 	<ul style="list-style-type: none"> Weather (0-place): <i>Rain</i> 8) It rained.
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We give trees to ditransitives

- You may also recall that we believe that trees are binary branching, where:
 - Syntactic objects are formed by Merge.
 - There's just one complement and one specifier.

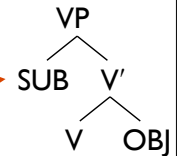
A phrase

So, a full phrase can have all of these pieces (plus perhaps some additional adjuncts)



We give trees to ditransitives

- Fantastic, except that these things just don't fit together.
- We know what to do with transitive verbs.
- But what do we do with ditransitive verbs? We're out of space!

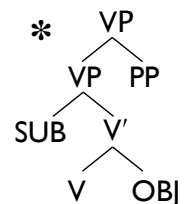


Problems continue...

- I showed Mary to herself.
 - *I showed herself to Mary.
 - I introduced nobody to anybody.
 - *I introduced anybody to nobody.
- This tells us something about the relationship between the direct and to-object in the structure. (What?)

Problems continue...

- The OBJ c-commands the PP. **But how could we draw a tree like that?**
- Even if we allowed adjuncts to get θ -roles, the most natural structure would be to make the PP an adjunct, like this, but that doesn't meet the c-command requirements.



Some clues from idioms

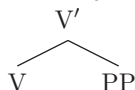
- Often idiomatic meanings are associated with the verb+object complex—the meaning derives both from the verb and the object together.
- Suppose that this is due being Merged into the structure together initially.
 - 1) Bill threw a baseball.
 - 2) Bill threw his support behind the candidate.
 - 3) Bill threw the boxing match.

Idioms in ditransitives

- In ditransitives, it seems like this happens with the *PP*.
 - Beethoven gave the Fifth Symphony to the world.
 - Beethoven gave the Fifth Symphony to his patron.
 - Lasorda sent his starting pitcher to the showers.
 - Lasorda sent his starting pitcher to Amsterdam.
 - Mary took Felix to task.
 - Mary took Felix to the cleaners.
 - Mary took Felix to his doctor's appointment.

So V and PP are sisters...

- Larson (1988) took this as evidence that the V is a sister to the PP “originally.”
- Yet, we see that on the surface the OBJ comes between the verb and the PP.
 - 1) Mary sent a letter to Bill.
- Where is the OBJ? It must c-command the PP, remember. Why is the V to the left of the OBJ when we hear it?



Where's the V? The OBJ?

- We can paraphrase *John gave a book to Mary* as *John caused a book to go to Mary*.
- Chichewa:
 - Mtsikana ana-chit-**its**-a kuti mtsuku u-**gw**-e
girl agr-do-**cause**-asp that waterpot agr-**fall**-asp
'The girl made the waterpot fall.'
 - Mtsikana anau-**gw**-**its**-a kuti mtsuku
girl agr-**fall**-**cause**-asp that waterpot
'The girl made the waterpot fall.'
- Suppose that in both cases Merge puts things together in the same way initially:
 - [[that waterpot] fall]

Causatives

- [[that waterpot] fall]
- Then it's merged with *cause* (basically transitive: needs a causer and a causee):
 - [cause [[that waterpot] fall]]
- And then it's Merged with the Agent
 - [girl [cause [[that waterpot] fall]]]
- At which point, one *can move fall* over to *cause*.
 - [girl [cause+**fall** [[that waterpot] <**fall**>]]]

Ditransitives again

- The proposal will be that English ditransitives are really a lot like Chichewa causatives.
- Starting with
 - [[the book] [go [to Mary]]]
- Merging *cause* and an Agent
 - [John [cause [[the book] [go [to Mary]]]]]
- One then moves *go* over to *cause* to get:
 - [John [cause+go [[the book] [<go> [to Mary]]]]]
 - John “gave” the book to Mary.

Un peu de français

- If you've tried to learn any French at all, you've come across this phenomenon:

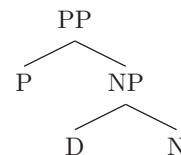
- de 'of' le 'the (masc.)'
- à 'at' la 'the (fem.)'

