

More subjects

Last week: 5 properties of subjects and 5 arguments for the VP-internal subject hypothesis.

Key concepts to review: Hierarchy of projections, UTAH, EPP

1 Quiz 1 next week

Time: 60 minutes, at the beginning of class

Format: A number of short answer questions and one problem similar to PS2/in-class exercises

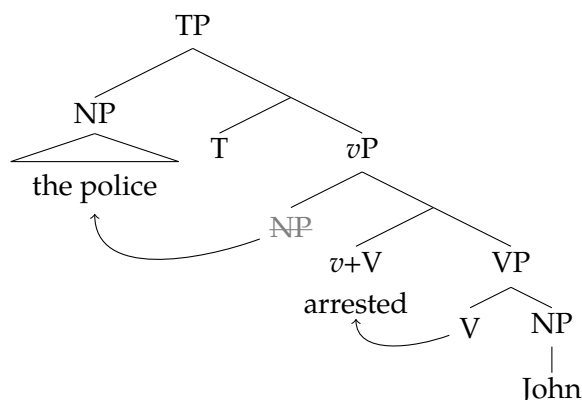
Content: The quiz will cover all material including today. (Note: Quiz 2 will cover the entire semester, not just the second half.)

Make sure you know:

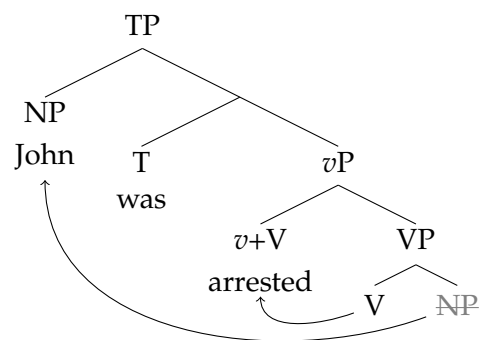
- Chomsky's questions (3)
- constituency tests (10)
- NP asymmetries (9)
- Common properties of subjects (5)
- The VP-Internal Subject Hypothesis, 4 arguments
- The Unaccusative Hypothesis, 7 arguments (today)
- Key ideas: categories, heads, features, UTAH, Hierarchy of Projections, EPP
- How to use Merge, Adjoin, $Move_{phrase}$ (if necessary, the rules will be provided)

2 Review

Canonical transitive:



Passive:



3 Intransitive verbs

Transitive verbs generally have an agent (specifier of *vP*) which becomes the subject (specifier of TP) and a theme object (complement of V). Intransitive verbs only have one argument.

(1) **The Unaccusative Hypothesis (Perlmutter, 1978):**

There are two kinds of intransitive verbs:

- *unergative*: agentive subject, subject is originally the specifier of *vP*.
“willed or volitional acts; certain involuntary bodily processes”
- *unaccusative*: non-agentive subject, subject is originally the complement of V.
“predicates whose [arg] is a patient; predicates of existing and happening;” etc.

The idea: Subjects of some intransitive verbs behave like subjects of transitive verbs, while subjects of other intransitive verbs behave like objects of transitive verbs.

7 arguments for the Unaccusative Hypothesis:¹

1. **Causative alternation (Levin and Rappaport Hovav, 1995):**

English has pairs of intransitive and transitive verbs which are the same word, where the subject of the intransitive corresponds to the object of the transitive.

- (2) a. The window broke/opened.
b. She broke/opened the window.
- (3) a. The ship sank.
b. They sank the ship.
- (4) a. The ice melted.
b. We melted the ice.

These intransitives are all *unaccusative* verbs.

There are also intransitive verbs which do not have matching causative transitive verbs.

These are *unergative* intransitives:

- (5) a. The crowd laughed/giggled.
b. * The comedian/joke laughed/giggled the crowd.
- (6) a. The children played/spoke.
b. * The teacher played/spoke the children.

¹This collection of arguments in part from Jason Merchant's notes.

2. Adjectival participles:

English adjectival past participles can only describe objects of transitive verbs and subjects of unaccusative verbs (Levin and Rappaport Hovav, 1986):

- (7) Objects of transitives: unemployed man, uneaten food
- (8) Subjects of transitives: *uneaten children (intended: children who have not eaten)
- (9) Subjects of unergatives: *unworked man, *unrun jogger
- (10) Subjects of unaccusatives: unfallen leaves, unshipped ship

Un- is used here to ensure that the forms have become adjectives.

Similarly for Japanese *-kake* participles (Kishimoto, 1996). Aspectual suffix *-kake* \approx 'just started, not complete':

- (11) Objects of transitives:
 - a. nomi-kake-no biiru
drink-KAKE-GEN beer
'the half-drunk beer'
 - b. yomi-kake-no zasshi
read-KAKE-GEN magazine
'the half-read magazine'
- (12) Subjects of transitives:
 - a. *yomi-kake-no Masao
read-KAKE-GEN Masao
Intended: 'Masao, who has only partially read'
- (13) Subjects of unergatives:
 - a. *hataraki-kake-no roodoosha
work-KAKE-GEN worker
'the worker, who has only partially worked'
 - b. *hashiri-kake-no rannaa
run-KAKE-GEN runner
'the runner, who has only partially run'
- (14) Subjects of unaccusatives:
 - a. kare-kake-no hana
wither-KAKE-GEN flower
'a flower that is almost completely withered'
 - b. obore-kake-no suiei-senshu
drown-KAKE-GEN swimming-athlete
'a swimmer who has almost drowned / is drowning'

3. Postverbal subjects:

In some SVO languages, the EPP requirement can be optional, in which case (some) subjects of passives and unaccusatives can be postverbal.

