Ellipsis

1 The form-meaning mapping

We often think of Language as establishing a *mapping* between *forms* and *meanings*. We have pursued an explicit model of this mapping (at the sentential level) in this class.

(1) **A contemporary model of modularity: The T/Y-model** (Chomsky, 1995, a.o.)
Structure is built in Syntax. Syntax has two outputs:

  a. Phonological Form (PF): what is pronounced

  b. Logical Form (PF): what is interpreted

Additional operations may take place at these "interfaces."

(2) **Some examples of ellipsis:**

  a. Sarah came to class before Bill did Δ.   *VP-ellipsis*

  b. Someone just left. Guess who Δ. (Ross, 1969, p. 252)   *sluicing*

  c. Dana will read *War and Peace*, and Kim (will) Δ *Moby Dick*.   *(pseudo)gapping*

  d. Dana eats ice cream, but not {Kim Δ, Δ ice kacang}.   *stripping*

(3) **Not ellipsis:**

  a. Sarah submitted her assignment before Bill <u>did so</u>/<u>it</u>.   *pro-forms*

(4) **Maybe ellipsis?**

  a. Mary is taller than John/him (Δ).   *comparative standards*

  b. Woke up late. Had coffee. (Was) almost late for class.   *diary-style writing*

  c. Cut carrots. Add onions and stir.   *recipes*

Δ marks a (hypothesized) position of ellipsis.

> "The primary goal of contemporary theoretical linguistics is to develop a theory of the correspondence between sound (or gesture) and meaning. Nowhere does this sound-meaning correspondence break down more spectacularly than in the case of ellipsis. And yet various forms of ellipsis are pervasive in natural language—words and phrases that by rights should be in the linguistic signal go missing. How is this possible?"   Merchant (2001)

Today: VP-ellipsis and its interactions with pronouns, quantifiers, and scope.

2 VP-ellipsis

(5) **Ellipsis requires a linguistic antecedent:**
     Kara jumped on the couch, and now Tama will Δ.

    a.   Δ = jump on the couch

    b.   * Δ = sleep

Ellipsis is not just "copying" text on the surface.

(6) **Ellipsis and *anyone*:**

    a.   John doesn't see anyone, but Bill does Δ.   (Sag, 1976, p. 157)

    b.   * John doesn't see anyone, but Bill does see anyone.

Notice also that the antecedent in (5) was actually "jump on the couch" on the surface. We can think of that as syntactically T[PAST] + *jump* → *jumped* in the morphology.

(7) **Scope parallelism:**
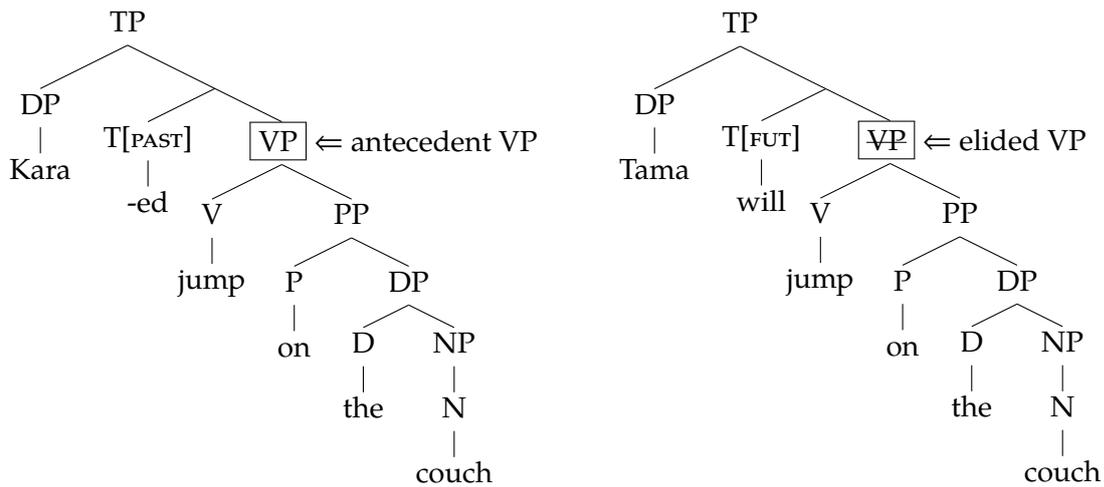   John gave every student a test, and Bill did too.   (Dalrymple et al., 1991)

    a.   <u>∀ > ∃ and ∀ > ∃</u>: [For every student, John gave them a (different) test] and
                    [for every student, Bill gave them a (different) test]

    b.   * <u>∀ > ∃ and ∃ > ∀</u>: [For every student, John gave them a (different) test] and
                    [there is one test that Bill gave to every student]

    c.   * <u>∃ > ∀ and ∀ > ∃</u>: [There is one test that John gave to every student] and
                    [for every student, Bill gave them a (different) test]

    d.   <u>∃ > ∀ and ∃ > ∀</u>: [There is one test that John gave to every student] and
                    [there is one test that Bill gave to every student]

So the antecedent and ellipsis *LFs* must be the same. This could be thought of as *LF-copying* or *PF deletion*. We'll think of it as PF deletion here.

