8

Ellipsis in Construction Grammar

Adele E. Goldberg and Florent Perek

8.1 Introduction

Ellipsis constructions are formal patterns in which certain syntactic structure that is typically expressed is omitted. Some of the most commonly discussed ellipsis constructions along with an attested example of each are provided in Table 8.1. All examples in quotes within and following Table 8.1 come from the Corpus of Contemporary American English (COCA) (Davis 2008).

Table 8.1 Commonly discussed constructions that involve ellipsis

Verb phrase ellipsis	'French kids eat spinach and ours can too.'
Sluicing	'He said that I was "different." He didn't say how.'
Gapping	A: 'You made me what I am today.' B: 'And you me.'
Stripping	'George Greenwell was a patriot but not a fool.'
Comparatives	'His front teeth seemed to protrude more than Henry remembered.'

Every language balances the need to be expressive with the need to be sufficiently easy to produce. These two major functional principles (described by Goldberg 1995: 67

as Maximize Expressive Power and Maximize Economy) give rise to different networks of learned constructions in different languages via general processes of grammaticalization or constructionization (Paul 1889; Hopper and Traugott 2003; Traugott 2014; Bybee et al. 1994; Fried 2009). This chapter emphasizes the shared communicative motivation of ellipsis constructions that leads to cross-linguistic similarities and certain predictable functional constraints (section 8.2), while we also emphasize the fact that ellipsis is licensed by a system of motivated *constructions*; i.e., learned pairings of form and function. Specific constructions readily capture a range of restrictions on form and function, including those related to semantics, discourse context, register, genre, and dialect. Constructions' specific licensing properties, as well as generalizations across constructions, are captured within a network of constructions. On this view, our knowledge of language is a learned system of constructions that are strongly motivated by communicative concerns.

Constructionist approaches avoid positing 'underlying' levels of syntactic representation or invisible/inaudible structure; instead, semantic recoverability is accounted for by an independently needed psychological 'pointer' function (section 8.3). An explicit account of the English GAPPING construction and a discussion of several other constructions that have received less attention in the literature is offered in section 8.4. A brief comparison of French with English in section 8.5 makes clear that there exist cross-linguistic differences in even related languages. Finally, some standard arguments against the sort of semantic, surface-based proposal suggested here are addressed in section 8.6.

8.2 Motivating ellipsis

This section reviews some general commonalities among ellipsis constructions, before delving into more detailed analyses. In a very general way, the existence of elliptical constructions is clearly motivated by our need to express our messages economically (Paul 1889; Grice 1975; Hankamer and Sag 1976). When part of an intended interpretation is recoverable from context, there is no need for it to be overtly specified (Shannon 1993; Piantadosi et al. 2012). Thus ellipsis constructions likely exist in every language.

In fact, while speakers often have the option of redundantly expressing material that could be elided, other times, non-elided counterparts sound quite odd, and ellipsis is required. The non-elliptical counterparts of expressions in Table 8.1 are given in Table 8.2, and while the first three sound fairly acceptable with appropriate intonation, the last two are much less felicitous than their elliptical counterparts (indicated by '#'), as they sound quite robotic.

Table 8.2 Non-elliptical versions of the attested examples of ellipsis in Table 8.1

French kids eat spinach and OUR kids can eat spinach TOO.
He said that I was 'different.' He didn't say HOW I was different.
A: You made me what I am today. B: And YOU made me what I am today.
George Greenwell was a patriot but George Greenwell was not a fool.

His front teeth seemed to protrude more than Henry remembered his front teeth protrude.[1]

Many commonly discussed ellipsis constructions involve a semantic relationship that Culicover and Jackendoff (2005) describe as "SAME-EXCEPT." That is, what is conveyed by ellipsis constructions is generally a semantic proposition that is the same as one that has been uttered or is otherwise recoverable, except that it differs in some key respect. Culicover and Jackendoff note that the SAME-EXCEPT relationship is independently needed to account for lexical phrases like *the same/identical/similar/alike … except/aside from*. In order to highlight what is distinct while taking for granted what is the same, it is natural, indeed iconic, to assert only what is distinct.[2]

Ellipsis constructions require that the omitted information be recoverable, either on the basis of an overt clause or phrase (Chomsky 1964, 1965; Hankamer and Sag 1976; Katz and Postal 1964), or from the non-linguistic context (Dalrymple et al. 1991;

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[1] An anonymous reviewer suggests that this example could be partially addressed if we were to assume that a constituent, *his front teeth to protrude*, exists before a "raising" operation on the "subject" of that phrase, and that it is this phrase that is copied and deleted by ellipsis. But *remember* does not allow a VP with *to* (**Henry remembered his front teeth to protrude*), so positing this as an "underlying" form that is then raised and deleted would require that ungrammatical forms are base-generated, counter to prevailing assumptions.