- à la bibliothèque 'to the library (fem.)'
- *à le cinéma 'to the movies (masc.)'
- au cinéma 'to the movies (masc.)'
- de la mayonnaise 'of mayonnaise (fem.)'
- *de le lait 'of milk (masc.)'
- du lait 'of milk (masc.)'

Un peu de français

- This is usually taught as:

- au = à + le
- du = de + le
- If your underlying **intent** is à 'at' + le 'the', say *au*.

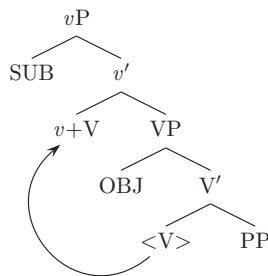


- So is *au* a preposition or an article?

- There's no reason to believe that *au cinéma* has a different syntactic structure from *à la bibliothèque*.
- This is just about how it is pronounced.
- *Au* = à + le. *Give* = cause + go.

Where's the V? The OBJ?

- Larson's proposal was basically this. Logically, if we're going to have binary branching and three positions for argument XPs (SUB, OBJ, PP), we need to have another XP above the VP.



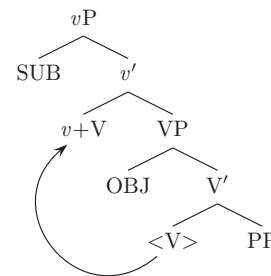
- Since the subject is in the specifier of the higher XP, that must be a VP too.

- Ditransitive verbs really *come in two parts*. They are in a "VP shell" structure.

- Furthermore, the higher part seems to correlate with a meaning of causation.

Where's the V? The OBJ?

- The higher verb is a "light verb" (we'll write it as *vP* to signify that)—its contribution is to assign the θ -role to the subject. The lower verb assigns the θ -roles to the OBJ and the PP.



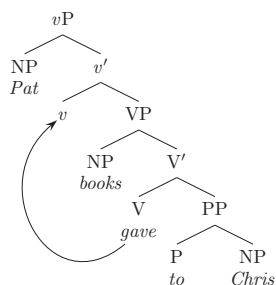
- That is, *V* has [*uP*, *uN*] features, and *v* has a [*uN*] feature.

- Hierarchy of Projections** (so far):
v > *V*
("V comes with v")

Where we are

- We've just come up with an analysis of sentences with ditransitive verbs, such as *Pat gave books to Chris* that accords with the constraints of the syntactic system we have developed so far.

- Merge is binary
- θ -roles are assigned to specifiers and complements.
- The solution is to assume a two-tiered structure, with a little *v* in addition to the VP.



Where we are

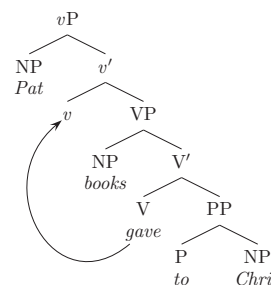
- The three θ -roles for *give* are assigned like this:

- The PP gets a Goal θ -role.
- The lower NP gets a Theme θ -role.
- The highest NP (in the specifier of *vP*) gets an Agent θ -role.

- But how did we know that?

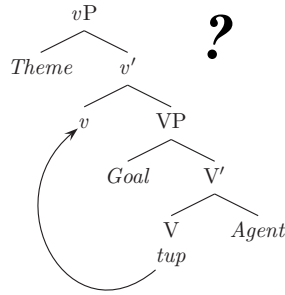
- More importantly, how do kids come to know that?

- Do they memorize this list for each verb they learn?



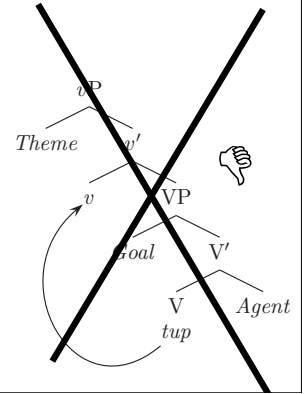
Uniformity of Theta Assignment

- If kids are really memorizing which θ -role goes where for each verb, there should be some verbs that do it in other ways.
- For example, there might be a ditransitive verb with Theme in the specifier of vP , Goal in the specifier of VP, and Agent in the complement of VP.
- E.g., *to tup*:
Books *tup* on the shelf Chris
'Chris put books on the shelf.'



