Voice mismatches in ellipsis

No office hours this week: see me after class or email for questions about your paper topic!
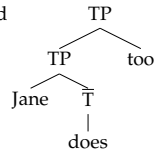
1   Where we stand

(1)   Bill likes cookies, and Jane does [ ], too.

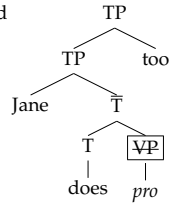**Ellipsis is a mismatch between sound and meaning.**

☞ Important question: what is present in the syntax?
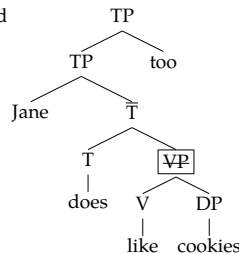
(2)   Bill likes cookies, and

WYSIWYG

```
            TP
          /    \
        TP      too
       /  \
    Jane   T̄
           |
         does
```

(3)   Bill likes cookies, and

proform analysis[1]

```
            TP
          /    \
        TP      too
       /  \
    Jane   T̄
            \
          /   \
         T    |VP|
         |     |
       does   pro
```

(4)   Bill likes cookies, and

full copy in syntax[2]

```
            TP
          /    \
        TP      too
       /  \
    Jane   T̄
          /  \
         T   |VP|
         |   /  \
       does V    DP
            |     |
          like  cookies
```

We have seen several arguments for the full syntactic structure approach, based on Case, number agreement, missing antecedents, correlations with preposition stranding. Next week we will see another prominent argument, from islands.

We have been alluding to, but not seriously discussing, the fact that ellipsis requires **licensing**. Roughly, a structure can be deleted under *identity* with another constituent (the *antecedent*).

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[1]This is distinct from the LF-copy approach: Here, there is *never* a full copy of the VP at any point in the derivation. We'll see more of that today.

[2]With two variants: PF-deletion and LF-copying; we won't discuss the differences between them any further – it remains a possible paper topic for whoever is interested in reading more about how to go about distinguishing between them.

2   The identity condition on ellipsis

2.1   Restrictions on ellipsis

Recoverability: Ellipsis needs an antecedent; otherwise it is impossible for the hearer to interpret the ellipsis site.

(5)   [uttered out of the blue]
       *Bob hasn't [ ].

(6)   I found three old coins, and Oliver found two [ ].

    a.   I found three old coins, and Oliver found two [old coins].
    b.   * I found three old coins, and Oliver found two [small sculptures].

Syntactic licensing: (Semantic) recoverability of the ellipsis site is not enough.

☞ The syntactic environment also plays a role: not all recoverable elements can be elided.

(7)   a.   * Jeremy wrote an excellent book and Jenny knows [_DP_ an excellent book], too.
       b.   * It was repaired, but it was not obvious that [_IP_ it was repaired].

2.2   The identity requirement

☞ Where can you find an antecedent?
   First hunch: Preceding the ellipsis site, in the same sentence.
   However: An antecedent can follow the ellipsis site, as long as it c-commands it.

(8)   **Backwards anaphora constraint (Langacker 1966):**
       An ellipsis can precede, but not c-command, its antecedent.

(9)   Although I don't know who, someone ate my cookies.   sluicing
(10)   Although Andrew doesn't, Patrick likes poutine a lot.   VP-ellipsis

An antecedent does not have to be contained in the same sentence as the ellipsis site. Ellipsis can cross sentence (and speaker) boundaries.

(11)   A: Do you swear to tell the truth, the whole truth, and nothing but the truth?
       B: I do.

We can now look at two kinds of **identity conditions on ellipsis**: syntactic identity, and semantic identity.

2.2.1   Syntactic identity

(12)   **Syntactic isomorphism condition (Fiengo and May, 1994):**
       Let E be an LF phrase marker. Then, E can be deleted only if there is an LF phrase marker A, A distinct from E, such that A = E.

(13)   Although Betty can't [_A_ speak French], Karen can [_E_ speak French].

