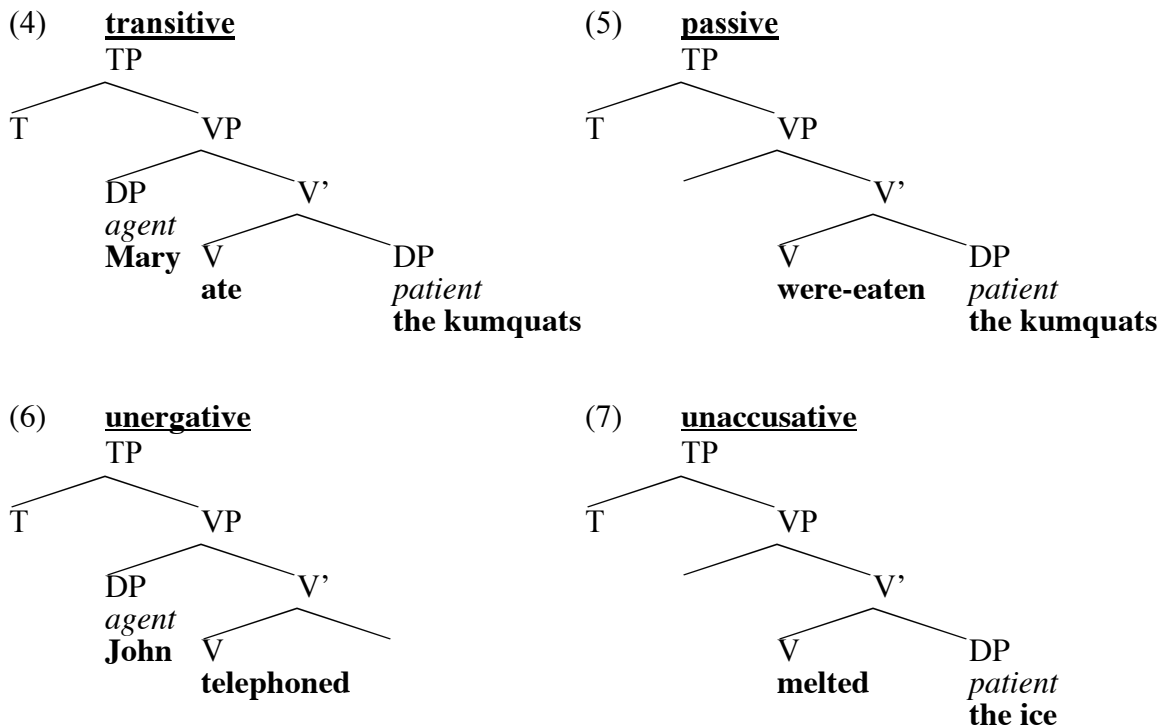


Review Handout #2: Transitives, Passives, Unaccusatives, Unergatives

In our past couple of meetings, we've hammered out the following principles¹:

- (1) **UTAH**: a given theta-role is always assigned in the same structural configuration (e.g., Agents start as specifiers of VP, Patients as complements of V...)
- (2) **Burzio's Generalization**: a verb assigns Case iff it assigns a theta-role to its specifier.
- (3) **Case Filter**: DPs must have Case, which they get in certain positions (e.g., specifier of tensed TP, complement of case-assigning V); if they don't start out in such a position, they must move to one.