(8) **LF Identity Condition on Ellipsis:** (Heim and Kratzer, 1998, p. 250)
     A constituent may be deleted at PF only if it is a copy of another constituent at LF.

Trees:

Left tree:
```
              TP
        ┌──────┼──────┐
       DP   T[PAST]   VP  ⇐ antecedent VP
        |     |      ┌──┴──┐
      Kara   -ed    V      PP
                    |    ┌──┴──┐
                  jump   P     DP
                         |   ┌──┴──┐
                         on  D     NP
                             |      |
                            the     N
                                    |
                                  couch
```

Right tree:
```
              TP
        ┌──────┼──────┐
       DP   T[FUT]    VP  ⇐ elided VP
        |     |      ┌──┴──┐
      Tama   will   V      PP
                    |    ┌──┴──┐
                  jump   P     DP
                         |   ┌──┴──┐
                         on  D     NP
                             |      |
                            the     N
                                    |
                                  couch
```

One famous property of VP-ellipsis is the availability of "strict" and "sloppy" identity readings of pronouns. (It's "strict" because it gives you the exact same referent as in the antecedent.)

(9) John likes his$_{=\text{John's}}$ car and Bill does Δ too.

    a. Δ = likes his$_{=\text{John's}}$ car   *strict identity*

    b. Δ = likes his$_{=\text{Bill's}}$ car   *sloppy identity*

How do we get these two readings? We need to back up and better understand how "his" in the antecedent can mean "John's" in the first place. Two options:
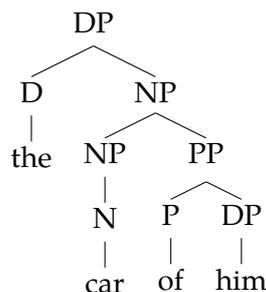
(10) a. <u>"his" is a free variable which happens to refer to John:</u>

        John likes his$_7$ car. $g_c = [7 \rightarrow \text{John}]$

    b. <u>"his" is a bound variable:</u>

        John 3 t_3 likes his$_3$ car.

The bound variable option in (10) is independently necessary:
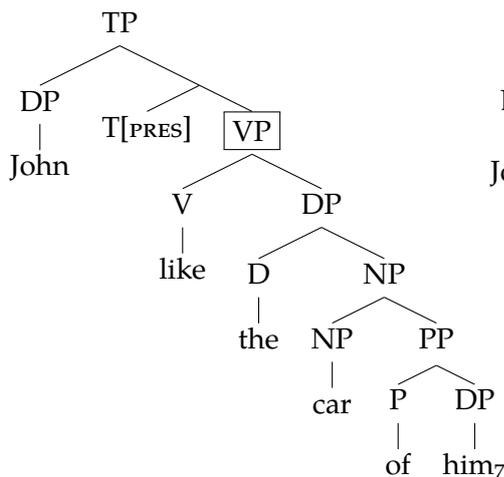
(11) Every boy loves his mother.

Aside: Paraphrase possessed nouns like "his car" as "the car of him."

$[\![\text{of}]\!] = \lambda x \,.\, \lambda y \,.\, y$ is "of" x[1]

```
              DP
          ┌────┴────┐
          D        NP
          |     ┌───┴───┐
         the   NP       PP
               |      ┌──┴──┐
               N      P     DP
               |      |     |
              car     of    him
```

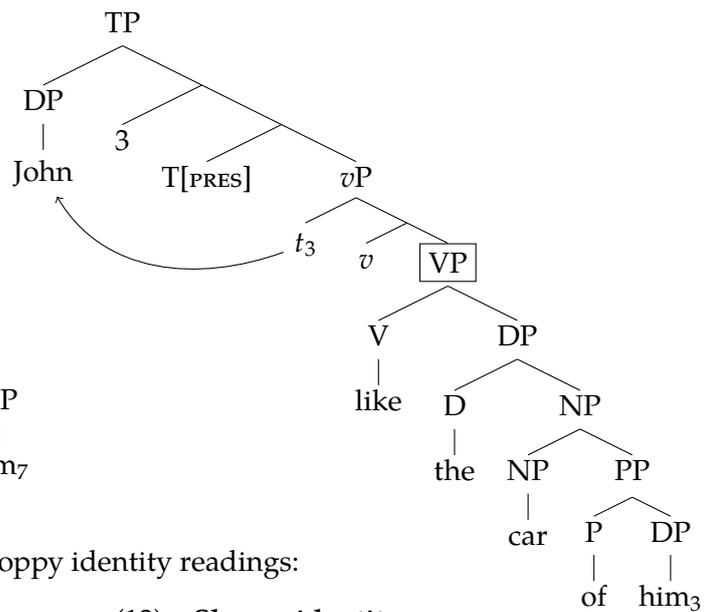[1]The "possession" relation of "of" and possessors can actually mean lots of different relations. See Barker (1995) for discussion.