[2] Another available option that can be used to emphasize what is distinct is the use of contrastive stress (see acceptable examples in Table 8.2).

Culicover and Jackendoff 2012). That is, in order to note differences, as implied by the SAME-EXCEPT function, whatever is the SAME must be recoverable. Whether the recoverability is based on an overt string or whether non-linguistic context can potentially supply the information depends on the particular ellipsis construction involved. Certain expressions would be impossible to interpret without reference to something uttered in the context (see section 8.3; also Chomsky 1964; Hankamer and Sag 1976; Murphy 1985). For example, a pair of noun phrases (e.g., *you, me* as in the third example of Table 8.1) is hard to interpret unless it is licensed by a gapping construction, which provides the missing semantic relation.

The SAME-EXCEPT function implicitly assumes a psychological POINTER mechanism to some overtly expressed linguistic material, or to some relation that is recoverable from the non-linguistic context (see also Abeillé, Bîlbîie, and Mouret 2014; Tanenhaus and Carlson 1990; Culicover and Jackendoff 2005; Martin and McElree 2008). This psychological POINTER mechanism is discussed in section 8.3.

8.3 Recoverability: An independently needed POINTER mechanism

Just as the SAME-EXCEPT semantic function is part of the meaning of many words and phrases that do not involve ellipsis, a psychological function that 'points' to previous linguistic material is likewise required by many words and phrases, such as those underlined in (1)–(5):

(1) ‘Peggy McMartin Buckey, 63, and her son Raymond, 31, spent two years and five years, respectively, in jail before their acquittal on 52 criminal counts.’

(2) ‘She longed for a cold shower and a soft bed. Not necessarily in that order.’

(3) ‘they could see that we were making efforts to accommodate them and vice versa’

(4) ‘Never let another man see you apply lip balm. Ditto hand cream.’

(5) ‘First of all, it’s not worth getting angry about. Secondly, 98 percent of the people have insurance.’

The only way for the underlined terms in the examples above to be interpreted is for the listener to understand them to refer to (or presuppose) some overtly specified linguistic material. Thus these terms ‘point’ to another word or phrase, much as anaphoric pronouns do (see also Asher and Lascarides 2003). In examples (1)–(5), *respectively* and *vice versa* point to an overt linguistic string with a particular word order.[3] On the other hand, *secondly* presupposes only that there was some ‘first’ statement, without referencing (pointing) to the form of the first statement (as does *on the other hand* itself). It is a benefit of positing a general pointing function that it allows some constructions to point to a quite specific overt linguistic string, while others only require that a semantic entity or proposition be evoked.

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[3] An anonymous reviewer points out that *respective* is used to evoke a semantic pairing that is not explicit in the linguistic material in the following example:

a. The bacteria were classed in their respective genera.

Interestingly, this does not seem to be possible for *respectively*:

a.’ ?? The bacteria were respectively classed in their genera.

Debates about the nature of ellipsis typically center around whether detailed inaudible syntactic structure of some sort is actually present at the ellipsis site, and this issue is discussed further in section 8.6. For now, note that the lexical items in (1)–(5) do not lend themselves to such an analysis. Surely no inaudible words or phrases are in any sense 'within' these terms. Occam's razor suggests that whatever means we use to account for the examples in (1)–(5) should be used to account for standard ellipsis constructions. The same reasoning also applies to the many other examples that do not lend themselves to a derivational account (see section 8.6).

In fact, psycholinguistic evidence from Martin and McElree (2008) supports the idea that ellipsis is interpreted via a pointer mechanism instead of by appeal to inaudible syntactic structure at the ellipsis site (see also Tanenhaus and Carlson 1990; Culicover and Jackendoff 2005; Martin and McElree 2011). Specifically, in a task that required participants to determine whether a sentence made sense or not, Martin and McElree found that increasing the length or complexity of the phrase required for interpretation did *not* result in an increase in the time it took for comprehension (see also Frazier and Clifton 2000; Tanenhaus and Carlson 1990), while increasing the distance between the antecedent and the site of ellipsis did reduce accuracy, an indication that a memory of the original phrase or its semantic interpretation is retrieved, but is not reconstructed syntactically. For example, it took no longer to decide that (6) made sense when compared with (7); nor did it take longer to decide that (8) did *not* make sense than it did to make the same determination for (9). Importantly, the first clause has to be processed in order to correctly recognize whether the sentence makes sense or not.