       [_A_ speak French] = [_E_ speak French]
       → Although Betty can't [_A_ speak French], Karen can [_E_].

Arguments for this view:

Sluicing doesn't allow for Voice mismatches:

(14) **No mismatch:**
    a.   ✓ [$_A$ Someone shot J.R.], but we don't know who$_i$ [$_E$ ~~t_i shot J.R.~~].   active
    b.   ✓ [$_A$ J.R. was shot by someone], but we don't know by who$_i$ [$_E$ ~~J.R. was shot t_i~~]. passive

(15) **Active antecedent, passive sluice**
    *[$_A$ Someone shot J.R.], but we don't know by who$_i$ [$_E$ ~~J.R. was shot t_i~~].

(16) **Passive antecedent, active sluice**
    *[$_A$ J.R. was shot by someone], but we don't know who$_i$ [$_E$ ~~t_i shot J.R.~~].

VP ellipsis doesn't allow for argument structure mismatches:

– Truth conditionally, if you're cooking an egg, you're cooking.
– Structurally, however, a transitive VP differs from an intransitive one.

(17)   * Albert was [cooking an egg] and Charles was [~~cooking~~], too.

Some arguments against the syntactic licensing view

VP ellipsis does allow for **Voice mismatches** (Merchant, 2013):[3]

(18) **Active antecedent, passive elided VP**
    ✓The janitor should [$_A$ remove the trash] whenever it's apparent that it needs to be [$_E$ ~~removed~~].

(19) **Passive antecedent, active elided VP**
    ✓This problem was to have been [$_A$ looked into], but obviously nobody did [$_E$ ~~look into it~~].

Sluicing allows for **argument structure mismatches** (here: intransitive antecedent, transitive sluice).

(20)   ✓ [Albert was cooking], but I don't know what$_i$ [~~Arbert was reading t_i~~].

(21) **Mismatches with nonfinite verb forms:**
    a.   * [$_A$ Decorating for the holidays] is easy if you know how [$_E$ ~~decorating for the holidays~~].
    b.   ✓ [$_A$ Decorating for the holidays] is easy if you know how [$_E$ ~~to decorate for the holidays~~].

(22) **Categorial mismatches:**
    a.   * Susan is a great [$_A$ laugher] and when she does [$_E$ ~~laugher~~], she gets cute wrinkles around her eyes.
    b.   ✓ Susan is a great [$_A$ laugher] and when she does [$_E$ ~~laugh~~], she gets cute wrinkles around her eyes.

(23) **Mismatches in nominal interpretation:**
    They [arrested Alex$_i$], though he$_i$ thought they wouldn't ~~arrest *Alex$_i$~~/✓him$_i$.

Vehicle change (Fiengo and May, 1994, p. 218):
Nominals can be treated as non-distinct with respect to their pronominal status under ellipsis.

There are several ways to refer to the same entity. The R-expression in the antecedent in (23) can appear as a pronoun in the elided phrase: the entity is just referred to by means of another 'vehicle'.[4]

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[3]As your reading for this week suggested, this (and possibly some other examples here) may not in fact be a problem. We'll get back to this point in more detail later!
[4]It is worth asking how much of a solution this is, as opposed to a description of the problem.

2.2.2 Semantic identity

(24) **Definition: Semantic identity**
An ellipsis site must be semantically recoverable: it does not have to have the exact same syntactic structure as its antecedent, but it has to have the same meaning, i.e. truth conditions.

☞ The logical space of possibilities:

		Recoverability conditions	
		Syntactic	*Semantic*
Syntactic structure?	Yes	Fiengo & May (1994)	Merchant (2001)
	No	———	Hardt (1993)

Hardt (1993): $\begin{cases} \text{A semantic condition on recoverability} \\ \text{No syntactic structure in ellipsis site} \end{cases}$

An elliptical VP is represented as a *property variable* that is bound in the discourse.

