

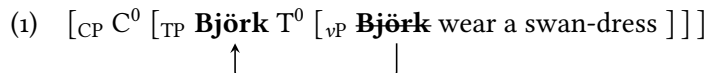
VP-internal subjects

LING 200B · Ethan Poole · 17 November 2021

1 VPISH

* *The subject position is derived*

- We have already seen that the subject position *can* in principle be derived: with raising predicates, the embedded subject moves to the matrix-subject position.
- In fact, the subject position *must* be derived. All subjects begin inside the verb phrase and move to [Spec, TP]:



- [Spec, TP] can generally only be occupied by arguments. As such, it is considered an A-POSITION and movement to it is A-MOVEMENT.

- Consider the following data from Common English and Belfast English:¹

(2) Common English and Belfast English

- Some students** should get distinctions.
- Lots of students** have missed the classes.

(3) Belfast English

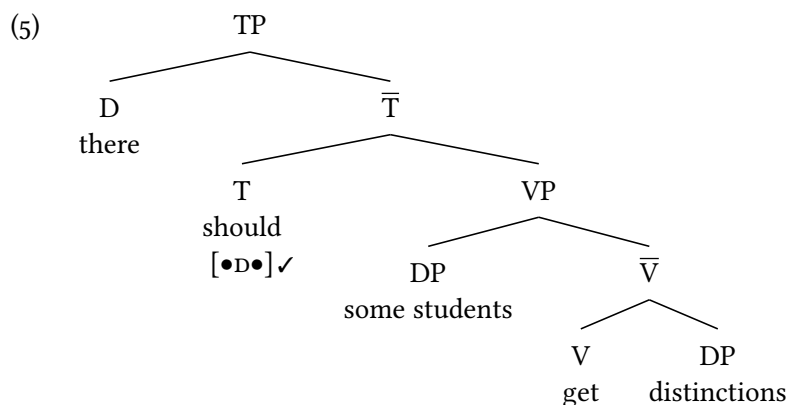
- ^DThere should **some students** get distinctions.
- ^DThere have **lots of students** misses the classes.

- *Subjects in Belfast English*

- Important for understanding the Belfast English sentences is that in polar questions, the auxiliary moves over the expletive *there*:

- (4) a. **Should** *there* some students get distinctions?
 b. **Have** *there* lots of students missed the classes?

- This behavior provides a compelling argument that *there* is in [Spec, TP] and the “logical” subject is in the verb phrase:²

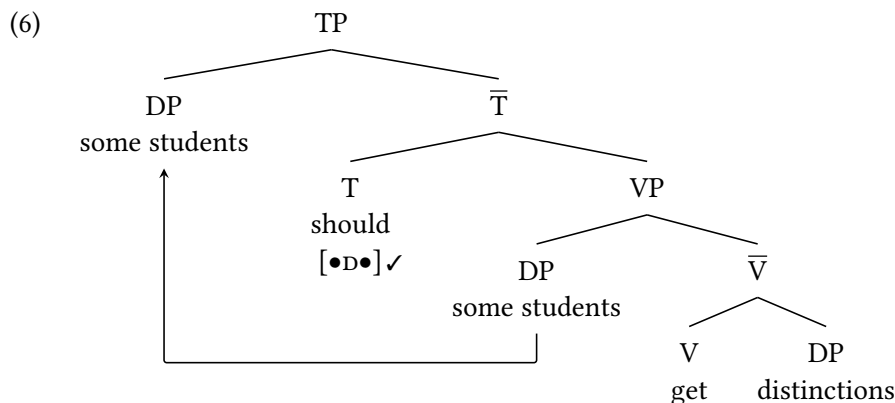


¹ Common English also has expletive *there*, but only with intransitives, which cannot demonstrate the relevant point here.

² The subject is depicted here as being in [Spec, VP], but we will see below that it starts out in [Spec, vP].