Sensical:

(6) The history professor understood Rome's swift and brutal destruction of Carthage, but the principal knew the overworked students attending summer session did not ___. **[more complex antecedent]**

(7) The history professor understood Roman mythology, but the principal was displeased to learn that the overworked students attending summer session did not___. **[less complex antecedent]**

Nonsensical:

(8) The history professor understood Rome's swift and brutal destruction of Carthage, but the principal knew the overly worn books used in summer session did not___. **[more complex antecedent]**

(9) The history professor understood Roman mythology, but the principal was displeased to learn that the overly worn books used in summer session did not___. **[less complex antecedent]**

This finding suggests that the elided phrase is *not* created anew at the ellipsis site, undermining copy and deletion proposals. Martin and McElree (2008) instead suggest that ellipsis involves a pointer to structures in memory, the perspective we endorse here.

Phillips and Parker (2014) issue a word of caution on Martin and McElree's interpretation of their results because the task did not require that the full antecedent be

semantically retrieved. While this is true, claims that the antecedent's structure is copied generally assume that the structure is copied automatically as the sentence is processed, not merely that it can potentially be, if relevant. The lack of complexity effect found by Martin and McElree is then only an irrelevant criticism of copying and deletion proposals, if participants were not actually processing the sentences as they normally would.

Xiang, Grove, and Merchant (2014) report that a double-object antecedent followed by either VP-ellipsis or a repeated double-object construction primes the production of a double-object expression, when compared to a double-object construction followed by an intransitive clause.[4] But the authors acknowledge that the finding is compatible with the idea that ellipsis leads to the activation of the antecedent phrase in memory rather than the construction of syntax at the ellipsis site: "It is important to note that our goal here is to examine whether syntactic structures are *accessed or activated* at the ellipsis site, not the narrower question of whether the parser incrementally builds such structures at the ellipsis site" (2014: 3, emphasis added). The pointer mechanism predicts reactivation of a previously mentioned phrase if the phrase is required for interpretation; thus the finding is consistent with the present proposal.

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[4] The assumptions behind the design are not entirely clear to us, since it would normally be expected that the double-object construction should be primed in all *three* cases, assuming structural priming lasts beyond one intervening clause (Bock and Griffin 2000, although see Bernolet, Hartsuiker, and Collina 2016).

To summarize, the psychological pointer mechanism can account for the interpretation of elliptical expressions without the need for inaudible syntactic structure at the site of ellipsis. That is, the pointer mechanism that is required for certain cases (e.g., *ditto*) can be readily extended for cases of ellipsis as well. The pointer mechanism is also consistent with evidence from psycholinguistic processing. In the following section we outline how ellipsis is licensed by constructions by detailing the English gapping construction.

8.4 Licensing: Gapping and other ellipsis constructions

Table 8.1 listed several well-known examples of elliptical constructions. As already observed, all such constructions are motivated in a general way by communicative concerns of efficiency. Yet at the same time, each individual elliptical construction has a distinguishable function in discourse and a corresponding different form (see also Miller 2011a, 2014). For example, gapping (10) and pseudogapping (11a,b) in English are similar in terms of the amount and type of elided material. In both constructions, the overtly expressed remnant contains two constituents that act as arguments or adjuncts to an unexpressed predicate recovered from an antecedent. In gapping, only the arguments or adjuncts are overtly expressed (10), while the remnant of pseudogapping contains a tensed auxiliary as well (11a,b).

(10) [gapping]:

'The more I touched her and she me [= and she touched me], the more I was reminded of Basya.'

(11) [pseudogapping]:

a. 'Zenobia likes the sales staff as little as she does me.' [= as she likes me]

b. 'He's cuddling it like he would you.' [= as he would cuddle you]

As Hoeksema (2006) has observed, gapped and pseudogapped fragments bear different semantic relations to their antecedents. In a corpus of naturally occurring examples, he finds that the vast majority of instances of gapping (93 percent) occur in coordination with their antecedent (as in (10)). Moreover, the gapping construction requires contrastive stress (Culicover and Jackendoff 2012: 326). On the other hand, most tokens of pseudogapping (87 percent) occur as the second part of a comparative construction (as in (11a,b)), and the overt tensed auxiliary often provides the contrastive information (see also Miller 2014 who estimates that as many as 97 percent of instances of pseudogapping are comparative). To see that gapping and pseudogapping constructions are not generally interchangeable, note that (10) and (11) become unacceptable if pseudogapping is used instead of gapping (12), or vice versa (13):

(12) [pseudogapping]

??[5] The more I touched her and she did me, the more I was reminded of Basya.

[5] We use '??' instead of the more traditional '*' in recognition of the fact that judgments are gradient and affected by many factors including context and intonation.

(13) [gapping]

a. ?? Zenobia likes the sales staff as little as she me.

b. ?? He's cuddling it like he you.