First, Hebrew indefinite subjects (Shlonsky, 1987); data from Reinhart and Siloni 2005:

- (15) Ne'ecru shlosa xayalim ba-hafgana.
were.arrested three soldiers in-the.demonstration
- (16) *Radku shlosa yeladim ba-mesiba.
danced three boys in-the.party
- (17) Hit'alfu shlosa xayalim ba-hafgana.
fainted three soldiers in-the.demonstration

We observe the same in Mandarin. Data below is from Li and Thompson 1981; Travis (1984, p. 99) observes that the verbs in (18) are unaccusatives.

(18) Unaccusatives:

- a. Jin-lai-le / chu-lai-le / lai-le yi-ge keren.
enter-come-PERF / exit-come-PERF / come-PERF one-CL guest
'A guest entered/came out/came.'
- b. Tao-le san-zhi yang.
escape-PERF three-CL sheep
'Three sheep arrived.'
- c. Dao-le yi-pi huo.
arrive-PERF one-CL merchandise
'A shipment of merchandise arrived.'

(19) Unergatives:

- a. *Tiao-le yi-ge xishuai.
jump-PERF one-CL cricket
- b. *Pa-le yi-ge laohu.
climb-PERF one-CL tiger
- c. *Fei-le yi-ge niao.
fly-PERF one-CL bird

4. Resultatives (Levin and Rappaport Hovav, 1995):

Direct object restriction: A “resultative phrase” may describe the result state of a VP-internal NP, but not of the agent or of PP complements.

- (20) He shot them dead. (They end up dead, not *him*.)
(21) The floor was swept clean.
(22) They laughed *(themselves) helpless.
(23) The river froze solid. / The bottle broke open.

5. Italian *ne*-cliticization (Burzio, 1986): (also, French *en*)

Ne is a clitic meaning ‘of them,’ which attaches to the verb.

- | | |
|--|---|
| (24) <u>Subject of transitive:</u>
* Ne esamineranno il caso molti.
NE will.examine the case many
Int.: ‘Many of them will examine the case.’ | (26) <u>Unergative:</u>
* Ne telefonano molti.
NE call many
Int.: ‘Many of them call.’ |
| (25) <u>Object of transitive:</u>
Giovanni ne inviterà due.
Giovanni NE will.invite two
‘Giovanni will invite two of them.’ | (27) <u>Unaccusative:</u>
Ne arrivano molti.
NE arrive many
‘Many of them arrive.’ |

6. Japanese floated numerals (Miyagawa, 1989):

- (28) Gakusei-ga hon-o [hon-ya-de yon-satu kat-ta.
students-NOM book-ACC book-store-at 4-CL(book) buy-PAST
‘The students bought four books at the book store.’
- (29) ?* Gakusei-ga hon-o [hon-ya-de yo-nin kat-ta.
students-NOM book-ACC book-store-at 4-CL(person) buy-PAST
‘Four students bought books at the book store.’
- (30) Gakusei-ga (san-nin) [ofisu-ni (san-nin) ki-ta.
student-NOM (three-CL) office-LOC (three-CL) come-PAST
‘Three students came to the office.’
- (31) Gakusei-ga (san-nin) [geragera-to (*san-nin) wara-tta.
student-NOM (three-CL) loudly (three-CL) laugh-PAST
‘Three students laughed loudly.’

7. Impersonal passives:

Some languages allow passivization of intransitive verbs, with an expletive subject.

First, Dutch (Perlmutter, 1978):

(32) Unergative verb 'dance':

- a. De jonge lui dansten hier veel.
the young people danced here a.lot
- b. Er wordt hier door de jonge lui veel gedanst.
there is here by the young people much danced
(lit.) 'There is danced here a lot by the young people.'
i.e., 'There is a lot of dancing here by the young people.'

(33) Unaccusative verb 'die':

- a. In dit ziekenhuis sterven de patienten dikwijls.
In this hospital die the patients often
- b. *Er wordt in dit ziekenhuis door de patienten dikwijls gestorven.
there is in this hospital by the patients often died

Next, Yaqui (Uto-Aztecan, spoken in Arizona and northern Sonora; Jelinek, 1998):

Yaqui has different suffixes for transitive *-(t)a* and intransitive verbs *-(t)e*:

- | | | | |
|------|------------|----------------|---------------------|
| (34) | Transitive | | Unergative |
| | chep-ta | 'step on x' | chep-te 'jump' |
| | 'om-ta | 'anger x' | 'om-te 'be angry' |
| | noi-ta | 'take/bring x' | noi-te 'go/come' |
| (35) | Transitive | Unaccusative | |
| | vee-ta | 'burn x' | vee-te 'burn' |
| | kot-ta | 'break x' | kot-te 'break' |
| | sip-a | 'cool x' | sip-e 'become cool' |

And yet, some intransitive verbs behave like transitives, in that they can be passivized with the passive morpheme *-wa*: (Note: *-wa* can trigger raising of the preceding vowel.)

(36) Transitive 'kill':

- a. 'ume 'o'ow-im 'uka maaso-ta me'-a-k
DET.PL man-PL DET.ACC deer-ACC kill-TR-PERF
'The men killed the deer.'
- b. 'u maaso me'-a-wa-k
DET deer kill-TR-PASS-PERF
'The deer was killed.'

(37) Unergative 'dance':

- a. 'ume 'o'ow-im pahko-po ye'-e-ka
DET.PL man-PL ceremony-PP dance-INTR-PERF
'The men danced at the ceremony.'
- b. pahko-po yi'-i-wa-k
ceremony-PP dance-INTR-PASS-PERF
'People danced/there was dancing at the ceremony.'

(38) Unaccusative 'burn':

- a. 'u kari vee-te
DET house burn-INTR
'The house is burning.'
- b. *vee-ti-wa
burn-INTR-PASS
Intended: 'There is something burning.'

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