• **Subjects in Common English**

Let us assume that the derivations of the Common English sentences in (2) are the same as (5) up to \bar{T} . At that point, instead of merging in the expletive *there*, *some students* moves from from inside the verb phrase to [Spec, TP]:



• **In terms of the EPP**

- In (2)/(6), the EPP is satisfied by moving a DP to [Spec, TP].
- In (3)/(5), the EPP is satisfied by merging in an expletive DP *there*.
- Given the Minimal Link Condition, the [•D•] feature on T that underlies the EPP must target the closest DP. Thus, it cannot target the object *distinctions*.

(7) **VP-INTERNAL SUBJECT HYPOTHESIS (VPISH)**
 Subjects begin in the verb phrase and may move to [Spec, TP].³

³ e.g. Speas (1986); Koopman and Sportiche (1991); Woolford (1991)

1.1 Evidence for VPISH

- These arguments for VPISH are all from Koopman and Sportiche (1991).

❶ **Scope**

- Subjects can take scope above or below T:

(8) Everyone hasn't finished the assignment.

- a. **Wide-scope reading** every >> n't
 For all *x*, it is not the case that *x* has finished the assignment.
- b. **Narrow-scope reading** n't >> every
 It is not the case that for all *x*, *x* has finished the assignment.

- Only the narrow-scope reading is true in a scenario where some people have finished the assignment and some people have not.
- This scope ambiguity follows straightforwardly if the subject starts in the verb phrase and moves to [Spec, TP]. At LF, the grammar can choose which copy to interpret, deriving the two possible interpretations:
 - * Interpret copy in [Spec, TP] ~> Scope above T ~> (8a)
 - * Interpret copy in verb phrase ~> Scope below T ~> (8b)

– Sketches of the two semantic derivations with lots of simplifications:⁴

⁴ Assuming the framework of Heim and Kratzer (1998).

(9) **Wide-scope derivation**

LF: $[[\text{TP everyone } [\lambda_1 [\text{not } [\text{VP } t_1 \text{ finished the assignment }]]]]]$

- a. $[[\text{VP}]^g = g(1) \text{ finished the assignment}]$
- b. $[[\lambda_1 \text{ not VP}]^g = \lambda x_e . \neg [x \text{ finished the assignment }]]$
- c. $[[\text{TP}]^g = [\text{everyone}]^g ([\lambda_1 \text{ not VP}]^g)$
 $= \forall y [y \text{ is a person } \rightarrow \neg [y \text{ finished the assignment }]]$

(10) **Narrow-scope derivation**

LF: $[[\text{TP not } [\text{VP everyone finished the assignment }]]]$

- a. $[[\text{finished the assignment}] = \lambda x_e . x \text{ finished the assignment}]$
- b. $[[\text{VP}] = [\text{everyone}] ([\text{finished the assignment}])]$
 $= \forall y [y \text{ is a person } \rightarrow y \text{ finished the assignment }]$
- c. $[[\text{TP}] = [\text{not}] ([\text{VP}])]$
 $= \neg \forall y [y \text{ is a person } \rightarrow y \text{ finished the assignment }]$

② **Idioms**

– Recall that idioms must form a unitary constituent in the syntax. Against this backdrop, consider the following idioms:

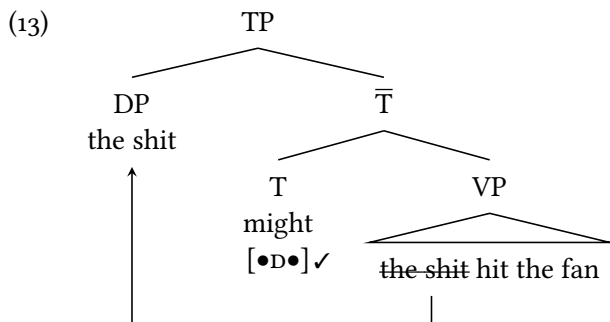
- (11) a. All hell broke loose. *(terrible things happened)*
- b. The shit hit the fan. *(things suddenly become very chaotic)*
- c. The cat got his tongue. *(he isn't speaking)*

– A puzzling fact about these idioms is that auxiliaries can be freely positioned between the subject and the verb:

- (12) a. The shit **might** hit the fan.
- b. The shit **has** hit the fan.
- c. The shit **must have** hit the fan.