In order to understand how elliptical constructions can be represented, we provide the example of the English gapping construction, which we are able to generalize to include "argument cluster conjunction," as well. A constructionist account allows us to specify that the construction involves two conjoined semantic propositions. The first proposition is expressed as a regular clause, while the second proposition is expressed formally only by exactly two filler phrases that designate arguments or adjuncts that contrast in meaning with two in the first clause. We can represent this as follows:

(14) **GAPPING** (+ argument cluster conjunction) **construction**

Register: formal

Form: overtly expressed: [P(X, Y, Z*)], [<conjunction> [**X'**, **Y'**]]

Function: P(X, Y, Z*) <conjunction> $P(X'_{focus}, Y'_{focus}, Z'^*)$

$X' \neq X'; \quad Y' \neq Y \quad ; \quad Z \approx Z'$

Determine second use of P using POINTER function to a recently uttered simple or compound verb including tense, aspect, and voice.

X, Y, Z: arguments or adjuncts

Underlining is used to indicate form as opposed to interpretation.

Boldface indicates lexical stress (here, on X' and Y').

Constituents are indicated by brackets

*: 0 or more

The representation in (14) is best unpacked by considering an example, as in (15):

(15) A: You made me what I am today. B: And YOU, ME.

As captured by the representation in (14), gapping is restricted to formal registers, which predicts that it occurs much more often in written than spoken language (Tao and Meyer 2006; Hurford 2012). The content of the example in (15) makes clear that the context is, in fact, a formal or respectful one.

While the words *you* and *me* are repeated in the gapped phrase in (15), they are recognized to necessarily contrast with the intended referents in the first sentence; this non-identity requirement is captured in (14) as a requirement on the construction's function. The understood predicate in (15) is *made*, here a simple verb in the past tense. The complement, *what I am today* stands in a 'sloppy identity' relationship in the first and second clause, since 'I' refers to person A in the first clause and person B in the

second clause. The '≈' allows for such sloppy identity. The correspondences required by the gapping construction in (14) for the example in (15) are made explicit below:[6]

P = *made*

X: *you* (referring to person B)

Y: *me* (referring to person A)

Z: *what* $I_{(\text{person A})}$ *am today*

X': *you* (referring to person A)

Y': *me* (referring to person B)

Z': *what* $I_{(\text{person B})}$ *am today*

The predicate P in our representation of the gapping construction in (14) specifies either an active or a passive construal. That is, active and passive predicates serve distinct functions in terms of information structure, since the actor is topical in an active transitive sentence, while the undergoer is topical in a passive sentence. Thus, the representation in (14) predicts that voice mismatches are not possible in the gapping construction and this prediction is borne out. That is, it is impossible to interpret the elided phrase as passive if the first predicate is in active voice (16a), or vice versa (16b). Here and below, following convention, when we wish to make an elided phrase explicit,

[6] See Abeillé et al. 2014 for relevant discussion and formalization of the parallel gapping constructions in French and Romanian.

it is represented by a crossed-out phrase, although, as already argued, we do not intend that the crossed-out phrase literally exists at the ellipsis site (see also section 8.6).

(16) a. ?? She ate ice cream, and string beans ~~were eaten~~ by him.

b. ?? The duck was struck by a car, and a truck ~~struck~~ the goose.

The representation in (14) is appropriately general and in fact licenses cases that are not traditionally considered gapping such as that in (17):

(17) We visited [Jan on Monday] and [YO, on TUESDAY]. (Beavers and Sag 2004: (1d))

Such cases have been referred to as "argument cluster conjunction," and assumed to be distinct from gapping because, if the verb were expressed in the second clause, it would not intervene between the two constituents (Beavers and Sag 2004). But what is important to the gapping construction in (14) is the interpretation of the omitted verb, not its position relative to the two expressed arguments. Thus (17) is naturally accounted for by the representation in (14), where P = *visited*; X: *Jan*; and X'= *YO*; Y: *on Monday*; and Y' = *on TUESDAY*. In this way, the emphasis on surface structure in constructionist approaches leads to a more general formulation than is possible from derivational accounts (see also Goldberg 2002).

We do not label the grammatical category of the [X', Y'] phrase in (14) because it is not an instance of any familiar category. Instead of coining a new category label, or stretching an otherwise familiar category to include a unique type of constituent, constructionist approaches allow certain pairings of form and function to be restricted to particular constructions (Croft 2001; Culicover and Jackendoff 2005: 237). In the case of (14), two argument or adjunct phrases correspond to a full propositional meaning.

While the semantic interpretation involved in the gapping construction involves an identical interpretation of a predicate, which itself must necessarily be previously expressed, other types of ellipsis are more flexible. For example, the requirement that the elided predicate involves identical voice is weakened in the case of VP-ellipsis in limited contexts that involve contrastive topics (Kertz 2013) and/or cause–effect interpretations (Kehler 2000), as in (18).

