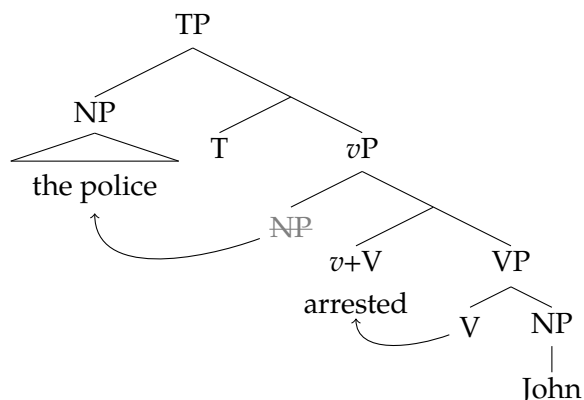


# More subjects

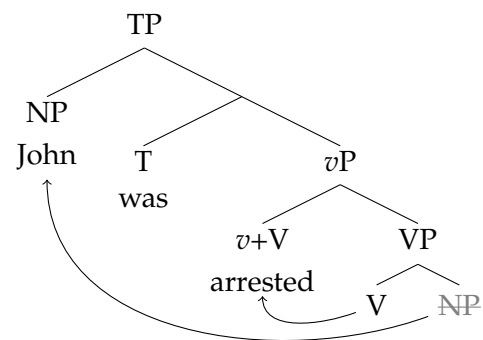
**Last week:** 5 properties of subjects and 5 arguments for the VP-internal subject hypothesis.

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

Transitive:



Passive:



## 1 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:<sup>1</sup>

<sup>1</sup>This collection of arguments in part from Jason Merchant's notes.

## 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.

## 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, unsunken 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  
'an 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 from Li and Thompson 1981; Travis (1984, p. 99) observes that these verbs 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. **Impersonal passives:**

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

First, Dutch (Perlmutter, 1978):

(20) 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.'

(21) 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  $-(t)e$ :

(22)

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'

(23)

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.)

(24) 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.'

(25) 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.'

(26) 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.'

5. **Resultatives (Levin and Rappaport Hovav, 1995):**

Direct object restriction: A resultative phrase may be predicated of a VP-internal NP, but not of an external argument or PP complement

- (27) He shot them dead. (They end up dead, not him.)
- (28) The floor was swept clean.
- (29) They laughed \*(themselves) helpless.
- (30) The river froze solid. / The bottle broke open.

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

*Ne* is a clitic meaning 'of them,' which attaches to the verb.

(31) Object of transitive:

Giovanni ne ha insultati due.  
Giovanni NE has insulted two

'Giovanni has insulted two of them.'

(32) Unergative:

\*Ne telefonano molti.  
NE call many

'Many of them call.'

(33) Unaccusative:

Ne arrivano molti.  
NE arrive many

'Many of them arrive.'

7. **Japanese floated numerals (Miyagawa, 1989):**

(34) Gakusei-ga hon-o yon-satu kat-ta.  
students-NOM book-ACC 4-CL(book) buy-PAST  
'The students bought four books.'

(35) ?\*Gakusei-ga hon-o yo-nin kat-ta.  
students-NOM book-ACC 4-CL(person) buy-PAST  
'Four students bought books.'

(36) 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.'

(37) Gakusei-ga (san-nin) geragera-to (\*san-nin) wara-tta.  
student-NOM (three-CL) loudly (three-CL) laugh-PAST  
'Three students laughed loudly.'

## References

- Burzio, Luigi. 1986. *Italian syntax: A Government-Binding approach*. Springer.
- Jelinek, Eloise. 1998. Voice and transitivity as functional projections in Yaqui. In *The projection of arguments*, ed. Miriam Butt and Wilhelm Geuder, 195–224. CSLI Publications.
- Kishimoto, Hideki. 1996. Split intransitivity in Japanese and the unaccusative hypothesis. *Language* .
- Levin, Beth, and Malka Rappaport Hovav. 1986. The formation of adjectival passives. *Linguistic Inquiry* 623–661.
- Levin, Beth, and Malka Rappaport Hovav. 1995. *Unaccusativity: At the syntax-lexical semantics interface*. MIT Press.
- Li, Charles N., and Sandra A. Thompson. 1981. *Mandarin Chinese: A functional reference grammar*. University of California Press.
- Miyagawa, Shigeru. 1989. *Structure and case marking in Japanese*. Academic Press.
- Perlmutter, David M. 1978. Impersonal passives and the unaccusative hypothesis. In *Proceedings of the 4th annual meeting of the Berkeley Linguistics Society*, ed. Jeri et al Jaeger, 157–189.
- Reinhart, Tanya, and Tal Siloni. 2005. The lexicon-syntax parameter: Reflexivization and other arity operations. *Linguistic Inquiry* 36:389–436.
- Shlonsky, Ur. 1987. Null and displaced subjects. Doctoral Dissertation, Massachusetts Institute of Technology.
- Travis, Lisa deMena. 1984. Parameters and effects of word order variation. Doctoral Dissertation, Massachusetts Institute of Technology.