– If idioms must form a constituent, how do we explain cases like (12), where they appear to form a discontinuous string, where the auxiliary is not part of the idiom?

– The VP-Internal Subject Hypothesis provides a natural answer to this dilemma. The idiom is a verb phrase and the subject raises to [Spec, TP]:



③ **Argument structure**

– There is a semantic argument to be made that all arguments of a predicate (i.e. verb) must originate within a projection of the predicate:

(14) **PREDICATE-INTERNAL ARGUMENT HYPOTHESIS**

All the arguments of a predicate originate within a projection of the predicate.

- This is generally taken as a given in semantics.

④ **VSO languages**

It has been argued that VSO languages are derived by leaving the subject in situ in the verb phrase and moving V to T:⁵

⁵ See Woolford (1991) for a nice overview of these arguments.

(15) a. Gwelod Siôn ddraig
saw.3SG.PAST John dragon
'John saw a dragon'

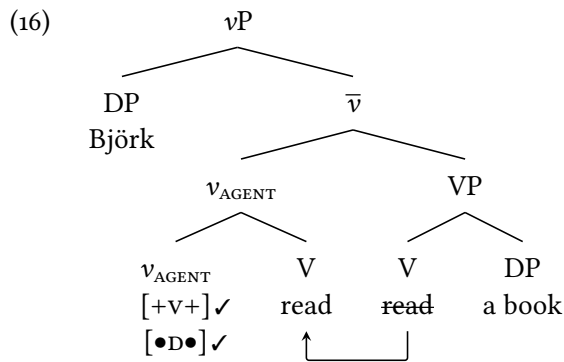
[Welsh]



2 **Transitive vP**

• Where in the verb phrase do subjects start out? Canonical transitive subjects are introduced by a functional head v_{AGENT}^0 :⁶

⁶ The head-movement step is necessary for verbs that have two internal arguments (e.g. two objects), like ditransitives.



• **Terminology**

- An argument introduced in VP is an INTERNAL ARGUMENT (IA).
- An argument introduced outside VP is an EXTERNAL ARGUMENT (EA).
- The semantic relation between an IA and the verb depends in part on the verb itself.
- EAs, on the other hand, bear a (relatively) fixed semantic relation to the verb, usually something like 'agent' or 'causer'.

⇒ **Meaning differences**

- Marantz (1984) observes that one and the same verb can mean very different things depending on what its object means:

- (17) a. throw a baseball
b. throw support behind a candidate
c. throw a party
d. throw a boxing match
e. throw a fit

- (18) a. take a book from the shelf
- b. take a bus to LA
- c. take a nap
- d. take an aspirin
- e. take a letter in shorthand
- f. take five

– Kratzer (1996) raises another example: If the verb *kill* takes an object denoting a time interval, it means *waste*. Crucially, this cannot be reduced to being an idiom, because it is productive and can be modified in various ways:

- (19) a. kill every evening (that way)
- b. kill an afternoon (reading old Gazettes)
- c. kill a lovely morning (paying overdue bills)

* **Kratzer’s (1996) analysis**

– Kratzer argues that *kill* denotes a function that does not treat all arguments in the same way:⁷

- (20) a. If x is a living thing, then $\llbracket \text{kill } x \rrbracket = \lambda y . \text{KILL}(x)(y)$
- b. If x is a time interval, then $\llbracket \text{kill } x \rrbracket = \lambda y . \text{WASTE}(x)(y)$

⁷ The semantics here is just a sketch to get the main idea across.

– This is possible because *kill* directly combines with its object. That is, the object is an argument of *kill* both syntactically and semantically.

– If the EA (the agent) were an argument of the verb, we could do the same thing: the denotation of the EA could change what the verb means:

- (21) a. If y is a time interval, then $f(x)(y) = \text{EXISTS-DURING}(x)(y)$,
- b. If y is a place, then $f(x)(y) = \text{IS-LOCATED-AT}(x)(y)$.

⇒ Crucially, such verbs do not seem to exist.