> (18) The problem was to have been looked into, but obviously nobody did ~~look into the problem~~. (Kehler 2000)

In an empirical judgment study, Kertz finds that examples like (18) are of intermediate acceptability when compared with VP-ellipses that involve matching voice, and those that involve mismatches of voice in different discourse contexts. Sentence fragments (Morgan 1973; Stainton 2006b) fall at the other extreme in that they generally require no overt linguistic antecedent at all as long as the intended interpretation is recoverable (Culicover and Jackendoff 2005: 242–8). Constructionist approaches readily allow for subtle differences of this kind on individual constructions.

Individual elliptical constructions can be characterized by syntactic, semantic, discourse, and register properties, or they may underspecify aspects of these dimensions. Attention to these properties serves to undermine the idea that the constructions are simply shorter variants of full-fledged sentence patterns, or that they should all be accounted for in the same way. It instead supports recognizing them as constructions in their own right.

Constructionist approaches do not stipulate a distinction between a 'core' part of grammar and some sort of 'residue' or 'periphery'. Instead, we aim to account for all form and function correspondences, as is needed for any theory to be descriptively adequate. Thus, elliptical expressions that are restricted in terms of genre or which are not fully productive in terms of lexical options are also treated as ellipsis constructions, as Occam's razor dictates that they should be, in the sense that they are captured by direct pairings of form and meaning in which key aspects of their semantics are unexpressed. For instance, the examples provided in (19)–(23) all lack a main verb and yet each qualifies as a full utterance. (These might be characterized as instances of "deep anaphora" according to Hankamer and Sag 1976.) Each is discussed in turn below.

(19) Elise, Casey.

(20) Down with Materialism and Up with Nature. That was Byron's motto.

(21) Yes we can!

(22) 'Well, I never!' I exclaimed.

(23) WHITE CHRISTMAS? Right, as if.

The discourse functions of these ellipsis constructions go well beyond simple recovery of some previously mentioned content; in fact, they do not require the pointer function to reference any *linguistic* material at all. The example (19) (*Elise, Casey*) can be uttered without a linguistic antecedent as a means of introducing Casey to Elise. This use of paired proper names or descriptions, uttered with a pause and typically a gesture from the first person to the second, is conventionally interpreted to mean, 'Elise, this is Casey.' This simple construction is represented in (24):

(24) **Form**: [$\underline{NP_1}$, $\underline{NP_2}$], where NP_1, is vocative and NP_2, is a proper name or a definite description

Function: Introduction: NP_1, this is NP_2

Several other phrases express a strong emotional response of one sort or another. For example, the *Down with* <*noun*> construction exemplified in (20) and (25) expresses the speaker's strong disapproval of whatever is named by the noun phrase.

(25) 'I gave up and lifted the bowl to my lips. It's the new me. Down with etiquette.'

This conventional construction involves no linguistic antecedent and in fact has no non-elliptical counterpart, although it is elliptical in the sense of not providing an overt main verb. Notice that its interpretation *requires* a constructional analysis since its meaning is

not compositionally derived from the words themselves. In fact, the same phrase, *down with <noun>*, has an almost opposite meaning in colloquial English if it follows a subject and copula (26). Note, too, that adding a negation as in (27) does not solve the non-equivalence with (25).

(26) I am down with etiquette. (implies that the speaker *approves* of etiquette)

(27) I am not down with etiquette. (implies something much milder than *Down with etiquette*.)

Another expression which became conventional was Barack Obama's campaign slogan, *Yes we can*, which is an idiomatic instance of VP-ellipsis, but which requires no antecedent and conveys that 'we' can accomplish some contextually evoked agenda.

The elliptical (*Well), I never* is a conventional phrase that only exists in a formal register in certain (stereotypically feminine) dialects. It implies that the speaker is appalled at some event that is contextually recoverable but not stated linguistically (e.g. (28a)). It is infelicitous in contexts that do not lend themselves to expressions of outrage (28b):

(28) a. <Someone spills beer on speaker/stares at speaker's cleavage/insults speaker> Well, I never!

b. <Someone hands speaker a requested drink/greets speaker> # Well, I never!

As if is another conventional phrase that is limited to certain (younger) dialects. It implies sarcasm indicating that the speaker views the elided, hypothetical event to be highly unlikely as is clear in (29):

(29) '"You can ditch me in the crowd of tourists." She laughed. As if. He would probably need a fire hose to get her off of him.'

In order for any of these constructions to be used with their conventional interpretations, speakers *must* recognize that they require special interpretations that do not follow from any general principles of composition or deletion. Thus each of these constructions represents a conventional pairing of interpretation with surface form: a construction. A few other specialized constructions involving ellipsis that have been discussed elsewhere are provided in Table 8.3.

Table 8.3 Less often discussed constructions that involve ellipsis, with examples and references

Name of construction	**Example**
Let alone construction (Fillmore, Kay, and O'Connor 1988)	It's no way to run a hotel, let alone a democracy.
Mad Magazine construction (Akmajian 1984; Lambrecht 1996)	Him, a presidential candidate?