Option 1 (10a):

```
              TP
         ┌────┴────┐
        DP      ┌──┴──┐
        │    T[PRES] [VP]
       John    ┌────┴────┐
               V        DP
               │     ┌───┴───┐
              like   D      NP
                     │   ┌───┴───┐
                    the  NP     PP
                         │    ┌──┴──┐
                        car   P    DP
                              │     │
                              of  him₇
```

Option 2 (10b) using VP-internal subject:

```
              TP
         ┌────┴────┐
        DP      ┌──┴──┐
        │       3     ┌──┴──┐
       John        T[PRES] vP
                        ┌───┴───┐
                       t₃    ┌──┴──┐
                             v    [VP]
                               ┌───┴───┐
                               V      DP
                               │   ┌───┴───┐
                              like  D     NP
                                    │  ┌───┴───┐
                                   the NP     PP
                                       │   ┌───┴───┐
                                      car  P      DP
                                           │       │
                                           of    him₃
```

We can now explain the strict and sloppy identity readings:

(12) **Strict identity:**

    a.   John T [$_{VP}$ like his₇ car].

    b.   Bill does [~~$_{VP}$ like his₇ car~~] too.

(13) **Sloppy identity:**

    a.   John 3 T t_3 [$_{VP}$ like his₃ car].

    b.   Bill 3 does t_3 [~~$_{VP}$ like his₃ car~~] too.

But this proposal right now predicts that some other configurations are possible, too:

(14) **Independent, free reference???**

    a.   John 3 T t_3 [$_{VP}$ like his₃ car].   c.   John T [$_{VP}$ like his₇ car].

    b.   Bill does [~~$_{VP}$ like his₃ car~~] too.   d.   Bill 7 does t_7 [~~$_{VP}$ like his₇ car~~] too.

Consider (14c,d) in a context where $g = [7 \mapsto \text{Kevin}]$.

(15) **H&K's solution (p. 254):**

No LF representation (for a sentence or multisentential text) must contain both bound occurrences and free occurrences of the same index.
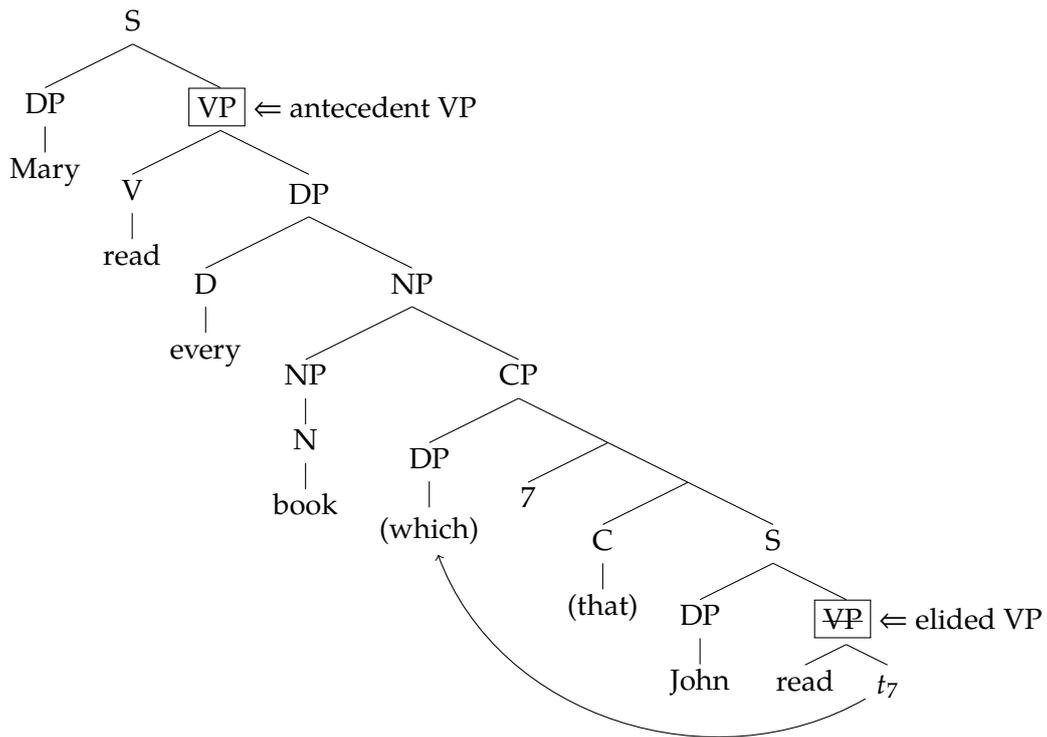
3   Antecedent-Contained Deletion

Antecedent-Contained Deletion (ACD) refers to examples of VP-ellipsis where the ellipsis site (Δ) is within the intended antecedent for Δ.