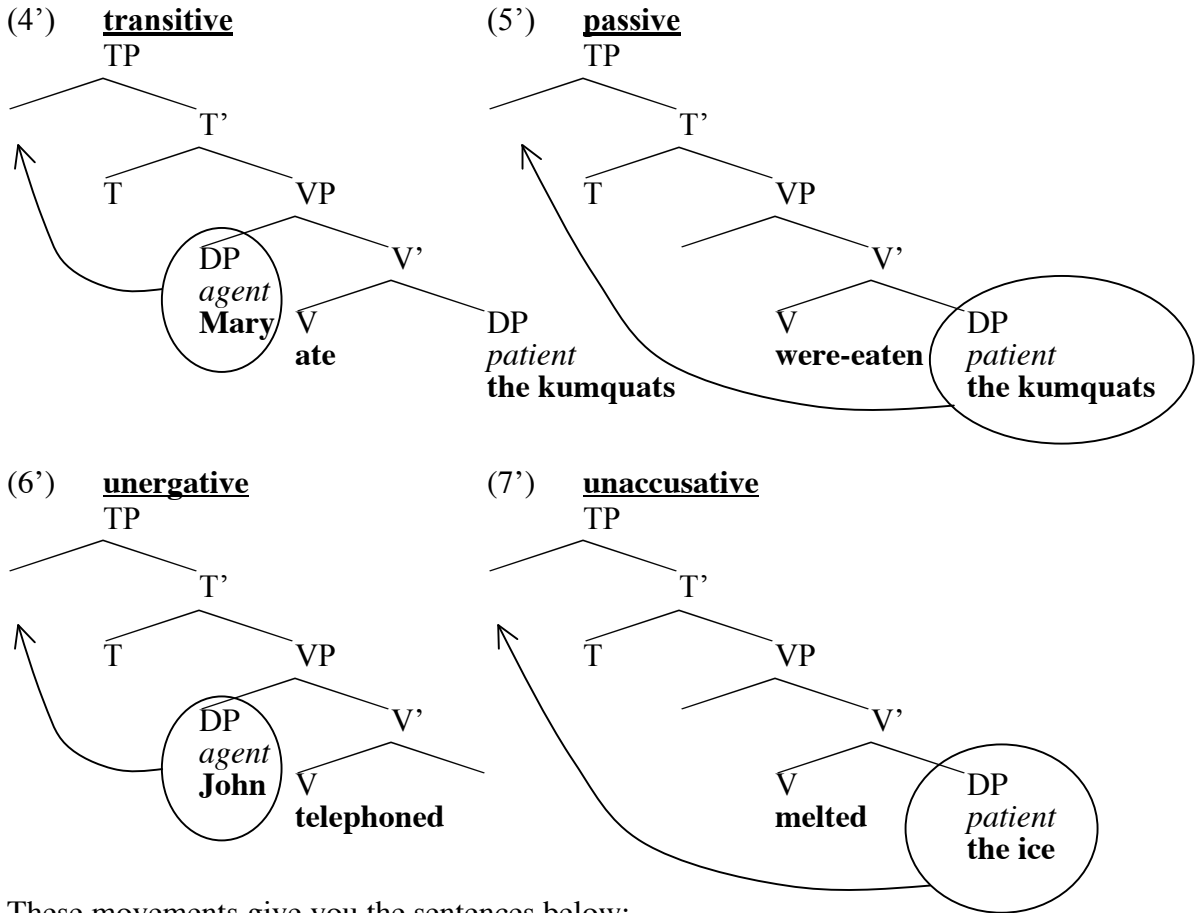
So now there are four types of verbs that we're interested in. Before anything moves anywhere, these verbs give you trees that look like this:



(note that these trees aren't consistent with Bare Phrase Structure; we'll fix that soon)

As a result of the need for Case, some of these DPs must move. The specifier of VP is not a Case position, and (following Burzio's Generalization) passive and unaccusative verbs cannot assign Case, since they do not assign theta-roles to their specifiers. These DPs move to the specifier of TP, where they can get Nominative case:

¹ among others; also relevant is the EPP, which requires TP to have a specifier.



These movements give you the sentences below:

- (4'') Mary ate the kumquats.
- (5'') The kumquats were eaten.
- (6'') John telephoned.
- (7'') The ice melted.

These movements are a way of dealing with the observation that a given theta-role doesn't always seem to show up in the same place. For instance, the Patient of a verb like *melt* can end up as either the subject or the object, depending on the circumstances:

- (8) a. John melted the ice
- b. The ice was melted.
- c. The ice melted.

In principle, we could have coped with this by developing a theory that allowed theta-roles to be assigned to different positions in the tree, depending on what other theta-roles were being assigned (so we could have had rules like “assign the Patient theta-role to the object, unless there’s no subject, in which case assign it to the subject”). Instead, what we’re doing is insisting (a la UTAH) that a given theta-role is always assigned to the same structural position, but that a DP doesn’t have to stay where it’s put; the need for Case, along with the EPP, sometimes forces DPs to move, obscuring the effects of UTAH.

Arguments for this position involve showing that (for example) subjects of unaccusatives and passives have properties in common with objects of transitive verbs, and that these properties don't necessarily have anything to do with theta-roles. A few of these arguments are outlined below.

Exceptional Case Marking

English ECM verbs like *believe* can assign Case to a DP that they don't assign a theta-role to:

- (9) a. I believe him to be a liar.
b. I believe it to be likely that John will resign.

Here we can tell that *believe* isn't assigning a theta-role to the DPs immediately after it; in (9b), the DP immediately after *believe* is an expletive, hence doesn't have a theta-role at all.

Passivizing an ECM verb causes the DP that the verb is assigning Case to to move into Spec TP:

- (10) a. He is believed to be a liar.
b. It is believed to be likely that John will resign.

