

# Grammar and nature of ellipsis

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## 1 Ellipsis and its challenges

Ellipsis is a cover name for a family of phenomena where, under certain circumstances, a part of a clause goes missing. For instance:

(1) Alicia ate a piece of the cake, but Beatrix did not [.]

The most remarkable property of ellipsis is not the fact that part of the clause is not pronounced, but the fact that we have no trouble understanding its meaning. This might appear to be a challenge to Frege's Compositionality Principle.

(2) *The Compositionality Principle*

The meaning of a complex structure is a function of the meaning of its constituents and the way they are put together.

Given this principle, how can we derive a full clausal meaning if a substantial part of the clause is missing? We'll look at various ideas below

## 2 Common types of ellipsis

[note: I'm representing the elided structure in a light gray font. Pedagogically, this might not be the best choice, as it implies that there is *some* structure at the ellipsis site, and some people have argued against this type of analysis. On the other hand, it makes exposition easier. For the time being, we'll have to make do with this choice.]

- VP ellipsis Arguably, the most studied type of ellipsis for years. It involves ellipsis of a full verb phrase, to the exclusion of higher inflectional or modal elements.

(3) Alicia ate a piece of the cake, but Beatrix did not [*VP eat a piece of the cake*]

- Pseudogapping A variant of VP ellipsis, in which some VP internal constituent is not affected by ellipsis.

(4) Alicia ate a piece of the cake, and Beatrix did [*VP eat*] a slice of cheese.

- Gapping As opposed to VP ellipsis and pseudogapping, gapping elides both the verbal root and the inflection, leaving non-verbal VP-internal constituents intact.

(5) Alicia ate a piece of the cake, and Beatrix [<sub>VP</sub> ate] a slice of cheese.

As we'll see through the course, gapping has a number of funky properties that have led some people (e.g., Johnson, in a series of papers) to argue that it is not ellipsis at all.

- Sluicing Ellipsis of an interrogative clause to the sole exclusion of the wh- word.

(6) Alicia was talking to someone, but I don't remember who [<sub>TP</sub> Alicia was talking to]

- Stripping As in sluicing, a whole clause is elided –however, the remnant of ellipsis is not a wh- word, but a regular, non-interrogative phrase.

(7) a. Which language does Alicia want to learn?  
 b. [<sub>TP</sub> Alicia wants to learn Dutch].

- Noun ellipsis Actually, the proper term should be NP ellipsis, because it can also affect adjectives, PPs, relative clauses, and other constituents that live inside NP.

(8) Bill Gates's fortune surpasses Donald Trump's [<sub>NP</sub> fortune].

- Comparative deletion This is a complicated one, because the elided structure (and its antecedent) must contain a covert variable over degrees.

(9) Alicia has more books than [<sub>TP</sub> the number of books that Beatrix has]

These are the major types of ellipsis, but note that they also have a number of non-canonical counterparts that occasionally make analyses complicated. For instance, Comparative Deletion has a Comparative *Subdeletion* variant in which both subject and object survive ellipsis.

(10) Michael Jordan has more scoring titles than Dennis Rodman tattoos.

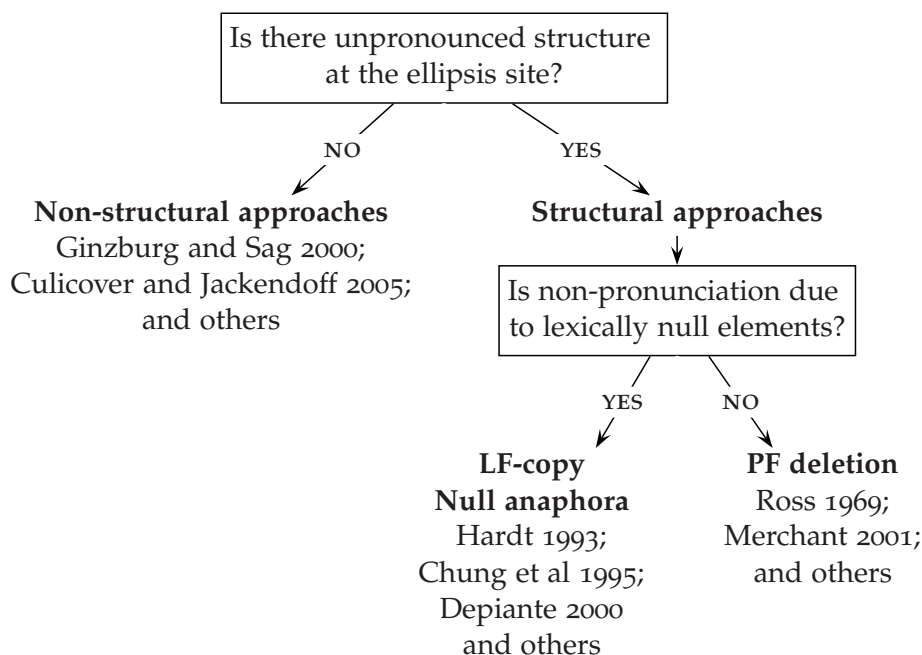
Similarly, VP ellipsis has the well-known variant of Antecedent Contained Deletion (ACD) and the not-so-well-known variant of Argument Contained Deletion.