(16) Mary read every book that John did Δ.

(17) **The 'infinite regress' problem:**

    a.   Δ = [$_{VP}$ read every book John did Δ]

    b.   Mary [$_{VP}$ read every book that John did [$_{VP}$ read every book John did Δ]]

    c.   Mary [$_{VP}$ read every book that John did [$_{VP}$ read every book that John did

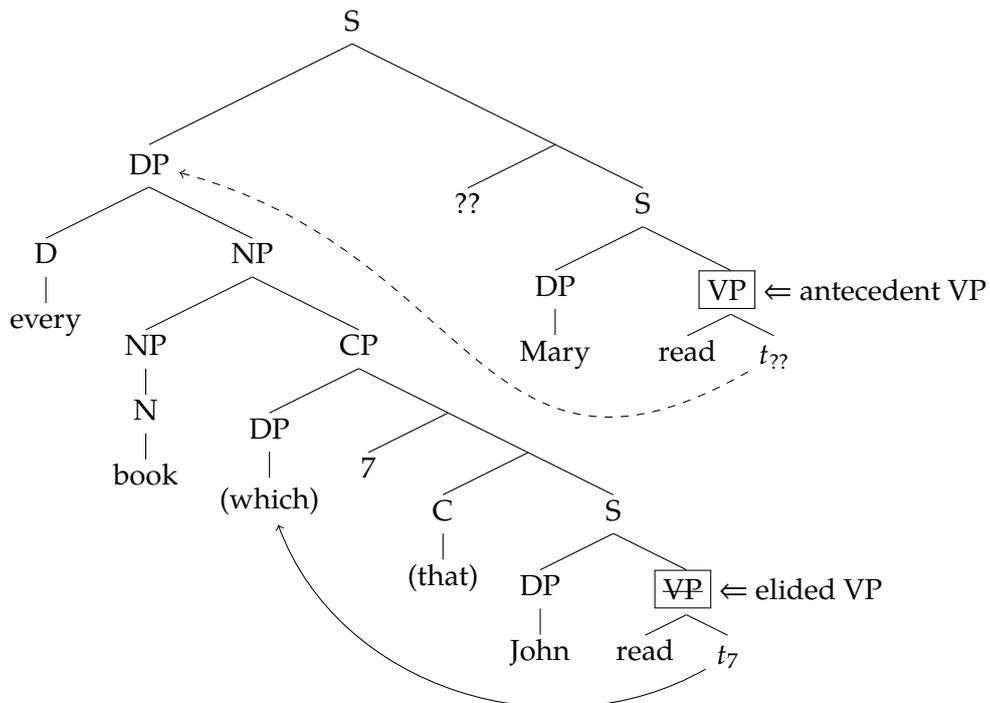   [$_{VP}$ read every book that John did $\cdots$]]]

S

DP — VP ⇐ antecedent VP

Mary

V   DP

read

D   NP

every

NP   CP

N

book   DP   7

(which)

C   S

(that)   DP   VP ⇐ elided VP

John   read t_7

(18) **Proposal: create the correct antecedent VP by QR**

a. [$_{DP}$ every book that John did Δ] 7 Mary [$_{VP}$ read t_7]   QR

b. Δ = [$_{VP}$ read t_7]

S

DP   ??   S

D   NP   DP   VP ⇐ antecedent VP

every   Mary   read $t_{??}$

NP   CP

N

book   DP   7

(which)

C   S

(that)   DP   VP ⇐ elided VP

John   read t_7

Questions:

- What index must be used for the trace of QR?
- What is the interpretation of this structure? Is it what we want?

4 ACD and QR

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

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

Examples based on Sag (1976):

(20) **Baseline scope ambiguity without ellipsis:**

Betsy's father wants her to read everything her boss wants her to read.

  a. For everything Betsy's boss wants her to read   ∀ > father wants

     [Betsy's father wants [that she read it]].

  b. Betsy's father wants that   father wants > ∀

     [for everything Betsy's boss wants her to read [Betsy reads it]].

(21) **Large ACD:**   ∀ > father wants; *father wants > ∀

Betsy's father wants her to read everything her boss does Δ.

(22) **Small ACD:**   ∀ > father wants; father wants > ∀

Betsy's father wants her to read everything her boss wants her to Δ.

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