

VP-ellipsis and Antecedent Contained Deletion

1 VP-ellipsis and VP-fronting

1.1 VP ellipsis (VPE) in English

- (1) He always said he would win the lottery, and he did [].

VPE involves non-pronunciation of a fully-fledged syntactic verb phrase:

- (2) He always said he would win the lottery, and he did [~~win the lottery~~].

The elided and pronounced VP must be identical.¹

- (3) a. Sandy went to the store, though she said she didn't ~~go to the store~~.
b. Kim understands Korean and Lee should ~~understand Korean~~, too.
c. They're complaining about the noise, but I won't ~~complain about the noise~~.
d. Many people are questioning your motives, but the FBI hasn't ~~questioned your motives~~.
e. A: Did she interrogate them?
B: She is ~~interrogating them~~ at this very moment.
- (4) a. * Paul denied the charge, but the charge wasn't ~~denied~~ by his friends.
b. * The charge was denied by Bo, but Lee wouldn't ~~deny the charge~~.
c. * First Germany invaded Sudetenland, then the rest of Czechoslovakia was ~~invaded~~.
d. * France was afraid of being attacked by Germany, but then they did ~~attack France~~.

VPE involves movement: Evidence from island sensitivity.

- (5) a. I know which book Mag read, and which book John said that you hadn't.
b. ?* I know which book Mag read, and which book John asked why you hadn't.
c. ?* I know which book Mag read, and which book John read my report that you hadn't.
d. ?* I know which book Mag read, and which book John discussed after I had

VPE must be governed by a member of "Aux:"

- (6) a. José Ybarra-Jaegger likes rutabagas, and Holly does too.
b. José Ybarra-Jaegger ate rutabagas, and Holly has too.
c. José Ybarra-Jaegger should have eaten rutabagas, and Holly should have too.
d. José Ybarra-Jaegger is eating rutabagas, and Holly is too.
e. José Ybarra-Jaegger has been eating rutabagas, and Holly has been too.
f. Mag Wildwood wants to read Fred's story, and I also want to.
g. John is leaving but Mary's not.
h. I consider Bill intelligent and I consider Sally not.
i. * Sally Tomato started running down the street, but only after José started.
j. * Sally Tomato made Mag laugh, and then José made.

¹With the usual caveats which we will get back to later.

1.2 VP fronting (VPF) in English

- (7) He always said he would win the lottery, and win the lottery he did.

VPF involves movement of the entire VP:

- An object in the fronted VP can be bound by the subject (Landau 2007).
- (8) a. I didn't think that every boy_i would visit his_i mother, but [visit his_i mother] every boy_i did *t*.
b. I didn't think they would talk to each other, but [talk to each other] they did *t*.
- VPF is island sensitive: no VPF out of a Complex NP island.
- (9) * Gerald didn't travel to Denmark, but [travel to Denmark]_i I know a [guy [who did *t*]_i].

A topicalized VP cannot succeed unless the trace it leaves is governed by an "Aux."

- (10) Madame Spanella claimed that ...
a. ... eat rutabagas, Holly wouldn't *t*.
b. ... eaten rutabagas, Holly hasn't *t*.
c. ... eating rutabagas, Holly should be *t*.
d. ... eating rutabagas, Holly's not *t*.
e. ... eat rutabagas, Holly wants to *t*.
- (11) Madame Spanella claimed that ...
a. * ... would eat rutabagas, Holly *t*.
b. * ... hasn't eaten rutabagas, Holly *t*.
c. * ... eating rutabagas, Holly started *t*.
d. * ... eat rutabagas, Holly made me *t*.

1.3 Similarities between VPF and VPE

VPF and VPE exhibit parallel syntactic behaviour.

- They occur in the same environments: Both an elided VP and the trace left by a fronted VP must be governed by an Aux (Johnson, 2001).
- (12) **VPF**
a. * Alice told Julia to be eating fish, so [eating fish] she started *t*.
b. Alice told Julia to be eating fish, so [eating fish] she should be *t*.
c. * No-one suspected Drew wanted to leave, but [to leave] he wanted *t*.
d. No-one suspected Drew wanted to leave, but [leave] he wanted to *t*.
- (13) **VPE**
a. * Alice told Julia to be eating fish, so she started [~~eating fish~~].
b. Alice told Julia to be eating fish, so she should be [~~eating fish~~].
c. * I told Drew he didn't have to leave, but he wanted [~~to leave~~].
d. I told Drew he didn't have to leave, but he wanted to [~~leave~~].