If we were just considering sentences like (5'') above (*The kumquats were eaten*), we might have been tempted to believe that passivizing a verb redirects the theta-role it assigns to its complement, assigning it to the specifier of VP instead. But examples like (10) show that the passivized verb need not assign a theta-role to its new subject at all; what's affected by passive is not the object's theta-role, but its Case. The theta-role can still be in the same position.

Resultatives

Resultatives are predicates (typically APs or PPs) that are taken to modify one of the DPs in the sentence:

- (11) a. I hammered the metal **flat**.
b. We smashed it **into smithereens**.

In particular, the resultative describes the 'end state' of the DP it modifies; in (11a-b), the DPs in question acquire the property described by the resultative as a result of the event described by the verb (e.g., the metal starts out non-flat and, as a result of my hammering, becomes flat). It's worth distinguishing resultatives from depictives, which don't have this 'change-of-state' meaning:

- (12) a. I hammered the metal **sweaty**.
b. I ate the meat **raw**.

Now, what's special about resultatives is that they modify objects, not subjects. So although (12a) is okay as a depictive, it can't mean 'I hammered the metal until I became sweaty' — it only has the depictive reading, 'I hammered the metal while I was sweaty'. Moreover, the objects modified by resultatives don't have to get theta-roles from the verb:

- (13) a. We drank ourselves **silly**.
b. They shouted him **out of the theater**.

These objects aren't getting their theta-roles from the verb, but arguably from the resultatives themselves; we know this because these verbs can't have this kind of object, unless a resultative is present:

- (14) a. *We drank ourselves.
b. *They shouted him.

So we can't have a rule that says something like "resultatives modify the Patient"; it has to be something like "resultatives modify the DP which is in object position".

Or rather, something like "resultatives modify the DP which has been in object position", because the DP doesn't have to stay there, as we know. Although subjects of transitives cannot be modified by resultatives, subjects of passives can:

- (15) a. The metal was hammered **flat**.
b. It was smashed **into smithereens**.

The reasons for this are familiar by now; the subjects in (15) begin as complements of the verb, where they can be modified by resultatives, and move to Spec TP in search of Case.

Intransitive verbs, on the other hand, divide into two types, as we expect. Unaccusative verbs allow resultatives to modify their subjects, just as passive verbs do (and for the same reason):

- (16) a. The ice melted **into a puddle**.
b. It smashed **into smithereens**.

Unergative verbs don't allow this:

- (17) a. *We drank **silly**.
b. *They shouted **hoarse**.

In other words, intransitive verbs divide into those in which the subject patterns with the object of a transitive verb (in that resultatives can modify it; (16)) and those in which the subject patterns with the subject of a transitive verb (in that resultatives can't modify it; (17)). We know that this can't be about the theta roles these DPs are receiving from the verb, because resultatives don't care about that (13-14). So it has to be that the subjects in (16) start out as complements of the verb, while the subjects of (17) don't.

Another difference between unaccusatives and unergatives also follows. Unergatives, but not unaccusatives, appear in sentences like (13), where the apparent object of the verb doesn't get a theta-role from it:

- (18) a. We drank ourselves **silly**.
b. They shouted themselves **hoarse**.

(19) a. *The ice melted itself **into a puddle**.
b. *The lake froze itself **solid**.

This is what we expect, again. Unaccusatives don't assign Case to their complements (Burzio's Generalization), so the objects in (19) don't have Case, and can't go anywhere to get it (since the subject is occupying the specifier of TP). Unergatives can assign Case to their complements (since they assign theta-roles to their specifiers), so the examples in (18) don't have that problem.

Japanese Numeral Quantifier Float

Japanese allows numbers to be separated from the DPs they modify by certain kinds of material. As a first approximation, we can say that objects, but not subjects, can be separated from their numbers in this way²:

- (20) a. Gakusei-ga hon-o Mary-ni **2-satu** ageta
student NOM book ACC Mary DAT 2 CL gave
'The student gave Mary two books'
- b. * Gakusei-ga hon-o Mary-ni **2-ri** ageta
student NOM book ACC Mary DAT 2 CL gave
'Two students gave Mary a book'

(as you can see, Japanese has classifiers on its numbers; human beings and books have different numbers)

Subjects of passives are like objects of transitives, in that they too can be separated from their numeral quantifiers:

- (21) Hon-ga doroboo-ni **2-satu** nusumareta
book thief-by 2-bk were-stolen
'Two books were stolen by the thief'

On the theory developed here, it's easy to see why this should be so; subjects of passives begin in object position, and apparently as they move to subject position, they have the option of leaving their numeral quantifiers behind. If we were instead pursuing a theory in which subjects of passives start out in subject position, it would be very hard to see why they possessed this property of objects; it's not at all clear why 'having a Patient theta-role' would entitle a DP to this property.