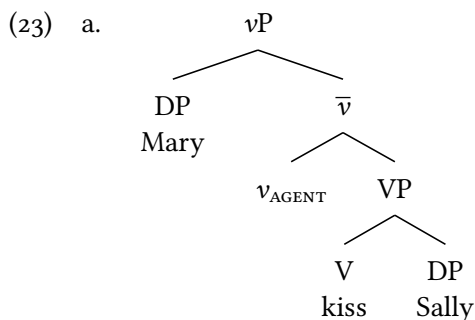
⇒ Therefore, Kratzer concludes that the EA is *not* an argument of the verb, but is introduced by v_{AGENT}^0 .⁸

⁸ For Kratzer (1996), the head is called Voice⁰.

• **Interpreting the EA**

Kratzer (1996) adopts a neo-Davidsonian framework, wherein verbs have event arguments, and proposes a new semantic-composition rule called *Event Identification*:

(22) **EVENT IDENTIFICATION**
 $f_{(e, \langle s, t \rangle)} g_{(s, t)} \rightarrow \lambda x_e \lambda e_s . f(x)(e) \wedge g(e)$



- b. $\llbracket \text{kiss} \rrbracket = \lambda x \lambda e . \text{KISS}(x)(e)$
- c. $\llbracket v_{\text{AGENT}} \rrbracket = \lambda x \lambda e . \text{AGENT}(e) = x$
- d. $\llbracket \text{VP} \rrbracket = \lambda e . \text{KISS}(\text{Sally})(e)$
- e. $\llbracket \bar{v} \rrbracket = \lambda y \lambda e . \text{KISS}(\text{Sally})(e) \wedge \text{AGENT}(e) = y$ via EI
- f. $\llbracket v\text{P} \rrbracket = \lambda e . \text{KISS}(\text{Sally})(e) \wedge \text{AGENT}(e) = \text{Mary}$

3 Passivization

- Consider the differences between ACTIVE VOICE and PASSIVE VOICE:

- (24) a. Rose ate a **cheesecake**. active
 b. A **cheesecake** was eaten (by Rose). passive
- (25) a. Robbers stole **everything**. active
 b. **Everything** was stolen (by robbers). passive

⇒ **Differences between actives and passives (in English)**

- Passives generally require the auxiliary *be*.⁹
- The main verb in passives is in the past-participle form, which, for all regular verbs, is homophonous with the simple past-tense form.
- Passives may optionally occur with a *by*-phrase, which realizes the argument that would be the subject in the corresponding active variant.
- The complement of the verb surfaces as the subject.

⁹ A case where *be* is not required with a passive is REDUCED RELATIVES:

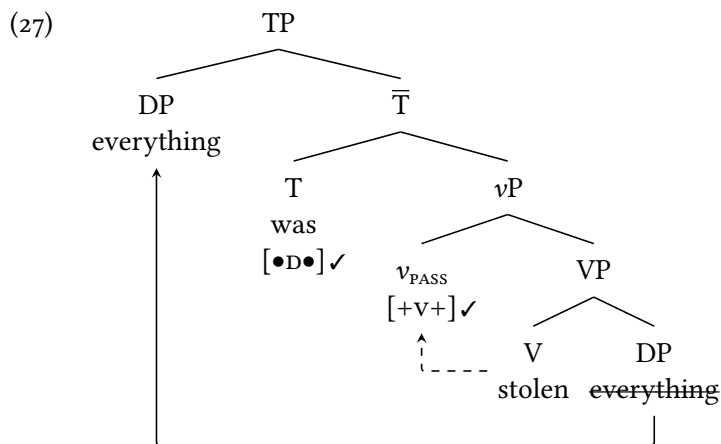
- (26) a. the horse raced past the barn
 b. the apple eaten by Alex

- **Only (di)transitive predicates**

In most languages, only transitive and ditransitive predicates can be passivized! Intransitive predicates generally cannot be passivized.