- They target the same chunk of the verb phrase:

(14) **VPF**

- * Julia hadn't eaten fish, but Alice claimed that [have eaten fish] she should *t*.
- Julia hadn't eaten fish, but Alice claimed that [eaten fish] she should have *t*.

(15) **VPE**

- * Julia hadn't eaten fish, but Alice claimed that she should [~~have eaten fish~~].
- Julia hadn't eaten fish, but Alice claimed that she should have [~~eaten fish~~].

Johnson (2001): This "encourages thinking of the licensing condition on (VP) ellipsis in terms of the licensing condition on traces".

☞ This has led to the conclusion that VPE is licensed through VPF: In order for a VP to be elided, it has to be fronted first.

Step 1: He said he would win the lottery, and [_{VP} win the lottery] he did *t*.

Step 2: He said he would win the lottery, and [_{VP} ~~win the lottery~~] he did *t*.

☞ **Ellipsis sites are like traces (Johnson, 2001).**

☞ Prediction: Whenever VPF is disallowed, VPE should be equally impossible.

1.4 Differences between VPE and VPF

This prediction is not borne out: there are environments disallowing VPE, but VPE is still possible.

- VPF is a *main clause phenomenon*:

- [Never in my life] have I seen such a crowd. [Negative Constituent Preposing]
- [This book], you should read. [Argument Fronting]
- [On the wall] hangs a portrait of Mao. [Locative Inversion]

Main clause phenomena are restricted to main clauses and certain embedded clauses:

- I exclaimed that [never in my life] had I seen such a crowd.
 - The inspector explained that [each part] he had examined carefully.
 - The scout reported that [beyond the next hill] stood a large fortress.
- * He was surprised that [never in my life] had I seen a hippopotamus.
 - * I regret that [each part] he had to examine carefully.
 - * The guide regretted that [beyond the next hill] stood a large fortress.

- VPF cannot occur with factive main predicates, temporal clauses or sentential subjects.

- * Christina plans for Tim to marry her and it bothers me that [marry her] he will *t*.
- * Jonathan said he'd win that girl's heart and that [win her heart] he did *t* amazed me.
- * Beth went to the supermarket after [go to the supermarket] I did *t*.

VPE is fine in such contexts.

- Christina plans for Tim to marry her and it bothers me that he will [~~marry her~~].
- Jonathan said he'd win that girl's heart and that he did [~~win her heart~~] amazed me.
- Beth went to the supermarket after I did [~~go to the supermarket~~].

- VPF is island-sensitive, whereas VPE is not:

- * Gerald didn't travel to Denmark, but [travel to Denmark]_i I know a [guy [who did *t*_i]].
- Gerald didn't travel to Denmark, but I know a [guy [who did [~~travel to Denmark~~]]].

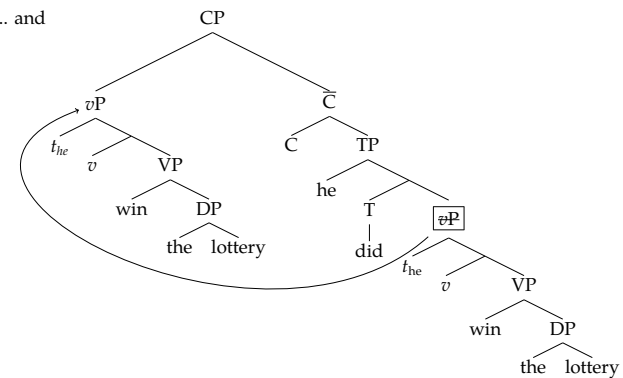
1.5 Explaining the difference between VPF and VPE

Idea: VPE and VPF are licensed by the same mechanism. However, VPF involves movement of the VP, whereas VPE does not (Aelbrecht, 2010).

(22) He said he would win the lottery, and [_{VP} win the lottery] he did.

(23) He said he would win the lottery, and [_{VP} win the lottery] he did [_{VP} ~~win the lottery~~].