(25) Mitzi [$_{VP}$ walked in]. Chaos did [$_{VP}$ *pro*] too.

Antecedent VP = indef (≈ indefinite DP)
It adds the VP meaning to the discourse

Elided VP = def (≈ pronoun)
It selects the relevant meaning from the discourse

(26) [$_A$ A cat] walked in. *It* sat down.   indefinite and definite DPs

(27) Mitzi [$_A$ walked in]. Chaos did *pro* too.   ellipsis: "indefinite" and "definite" VPs

☞ Mismatch cases are not a problem, because we don't need syntactic identity in order to license ellipsis. We need *semantic* identity.

Merchant (2001): $\begin{cases} \text{A semantic condition on recoverability} \\ \text{Syntactic structure in ellipsis site} \end{cases}$

Semantic recoverability is based on a focus condition.

☞ **This is the most widely adopted proposal for ellipsis in the literature today.**

Warning: This gets a bit technical but is worth going through since it's quite likely that you'll encounter this theory reproduced in papers you will read for your own final projects.

2.3 Merchant (2001): GIVENness and e-GIVENness

(28)   a.   * Sally called Steve an idiot after Susan did ~~insult Steve~~.   ellipsis
        b.   Sally called Steve an idiot after Susan did ~~call Steve an idiot~~.

(29)   Sally called Steve an idiot after Susan *insulted Steve*.   deaccenting

Question: Why can't we elide the VP in (28a)?
Answer: It is natural to assume that only **given** materials (i.e. introduced in prior discourse) are eligible to be elided. New information cannot be elided.

Here: *Ellipsis* is not licensed, but *deaccenting* is. We need to define **givenness**.

(30)   **GIVEN, informal definition (Schwarzschild, 1999):**
        An utterance U counts as GIVEN iff it is entailed by prior discourse.

(31)   [a boy walked into the room] entails [someone walked into the room].

Entailment holds between *propositions* (=full sentences). But we want to apply the term 'given' to expressions of any type.

(32)   **Existential type shifting ($\exists$-type shifting):**
        A type shifting operation that raises expressions to the type of propositions, by existentially binding any unfilled arguments.

(33)   A: John ate a green apple.
        B: No, John ate a RED apple.

We want to worry about the relationship between 'green apple' and 'apple.' We can think of them both as predicates:(green-apple(x)) and (apple(x)).

(34) $\exists x$ (green-apple(x)) $\Rightarrow$ $\exists x$ (apple(x)). $\exists$-type shifting
        [a green apple] entails [an apple], so [an apple] is **given**.

Non-F-marked constituents are **given**.

Question: Does *John ate a green apple* entail *John ate a RED apple*?
Answer: No. Yet they still seem to be related to one another.

(35)   **F-closure (Merchant, 2001, p. 14)**:
        The F-closure of α, written F-clo(α), is the result of replacing F(ocus)-marked parts of α with $\exists$-bound variables of the appropriate type.

The general form of (33B), replacing F-marked elements with variables:

(33B')   John ate a Y apple   replacing F-marked elements with F-variables

Now, apply $\exists$-type shifting to this F-variable.

(33B'') $\exists$Y[John ate a Y apple]   the **F-closure** of (33B).

(36)   **GIVEN, formal definition (Schwarzschild, 1999):**
        An utterance U counts as GIVEN iff it has a salient antecedent A and A entails the F-closure of U, modulo $\exists$-type shifting.

Question: Given these definitions, is (33B) given?

Merchant (2001): ellipsis can occur when the givenness relationship is established between the two conjuncts (call this **ellipsis-GIVENness**).

(37)   **e-GIVENness (Merchant, 2001, p. 31)**
        An expression E counts as **e-given** iff E has a salient antecedent A and, modulo $\exists$-type shifting,
        (i) A entails F-clo(E), and
        (ii) E entails F-clo(A)

(38)   JOHN called Bill an idiot, and MARY did ~~call Bill an idiot~~, too.
        a. Antecedent: JOHN called Bill an idiot
        b. F-clo(A) = $\exists x$. x called Bill an idiot. $\exists$-type shifting for the focused item
        c. Ellipsis: MARY called Bill an idiot
        d. F-clo(E) = $\exists x$. x called Bill an idiot. $\exists$-type shifting for the focused item

☞   A entails F-clo(E) & E entail F-clo(A). e-GIVENness is satisfied, so ellipsis is licensed.

