

AM2 — Syntax: theories and models

Week 5: Implicit arguments, Part II (Passives)

As we know, passive sentences have two variants, one in which they have an explicit agent (in the form of a *by*-phrase), and one in which they don't.

- (1) a. The tree was cut down by the lumberjack.
- b. The tree was cut down.

The question that we want to answer is: are these one and the same construction? In the version without a *by*-phrase, do we have evidence in favor of an invisible *by*-phrase, or do we need to say that this is an agentless passive?

1 Passives are agentive, but they don't have Agents

Passives, including those without a *by*-phrase, are agentive. To begin with, they can be modified by agent-oriented adverbials, like *on purpose*. Compare that to an unaccusative, which is not agentive.

- (2) a. The boat was sunk on purpose (by the enemy).
- b. The boat sank (*on purpose).

However, this is where the similarities end. Some people have argued that a passive clause can control a PRO in an infinitival clause, whereas the corresponding unaccusative can't.

- (3) a. The boat was sunk (by the army_i) [PRO_i to collect the insurance money].
- b. * The boat sank [PRO to collect the insurance money].

However, this is a bad argument, because some PROs don't really need to be controlled like that. In this example, the collector of the insurance money is not the torpedo that sinks the boat.

- (4) The boat was sunk (by a torpedo_i) [PRO_k to collect the insurance money].

Additionally, passive clauses (with or without a *by*-phrase) differ from the corresponding active clauses in various respects. For example, they can't bind anaphors in the embedded clause.

- (5) a. They sent letters to each other.
- b. ?* Letters were sent to each other (by them).

Second, passive clauses can't control into adjuncts, but the corresponding active clauses can.

- (6) a. They_i read the book [without PRO_i putting it down].
- b. * The book was read (by them_i) [without PRO_i putting it down].

Third, passive clauses don't support secondary (depictive) predication, but active ones do.

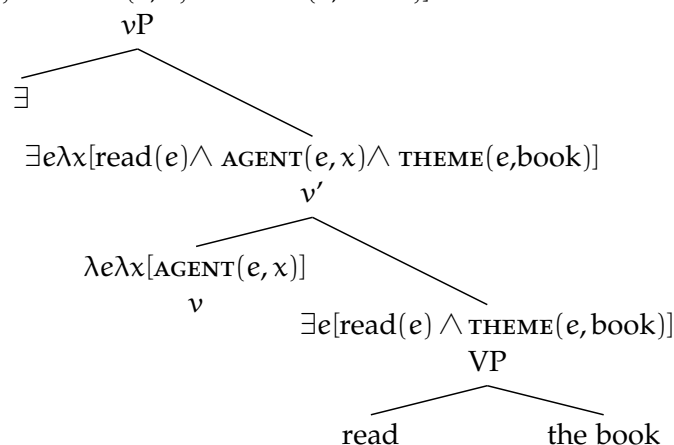
- (7) a. He ate the soup tired.
 b. * The soup was eaten tired (by him).

These properties have led some people to propose that, while passives are *agentive* (so that they can be modified by *on purpose*), they don't have an *Agent* (so that they can't do all the things that actual Agents do). Recall that the lexical entry for v that we assumed last week was as follows.

- (8) $\llbracket v \rrbracket = \lambda e \lambda x [\text{AGENT}(e, x)]$

That is, v takes an event e , an individual x , and it makes x the Agent of e . What we want to do here is to preserve this meaning of v while preventing the merger of an actual Agent. There are various ways to do so. One of them is to resort to the process of *existential closure*, written \exists -closure. This allows us to introduce an \exists operator that binds any unbound variables.

- (9) $\exists e \exists x [\text{read}(e) \wedge \text{AGENT}(e, x) \wedge \text{THEME}(e, \text{book})]$



Here, $\exists x$ simply means that the Agent of the event of reading a book was some unspecified individual x . We maintain the agentive meaning but without making reference to any specific Agent. A different way of expressing the same intuition can be found in Pylkkänen's work, who proposes that v should be decomposed into two parts, namely Voice (which provides an Agentive meaning without an Agent) and v (which, like our current v , introduces the actual Agent and relates it to an event). An active sentence has both v and Voice in the structure, whereas a passive sentence only has Voice.

- (10) a. $\llbracket \text{Voice} \rrbracket = \lambda e [\text{CAUSE}(e)]$
 b. $\llbracket v \rrbracket = \lambda e \lambda x [\text{AGENT}(e, x)]$

You should keep in mind what the underlying idea is here. Semantically, we need to recognize all these notions of causativity, agentivity... This is necessary, as they are part of the meaning of these expressions. The question that we are trying to answer is how this semantic information is represented in syntax. The hypothesis that Pylkkänen and others pursue is that there is a one-to-one correspondence between syntax and semantics —that is, every discrete semantic notion corresponds to a functional head in syntax.

2 From passives to unaccusatives and applicatives

Pylkkänen's hypothesis is interesting because it moves us into an interesting direction — namely, that valency changes depend solely on adding or removing functional heads as necessary. Now we have the following two configurations.

