

Week 1: General introduction

1 What is ellipsis

When asked to define ellipsis, many people will give you something along the following lines:

- (1) *Ellipsis*: a process that removes certain constituents from the phonetic signal.

But we can get better than this. Properly, ellipsis is a type of discourse anaphora, and in turn, discourse anaphors are elements who take their reference from an *antecedent*. In the following example, it is clear that *it* refers back to *a pear*.

- (2) Jack ate a pear. *It* was delicious.

At a certain level, the relation between an ellipsis site (notated [__]) and its antecedent is the same. We can infer that [__] means *eat a pear* because there is an antecedent that supplies the meaning we need.

- (3) Jack ate a pear. Sally did [__] too.

Given that we are going to be talking about ellipsis as a type of discourse anaphora, it shouldn't surprise us that there are certain constructions (like *do so* and *one* anaphora, see below) that seem to straddle the line between genuine ellipsis and genuine pronominal anaphors like *it* in (2).

Terminology We are going to be using the following terminology during this course.

- (4) $\overbrace{\text{Jack ate a pear.}}^{\text{antecedent clause}} \overbrace{\text{Sally did [__] too.}}^{\text{elliptical clause}}$

2 Some types of ellipsis

This is a partial list. See chapters 22 to 29 of the *Oxford Handbook of Ellipsis* at the end of this handout for a more exhaustive list.

Sluicing Deletion of a wh- interrogative to the exclusion of the wh- phrase.

- (5) Jack ate something, but I don't know what [__].

Fragments The non-interrogative counterpart of sluicing.

- (6) A: Jack ate something.
B: Yeah, an apple [__].

Verb phrase ellipsis (VPE) Deletion of the non-finite complement of a modal or an auxiliary. Unlike sluicing and fragments, this is not possible in all languages.

- (7) a. Jack ate an apple. Sally should [__] too.
b. Jack ate an apple. Sally didn't [__].

Verb-stranding Verb Phrase ellipsis (VVPE) In some languages, verbs move out of VP prior to VPE, so they are not elided. Fewer languages have VVPE than do VPE, simply because VVPE requires the combination of two independent properties, i.e., VPE and verb movement out of VP (for example, English has VPE but no verb movement out of VP, so it doesn't have VVPE).

(8) *Irish*

Dúirt mé go gceannóinn é agus cheannaigh [____].
 said I c buy.COND.1SG it and buy.PAST
 “I said that I would buy it and I bought” (lit.)c

(9) *Swahili*

Mama a-li-tak-a ku-m-nunul-i-a m-toto vi-atu na baba
 mother 1SU-PST-want-FV INF-IOBJ-buy-APPL-PV 8-shoe 1-child and father
 a-li-tak-a [____] pia.
 1SU-PST-want-FV too
 “Mother wanted to buy shoes for the child and father wanted too”

A notable property of VVPE is that the lexical roots of the verbs in both clauses have to be identical, although inflectional morphology can vary to a certain degree.

Pseudogapping Like VPE, but one of the VP-internal arguments/modifiers survives ellipsis. Given that this is a type of VPE, it is obviously possible in those languages that also allow regular VPE.

- (10) a. Jack ate an apple. Sally should [____] a pear.
 b. Jack ate an apple. Sally did [____] a pear.

Gapping Easy to confuse with pseudogapping, given that in both cases there is a verbal constituent missing. The trick to distinguish them is the following: in pseudogapping, the missing verb is necessarily *non-finite*; in gapping, it is *finite*.

- (11) Jack ate an apple and Sally [____] a pear.

Unlike pseudogapping, gapping is not a type of VPE, so it can appear in languages that lack both VPE and pseudogapping.

Noun phrase ellipsis (NPE) Deletion of a noun, sometimes along with some of its adjectival and numeral modifiers.

- (12) Jack ate three green apples. Sally ate four [____].

Comparative deletion It looks a lot like VP ellipsis, but it happens inside a comparative clause, which brings its own difficulties —for example, Hankamer (1973) and others have argued that English (and, by extension, other languages) have two syntactically distinct *thans*, which interact with ellipsis in different ways.

- (13) a. Jack ate more apples than Mary did [____].
 b. Jack ate more apples than Mary [____].

Comparative subdeletion It looks a lot like gapping/pseudogapping, and it raises the same analytical difficulties that plain comparative deletion does.

- (14) a. Jack ate more apples than Mary did [____] pears.
 b. Jack ate more apples than Mary [____] pears.

Do so/do it anaphora Superficially similar to VP ellipsis, but instead of a gap, we get the verbal proforms *do so* or *do it* (and comparable ones in other languages, e.g., *es* in German).

- (15) Jack ate an apple. Sally { did so / did it } too.

One anaphora The nominal counterpart of *do so/do it* anaphora, with certain properties that have been used as a benchmark for certain computational studies of language acquisition.

- (16) Jack ate three green apples. Sally ate three red ones.