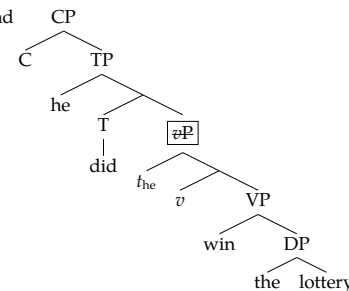
(24) ... and



(25) He said he would win the lottery, and he did.

(26) He said he would win the lottery, and he did [_{VP} ~~win the lottery~~].

(27) ... and



☞ VPF = non-pronunciation of the lower copy of a movement chain.
VPE = non-pronunciation of a VP under identity of a pronounced antecedent VP.

2 Antecedent Contained Deletion

2.1 ACD: The basics

Initial Observation Regarding VP-Ellipsis: Ellipsis of a VP can only take place if there is some 'matching VP' in the context.

- (28) a. Dave went to school, and I did [_{VP} ~~went to school~~] too.
 b. *Dave went to school, and I did [_{VP} ~~went to work~~] too.

If this generalization about VP-ellipsis is correct, what are we to make of the following sentences?

(29) **Antecedent Contained Deletion (ACD)**

- a. Mary read every book John did Δ .
 b. Jen saw something Aaron didn't Δ .

(30) **The 'infinite regress' problem**

Mary [_{VP} read every book John did].

- a. Δ = read every book John did.
 b. Mary [_{VP} read every book John did [_{VP} read every book John did]]
 c. Mary [_{VP} read every book John did [_{VP} read every book John did [_{VP} read every book John did]]]
 d. Mary [_{VP} read every book John did [_{VP} read every book John did [_{VP} read every book John did [_{VP} read every book John did]]]] ...

Observation: ACD is possible only if the NP containing the ellipsis site (host) is quantificational:

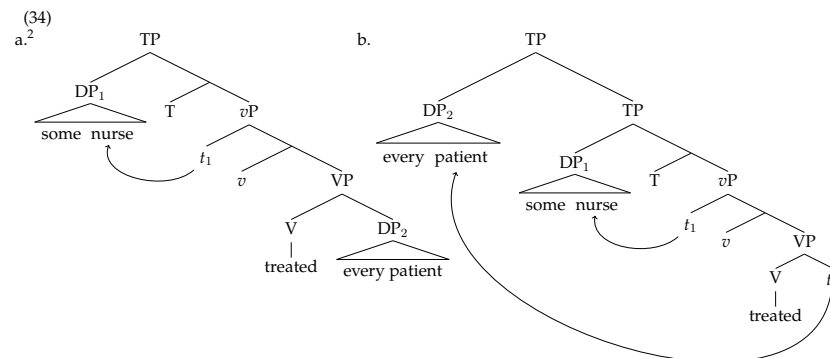
- (31) a. Jones suspects everyone who Philby does
 b. Jones suspects someone who Philby does
 c. Jones suspects noone who Philby does
 d. *Jones suspects Burgess who Philby does
 e. *Jones suspects his friend who Philby does
 f. *Jones suspects this spy who Philby does

This has been taken to indicate that ACD resolution should in one way or the other be tied to the process which fixes quantifier scope (QR).

2.2 Excursion: QR and quantifier scope

Quantifier Raising (May, 1977, 1985) is an operation that allows quantifiers to take scope in a position other than their overt pronunciation site at LF.

- (32) Some nurse treated every patient
 a. $\exists > \forall$: There is one particular nurse who treated all the patients.
 b. $\forall > \exists$: For each patient, there is some nurse or other who treated him/her.
 (33) Every student didn't pass the exam
 a. $\forall > \neg$: All of the students failed the exam.
 b. $\neg > \forall$: There is at least one student who failed the exam.



Question: How do we derive the two readings in (33)?

Quantifier scope is one of the basic facts that semanticists worry about.

Question: What possible meanings (if any) do the following sentences have?

- (35) a. One language is spoken by everyone (here)
 b. Some man regretted the fact that Bill had met every cheer-leader.
 (36) a. A guard was standing in front of every building
 b. A guard is standing in front of every church and sitting at the side of every mosque.
 c. A guard is standing in front of every church and sitting at the side of this mosque.
 (37) a. Some boy admires every teacher.
 b. Some boy admires every teacher and Mary does too.
 (38) a. A Canadian flag is in front of every building and an American flag is too.
 b. One guard is standing in front of many building and one policeman is too.
 c. Some boy admires every teacher and some girl does too.
 (39) a. One student (in the school) knows the capital of every country and the principal (of the school) does too.
 b. One student knows the capital of every country and the prime minister (of that country) does too.