Coffee construction Coffee? Tea? Biscuit?

(Stainton 2006b; Heine 2011)

If one wishes to account for all of the nuances of speakers' knowledge of language, it is an inescapable conclusion that multiple constructions are needed. The following section demonstrates the fact that these constructions, while highly motivated (section 8.2), differ in their specifics cross-linguistically.

8.5 Cross-linguistic differences: French and English

We expect elliptical constructions to exist in every language, since they are motivated by general communicative pressures. The general motivation also ensures that such constructions are typically not difficult to comprehend, even upon initial encounter. At the same time, constructionist approaches predict that constructions vary in their specifics cross-linguistically (Boas 2010; Croft 2001; Evans and Levinson 2009; Haspelmath 2008), and ellipsis constructions are no exception. Thus, speakers need to learn exactly the nuances of how individual ellipsis constructions are conventionalized in each particular language.

For example, at first blush, French contains several very similar elliptical constructions as English, e.g., gapping in (30), sluicing in (31), and *not*-stripping in (32) (examples from the Frantext corpus).[7]

(30) Elle conduisait la voiture et toi la moto.
She drove the car and you the motorbike.

(31) Elle sait qu'elle se marie dans quinze jours mais elle ne sait pas
She knows that-she REFL marries in fifteen days but she does not know
avec qui.
with whom
'She knows she's getting married in two weeks but she doesn't know with whom.'

(32) Ton oncle Daniel a le droit de jurer, mais pas toi !
Your uncle Daniel has the right to swear, but not you!

Yet, there are striking differences between the two languages with respect to the possibility of VP-ellipsis (Abeillé et al. 2014; Authier 2011, 2012; Busquets and Denis 2001; Dagnac 2010). In particular, only a very limited number of verbs can be used in French VP-ellipsis, such as the modal *pouvoir* (33) and a few other modal-like verbs.

[7] Cf. <http://www.frantext.fr>. The corpus examples were taken from contemporary texts (i.e., written after 1989). An English gloss is provided for all French examples in this section. A translation is also given if it differs from the gloss.

Neither *avoir* 'have' (34), nor *être* 'be' in the simple perfect ('passé composé') (35), nor the passive auxiliary, nor copular verbs are allowed, while the corresponding English equivalents are fully acceptable.

(33) Charles a piloté cet avion, mais François n'a pas pu.
Charles has piloted this plane, but François has-not could
'Charles piloted this plane, but François couldn't.'

(34) ??Charles a traversé l'Atlantique, mais François n'a pas.
Charles has crossed the Atlantic, but François has-not.
'Charles crossed the Atlantic, but François didn't.'

(35) ??Charles est venu à la cérémonie, mais François n'est pas.
Charles is come to the ceremony, but François is-not.
'Charles came to the ceremony, but François didn't.'

Moreover, VP-ellipsis in French requires that the subject of the remnant be coreferential with the subject of the antecedent when the ellipsis site is within a relative clause (36a,b), a subordinate clause, or in a comparative construction (Dagnac 2010). English has no such constraint as is evident by the fact that either translation in (36b) acceptable:

(36) a. Charles$_i$ pilote tous les avions qu'il$_i$ peut.
Charles flies all the planes that he can
b. ??Charles pilote tous les avions que François peut.
Charles flies all the planes that François can

Thus the comparable elliptical construction is much more restricted in French.

French has a different means of expressing the function that VP-ellipsis commonly serves in English. In coordinating contexts, French has a specific type of *stripping* construction, in which a particle appears in the fragment. The particle varies depending on the polarity of both the antecedent and the fragment: *aussi* 'too' (positive/positive: (37)), *pas* 'not' or *non* 'no' (positive/negative: (38)), *oui* or *si* 'yes' (negative/positive: (39)), and *non plus* 'neither/not either' (negative/negative: (40)).

(37) Charles a traversé l'Atlantique, et François aussi.
Charles has crossed the Atlantic, and François too
'Charles crossed the Atlantic, and François did too.'

(38) Charles a traversé l'Atlantique, mais pas François / mais François non.
Charles has crossed the Atlantic, but not François / but François no
'Charles crossed the Atlantic, but François did not.'

(39) Charles n'a pas traversé l'Atlantique, mais François oui / si.
Charles not-has not crossed the Atlantic, but François yes
'Charles did not cross the Atlantic, but François did.'

(40) Charles n'a pas traversé l'Atlantique, et François non plus.
Charles not-has not crossed the Atlantic, and François not more
'Charles did not cross the Atlantic, and François did not either.'

The direct translations in English are (marginally) acceptable in the case of a positive antecedent (41a,b), and then only in main clauses, contrary to the French counterpart (42a,b). The translations involving a negative antecedent sound quite odd in English (43a,b).