(11) a. Alicia visited every town that Beatrix did [<sub>VP</sub> visit]. [Antecedent]  
 b. History suggests that a proof that God exists never will [<sub>VP</sub> exist] [Argument]

For this course, we'll start by looking at the easy canonical cases, and then we'll see what the more exotic ones have to say about the different analyses.

### 3 Potential analyses of ellipsis

If we look at what people have said about ellipsis to date, we can distinguish the following types of analyses.

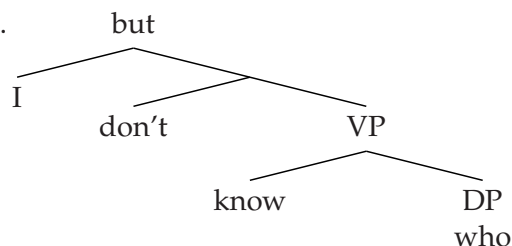


#### 3.1 Non-structural approaches

People who propose this kind of structure argue that there is nothing at all at the ellipsis site: the structure simply ends with the last element before the ellipsis site.

- (12) *Simpler Syntax Hypothesis (Culicover and Jackendoff 2005)*  
The most explanatory theory is the one that inputs the minimum syntactic structure necessary to mediate between phonology and meaning.

- (13) Alicia was talking to someone... but



How do we interpret the missing structure? These approaches invoke a pragmatic mechanism of Indirect Licensing that can supply the right semantics even in the absence of a syntactic and semantic structure. For instance, Culicover and Jackendoff (2005:257) call the indirectly licensed phrase (in this case, *who*) the *orphan* and ask us to consider

how the orphan phrase is integrated into a propositional structure. There are two parts to such integration: (i) identifying a proposition *P* in which the orphan plays

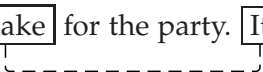
a role; (ii) identifying the exact role that the orphan plays in  $P$ . [...] In sluicing,  $P$  is identified as the meaning of some previous clause in the discourse. [...] The orphan can be matched with an existing constituent in the clause. We will call this case “matching”.

### 3.2 Structural approaches

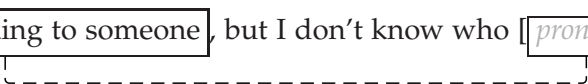
#### 3.2.1 Null anaphora/LF Copying

This class of analyses posit some structure in the ellipsis site, but not much. In the null anaphora case, people propose a silent pronoun that takes its meaning from the antecedent, pretty much through the same mechanisms whereby a regular pronoun gets its meaning.

(14) Alicia baked a cake for the party. It was delicious.

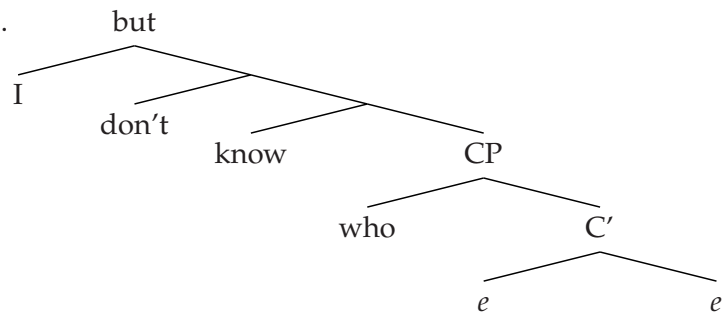


(15) Alicia was talking to someone, but I don't know who [pronoun]



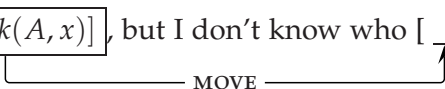
In the second approach (LF copying, or, as Chung et al 1995 put it, “recycling”), the Logical Form of the antecedent is copied into the ellipsis site.

(16) Alicia was talking to someone...



Assuming that indefinites are interpreted as free variables (*pace* Heim 1982):

(17)  $\lambda x.[talk(A, x)]$ , but I don't know who [ ].