Exercise: Walk through the computation and show why (39a) is licensed but (39b) is not:

(39)   Sally called Steve an idiot after Susan did.
        a.   ...after Susan did ~~call Steve an idiot~~.
        b.   * ...after Susan did ~~insult Steve~~.

(That is, for each of (39a-b), identify/answer the following:

• Antecedent:

• F-clo(A):

• Ellipsis:

• F-clo(E):

• F-clo(A) $\Rightarrow$ F-clo(E)?

• F-clo(E) $\Rightarrow$ F-clo(A)?

Question: What about deaccenting?

Deaccenting has a weaker licensing condition: it only requires that (i) hold. Therefore if an antecedent entails the deaccented clause, deaccenting is licensed, regardless of the other way around.

Exercise: Given the calculations for (39) above, do we correctly predict that (40) should be licensed?

(40)   Sally called Steve an idiot after Susan *insulted Steve*.

Note: the same pattern also holds for sluicing:

(41)   a.   I know she called some politician an idiot, but I don't know WHICH (politician) ~~she called an idiot~~.
        b.   * I know she called some politician an idiot, but I don't know WHICH (politician) ~~she insulted~~.
        c.   I know she called some politician an idiot, but I don't know WHICH (politician) *she insulted*.

3 Voice mismatches (Merchant 2013)

We have already seen some mismatches in ellipsis. Although Merchant (2001) proposes a semantic licensing theory of ellipsis, some mismatches follow from syntactic considerations.

(42) **Active antecedent, passive elided VP**
✓... there was really no one at the meeting who could answer the question the way it should be [~~answered~~].

(43) **Passive antecedent, active elided VP**
✓This guy's tape obviously should be scrutinized more than you did [~~scrutinize it~~].

So-called 'big' ellipsis does not allow mismatches:

(44) **No voice mismatches possible with sluicing:**
a. ✓ [A Someone shot J.R.], but we don't know who$_i$ [E t_i ~~shot J.R.~~]. active
b. ✓ [A J.R. was shot by someone], but we don't know by who$_i$ [E ~~J.R. was shot t_i~~]. passive

(45) **Active antecedent, passive sluice**
*[A Someone shot J.R.], but we don't know by who$_i$ [E ~~J.R. was shot t_i~~].

(46) **Passive antecedent, active sluice**
*[A J.R. was shot by someone], but we don't know who$_i$ [E t_i ~~shot J.R..~~].

Similarly, mismatches are not possible with fragment answers, gapping and stripping (bare argument ellipsis):

(47) **No mismatches in fragment answers**
Q: Who is sending you to Iraq?
A: *By Bush.

(48) **No mismatches in gapping**
a. * Some bring roses and lilies by others.
b. * Lilies are brought by some and others roses.

(49) **No mismatches in stripping**
*MAX brought the roses, not by AMY!

Ellipsis of a phrase XP is subject to two major requirements, known as the **licensing** requirement and the **identification** requirement.

We spent some talking about the identification requirement. The other requirement is a formal syntactic one: That ellipsis occur in an appropriate "licensing" environment. This is often modeled by saying that the elided phrase has to be the sister of a head bearing the feature E (certain Ts or auxiliary v's for VP-ellipsis, C[+wh, +Q] for sluicing).

(50) Someone shot J.R., but we don't know who.

(51) Abby didn't see Joe, but Ben did.