(41) a. Charles crossed the Atlantic, and François too.

b. Charles crossed the Atlantic, but not François / ?but François no.

(42) a. ?Charles crossed the Atlantic, and François said that he too / not him.

b. Charles a traversé l'Atlantique, et François a dit que lui aussi / lui non.
Charles has crossed the Atlantic, and François has said that him too / him not.
'Charles crossed the Atlantic, and François said that he did too / he did not.'

(43) a. Charles did not cross the Atlantic, and ?François neither / ?François not either / ?not François either.

b. ?Charles did not cross the Atlantic, but François yes.

The French stripping constructions are available for all verbs and in all tenses, but unlike VP-ellipsis, due to the lack of a finite verb, they are unable to convey a distinction in tense or modality from the antecedent.

In sum, even languages that have been in close contact for hundreds of years differ in the specifics of their ellipsis constructions. Constructionist approaches anticipate such differences, and can readily capture them within each language's system of constructions.

8.6 Why positing 'underlying' structure is problematic

As was mentioned earlier, the constructionist approach to ellipsis proposes that while the requisite semantic structure must be recoverable (sections 8.2 and 8.3), there is no 'underlying' syntactic structure at the ellipsis site, either unpronounced or deleted. In this section we review the facts that have led many researchers to assume that such underlying syntactic structure *is* needed, and counter that positing such structure raises more questions than it resolves.

Ross (1967), and many others since, have observed certain intriguing "connectivity effects" between an expressed remnant and an antecedent word or phrase (see Merchant 2010 for a review). This is what has led many researchers to assume the existence of an identical, albeit unpronounced word or phrase at the site of the ellipsis. For example, case marking is sometimes determined by the antecedent clause, as illustrated in examples (44) and (45).

(44) A: Wem hilft der Lehrer?
who$_{DAT}$ helps the teacher
'Who does the teacher help?'
B: ~~der Lehrer hilft~~ Dem Schüler.
~~The teacher helps~~ the$_{DAT}$ pupil (Culicover and Jackendoff 2005: 248).

(45) A: Who does Sarah$_i$ like best?

B: ~~Sarah likes~~ herself ~~best.~~

Accounts that assume there is unpronounced syntactic structure predict such connectivity effects (e.g., Ross 1967; Merchant 2004a). In fact, such accounts predict that overt form *must* be identical with what it would be if there were no ellipsis, because the assumption is that there exists an underlying level of representation in which there *is* no ellipsis.

Yet there exist many examples in which connectivity effects do *not* hold. For example, in (46b) the accusative *me* is preferable as a response to the question in (46a), and yet it is clearly unacceptable in the non-elliptical (46b'):

(46) a: Who wants some ice cream?

b: Me ~~wants some ice cream~~! (? I!)

b': ??Me wants some ice cream.

This type of example would seem to provide evidence against deletion in favor of direct interpretation based on surface form and semantic recoverability (Barton 1990). In an effort to defend the deletion account, Merchant (2004a) suggests that the example in (46b) should actually be based on a left-dislocation construction as in (47), where the entire clause following the pronoun *me* is deleted.

(47) Me, ~~I want some ice cream~~.

But an analysis in terms of left-dislocation does not work for all relevant cases. For example, most English speakers prefer accusative pronouns in comparative ellipsis ((48a) vs (48b)), even though nominative case is required in the counterpart involving VP-ellipsis (49b). Unlike the example in (47), (48a) cannot readily be analyzed as involving left-dislocation, because the dislocated version is unacceptable (50):

(48) a. I deserve it more than him.

b. % I deserve it more than he.

(49) a. ??I deserve it more than him does.

b. I deserve it more than he does.

(50) ?? I deserve it more than him, he deserves it.

Likewise, the attested gapping example in (51a) involves accusative *me*, whereas the non-elliptical version involves nominative case (51b).

(51) a. 'So you don't have to trust me or me, you.' (gapping)

b. So you don't have to trust me or I don't have to trust you.

What happens if we assume that the second clause involves left-dislocation, as in (52)?

(52) So you don't have to trust me, or me, I don't have to trust you.

Notice that the elliptical example (51a) is most naturally interpreted conjunctively: 'you don't have to trust me *and* I don't have to trust you.' That is, the negative (*don't*) is naturally interpreted as having wide scope over the disjunction (*or*) (via De Morgan's Law). On the other hand, the non-elliptical versions (51b) and (52) do not allow the wide-scope reading; they are instead interpreted to mean: 'either you don't have to trust me *or* I don't have to trust you' (Oehrle 1987; Johnson 2009). Instead, the wide-scope interpretation that is natural in (51a) requires an explicit indication of the intended wide scope as in (53), if there is no ellipsis:

(53) It's not the case that you have to trust me or I have to trust you.