And again, as in the English cases above, we find evidence two classes of intransitive verbs, which contain roughly the same verbs as the English classes:

- (22) a. Kyaku-ga ryokan-ni **2-ri** tuita
guest NOM inn DAT 2 CL arrived
'Two guests arrived at the inn'
- b. Kuruma -ga kono kagi-de **2 -dai** aita
car NOM this key with 2 CL opened
'Two cars opened with this key'

² this is not quite right; in particular, certain adverbs can always intervene between subjects and their numeral quantifiers:

- (i) Gakusei-ga kinoo **2-ri** kaetta.
student NOM yesterday 2 CL went.home
'Two students went home yesterday'

- (23) a. * Gakusei-ga zibun-no kane -de **2-ri** denwa-sita
 student NOM self GEN money with 2 CL telephoned
 ‘Two students telephoned using their own money’
- b. * Kodomo ga geragera to **2-ri** waratta
 child NOM loudly 2 CL laughed
 ‘Two children laughed loudly’

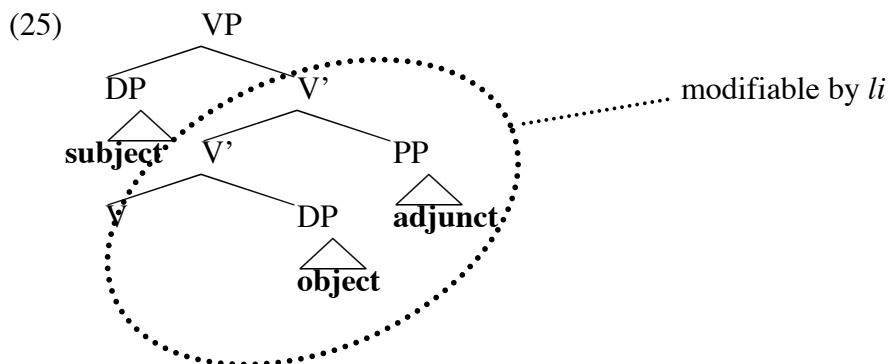
Japanese unaccusative verbs, like English unaccusative verbs, have subjects that behave like objects—in this case, the subjects share with objects the possibility of numeral quantifier float.

Hebrew possessor datives

Hebrew has another diagnostic for the syntactic property ‘starts out below the specifier of VP’:

- (24) ha-yeladim zarku li ‘et ha-kadur le-tox ha -gina ‘al-yaad ha-mitbax
 the boys threw to-me ACC the ball into the garden next-to the kitchen
 ‘The boys threw my ball into the garden next to the kitchen’
 ‘The boys threw the ball into my garden next to the kitchen’
 ‘The boys threw the ball into the garden next to my kitchen’
 * My boys threw the ball into the garden next to the kitchen’

The dative clitic *li* ‘to me’ is understood here as a possessor, but the sentence is multiply ambiguous; the clitic can be interpreted as possessing any DP other than the subject. In the trees that we’re positing, “everything but the subject” is a natural class; these are the things dominated by V’ projections:



And again, possessor datives care about where DPs start out, not where they end up. In a passive, the subject starts out in object position, so it can be modified by *li*:

- (26) ha-‘uga ne’exla li
 the cake was-eaten to-me
 ‘My cake was eaten’

And, yet again, we find two types of intransitives; the unaccusatives (same verbs as in Japanese and English, more or less) which allow *li* to modify their subjects, and the unergatives, which don’t:

- (27) a. ha-mitriya nafla **li**
 the umbrella fell to-me
 ‘**My** umbrella fell’
- b. ha- xalon nišbar **li**
 the window broke to-me
 ‘**My** window broke’
- (28) a. *ha-kelev šaxav **li**
 the dog lay to-me
 ‘**My** dog lay down’
- b. * ha-po’alim ‘avdu **li**
 the workers worked to-me
 ‘**My** workers worked’

Once more, this is a generalization that’s easiest to describe structurally; the set of things that *li* modifies form a constituent, if you’re willing to look at where they start out, and assume UTAH.

As I mentioned above, the classes of unaccusative and unergative verbs are fairly stable cross-linguistically. Here are some generalizations:

classically unaccusative verbs:

verbs of existence: *exist, happen, occur, appear...*
 verbs of “emission”: *shine, glitter, stink, jingle...*
 aspectual verbs: *begin, start, stop...*
 “externally caused” verbs: *break, open, shake...*
 states: *be smart, be hungry*

classically unergative verbs:

“internally caused” verbs: *cough, shudder, smile, telephone, dance, work...*