(52)

(53)
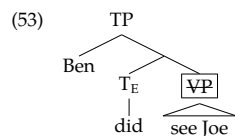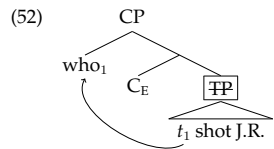
Merchant: The reason we get mismatches with "low" ellipsis is that Voice, which controls the mismatches, is not part of the ellipsis and therefore doesn't have to be identical.

Crucially, the syntax of a sentence contains two distinct heads, Voice and v.

- **Voice** determines whether a sentence is active or passive
- v determines the transitivity of the verb, and introduces the external argument.

(54) a. Someone shot J.R.
b.
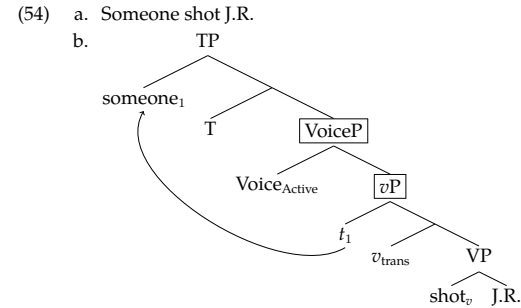
Now we make a **prediction**: ellipsis that includes the VoiceP projection will not allow for voice mismatches, but smaller ellipsis will. (NB: tense sits above VoiceP, somewhere in T.)

This indeed holds for **small ellipsis (here: vP size)**:

(55) I have implemented it with a manager but it doesn't have to be.[5]
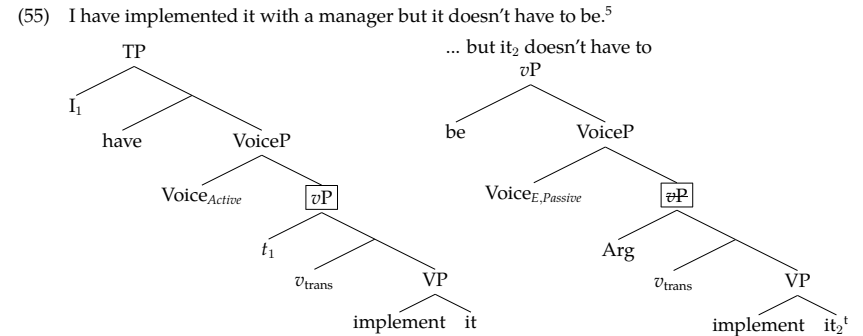
The two vPs are identical and can be elided.

Notice that we have a trace in one vP and the unpronounced subject of a passive (Arg) in the other. Merchant says these are identical for the purposes of ellipsis licensing. Here is where the *semantic identity requirement* becomes important.

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[5]"It doesn't have to be..." is analyzed here as a control predicate, so it$_2$ starts out as the sister of implement and moves to Spec,TP.

For larger ellipsis, e.g. sluicing, the elided material will contain Voice, and hence we predict that no voice mismatches should be possible.

(56)　　* J.R. was shot (by someone) but we don't know who.
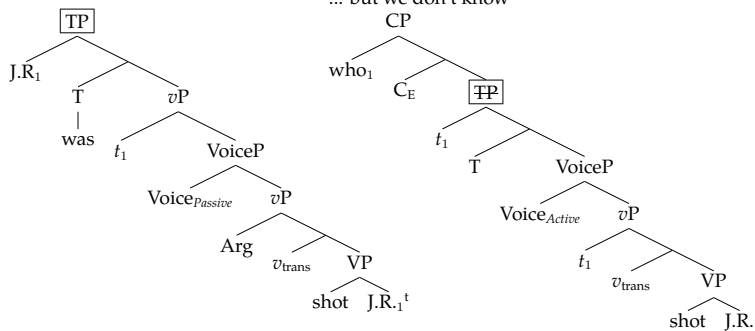
Here, the TPs we are attempting to elide are not identical: They are different in Voice, which also entails a different syntactic structure for the active and passive variants of the sentence.

☞　Since we are dealing with a hierarchical structure, we predict the observation that large ellipsis *never* allows for Voice mismatches, but small ellipsis does.