Fiengo and May (1994) recognize certain such cases where connectivity effects are lacking and attribute them to a process of "vehicle change" in which the proposed deleted structure is not identical with an overtly expressed form. This idea is taken a step further in recent work by Barros et al. (2014: 35) who allow the elided material to be *wholly* distinct from any overt linguistic antecedent. That is, the unpronounced structure in (54) is assumed instead of that in (55):

(54) A: Ben left the party because someone wouldn't dance with him? B: Yeah BETH ~~it was~~.

(55) A: Ben left the party because someone wouldn't dance with him? B: Yeah ~~Ben left the party because~~ BETH ~~wouldn't dance with him~~. (Barros et al. 2014: 35)

Barros et al. (2014) make this move in an effort to avoid the apparent violations of island constraints that expressions like that in (55) would entail if the remnant were assumed to "move out" of the unpronounced structure. But of course the non-identity of deleted structure with an overt antecedent undermines the original argument in favor of deletion, which was based on the claim that the omitted material *was* necessarily identical with an overtly expressed form. As Merchant (2009: 8) puts it, "structural approaches [to ellipsis] are *based on* connectivity effects" (emphasis added).

Culicover and Jackendoff (2005) provide still other examples in which some linguistic material appears to serve as an antecedent for the elliptical meaning, but the antecedent spans more than one sentence (56), or is discontinuous (57).

(56) I know someone introduced you to me.
I also know it was before last year.
I just don't know who ~~introduced you to me~~ or when ~~before last year~~.

(57) Pat invited Sam to the dance and Chris, ~~invited~~ Tad ~~to the dance~~.

The fact that connectivity effects sometimes exist suggests that they serve to facilitate the correct identification of the relationship between overt and omitted material. That is, case marking often indicates the semantic role of an argument in an event, so the connectivity effects that exist are likely motivated by their tendency to facilitate comprehension. Alternatively, since certain constructions point to or evoke a specific verbal predicate, the overtly expressed arguments associated with that predicate may simply be primed to bear the case marking they normally bear.

To summarize, connectivity effects in ellipsis constructions cut both ways. Sometimes the elided phrase aligns with the non-elided paraphrase (44, 45), but other times it does not (46b, 48a, 51a, 54, 56, 57). The examples in which connectivity effects are not in evidence argue against unpronounced syntactic structure in favor of an account that assigns interpretation directly to surface form. That is, one cannot *both* endorse "vehicle change" *and* assume "connectivity facts" hold, while maintaining a single rule for ellipsis.

8.7 Conclusion

Because ellipsis constructions are motivated by general communicative goals to express our messages efficiently, they are expected to recur across languages. Communicative demands insure that only elliptical utterances that are interpretable will be felicitous. Constraints associated with individual constructions bear directly on acceptability judgments. This short overview of ellipsis in terms of *constructions* has emphasized their motivation, and their range of formal and functional properties. The proposal outlined

here has much in common with other surface-based approaches to ellipsis, as these are also essentially constructionist in nature (Culicover and Jackendoff 2005; Fillmore, Kay, and O'Connor 1988; Ginzburg and Sag 2000; Miller 2011a, 2014; Murphy 1985; Osborne 2006a; Osborne and Groß 2012; Sag and Nykiel 2011).

A psychological POINTER mechanism is endorsed as a means by which particular overtly expressed linguistic material is evoked by ellipsis (see also Tanenhaus and Carlson 1990; Culicover and Jackendoff 2005; Martin and McElree 2008). This semantic pointer mechanism is independently required for non-elliptical expressions such as *ditto* and *respectively*, elliptical idiomatic expressions without linguistic antecedents (*well, I never!*), fragments (*Ok, Tomorrow.*), and examples that cannot be reconstructed by copying syntax from an antecedent (*you don't have to trust me, nor me (*~~don't have to trust)~~ you*. Moreover, the non-derivational, semantic proposal is consistent with current psycholinguistic evidence, while syntactic copy and deletion accounts are not.

Many elliptical expressions have quite distinctive interpretations and restrictions on use. Some ellipsis constructions (e.g., gapping) require a linguistically expressed antecedent; others (e.g., sentence fragments) can occur as long as the intended meaning is recoverable in context. We offer an account of gapping that is both general, in that it can include cases of traditional "argument cluster coordination," and restrictive in that it includes a constraint on register. In a comparison between English and French, French VP-ellipsis can be seen as much more restricted than English. We conclude that a constructionist approach that emphasizes semantics and surface structure, and which allows for distinctions within and across languages, is preferable to universalist copy and deletion proposals. Each construction posited makes predictions that are then testable

against new data. A single general rule is not explanatory because every theory must ultimately account for the subtle differences among constructions that exist within and across languages. Thus invisible formal structure does not license the form, interpretation, and distribution of ellipsis, *constructions do.*

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