* **Analysis**

Passives involve v_{PASS}^0 , which does not introduce an EA. Thus, the closest DP to T is the IA in [Comp, VP]:



• **Evidence from idioms**

Some idioms preserve under passivization, which follows if the passive subject and the verb form a constituent at some point in the derivation, as in the above analysis:¹⁰

- (28) a. They *paid little heed* to what she said.
- b. **Little heed** *was paid* to what she said.

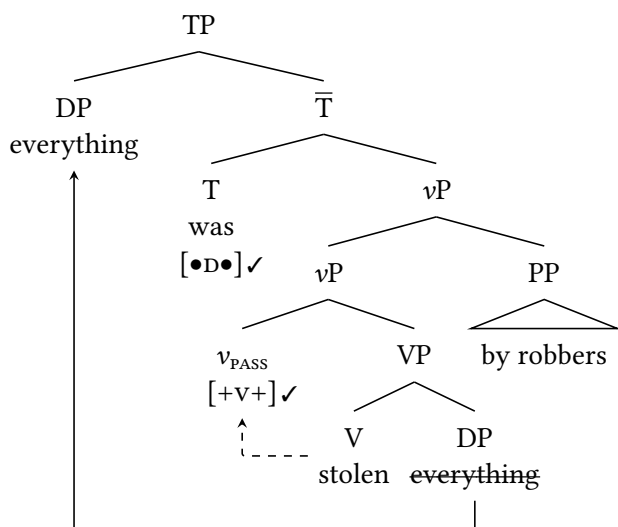
- (29) a. The FBI *kept close tabs* on the CIA.
- b. **Close tabs** *were kept* on the CIA (by the FBI).

¹⁰ Not all idioms preserve under passivization, so a full analysis would need to explain why that is so.

• **The by-phrase**

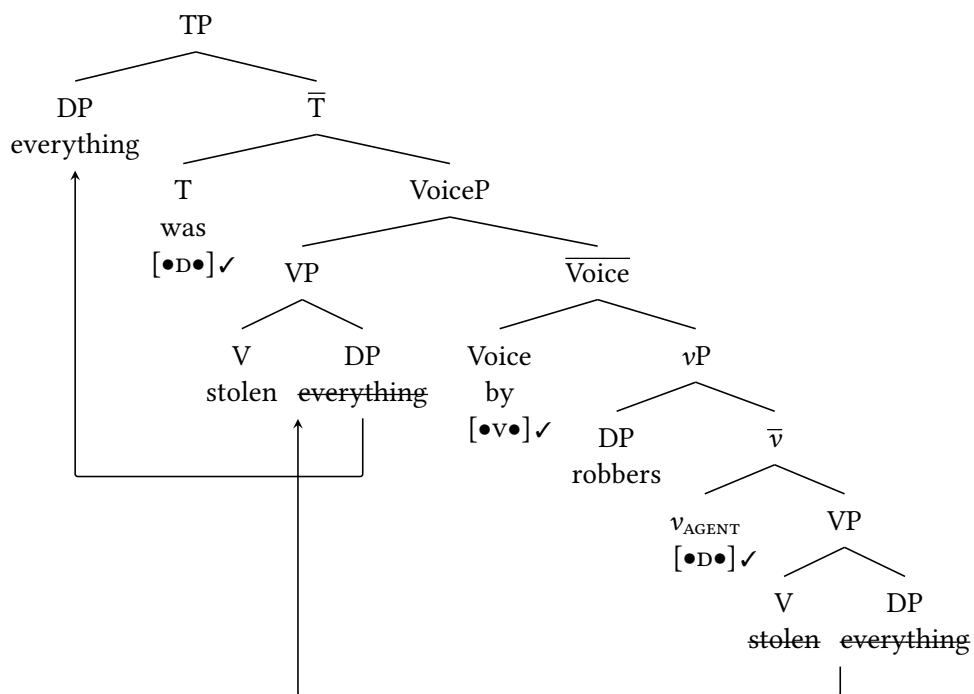
The status of the *by*-phrase is somewhat controversial. There are two main analyses:

(30) **Adjunct analysis**¹¹



¹¹ Bruening (2013); Legate (2014)

(31) **Smuggling analysis**¹²



¹² Collins (2005)

References

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