Claim: This is unexplained by theories that only semantic identity is required between Antecedent and Ellipsis. These theories would have to assume that different identity requirements apply to VP-ellipsis and sluicing, with the one on sluicing being stricter than the one on VP-ellipsis. If so, what would stop a language from having the '**inverse**' distribution? This appears never to be the case, but if identity requirements are construction-specific, this is unexplained.

4　More mismatches (Thoms 2013)

There are other types of mismatches that are unexplained by this theory. Here I will lay out some more data, but I will not present a full solution (but see Thoms (2013), in case you are curious).

4.1　Missing modals (in E but not A)

Sluices with **imperative antecedents** present examples of lexical mismatches between the Ellipsis and Antecedent where an element in E is not found in A.

(57)　　A:　Amuse me!
　　　　B:　What with ~~should I amuse you~~?

4.2　Missing adverbs (in A but not E)

Typically, given that we expect identity between A and E, we expect ellipsis sites to be interpreted as having the **same adverbial modification** in them as their antecedents:

(58)　　John always turns up late, and I want to know why ~~he *(always) turns up late~~.

(59)　　Someone shouted loudly, and I want to know who ~~shouted *(loudly)~~.

There are some cases of VP-ellipsis where **VP-adjuncts can be left out** of the interpretation of the ellipsis site

(60)　　a.　John called the police on Sunday, and I did ~~call the police~~ on Tuesday.
　　　　b.　John called the police on Sunday, and I did ~~call the police *(on Sunday)~~, too.

It would seem that an interpretation that leaves the adjunct out is only possible when the adjunct in question is **contrasted** with an analogous adjunct in the antecedent.

We may pursue an analysis where the **largest possible VP must be elided**. While this may work for (60a–b), it won't work for other cases where material is omitted even though there is no segment of A that can be selected that omits the adjunct:

(61)　　John is probably running late, although I don't know why.

(62)　　Children always learn a language without knowing how.

(63)　　Prime Minister Tony Blair of Britain... announced that Britain would blindly follow America into Afghanistan without questioning why.

In all of these examples, we interpret the sluice without the adverb, but there is no constituent in the antecedent that corresponds to TP–adverb.

4.3　Missing PPs (in A but not E)

A similar set of mismatches between E and A can be seen in certain classes of **fragment answers**, where XPs contained in the question seem to be omitted from the structure of the fragment answer.

Background: Merchant (2004) argues that fragment answers involve movement of the fragment and deletion of the rest of TP. One piece of evidence comes from connectivity effects, such as bound variable readings of pronouns, which are thought to only arise when the pronoun is c-commanded by the quantifier at LF.

(64)　　Q:　Which of his$_i$ relatives does [every boy]$_i$ love?
　　　　A:　His$_i$ mother ~~[every boy]$_i$ loves t~~

Now, we see missing PPs in fragment answers:

(65)　　Q:　What do you admire about John?
　　　　A:　His courage ~~I admire t~~
　　　　　　*cf: *I admire his courage about John*

(66)　　Q:　What does every boy's$_i$ mother dislike about him$_i$?
　　　　A':　Only his$_i$ ego ~~every boy's$_i$ mother dislikes t~~
　　　　　　*cf: *Every boy's$_i$ mother dislikes only his$_i$ ego about him$_i$.*

4.4 Expressive modification (in A but not E)

Finally, one last case of mismatches between E and A involves expressives, in particular adverbial modifiers like *fucking*.

(67) A: You should fucking fire that asshole John!
     B: I know you think I should Δ, but I won't Δ as I like him.
(68) A: You should tell that fucking dog to shut the hell up?
     B: Why Δ? The poor little pup just wants some attention.

The expressive force of an antecedent does not need to be borne by a dependent elliptical element.

4.5 Reformulation of the identity condition

The idea in Thoms (2013), which I will not elaborate on here, is that Merchant's (2001) semantic identity requirement is too strict, and must be relaxed in order to get the mismatches we see here.

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