3 Two important questions about ellipsis

This is just a brief introduction to the types of issues that we will talk about during the semester. You don't need to worry about details today.

3.1 Identity conditions on ellipsis

We know that the ellipsis site takes its meaning from its antecedent, and this is usually formalized by saying that there is an *identity condition* on ellipsis —i.e., the ellipsis site and its antecedent have to be similar enough to allow for the relevant kind of inference. The question is, how do we define *identity*? Something that we do know is that we can't define it as morphosyntactic identity, given that the ellipsis site and its antecedent can have radically different structures. For example, VP ellipsis allows voice mismatches.

- (17) The janitor takes the trash out whenever it needs to be [___].
[= ... whenever it needs to be taken out]

Similarly, sluices can take disjoined clausal antecedents (called *p-or-q* antecedents), for which no plausible syntactically isomorphic structure exists.

- (18) Either the kitchen is on fire or Jack is baking again. I can't tell which [___].
[= I can't tell which it is]
[≠ * I can't tell which the kitchen is on fire or Jack is baking again]

As we will see, everybody agrees that the identity condition has to be defined semantically. But have to do this carefully. We can't simply appeal to a vague notion of semantics (e.g., "I know what you mean") because then we wouldn't expect contrasts like the following. We know that, if you are married, you have a husband, but that knowledge fails to license a subsequent NPE.

- (19) a. This is Sally's husband. Betty's [___] is not here.
b. * Sally is married. Betty's [___] is not here.

We need a more sophisticated notion of meaning. We will look in more detail at two such notions, i.e., Logical Forms (LFs) and Questions under Discussion (QuDs).

3.2 Internal structure (or not) of the ellipsis site

So far, I have non-committally represented the ellipsis site just as [___], but this is unsatisfactory. For any given ellipsis type, we want to know if there is something inside the ellipsis site, and if so, what exactly that "something" is. This is not easy to do, because we can't see what (if anything) is inside the sluicing site directly, so we have to deduce it from the effects it has (or doesn't have) on other constituents that we can actually see. For illustration, here is an argument that Hankamer and Sag 1976 build to argue that VP ellipsis sites have a regular syntax inside them.

- (20) *Step 1: 'it' can be a discourse anaphor for an indefinite*
Ivan rode a camel; it stank like hell.
- (21) *Step 2: 'it' cannot be a discourse anaphor for an indefinite embedded under negation*
Ivan didn't ride a camel; it stank like hell.
- (22) *Step 3: the following example is grammatical* Ivan didn't ride a camel, but Jorge did [___]; it stank like hell.
- (23) *Step 4: the visible indefinite is embedded under negation, so it can't be an antecedent for 'it'*
Ivan didn't ride a camel, but Jorge did [___]; it stank like hell.
- (24) *Conclusion: the VPE site has to contain a silent representation of 'a camel' that serves as a discourse antecedent for 'it' (silent material rendered in a light grey font)*
Ivan didn't ride a camel, but Jorge did [ride a camel]; it stank like hell.

We will see more sophisticated arguments in the weeks to come, including some from typology and some from neurolinguistics.

4 Resources

The best book you can read about ellipsis is the *Oxford Handbook of Ellipsis*, edited by Temmerman and van Craenenbroeck. Unfortunately, it will not be published until 2016, but given that I am one of the contributors and I am good friends with the editors, I can ask them for preprints of chapters you are interested in.

Chapter list of the *Oxford Handbook of Ellipsis*

- **Theory of ellipsis**

2. Core research questions.
3. Ellipsis in transformational grammar.
4. Ellipsis in HPSG.
5. Ellipsis in Categorical Grammar.
6. Ellipsis in Dependency Grammar.
7. Ellipsis in Simpler Syntax.
8. Ellipsis in Construction Grammar.
9. Ellipsis in Dynamic Syntax.
10. Ellipsis in inquisitive semantics.
11. Ellipsis and psycholinguistics.
12. Ellipsis and acquisition.
13. Ellipsis and discourse.
14. Ellipsis and computational linguistics.
15. Ellipsis and prosody.

- **Ellipsis as a diagnostic tool**

16. Phrase structure and constituency.
17. Movement and islands.
18. The workings of memory.

19. Aphasia.
20. Parsing strategies.
21. Code switching.

- **Elliptical constructions**

22. Sluicing and its subtypes.
23. Predicate ellipsis, VP ellipsis, and pseudogapping.
24. Gapping and stripping.
25. Fragments.
26. Nominal ellipses.
27. Comparative deletion.
28. Null Complement Anaphora.
29. Conjunction reduction and Right Node Raising.

- **Typological case studies**

30. Hungarian
31. Varieties of English.
32. Farsi.
33. Japanese.
34. Finnish Sign Language.
35. French.
36. Russian.
37. Dutch.
38. Polish.
39. Indonesian.
40. Mandarin Chinese.
41. Bantu.