(There is a lot of interesting work on the scope taking behavior of different quantifiers, as well as of the idea of "scope economy," which is responsible for some of the judgments on this page³.)

²In reality, we have reasons to think that the quantifier *every patient* (in object position) always needs to QR, so the tree in (34a) is oversimplified. However, these details need not concern us now.

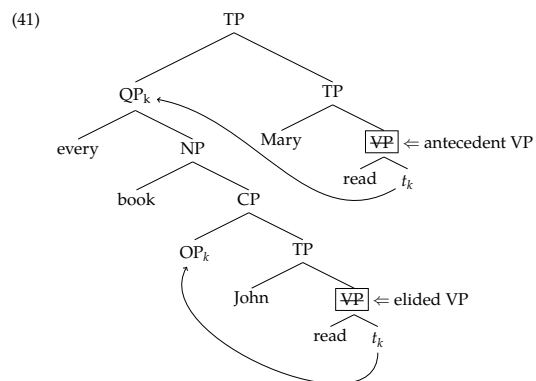
³At least, the ones I am expecting now, based on reports in the literature!

2.3 Back to ACD

The standard analysis of ACD: QR of the Quantified Phrase which hosts the ellipsis site resolves the regress problem:

- (40) Mary [_{VP} read every book John did Δ].
 a. [_{TP} every book John did Δ]_i Mary [_{VP} read t_i] QR
 b. $\Delta =$ [_{VP} read t_i]
 c. (40) = For every book such that John read it, Mary read it too.

The fine-grained structure of (40d) looks as in (41). Note that the constituent structure matches the interpretation given in (40d) (think of the empty operator OP_k in (41) as representing the 'such that' in (40d).)



2.4 ACD and covert movement

ACD is considered by many to be the best argument for covert movement.

Observation: ACD is sensitive to locality conditions: OP -movement is sensitive to islands.

- (42) *John read everything [_{CP} that Bill believed [_{NP} the claim that he did Δ]]

Observation: There are contexts in which QR can proceed either into a higher (infinitival) or into the lower clause. The ellipsis in ACD can then be resolved in two ways, leading to ambiguity:

- (43) John expected the boys to read every book Mary [_{VP} did Δ]
 a. John expected the boys to read every book Mary read Narrow QR
 b. John expected the boys to read every book Mary expected the boys to read Wide QR
 (44) John wanted to read every book Mary [_{VP} did Δ]
 a. John wanted to read every book Mary read Narrow QR
 b. John wanted to read every book Mary wanted to read Wide QR

The Sag-Williams generalization: (Sag, 1976; Williams, 1974)

The size of the ellipsis determines the lowest possible scope of the object DP.

☞ You need to move further to resolve your ellipsis to a higher VP.

- (45) a. John was willing to read every book that Mary recommended (ambiguous)
 b. John was willing to read every book that Mary did (ambiguous)
 c. John was willing to read every book that Mary was (unambiguous)

Blocking narrow reading: collective predicates require plural subject. In ACD, both subjects must be plural:

- (46) a. *She gathered in every city that Bill did
 b. *The girls gathered in every city that Bill did
 c. *She gathered in every city that the boys did
 d. The girls gathered in every city that the boys did

(47), (48) and (49) only have wide ellipsis reading:

- (47) I expected the boys to gather in every city that Bill did
 a. *I expected the boys to gather in every city that Bill gathered in
 b. I expected the boys to gather in every city that Bill expected the boys to gather in
 (48) I expected the boys to solve as a group every problem that Bill did
 (49) I expected the boys to agree on every topic Bill did

Introducing islands:

- (50) *I had the expectation that the boys will gather in every city that Bill did
 a. Narrow QR, violation of plural restriction
 *I had the expectation that the boys will gather in every city that Bill gathered in
 b. Wide QR, violation of locality
 *I had the expectation that the boys will gather in every city that Bill had the expectation that the boys will gather in

Scope islands: Negation blocks QR of universals, as well as wide ACD-resolution:

- (51) I do not know every poem. $\forall > \neg, * \neg > \forall$
 (52) I do not know every poem you do. $\forall > \neg, * \neg > \forall$
 a. I do not know every poem you know
 b. *I do not know every poem you do not know