UTAH

- But that just never happens.
- It seems that all verbs have θ -role assignment that looks pretty much the same.
- If there's an Agent, it's the first (uppermost) NP.
- If there's a Theme it's down close to the verb.
- Given that things *seem* to be relatively uniform, it has been proposed that this is a fundamental property of the syntactic system. Each θ -role has a consistent place in the structure.

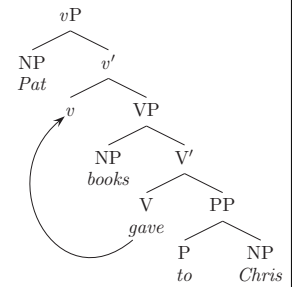
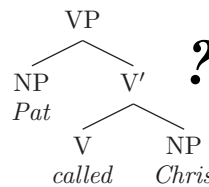


UTAH

- **The Uniformity of Theta-Assignment Hypothesis (UTAH):** Identical thematic relationships between predicates and their arguments are represented syntactically by identical structural relationships when items are Merged.
- That is, all Agents are structurally in the same place (when first Merged). All Patients are structurally in the same place, etc.
- We can take this to be a property of the *interpretation*. When a structure is interpreted, the θ -role an argument gets depends on where it was first Merged.

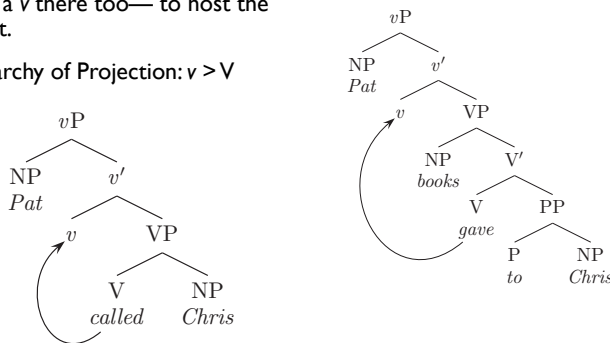
θ -roles and structure

- Great. So, the Agent (*Pat*) in *Pat gave books to Chris* is in the specifier of vP . Because that's where Agents go.
- But.. What about structures like the ones we had before for things like *Pat called Chris*?



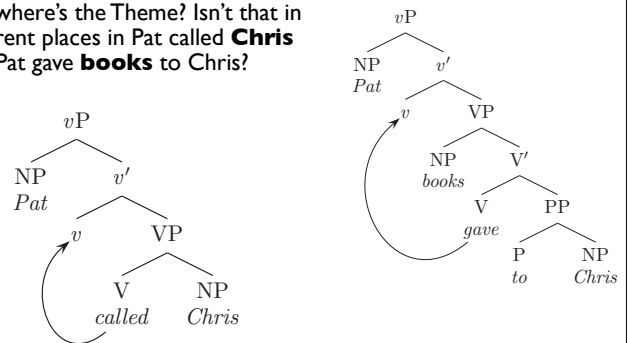
θ -roles and structure

- Well, if we're serious about working within the constraints of UTAH, we need a v there too— to host the Agent.
- Hierarchy of Projection: $v > V$



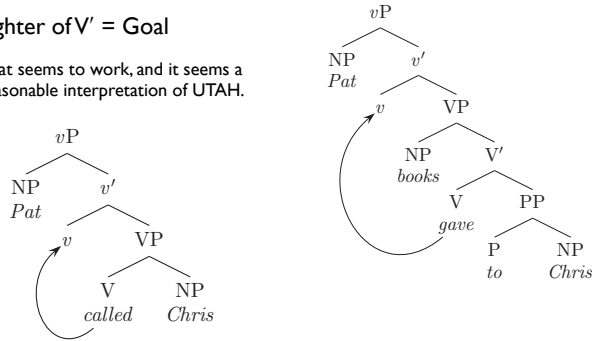
θ -roles and structure

- Specifier of vP = Agent
- But where's the Theme? Isn't that in different places in *Pat called Chris* and *Pat gave books to Chris*?