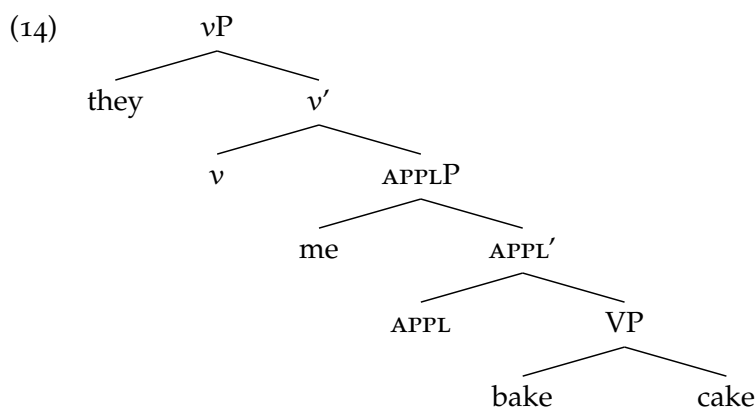
- (11) a. Active sentence: Voice + *v* + VP.
b. Passive sentence: *v* + VP.

So, what happens if we also remove *v* from the structure? The answer is that we get an unaccusative or middle sentence, in which we have neither an Agent nor an agentive meaning.

- (12) a. The enemy sank the ship.
b. The ship was sank (by the enemy).
c. The ship sank (*by the enemy).

Similarly, we can also go the opposite route: we can add extra functional heads in order to accommodate extra arguments. These are called applicatives, and in English (and other languages) they are usually introduced with the preposition *for* or accommodated into a double object construction.

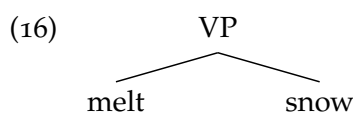
- (13) a. They baked *me* a cake.
b. They baked a cake *for* me.

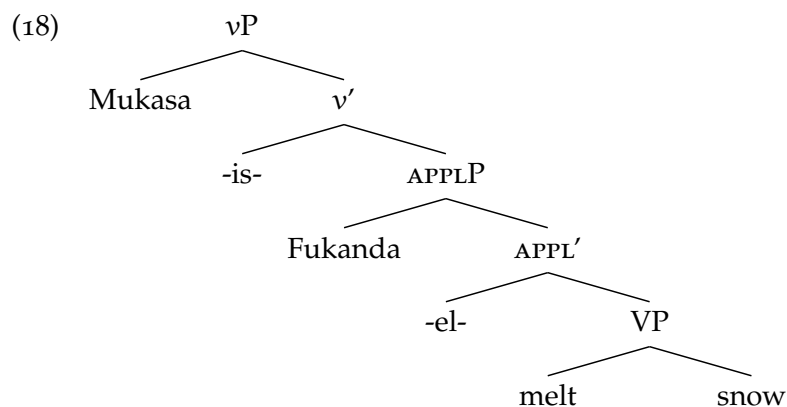
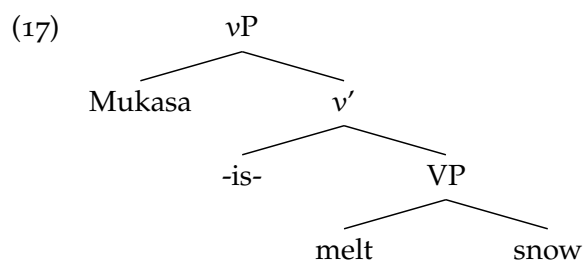


However, there are many languages that have distinct morphemes for each case. One of them is Venda (spoken in South Africa and Zimbabwe). Note how each new argument is associated to an extra piece of morphology in the verb. What we want to say is that these morphemes (*-is-* and *-el-*) are the actual phonetic realization of the functional heads *v* and APPL.

- (15) a. Mahada o-nok-a.
snow AGR.melt.FV
"The snow melted"
- b. Mukasa o-nok-**is**-a mahada.
Mukasa AGR.melt.CAUSE.FV snow
"Mukasa melted the snow" (lit. Mukasa caused the snow to melt)
- c. Mukasa o-nok-**is-el**-a Katonga mahada.
mukasa AGR.melt.CAUSE.APPL.FV Katonga mahada
"Mukasa melted Fukanda the snow" (lit. Mukasa caused the snow to melt for Fukanda's benefit)

The following trees illustrate the structures for this triad of sentences (I'm not representing verb movement from V to APPL to *v*; you can do that on your own).





3 What you need to remember

The key assumption of this analysis is that there is a one-to-one mapping between eventive concepts in semantics (represented by λ terms) and functional heads in syntax. This is not logically necessary, but once we make this assumption, then we can account for these argument structure alternations simply by adding or removing functional heads. Otherwise, we would have to postulate a number of lexical rules that change the valency of each verb before it enters syntax. That would be inconsistent with our view of the lexicon (see previous weeks) where it is only a repository of lexical items, without any kind of mapping rules.