(18)  $\lambda x.[talk(A, x)]$ , but I don't know  $Qx.[talk(A, x)]$ .

### 3.3 PF deletion

The last class of approaches are the simplest from the point of view of the syntax-semantics interface. First, we start with full sentence...

(19) Alicia was talking to someone, but I don't know who she was talking to.

... and then the phonological component is instructed to not pronounce part of it.

(20) Alicia was talking to someone, but I don't know who [she was talking to].

## 4 So, which one is the right one?

This is a difficult question to answer. Possibly the right answer is: “it depends on what type of ellipsis you are dealing with”. For instance, Merchant (2001) and many others have shown very convincingly that sluicing must be PF deletion. On the other hand, null anaphora/LF copying might be more appropriate for phenomena like short yes/no replies in Dutch (van Craenenbroeck 2004) or what looks like VP ellipsis in Spanish (Depiante 2000).

(21) A: Marie zie Pierre nie geirn  
 Marie sees Pierre not gladly  
 “Marie doesn’t love Pierre”

B: Ze duut  
 she does  
 “Yes, she loves him”


(22) Alicia puede tomarse un día libre, y Beatriz también puede.  
 Alicia can take a day off and Beatriz also can

How do we know that this is true? In sluicing, we occasionally see effects of movement, for instance:

- (23) a. I know that Alicia behaved well, but I want to know exactly how well she behaved  
 [adjunct question]  
 b. \* I know that Alicia didn’t behave well, but I want to know exactly how well she  
 didn’t behave  
 [weak island violation]  
 c. \* I know that Alicia didn’t behave well, but I want to know exactly how well [ \_\_\_]  
 [weak island violation replicated under ellipsis]

In Spanish VP ellipsis, on the other hand, we don’t see any signs of movement.

(24) Alicia puede tomarse un día libre, y Beatriz también se lo puede [VP tomar t]  
 Alicia can take a day off and Beatriz also CL CL can take  
 [clitic climbing out of VP]



(25) \* Alicia puede tomarse un día libre, y Beatriz también se lo puede [ \_\_\_]  
 Alicia can take a day off and Beatriz also CL CL can  
 [no clitic climbing out of VP ellipsis]

## 5 Parallelism restrictions

Ellipsis cannot apply anywhere: rather, the elided constituent needs to be similar enough to the antecedent. This is the parallelism requirement on ellipsis. However, how do we define parallelism? Clearly, we cannot say that we need morphosyntactic identity, because of counterexamples like these:

- (26) *Voice mismatches*  
 a. This problem should have been looked into, but nobody did.  
 b. The janitor should remove the trash whenever it is apparent it needs to be.
- (27) *Gender mismatch*  
 Alex looked at himself in the mirror, and Beatrix did too.  
 [=... and Beatrix looked at herself in the mirror]
- (28) *Tense mismatch*  
 Alicia said she would write a letter, and in fact, she already has.

However, not everything goes: the following example is usually employed to illustrate that pragmatics, context, and “common sense” are not enough to license ellipsis.

- (29) \* The trash can is full, so you should!  
 [=so you should take the trash out!]

Here’s other example, attributed to Hankamer and Sag (1976), who discuss it in the context of *deep* vs. *surface* anaphora.

- (30) *Context: we arrive at a place where, one week ago, a beautiful medieval church stood, only to find out that it’s been bulldozed to make room for a parking lot. In disbelief, you look at me as if demanding an explanation, and I say:*  
 \* Don’t look at me like that! I don’t know why they did [ \_\_\_]!  
 [=I don’t know why they bulldozed the church!]

The consensus nowadays (though there are some slightly dissenting views) is that ellipsis requires *semantic* parallelism, roughly, truth-conditional equivalency between the ellipsis site and its antecedent. More formally:

- (31) *e-GIVENNESS (Merchant 2001)*  
 An expression  $E$  counts as e-GIVEN iff  $E$  has a salient antecedent  $A$  and, modulo  $\exists$ -type shifting:  
 a.  $A$  entails the F-closure of  $E$  and,  
 b.  $E$  entails the F-closure of  $A$ .
- (32) *F-closure (Merchant 2001)*  
 The F-closure of  $\alpha$ , written  $F\text{-clo}(\alpha)$ , is the result of replacing F-marked parts of  $\alpha$  with  $\exists$ -bound variables of the appropriate type.
- (33)  *$\exists$ -type shifting (Merchant 2001)*  
 $\exists$ -type shifting is an operation that raises expressions to type  $\langle t \rangle$  and existentially binds unfilled arguments.