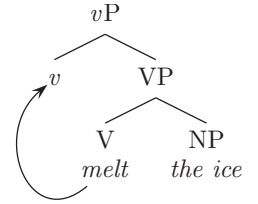
θ-roles and structure

- NP, daughter of vP = Agent
- NP, daughter of VP = Theme
- PP, daughter of V' = Goal
 - That seems to work, and it seems a reasonable interpretation of UTAH.



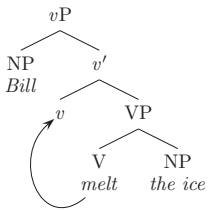
Unaccusatives

- The ice, the boat, the door, all Themes: NP daughter of VP.
 - The ice melted.
 - The boat sank.
 - The door closed.



- Unaccusatives have a relatively "inert" v, no "causal" meaning.
- There are two kinds of v, the causal one that needs an NP (Agent), and a non-causal one.
- What if we pick the causal v (and provide an Agent NP)?

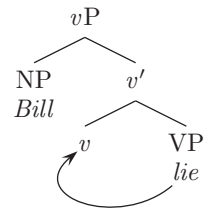
Transitives



- *Bill melted the ice.*
- The causal v adds an Agent.
- Bill was the agent/instigator of a melting that affected the ice.

Unergatives

- *Bill lied.*
- That's got an Agent, and Agents must be NP daughter of v.
- So, it would look like this.

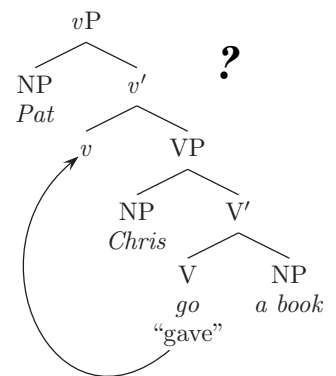


Double object constructions

- Pat gave a book to Chris.
 - Agent: Pat; Theme: a book; Goal: to Chris
- Pat gave Chris a book.
 - Agent: Pat, Theme: ? a book?, Goal: ? Chris?
- Don't these mean the same thing?

Pat gave Chris a book

- NP, daughter of vP = Agent
- NP, daughter of VP = Theme
- PP, daughter of V' = Goal
- The word order suggests this structure.
- UTAH (so far) doesn't tell us what theta role a book gets.
- And in what sense is Chris a Theme of a going?

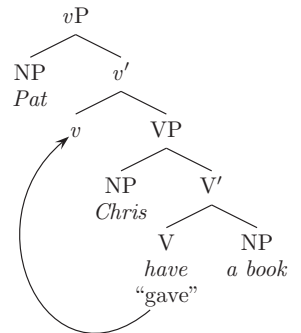
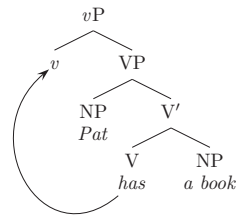


Two kinds of giving

- The two forms of *give* are not quite equivalent, though:
 - 1) Pat gave a book to Chris.
 - 2) Pat gave Chris a book.
 - 3) *Pat gave a headache to Chris.
 - 4) Pat gave Chris a headache.
- Try paraphrasing...
 - 5) Pat sent a letter to Chicago.
 - 6) *Pat sent Chicago a letter.
 - 7) Pat taught French to the students.
 - 8) Pat taught the students French.

To have

- NP, daughter of vP = Agent
- NP, daughter of VP = Theme
- PP, daughter of V' = Goal
- NP, daughter of V' = Possessee



On beyond v

- Our trees have now expanded beyond being mere VPs to being vPs .
- The Hierarchy of Projections: $v > V$
Once you have finished the VP (uninterpretable selection features are checked), if there's a v on the workbench, Merge it.
- The UTAH:
 - NP, daughter of vP : Agent
 - NP, daughter of VP: Theme
 - PP, daughter of V' : Goal
 - NP, daughter of V' : Possessee
- But this is only the beginning.